METEORCOMM LLC

Manufacturing Test reports Pre-Preproduction 2 Radios

Radio Test Results

1. Locomotive Test Results (Report 1 of 4)
2. Wayside Test Results (Report 2 of 4)
3. 24 Volt Base Test Results (Report 3 of 4)
4. 48 Volt Base test Results (Report 4 of 4)




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Manufacturing Test reports Pre-Preproduction 2 Radios

1. Locomotive Radio Manufacturing Test Report

(Report 1 of 4)

UUT Report

Station ID	Serial Number	Date	Time	Operator	Execution Time	Number of Results	UUT Result
OXN-WKSDR9	63LR000309CA	Monday, March 05, 2012	11:55:13 AM	ASupalla	2613.3811707999998 seconds	1240	Passed

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Begin Sequence: MainSequence

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Report Sequence File Version	Done					
Report Text:	0.0.4.52					
Initialize	Passed					

Begin Sequence: InitializeRadioEthernetCom

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Open Port	Passed					
Report Text:	01/01/00 00:17:08 Booted, Initializing... RAMDISK initialized FLASH Drive C: initialized FLASH Drive D: initialized -- FPGA load success -- -- DSP load success -- 00:17:11.499 System RF Initialization Start 00:17:11.500 Debugger Start Up 00:17:11.509 BootRestore: port:0, mode:0, rev:0, size:0 01/01/00 00:17:11 NO CIM Found 01/01/00 00:17:11 CBUF port 16 ITC PACKET DATA RADIO (c) Copyright 2011 Meteorcomm LLC All Rights Reserved S/W Part Number P63020-A18-00.29.02 ITC SVN r23151 Tue Jan 03 12:27:53 2012 S/W Part Number P63020-D04-00.29.02 DSP SVN r23104 Tue Jan 02 20:18:45 2012 S/W Part Number P63020-F07-00.29.02 FPGA SVN r23090 Wed Dec 28 23:11:05 2011 S/W Part Number P63020-C00 Flexbus CPLD Version 2.7 Tue Nov 22 19:26:37 2011 S/W Part Number P63020-B01 Boot Launcher Rev. 0.22.1 SVN 17525 2011-07-29 H/W Locomotive Board ITC Role: Locomotive Open SSL Copyright (C) 1998 Eric Young (eay@cryptsoft.com) RC2 Provided by BNSF 9/22/2006. RC2 is a trademark of RSA Security Inc. 00:17:11.619 System RF Initialization Complete 00:17:11.721 CIM script failed to run 00:17:11.798 Message No: 00000500:002, 0008 CHARS, 002 SEGMENTS 00:17:11.799 Routing 00000500:002 RMP to: 00000002 00:17:12.853 GPS Antenna State Change - Antenna State: UNKNOWN Antenna Power: UNKNOWN 00:17:13.550 Interface opened on port: Ethernet1 IP:10.10.1.254 00:17:16.097 Interface opened on port: Ethernet2 IP:10.10.2.254 00:17:18.639 Ethernet port 1 Connected 00:17:18.701 Ethernet port 2 Connected 00:17:25.507 Connection Opened:10.10.1.10:64118 00:17:25.577 Connection Opened:10.10.1.10:64118 +					
Disable CIM	Done					
Report Text:	INILOCK,OFF 01/01/00 00:17:28 +					
Unlock Cal	Passed					
Report Text:	CALRAND 30545 + CAL,UNLOCK,30545 Unlocking CAL Parameters OK					

Read Cal	Passed					
Report Text:	Cal Params are UNLOCKED Cal Data Version(1024): 0A.04 XO = 292 IDC = 463 QDC = 14 IGAIN = 543 QGAIN = 543 CBUS_R2 = 0xec CBUS_R5 = 0x30 CBUS_R6 = 0x24 CBUS_R7 = 0x00 CBUS_R8 = 0x00 TXKEYTO = 0 RSSI_OFF_P = -100.00 RSSI_OFF_D = -100.00 TEMP_SP = -30, -22, -14, -6, 2, 10, 18, 26, 34, 42, 50, 58, 66, 74 FREQ_SP = 23, 67, 111, 156 PHASE_F1 = 0x38, 0x40, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x58 PHASE_F2 = 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x58, 0x58, 0x60, 0x60, 0x60 PHASE_F3 = 0x48, 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x58, 0x60, 0x60, 0x60, 0x60 PHASE_F4 = 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x58, 0x60, 0x60, 0x60, 0x60 PHASE_F5 = 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x60, 0x60, 0x60, 0x60, 0x68, 0x68, 0x68, 0x68 OK					
Read ipconfig	Passed					
Report Text:	Ethernet1(+): Enabled:Yes DHCP:OFF NAT:OFF Poll:0ms IP:10.10.1.254 Ethernet2(+): Enabled:Yes DHCP:OFF NAT:OFF Poll:0ms IP:10.10.2.254 Gateway: (Auto) Mask E1: 255.255.255.0 Mask E2: 255.255.255.0 MAC E1: 00-15-23-01-10-08 MAC E2: 00-15-23-01-10-09 EthTxRate: 100 Mbps					
Set SN and Lock Config	Done					
Report Text:	Config Locked Serial Number Locked					
Query Post	Done					
Report Text:	********** Host Post Log ********** Board Type: Locomotive HOST: DDR Address Line Test : PASS HOST: DDR Data Line Test : PASS HOST: SPI : PASS HOST: SDCARD Present : PASS HOST: SDCARD Fail Pin : PASS HOST: SDCARD Write Protect : OFF HOST: SDCARD Access : PASS HOST: I2C Controller : PASS HOST: I2C Mux : PASS HOST: RTC : PASS HOST: BOOT FLASH (C:) : PASS HOST: BOOT FLASH (D:) : PASS HOST: DATA FLASH (E:) : PASS HOST: SEEPROM STAMP : PASS HOST: CALIBRATION PARAMETERS : PASS HOST: REG PARAMETERS : PASS HOST: ID PARAMETERS : PASS HOST: CHANNEL TABLE : PASS HOST: SITENAME : PASS HOST: DHCP CONTROL : PASS HOST: SERIAL NUMBER : FAIL HOST: FPGA LOAD : PASS HOST: DSP LOAD : PASS HOST: DSP RUNNING : PASS HOST: MAC 0 : PASS HOST: MAC 1 : PASS HOST: CIM : FAIL HOST: 28v Supply : PASS : 28.718 HOST: 11.5v Supply : PASS : 11.404 HOST: 5v Supply : PASS : 5.056 HOST: 3.3v Supply : PASS : 3.296 HOST: 2.5v Supply : PASS : 2.488 HOST: 1.8v Supply (Host) : PASS : 1.810 HOST: 1.8v Supply (DSP) : PASS : 1.832 HOST: 1.5v Supply : PASS : 1.481 HOST: 1.2v Supply : PASS : 1.192 HOST: ExtV Supply : PASS : 2.395					

	HOST: 12V PS Temp : PASS : 34.176 HOST: 28V PS Temp : PASS : 34.087 HOST: PA Temp : PASS : 27.893 HOST: Driver Temp : PASS : 27.893 HOST: PA Current : PASS : 0.000 HOST: Driver Current : PASS : 0.000 DSP: CLOCK : PASS DSP: EDMA : PASS DSP: GPIO : PASS DSP: SPI : PASS DSP: MCASP : PASS DSP: PSC : PASS DSP: EXTERNAL CLOCK : PASS DSP: IQ MIXER : PASS DSP: RX ADC : PASS DSP: TX NULL ADC : PASS DSP: DDS : PASS FPGA: MEMORY : PASS boot loader version 0.22.1 SVN 17525 2011-07-29 reset_count 1 active_index 1 active_source Flash1 active_user USER_BOOT Inx Pri Stat Fail Lnch Name Notes Last Status --- --- ---- ----- ----- ---------- ----- ---------- 1 1 RDY 1 0 C:A1802902.BIN ACTV Success						
TxPower Query	Done					
Report Text:	Site Assigned Tx Power Level = 46.99 dBm					
Get PA Temp	Passed	27.893	degrees Celsius			LOG

End Sequence: InitializeRadioEthernetCom

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Format and Partition	Passed					

Begin Sequence: Format & Flash

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Get Apps Table	Passed	Flash1		Flash1		IgnoreCase
Report Text:	** BEGIN *** BOOTINFO INFORMATION ***** ---------- ---------- tag_id 3 length 254 version 0.22.1 SVN 17525 2011-07-29 reset_count 0 active_index 1 active_source Flash1 active_user USER_APP schedule.enable OFF schedule.status BLANK schedule.index 256 schedule.sched 256/00/2255 00:00 ** END *** BOOTINFO INFORMATION ***** Inx Pri Stat Fail Lnch Date Time Size Name Notes Last Status --- --- ---- ----- ----- ---------- --------- --------- ---------- ----- ---------- - 1 1 RDY 0 0 01/01/2000 12:01 AM 3776504 C:A1802902.BIN ACTV					
Check App Version	Passed	00.29.02		00.29.02		IgnoreCase
Check Boot Launcher Version	Passed	0.22.1		0.22.1		IgnoreCase
Check CPLD Version	Passed	2.7		2.7		IgnoreCase
Check SN	Passed	63LR000309CA		63LR000309CA		IgnoreCase
Check Cust ID	Passed	00009876		00009876		IgnoreCase
Check Board Type	Passed	PreProd		PreProd		IgnoreCase
Report Text:	ITC Role: Locomotive, Board Type: PreProd					
Test SD Card	Passed					
Check SD Write Protect	Passed	OFF		OFF		IgnoreCase

Test POST	Passed					

End Sequence: Format & Flash

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx Tests	Passed					

Begin Sequence: RXTESTS

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
RSSI Cal Diversity	Passed					

Begin Sequence: Cal RSSI

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					
RSSI Cal	Passed	-50		-50.1	-49.9	GELE(>= <=)
RSSI CAL [Out]:	-114.6					
Save Cal	Passed					
Report Text:	CALRAND 31089 + CAL,SAVE,31089 Saving CAL Parameters OK					

End Sequence: Cal RSSI

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
RSSI Cal Primary	Passed					

Begin Sequence: Cal RSSI

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					
RSSI Cal	Passed	-50		-50.1	-49.9	GELE(>= <=)
RSSI CAL [Out]:	-114.6					
Save Cal	Passed					
Report Text:	CALRAND 7320 + CAL,SAVE,7320 Saving CAL Parameters OK					

End Sequence: Cal RSSI

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					

Tx Port 217.7125 MHz Full Rate	Passed					

Begin Sequence: Receive
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	3.81e-006		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.001949318					
Statistics.RSSI [Out]:	-108.5					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 219.9125 MHz Full Rate	Passed					

Begin Sequence: Receive
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-108.1					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 221.8875 MHz Full Rate	Passed					

Begin Sequence: Receive
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					

Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-106.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Tx Port 217.7125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	512		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111.6					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 221.8875 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-109.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Rx2 Port 217.7125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	5.74e-005		1.00e-004		LE(<=)
Packets	Passed	510		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.02941176					
Statistics.RSSI [Out]:	-108.1					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 219.9125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					

Frequency Hz [In]:	219912500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	1.52e-005		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.007797271					
Statistics.RSSI [Out]:	-107.7					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 221.8875 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	1.90e-005		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.007797271					
Statistics.RSSI [Out]:	-106.6					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Rx2 Port 217.7125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	7.61e-006		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	10					

Statistics.PER [Out]:	0.003898635
Statistics.RSSI [Out]:	-111.6

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	512		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 221.8875 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-109.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Tx Port High Input Level 217.7625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217762500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-22.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port High Input Level 219.9625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219962500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-22.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port High Input Level 221.9375 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221937500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)

Packets	Passed	513		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-22.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port High Input Level 217.7625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217762500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-22.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port High Input Level 219.9625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219962500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	511		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-22.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port High Input Level 221.9375 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221937500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.37	ampere	0.20	0.50	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	513		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-22.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Tx Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: SimultaneousReceive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					
Rx Max Current Drain	Passed	0.37	ampere			LOG
Get BER Channel 1	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	256		0		GT(>)
Get BER Channel 2	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	257		0		GT(>)
Get BER Channel 4	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	256		0		GT(>)
Get BER Channel 5	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	256		0		GT(>)
Get BER Channel 6	Passed					
Measurement: 12/17/2012						

BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	257		0		GT(>)
Get BER Channel 7	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	256		0		GT(>)
Get BER Channel 8	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	255		0		GT(>)
Get BER Channel 9	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	256		0		GT(>)

End Sequence: SimultaneousReceive

End Sequence: RXTESTS

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Bias Check	Passed					

Begin Sequence: PA BIAS Setpoint

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Read PA Bias Current	Passed	976.5625	milliampere	900	1100	GELE(>= <=)
Voltage Average [Out]:	0.390625					
Value Average [Out]:	0.98					
Read Driver Bias Current	Passed	212.0535714285714	milliampere			LOG
Voltage Average [Out]:	0.4241071428571					
Value Average [Out]:	0.2128					

End Sequence: PA BIAS Setpoint

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set TxPower Max	Done					
Report Text:	TXPOWER,+99 Restrict to maximum allowed level Site Assigned Tx Power Level = 46.99 dBm +					
PAR	Passed					

Begin Sequence: Peak to Average Power Ratio

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx PAR Current Drain	Passed	1.547	ampere			LOG
Measure PAR	Passed	3.74	dB			LOG
Measurement Data[0] [Out]:	43.15604703					

End Sequence: Peak to Average Power Ratio

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 74V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.50	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.83	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-6.80E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.51E+001					
Modulation Accuracy - EVM-AVG	Passed	0.98	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1254.40				LOG
Reverse Power	Passed	411.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 74V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.55	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.90	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-6.83E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.50E+001					
Modulation Accuracy - EVM-AVG	Passed	0.86	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1332.80				LOG
Reverse Power	Passed	529.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 74V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.59	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	47.00	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-6.88E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.50E+001					
Modulation Accuracy - EVM-AVG	Passed	0.89	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	862.40				LOG
Reverse Power	Passed	529.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 45V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.35	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.84	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-6.85E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.52E+001					
Modulation Accuracy - EVM-AVG	Passed	0.99	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1372.00				LOG
Reverse Power	Passed	372.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 45V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.43	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.92	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-6.87E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.51E+001					
Modulation Accuracy - EVM-AVG	Passed	0.85	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	940.80				LOG
Reverse Power	Passed	372.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 45V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.50	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	47.01	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-6.93E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.51E+001					
Modulation Accuracy - EVM-AVG	Passed	0.90	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1430.80				LOG
Reverse Power	Passed	529.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 100V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.18	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.83	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-6.90E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.53E+001					
Modulation Accuracy - EVM-AVG	Passed	0.98	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1332.80				LOG
Reverse Power	Passed	450.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 100V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.22	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.92	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-6.92E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.52E+001					
Modulation Accuracy - EVM-AVG	Passed	0.85	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	921.20				LOG
Reverse Power	Passed	294.00				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 100V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.25	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	47.01	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.00E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.52E+001					
Modulation Accuracy - EVM-AVG	Passed	0.88	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1078.00				LOG
Reverse Power	Passed	470.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 217.6125MHz 74V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.59	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.94	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.02E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.53E+001					
Modulation Accuracy - EVM-AVG	Passed	0.93	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1176.00				LOG
Reverse Power	Passed	509.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 74V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.54	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.85	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-6.99E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.54E+001					
Modulation Accuracy - EVM-AVG	Passed	0.86	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1195.60				LOG
Reverse Power	Passed	490.00				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 221.9875MHz 74V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.50	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.77	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.04E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.56E+001					
Modulation Accuracy - EVM-AVG	Passed	1.00	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1215.20				LOG
Reverse Power	Passed	333.20				LOG

End Sequence: Transmit

				Limits		

Step	Status	Measurement	Units	Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 217.6125MHz 45V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.48	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.94	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.08E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.54E+001					
Modulation Accuracy - EVM-AVG	Passed	0.90	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1019.20				LOG
Reverse Power	Passed	411.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 45V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.41	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.86	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.01E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.54E+001					
Modulation Accuracy - EVM-AVG	Passed	0.84	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	901.60				LOG
Reverse Power	Passed	372.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 221.9875MHz 45V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.33	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.77	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.04E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.56E+001					
Modulation Accuracy - EVM-AVG	Passed	0.99	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	901.60				LOG
Reverse Power	Passed	490.00				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Transmit DQPSK @ 217.6125MHz 100V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.24	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.94	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.12E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.55E+001					
Modulation Accuracy - EVM-AVG	Passed	0.91	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1313.20				LOG
Reverse Power	Passed	529.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 100V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.21	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.86	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.13E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.57E+001					
Modulation Accuracy - EVM-AVG	Passed	0.85	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1156.40				LOG
Reverse Power	Passed	509.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 221.9875MHz 100V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.17	ampere	1.00	4.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	46.78	dBm PEP	46.50	47.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.13E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.58E+001					
Modulation Accuracy - EVM-AVG	Passed	1.01	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1038.80				LOG
Reverse Power	Passed	411.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Power Control Range	Passed					

Begin Sequence: Power Control Range

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set Power Level	Done					
Report Text:	Site Assigned Tx Power Level = 41.74 dBm					

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 74V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.09	ampere			LOG
Tx Nominal Rated Output Power	Passed	41.65	dBm PEP	41.25	42.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.08E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.56E+001					
Modulation Accuracy - EVM-AVG	Passed	0.84	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	627.20				LOG
Reverse Power	Passed	431.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 74V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.08	ampere			LOG
Tx Nominal Rated Output Power	Passed	41.59	dBm PEP	41.25	42.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.09E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.56E+001					
Modulation Accuracy - EVM-AVG	Passed	0.86	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	803.60				LOG
Reverse Power	Passed	372.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 45V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.65	ampere			LOG
Tx Nominal Rated Output Power	Passed	41.66	dBm	41.25	42.25	GELE(>= <=)

			PEP			
Tx Frequency Accuracy	Passed	-7.12E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.56E+001					
Modulation Accuracy - EVM-AVG	Passed	0.85	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	901.60				LOG
Reverse Power	Passed	313.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 45V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	1.65	ampere			LOG
Tx Nominal Rated Output Power	Passed	41.59	dBm PEP	41.25	42.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.15E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.57E+001					
Modulation Accuracy - EVM-AVG	Passed	0.85	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	744.80				LOG
Reverse Power	Passed	294.00				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 100V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	0.85	ampere			LOG
Tx Nominal Rated Output Power	Passed	41.66	dBm PEP	41.25	42.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.15E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.57E+001					
Modulation Accuracy - EVM-AVG	Passed	0.84	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	607.60				LOG
Reverse Power	Passed	372.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 100V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	0.85	ampere			LOG

Tx Nominal Rated Output Power	Passed	41.59	dBm PEP	41.25	42.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-7.17E-002	ppm	-2.50E-001	2.50E-001	GELE(>= <=)
Frequency Error (Hz) [Out]:	-1.58E+001					
Modulation Accuracy - EVM-AVG	Passed	0.85	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	862.40				LOG
Reverse Power	Passed	352.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Restore Power Level	Done					
Report Text:	TXPOWER,+5.250000 Site Assigned Tx Power Level = 46.99 dBm					

End Sequence: Power Control Range

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR Low Frequency	Passed					

Begin Sequence: ACPR
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	43.23	dBm			LOG
Lower Adjacent Channel Power	Passed	-70.97	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-71.30	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR Mid Frequency	Passed					

Begin Sequence: ACPR
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	43.10	dBm			LOG
Lower Adjacent Channel Power	Passed	-71.70	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-72.32	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR High Frequency	Passed					

Begin Sequence: ACPR

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	43.14	dBm			LOG
Lower Adjacent Channel Power	Passed	-71.85	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-72.24	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Sideband Spectrum	Passed					

Begin Sequence: TX Sideband Spectrum

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Sideband Spectrum	Passed					

End Sequence: TX Sideband Spectrum

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Ping LAN Port	Passed					
LED Test	Passed					
Lock Cal	Passed					
Report Text:	+CALRAND 15125 + CAL,LOCK,15125 Locking CAL Parameters OK					
Read Cal	Passed					
Report Text:	Cal Params are LOCKED Cal Data Version(1024): 0A.04 XO = 292 IDC = 463 QDC = 14 IGAIN = 543 QGAIN = 543 CBUS_R2 = 0xec CBUS_R5 = 0x30 CBUS_R6 = 0x24 CBUS_R7 = 0x00 CBUS_R8 = 0x00 TXKEYTO = 0 RSSI_OFF_P = -114.60 RSSI_OFF_D = -114.60 TEMP_SP = -30, -22, -14, -6, 2, 10, 18, 26, 34, 42, 50, 58, 66, 74 FREQ_SP = 23, 67, 111, 156 PHASE_F1 = 0x38, 0x40, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x58 PHASE_F2 = 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x58, 0x58, 0x60, 0x60, 0x60 PHASE_F3 = 0x48, 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x58, 0x60, 0x60, 0x60, 0x60 PHASE_F4 = 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x58, 0x60, 0x60, 0x60, 0x60 PHASE_F5 = 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x60, 0x60, 0x60, 0x60, 0x68, 0x68, 0x68, 0x68 OK					

End Sequence: MainSequence

End UUT Report

Manufacturing Test reports Pre-Preproduction 2 Radios

2. Wayside Manufacturing Test Report

(Report 2 of 4)

UUT Report

Station ID	Serial Number	Date	Time	Operator	Execution Time	Number of Results	UUT Result
OXN-WKSDR9	63WR000511CA	Thursday, March 15, 2012	8:34:08 AM	ASupalla	927.3141935 seconds	588	Passed

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Begin Sequence: MainSequence

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Report Sequence File Version	Done					
Report Text:	0.0.4.52					
Initialize	Passed					

Begin Sequence: InitializeRadioEthernetCom

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Open Port	Passed					
Report Text:	01/23/00 17:25:45 Booted, Initializing... RAMDISK initialized FLASH Drive C: initialized FLASH Drive D: initialized -- FPGA load success -- -- DSP load success -- RTC Alarm Was Set 17:25:47.053 Debugger Start Up 17:25:47.053 System RF Initialization Start 01/23/00 17:25:47 CBUF port 16 ITC PACKET DATA RADIO (c) Copyright 2011 Meteorcomm LLC All Rights Reserved S/W Part Number P63010-A17-00.29.02 ITC SVN r23151 Tue Jan 03 12:27:53 2012 S/W Part Number P63010-D06-00.29.02 DSP SVN r23104 Tue Jan 02 20:22:23 2012 S/W Part Number P63010-F06-00.29.02 FPGA SVN r23090 Wed Dec 28 23:11:05 2011 S/W Part Number P63010-C00 Flexbus CPLD Version 2.7 Tue Nov 22 19:26:37 2011 S/W Part Number P63010-B01 Boot Launcher Rev. 0.22.1 SVN 17525 2011-07-29 H/W Wayside Board ITC Role: Wayside Open SSL Copyright (C) 1998 Eric Young (eay@cryptsoft.com) RC2 Provided by BNSF 9/22/2006. RC2 is a trademark of RSA Security Inc. 17:25:47.070 System RF Initialization Complete 17:25:47.124 BootRestore: port:0, mode:0, rev:0, size:0 01/23/00 17:25:47 17:25:47.381 SD CIM table file created NO CIM Found 17:25:47.531 CIM script failed to run 17:25:47.611 Message No: 00000500:002, 0008 CHARS, 002 SEGMENTS 17:25:47.612 Routing 00000500:002 RMP to: 00000002 17:25:48.666 GPS Antenna State Change - Antenna State: INIT Antenna Power: ON 17:25:49.317 Interface opened on port: Ethernet1 IP:10.10.1.254 17:25:51.749 Interface opened on port: Ethernet2 IP:10.10.2.254 17:25:54.291 Ethernet port 1 Connected 17:25:54.353 Ethernet port 2 Connected 17:26:03.301 Connection Opened:10.10.1.10:54585 17:26:03.362 Connection Opened:10.10.1.10:54585 +					
Disable CIM	Done					
Report Text:	INILOCK,OFF 01/23/00 17:26:07 +					
Unlock Cal	Passed					
Report Text:	CALRAND 30545 + CAL,UNLOCK,30545 Unlocking CAL Parameters					

	OK						
Read Cal	Passed						
Report Text:	Cal Params are UNLOCKED Cal Data Version(1024): 0A.04 XO = 479 IGAIN = 0 QGAIN = 0 DDSLEVEL = 69 PABIAS = 909 TXKEYTO = 0 RSSI_OFF_P = -118.80 RSSI_OFF_D = -100.00 OK						
Read ipconfig	Passed						
Report Text:	Ethernet1(+): Enabled:Yes DHCP:OFF NAT:OFF Poll:0ms IP:10.10.1.254 Ethernet2(+): Enabled:Yes DHCP:OFF NAT:OFF Poll:0ms IP:10.10.2.254 Gateway: (Auto) Mask E1: 255.255.255.0 Mask E2: 255.255.255.0 MAC E1: 00-15-23-01-07-0A MAC E2: 00-15-23-01-07-0B EthTxRate: 100 Mbps						
Set SN and Lock Config	Done						
Report Text:	Serial Number Locked						
Query Post	Done						
Report Text:	********** Host Post Log ********** Board Type: Wayside HOST: DDR Address Line Test : PASS HOST: DDR Data Line Test : PASS HOST: SPI : PASS HOST: SDCARD Present : PASS HOST: SDCARD Fail Pin : PASS HOST: SDCARD Write Protect : OFF HOST: SDCARD Access : PASS HOST: I2C Controller : PASS HOST: RTC : PASS HOST: BOOT FLASH (C:) : PASS HOST: BOOT FLASH (D:) : PASS HOST: DATA FLASH (E:) : PASS HOST: SEEPROM STAMP : PASS HOST: CALIBRATION PARAMETERS : PASS HOST: REG PARAMETERS : PASS HOST: ID PARAMETERS : PASS HOST: CHANNEL TABLE : PASS HOST: SITENAME : PASS HOST: DHCP CONTROL : PASS HOST: SERIAL NUMBER : PASS HOST: FPGA LOAD : PASS HOST: DSP LOAD : PASS HOST: DSP RUNNING : PASS HOST: MAC 0 : PASS HOST: MAC 1 : PASS HOST: GPS : PASS HOST: CIM : FAIL HOST: 5v Supply : PASS : 5.037 HOST: 3.3v Supply : PASS : 3.265 HOST: 2.5v Supply : PASS : 2.479 HOST: 1.8v Supply (Host) : PASS : 1.789 HOST: 1.5v Supply : PASS : 1.498 HOST: 1.2v Supply : PASS : 1.194 HOST: ExtV Supply : PASS : 12.834 HOST: 6V Supply : PASS : 5.946 HOST: PA Temp : PASS : 21.341 DSP: CLOCK : PASS DSP: EDMA : PASS DSP: GPIO : PASS DSP: SPI : PASS DSP: MCASP : PASS DSP: PSC : PASS DSP: EXTERNAL CLOCK : PASS DSP: DDS : PASS FPGA: MEMORY : PASS boot loader version 0.22.1 SVN 17525 2011-07-29 reset_count 1 active_index 1 active_source Flash1 active_user USER_BOOT Inx Pri Stat Fail Lnch Name Notes Last Status --- --- ---- ----- ----- -------------- ----- ----------						

	1 1 RDY 1 0 C:A1702902.bin ACTV Success					
TxPower Query	Done					
Report Text:	Site Assigned Tx Power Level = 44.00 dBm					
Get PA Temp	Passed	21.341	degrees Celsius			LOG

End Sequence: InitializeRadioEthernetCom

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Format and Partition	Passed					

Begin Sequence: Format & Flash

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Get Apps Table	Passed	Flash1		Flash1		IgnoreCase
Report Text:	** BEGIN *** BOOTINFO INFORMATION ***** ---------- ---------- tag_id 3 length 254 version 0.22.1 SVN 17525 2011-07-29 reset_count 0 active_index 1 active_source Flash1 active_user USER_APP schedule.enable OFF schedule.status BLANK schedule.index 256 schedule.sched 256/00/2255 00:00 ** END *** BOOTINFO INFORMATION ***** Inx Pri Stat Fail Lnch Date Time Size Name Notes Last Status --- --- ---- ----- ----- ---------- --------- --------- -------------- ----- -------------- - 1 1 RDY 0 0 01/01/2000 01:42 AM 2351404 C:A1702902.bin ACTV					
Check App Version	Passed	00.29.02		00.29.02		IgnoreCase
Check Boot Launcher Version	Passed	0.22.1		0.22.1		IgnoreCase
Check CPLD Version	Passed	2.7		2.7		IgnoreCase
Check SN	Passed	63WR000511CA		63WR000511CA		IgnoreCase
Check Cust ID	Passed	00009876		00009876		IgnoreCase
Check Board Type	Passed	PreProd		PreProd		IgnoreCase
Report Text:	ITC Role: Wayside, Board Type: PreProd					
Test SD Card	Passed					
Check SD Write Protect	Passed	OFF		OFF		IgnoreCase
Test POST	Passed					

End Sequence: Format & Flash

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx Tests	Passed					

Begin Sequence: RXTESTS

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
RSSI Cal Primary	Passed					

Begin Sequence: Cal RSSI

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					
RSSI Cal	Passed	-50		-50.1	-49.9	GELE(>= <=)
RSSI CAL [Out]:	-118.7					
Save Cal	Passed					
Report Text:	CALRAND 31089 + CAL,SAVE,31089 Saving CAL Parameters OK					

End Sequence: Cal RSSI

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Tx Port 217.7125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.66	ampere	0.40	1.00	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	504		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-107.5					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 219.9125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.66	ampere	0.40	1.00	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	505		495		GT(>)

Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-107.8					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 221.8875 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.66	ampere	0.40	1.00	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-108.8					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Tx Port 217.7125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.66	ampere	0.40	1.00	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	505		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-110.4					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.66	ampere	0.40	1.00	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 221.8875 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.66	ampere	0.40	1.00	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	505		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111.8					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Tx Port High Input Level 217.7625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217762500					
Amplitude [In]:	-7					

Rx Max Current Drain	Passed	0.69	ampere	0.40	1.00	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	504		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-26.3					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port High Input Level 219.9625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219962500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.69	ampere	0.40	1.00	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	504		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-26.3					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port High Input Level 221.9375 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221937500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.69	ampere	0.40	1.00	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	504		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-26.4					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Tx Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: SimultaneousReceive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					
Rx Max Current Drain	Passed	0.663	ampere			LOG
Get BER Channel 1	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)
Get BER Channel 2	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)

End Sequence: SimultaneousReceive

End Sequence: RXTESTS

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
GPS	Passed					

Begin Sequence: GPS

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
GPS Lock	Passed					
min value [Out]:	22					
NMEA Data.GSA.NMEA [Out]:	$GPGSA,A,3,13,27,20,04,08,25,02,23,,,,,2.11,1.04,1.84*05					
NMEA Data.GGA.NMEA [Out]:	$GPGGA,010114.00,1949.13354,N,15559.28089,W,1,08,1.04,90.4,M,2.1,M,,*4B					
GPS Input Level (dBm):	-130					
GPS DC Source	Passed	2.81		2.25	2.95	GELE(>= <=)

End Sequence: GPS

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set TxPower Max	Done					
Report Text:	TXPOWER,+99 Restrict to maximum allowed level Site Assigned Tx Power Level = 44.00 dBm +					
PAR	Passed					

Begin Sequence: Peak to Average Power Ratio

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Measure PAR	Passed	3.14	dB			LOG
Measurement Data[0] [Out]:	40.9390192					

End Sequence: Peak to Average Power Ratio

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 13.6V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	43.6	dBm PEP	43.0	45.0	GELE(>= <=)
Tx Frequency Accuracy	Passed	0.000	ppm	-0.250	0.250	GELE(>= <=)
Frequency Error (Hz) [Out]:	0.090					
Modulation Accuracy - EVM-AVG	Passed	2.09	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 13.6V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	44.0	dBm PEP	43.0	45.0	GELE(>= <=)
Tx Frequency Accuracy	Passed	0.000	ppm	-0.250	0.250	GELE(>= <=)
Frequency Error (Hz) [Out]:	0.104					
Modulation Accuracy - EVM-AVG	Passed	2.14	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 13.6V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	44.0	dBm PEP	43.0	45.0	GELE(>= <=)
Tx Frequency Accuracy	Passed	-0.000	ppm	-0.250	0.250	GELE(>= <=)
Frequency Error (Hz) [Out]:	-0.051					
Modulation Accuracy - EVM-AVG	Passed	1.80	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 10.9V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	42.8	dBm PEP	41.0	46.0	GELE(>= <=)
Tx Frequency Accuracy	Passed	-0.000	ppm			LOG
Frequency Error (Hz) [Out]:	-0.050					
Modulation Accuracy - EVM-AVG	Passed	3.35	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 10.9V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	43.3	dBm PEP	41.0	46.0	GELE(>= <=)
Tx Frequency Accuracy	Passed	0.000	ppm			LOG
Frequency Error (Hz) [Out]:	0.068					
Modulation Accuracy - EVM-AVG	Passed	3.48	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 10.9V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	43.4	dBm PEP	41.0	46.0	GELE(>= <=)
Tx Frequency Accuracy	Passed	-0.001	ppm			LOG
Frequency Error (Hz) [Out]:	-0.113					
Modulation Accuracy - EVM-AVG	Passed	3.02	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 15.5V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	43.8	dBm PEP	41.0	46.0	GELE(>= <=)
Tx Frequency Accuracy	Passed	-0.001	ppm			LOG
Frequency Error (Hz) [Out]:	-0.195					
Modulation Accuracy - EVM-AVG	Passed	1.41	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 15.5V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	44.2	dBm PEP	41.0	46.0	GELE(>= <=)
Tx Frequency Accuracy	Passed	0.000	ppm			LOG
Frequency Error (Hz) [Out]:	0.079					
Modulation Accuracy - EVM-AVG	Passed	1.44	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 15.5V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	44.2	dBm PEP	41.0	46.0	GELE(>= <=)
Tx Frequency Accuracy	Passed	-0.000	ppm			LOG
Frequency Error (Hz) [Out]:	-0.042					
Modulation Accuracy - EVM-AVG	Passed	1.27	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Power Control Range	Passed					

Begin Sequence: Wayside Power Control Range

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set Power Level	Done					
Report Text:	TXPOWER,-7.500000 Site Assigned Tx Power Level = 36.50 dBm +					
PAR	Passed					

Begin Sequence: Peak to Average Power Ratio

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Measure PAR	Passed	4.3	dB			LOG
Measurement Data[0] [Out]:	33.73571805					

End Sequence: Peak to Average Power Ratio

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 13.6V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	38.4	dBm PEP	30.0	39.8	GELE(>= <=)
Tx Frequency Accuracy	Passed	-0.003	ppm			LOG
Frequency Error (Hz) [Out]:	-0.695					
Modulation Accuracy - EVM-AVG	Passed	0.42	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 10.9V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	38.0	dBm PEP	30.0	40.8	GELE(>= <=)
Tx Frequency Accuracy	Passed	-0.003	ppm			LOG
Frequency Error (Hz) [Out]:	-0.686					
Modulation Accuracy - EVM-AVG	Passed	0.41	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 15.5V	Passed					

Begin Sequence: Wayside Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Nominal Rated Output Power	Passed	38.5	dBm PEP	30.0	40.8	GELE(>= <=)
Tx Frequency Accuracy	Passed	-0.003	ppm			LOG
Frequency Error (Hz) [Out]:	-0.673					
Modulation Accuracy - EVM-AVG	Passed	0.40	%rms	0.10	5.00	GELE(>= <=)

End Sequence: Wayside Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Restore Power Level	Done					
Report Text:	TXPOWER,+7.500000 Site Assigned Tx Power Level = 44.00 dBm Measured Transmit Power (36.0 dBm) does not match Site Transmit Power (44.0 dBm) +					

End Sequence: Wayside Power Control Range

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR Low Frequency	Passed					

Begin Sequence: ACPR

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	40.64	dBm			LOG
Lower Adjacent Channel Power	Passed	-80.82	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-80.77	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR Mid Frequency	Passed					

Begin Sequence: ACPR

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	40.74	dBm			LOG
Lower Adjacent Channel Power	Passed	-79.53	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-79.23	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR High Frequency	Passed					

Begin Sequence: ACPR

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	40.32	dBm			LOG
Lower Adjacent Channel Power	Passed	-80.39	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-80.30	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Sideband Spectrum	Passed					

Begin Sequence: TX Sideband Spectrum

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Sideband Spectrum	Passed					

End Sequence: TX Sideband Spectrum

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed					

Begin Sequence: Wayside TX Current Drain

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Current Drain - 217.6125Mhz	Passed	7.00	ampere	5.00	10.00	GELE(>= <=)
Tx Current Drain - 219.8125Mhz	Passed	6.98	ampere	5.00	10.00	GELE(>= <=)
Tx Current Drain - 221.9875Mhz	Passed	6.97	ampere	5.00	10.00	GELE(>= <=)

End Sequence: Wayside TX Current Drain

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Ping LAN Port	Passed					
LED Test	Passed					
Lock Cal	Passed					
Report Text:	+CALRAND 7320 + CAL,LOCK,7320 Locking CAL Parameters OK					
Read Cal	Passed					
Report Text:	Cal Params are LOCKED Cal Data Version(1024): 0A.04 XO = 479 IGAIN = 0 QGAIN = 0 DDSLEVEL = 69 PABIAS = 909 TXKEYTO = 0 RSSI_OFF_P = -118.70 RSSI_OFF_D = -100.00 OK					

End Sequence: MainSequence

End UUT Report

Manufacturing Test reports Pre-Preproduction 2 Radios

3. Base 24V Radio Manufacturing Test Report

(Report 3 of 4)

UUT Report

Station ID	Serial Number	Date	Time	Operator	Execution Time	Number of Results	UUT Result
OXN-WKSDRM	63B2000317CA	Monday, June 25, 2012	3:07:36 PM	6812	1047.5543935999999 seconds	1408	Passed

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Begin Sequence: MainSequence

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Report Sequence File Version	Done					
Report Text:	0.0.4.66					
Initialize	Passed					

Begin Sequence: InitializeRadioEthernetCom

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Open Port	Passed					
Report Text:	01/12/00 05:17:55 Booted, Initializing... RAMDISK initialized FLASH Drive C: initialized FLASH Drive D: Initialized -- FPGA load success -- -- DSP load success -- RTC Alarm Was Set 05:17:58.420 System RF Initialization Start 05:17:58.421 Debugger Start Up 05:17:58.430 BootRestore: port:0, mode:0, rev:0, size:0 01/12/00 05:17:58 NO CIM Found 01/12/00 05:17:58 CBUF port 16 ITC PACKET DATA RADIO (c) Copyright 2011 Meteorcomm LLC All Rights Reserved S/W Part Number P63020-A18-00.29.02 ITC SVN r23151 Tue Jan 03 12:27:53 2012 S/W Part Number P63020-D04-00.29.02 DSP SVN r23104 Tue Jan 02 20:18:45 2012 S/W Part Number P63020-F07-00.29.02 FPGA SVN r23090 Wed Dec 28 23:11:05 2011 S/W Part Number P63020-C00 Flexbus CPLD Version 2.7 Tue Nov 22 19:26:37 2011 S/W Part Number P63020-B01 Boot Launcher Rev. 0.22.1 SVN 17525 2011-07-29 H/W Base Board ITC Role: Base Open SSL Copyright (C) 1998 Eric Young (eay@cryptsoft.com) RC2 Provided by BNSF 9/22/2006. RC2 is a trademark of RSA Security Inc. 05:17:58.554 System RF Initialization Complete 05:17:58.643 CIM script failed to run 05:17:58.720 Message No: 00000500:002, 0008 CHARS, 002 SEGMENTS 05:17:58.721 Routing 00000500:002 RMP to: 00000002 05:17:59.775 GPS Antenna State Change - Antenna State: UNKNOWN Antenna Power: UNKNOWN 05:18:00.408 Interface opened on port: Ethernet1 IP:10.10.1.254 05:18:02.058 GPS Antenna State Change - Antenna State: INIT Antenna Power: ON 05:18:02.852 Interface opened on port: Ethernet2 IP:10.10.2.254 05:18:05.395 Ethernet port 1 Connected 05:18:05.457 Ethernet port 2 Connected 05:18:12.432 Connection Opened:10.10.1.10:56296 05:18:12.503 Connection Opened:10.10.1.10:56296 +					
Disable CIM	Done					
Report Text:	INILOCK,OFF 01/12/00 05:18:15 +					
Unlock Cal	Passed					
Report Text:	CALRAND 30545 + CAL,UNLOCK,30545 Unlocking CAL Parameters OK					
Read Cal	Passed					

Report Text:	Cal Params are UNLOCKED Cal Data Version(1024): 0A.04 XO = 306 IDC = 617 QDC = 1470 IGAIN = 561 QGAIN = 561 CBUS_R2 = 0xec CBUS_R5 = 0x20 CBUS_R6 = 0x1e CBUS_R7 = 0x00 CBUS_R8 = 0x00 TXKEYTO = 0 RSSI_OFF_P = -120.60 RSSI_OFF_D = -120.90 TEMP_SP = -30, -22, -14, -6, 2, 10, 18, 26, 34, 42, 50, 58, 66, 74 FREQ_SP = 23, 67, 111, 156 PHASE_F1 = 0x18, 0x20, 0x20, 0x28, 0x28, 0x30, 0x30, 0x38, 0x38, 0x38, 0x40, 0x40, 0x40, 0x40, 0x48 PHASE_F2 = 0x28, 0x28, 0x28, 0x30, 0x30, 0x38, 0x38, 0x40, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50 PHASE_F3 = 0x30, 0x30, 0x38, 0x38, 0x38, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x58, 0x58, 0x58 PHASE_F4 = 0x30, 0x38, 0x38, 0x38, 0x38, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x58, 0x58, 0x58 PHASE_F5 = 0x40, 0x40, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x60, 0x60 OK					
Read Ipconfig	Passed					
Report Text:	Ethernet1(+): Enabled:Yes DHCP:OFF NAT:OFF Poll:0ms IP:10.10.1.254 Ethernet2(+): Enabled:Yes DHCP:OFF NAT:OFF Poll:0ms IP:10.10.2.254 Gateway: (Auto) Mask E1: 255.255.255.0 Mask E2: 255.255.255.0 MAC E1: 00-15-23-01-05-FA MAC E2: 00-15-23-01-05-FB EthTxRate: 100 Mbps					
Set SN and Lock Config	Done					
Report Text:	Serial Number Locked					
Query Post	Done					
Report Text:	********** Host Post Log ********** Board Type: Base HOST: DDR Address Line Test : PASS HOST: DDR Data Line Test : PASS HOST: SPI : PASS HOST: SDCARD Present : PASS HOST: SDCARD Fail Pin : PASS HOST: SDCARD Write Protect : OFF HOST: SDCARD Access : PASS HOST: I2C Controller : PASS HOST: I2C Mux : PASS HOST: RTC : PASS HOST: BOOT FLASH (C:) : PASS HOST: BOOT FLASH (D:) : PASS HOST: DATA FLASH (E:) : PASS HOST: SEEPROM STAMP : PASS HOST: CALIBRATION PARAMETERS : PASS HOST: REG PARAMETERS : PASS HOST: ID PARAMETERS : PASS HOST: CHANNEL TABLE : PASS HOST: SITENAME : PASS HOST: DHCP CONTROL : PASS HOST: SERIAL NUMBER : PASS HOST: FPGA LOAD : PASS HOST: DSP LOAD : PASS HOST: DSP RUNNING : PASS HOST: FAN CONTROLLER : PASS HOST: MAC 0 : PASS HOST: MAC 1 : PASS HOST: GPS : PASS HOST: CIM : FAIL HOST: 28v Supply : PASS : 28.772 HOST: 11.5v Supply : PASS : 11.369 HOST: 5v Supply : PASS : 5.017 HOST: 3.3v Supply : PASS : 3.300 HOST: 2.5v Supply : PASS : 2.481 HOST: 1.8v Supply (Host) : PASS : 1.797 HOST: 1.8v Supply (DSP) : PASS : 1.825 HOST: 1.5v Supply : PASS : 1.480 HOST: 1.2v Supply : PASS : 1.196 HOST: ExtV Supply : PASS : 2.391 HOST: 12V PS Temp : PASS : 27.402 HOST: 28V PS Temp : PASS : 27.402 HOST: PA Temp : PASS : 26.457					

	HOST: Driver Temp : PASS : 26.457 HOST: PA Current : PASS : 0.000 HOST: Driver Current : PASS : 0.000 DSP: CLOCK : PASS DSP: EDMA : PASS DSP: GPIO : PASS DSP: SPI : PASS DSP: MCASP : PASS DSP: PSC : PASS DSP: EXTERNAL CLOCK : PASS DSP: IQ MIXER : PASS DSP: RX ADC : PASS DSP: TX NULL ADC : PASS DSP: DDS : PASS FPGA: MEMORY : PASS boot loader version 0.22.1 SVN 17525 2011-07-29 reset_count 1 active_index 1 active_source Flash1 active_user USER_BOOT Inx Pri Stat Fail Lnch Name Notes Last Status --- --- ---- ----- ----- ---------- ----- ---------- 1 1 RDY 1 0 C:A1802902.BIN ACTV Success					
TxPower Query	Done					
Report Text:	Site Assigned Tx Power Level = 48.75 dBm					
Get PA Temp	Passed	26.457	degrees Celsius			LOG

End Sequence: InitializeRadioEthernetCom

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Format and Partition	Passed					

Begin Sequence: Format & Flash

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Get Apps Table	Passed	Flash1		Flash1		IgnoreCase
Report Text:	** BEGIN *** BOOTINFO INFORMATION ***** ---------- ---------- tag_id 3 length 254 version 0.22 1 SVN 17525 2011-07-29 reset_count 0 active_index 1 active_source Flash1 active_user USER_APP schedule.enable OFF schedule.status BLANK schedule.index 256 schedule.sched 256/00/2255 00:00 ** END *** BOOTINFO INFORMATION ***** Inx Pri Stat Fail Lnch Date Time Size Name Notes Last Status --- --- ---- ----- ----- ---------- --------- --------- ---------- ----- ---------- -- 1 1 RDY 0 0 01/07/2000 08:20 PM 3776504 C:A1802902.BIN ACTV					
Check App Version	Passed	00.29.02		00.29.02		IgnoreCase
Check Boot Launcher Version	Passed	0.22.1		0.22.1		IgnoreCase
Check CPLD Version	Passed	2.7		2.7		IgnoreCase
Check SN	Passed	63B2000317CA		63B2000317CA		IgnoreCase
Check Cust ID	Passed	00009876		00009876		IgnoreCase
Check Board Type	Passed	PreProd		PreProd		IgnoreCase
Report Text:	ITC Role: Base, Board Type: PreProd					
Test SD Card	Passed					
Check SD Write Protect	Passed	OFF		OFF		IgnoreCase
Test POST	Passed					

End Sequence: Format & Flash

				Limits

Step	Status	Measurement	Units	Low Limit	High Limit	Comparison Type
Rx Tests	Passed					

Begin Sequence: RXTESTS

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
RSSI Cal Diversity	Passed					

Begin Sequence: Cal RSSI

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					
RSSI Cal	Passed	-50		-50.1	-49.9	GELE(>= <=)
RSSI CAL [Out]:	-120.9					
Save Cal	Passed					
Report Text:	CALRAND 31089 + CAL,SAVE,31089 Saving CAL Parameters OK					

End Sequence: Cal RSSI

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
RSSI Cal Primary	Passed					

Begin Sequence: Cal RSSI

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					
RSSI Cal	Passed	-50		-50.1	-49.9	GELE(>= <=)
RSSI CAL [Out]:	-120.8					
Save Cal	Passed					
Report Text:	CALRAND 7320 + CAL,SAVE,7320 Saving CAL Parameters OK					

End Sequence: Cal RSSI

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Tx Port 217.7125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-109.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 219.9125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-107.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 221.8875 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-108.1					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Tx Port 217.7125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-112.1					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 221.8875 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Rx1 Port 217.7125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	1.16e-005		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.00591716					
Statistics.RSSI [Out]:	-108.7					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port 219.9125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					

Statistics.PER [Out]:	0
Statistics.RSSI [Out]:	-107.9

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port 221.8875 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	3.86e-006		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.001976285					
Statistics.RSSI [Out]:	-107.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Rx1 Port 217.7125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111.8					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-110.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port 221.8875 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	3.85e-006		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0.001972387					
Statistics.RSSI [Out]:	-110.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Rx2 Port 217.7125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						

BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-110					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 219.9125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-108					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 221.8875 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-108.4					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					

Rx2 Port 217.7125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	505		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-112.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 221.8875 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.94	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					

Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111.6					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Tx Port High Input Level 217.7625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217762500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.97	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-28.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port High Input Level 219.9625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219962500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.97	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-28.2					

End Sequence: Receive

				Limits

Step	Status	Measurement	Units	Low Limit	High Limit	Comparison Type
Tx Port High Input Level 221.9375 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221937500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.97	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	503		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-28.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port High Input Level 217.7625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217762500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.97	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-28.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port High Input Level 219.9625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219962500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.97	ampere	0.60	1.20	GELE(>= <=)

Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-28.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port High Input Level 221.9375 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221937500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.97	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-28.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port High Input Level 217.7625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217762500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.96	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-28.3					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Rx2 Port High Input Level 219.9625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219962500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.97	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-28.3					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port High Input Level 221.9375 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221937500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.97	ampere	0.60	1.20	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-28.3					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Tx Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: SimultaneousReceive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					

Rx Max Current Drain	Passed	0.952	ampere			LOG
Get BER Channel 1	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	254		0		GT(>)
Get BER Channel 2	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)
Get BER Channel 4	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)
Get BER Channel 5	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)
Get BER Channel 6	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)
Get BER Channel 7	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	254		0		GT(>)
Get BER Channel 8	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	254		0		GT(>)
Get BER Channel 9	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)

End Sequence: SimultaneousReceive

End Sequence: RXTESTS

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
GPS	Passed					

Begin Sequence: GPS
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
GPS Lock	Passed					
min value [Out]:	19					
NMEA Data.GSA.NMEA [Out]:	$GPGSA,A,3,08,23,20,02,04,27,13,25,,,,,2.11,1.05,1.84*04					
NMEA Data.GGA.NMEA [Out]:	$GPGGA,010100.00,1949.13300,N,15559.28027,W,1,08,1.05,88.9,M,2.1,M,,*4E					

GPS Input Level (dBm):	-130					
GPS DC Source	Passed	2.82		2.25	2.95	GELE(>= <=)

End Sequence: GPS

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Bias Check	Passed					

Begin Sequence: PA BIAS Setpoint

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Read PA Bias Current	Passed	2626.953125	milliampere	2475	3025	GELE(>= <=)
Voltage Average [Out]:	1.05078125					
Value Average [Out]:	2.6362					
Read Driver Bias Current	Passed	244.140625	milliampere			LOG
Voltage Average [Out]:	0.48828125					
Value Average [Out]:	0.245					

End Sequence: PA BIAS Setpoint

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set TxPower Max	Done					
Report Text:	TXPOWER,+99 Restrict to maximum allowed level Site Assigned Tx Power Level = 48.75 dBm +					
PAR	Passed					

Begin Sequence: Peak to Average Power Ratio

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx PAR Current Drain	Passed	7.085	ampere			LOG
Measure PAR	Passed	3.75	dB			LOG
Measurement Data[0] [Out]:	45.14672037					

End Sequence: Peak to Average Power Ratio

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 24V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	6.94	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.90	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.02E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.78E+000					
Modulation Accuracy - EVM-AVG	Passed	0.93	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1372.00				LOG
Reverse Power	Passed	274.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 24V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	7.12	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.97	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.29E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.82E+000					
Modulation Accuracy - EVM-AVG	Passed	0.97	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1293.60				LOG
Reverse Power	Passed	352.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 24V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	7.27	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	49.03	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	7.83E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.70E+000					
Modulation Accuracy - EVM-AVG	Passed	0.91	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	960.40				LOG
Reverse Power	Passed	274.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 21V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	8.04	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.91	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.02E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.78E+000					
Modulation Accuracy - EVM-AVG	Passed	0.93	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	999.60				LOG
Reverse Power	Passed	274.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @	Passed					

219.8125MHz 21V						

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	8.23	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.98	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.33E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.83E+000					
Modulation Accuracy - EVM-AVG	Passed	0.96	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1195.60				LOG
Reverse Power	Passed	352.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 21V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	8.41	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	49.02	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	7.79E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.70E+000					
Modulation Accuracy - EVM-AVG	Passed	0.89	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1136.80				LOG
Reverse Power	Passed	333.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 27V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	6.15	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.92	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	7.98E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.77E+000					
Modulation Accuracy - EVM-AVG	Passed	0.92	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	921.20				LOG
Reverse Power	Passed	254.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 27V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	6.29	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.99	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.31E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.83E+000					
Modulation Accuracy - EVM-AVG	Passed	0.97	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1038.80				LOG
Reverse Power	Passed	352.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 27V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	6.41	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	49.02	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	7.85E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.71E+000					
Modulation Accuracy - EVM-AVG	Passed	0.90	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1215.20				LOG
Reverse Power	Passed	352.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 217.6125MHz 24V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	7.21	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.96	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	7.86E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.71E+000					
Modulation Accuracy - EVM-AVG	Passed	0.90	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1176.00				LOG
Reverse Power	Passed	313.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 24V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Tx Max Current Drain	Passed	7.07	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.92	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.30E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.83E+000					
Modulation Accuracy - EVM-AVG	Passed	0.98	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1058.40				LOG
Reverse Power	Passed	313.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 221.9875MHz 24V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	6.92	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.86	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.04E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.78E+000					
Modulation Accuracy - EVM-AVG	Passed	0.92	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	882.00				LOG
Reverse Power	Passed	274.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 217.6125MHz 21V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	8.36	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.96	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	7.84E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.71E+000					
Modulation Accuracy - EVM-AVG	Passed	0.90	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1313.20				LOG
Reverse Power	Passed	450.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 21V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	8.18	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.94	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.32E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)

Frequency Error (Hz) [Out]:	1.83E+000					
Modulation Accuracy - EVM-AVG	Passed	0.99	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	921.20				LOG
Reverse Power	Passed	333.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 221.9875MHz 21V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	7.97	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.86	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.03E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.78E+000					
Modulation Accuracy - EVM-AVG	Passed	0.93	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1234.80				LOG
Reverse Power	Passed	274.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 217.6125MHz 27V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	6.37	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.96	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	7.87E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.71E+000					
Modulation Accuracy - EVM-AVG	Passed	0.90	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1117.20				LOG
Reverse Power	Passed	254.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 27V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	6.23	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.93	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.31E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.83E+000					
Modulation Accuracy - EVM-AVG	Passed	0.97	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	921.20				LOG

Reverse Power	Passed	333.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 221.9875MHz 27V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	6.10	ampere	4.00	11.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.85	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.06E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.79E+000					
Modulation Accuracy - EVM-AVG	Passed	0.93	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1234.80				LOG
Reverse Power	Passed	254.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Power Control Range	Passed					

Begin Sequence: Power Control Range

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set Power Level	Done					
Report Text	Site Assigned Tx Power Level = 40.00 dBm Measured Transmit Power (49.4 dBm) does not match Site Transmit Power (40.0 dBm)					

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 24V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	5.03	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.23	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.34E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.83E+000					
Modulation Accuracy - EVM-AVG	Passed	0.94	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	627.20				LOG
Reverse Power	Passed	254.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 24V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	5.03	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.18	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.38E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.84E+000					
Modulation Accuracy - EVM-AVG	Passed	0.94	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	666.40				LOG
Reverse Power	Passed	254.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 21V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	5.78	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.22	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.37E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.84E+000					
Modulation Accuracy - EVM-AVG	Passed	0.94	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	705.60				LOG
Reverse Power	Passed	254.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 21V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	5.77	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.16	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.35E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.84E+000					
Modulation Accuracy - EVM-AVG	Passed	0.95	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	627.20				LOG
Reverse Power	Passed	254.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 27V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	4.49	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.25	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.45E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.86E+000					
Modulation Accuracy - EVM-AVG	Passed	0.94	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	686.00				LOG
Reverse Power	Passed	254.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 27V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	4.47	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.14	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	8.45E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	1.86E+000					
Modulation Accuracy - EVM-AVG	Passed	0.94	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	646.80				LOG
Reverse Power	Passed	254.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Restore Power Level	Done					
Report Text:	TXPOWER,+8.750000 Site Assigned Tx Power Level = 48.75 dBm					

End Sequence: Power Control Range

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR Low Frequency	Passed					

Begin Sequence: ACPR

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	45.20	dBm			LOG
Lower Adjacent Channel Power	Passed	-71.54	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-73.28	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR Mid Frequency	Passed					

Begin Sequence: ACPR

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	45.11	dBm			LOG
Lower Adjacent Channel Power	Passed	-72.24	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-73.51	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR High Frequency	Passed					

Begin Sequence: ACPR

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	45.12	dBm			LOG
Lower Adjacent Channel Power	Passed	-72.67	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-73.35	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Sideband Spectrum	Passed					

Begin Sequence: TX Sideband Spectrum

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Sideband Spectrum	Passed					

End Sequence: TX Sideband Spectrum

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Ping LAN Port	Passed					
LED Test	Passed					
Fan Test	Passed					
Lock Cal	Passed					
Report Text	CALRAND 15125 + CAL,LOCK,15125 Locking CAL Parameters OK					

Read Cal	Passed					
Report Text:	Cal Params are LOCKED Cal Data Version(1024): 0A.04 XO = 306 IDC = 617 QDC = 1470 IGAIN = 561 QGAIN = 561 CBUS_R2 = 0xec CBUS_R5 = 0x20 CBUS_R6 = 0x1e CBUS_R7 = 0x00 CBUS_R8 = 0x00 TXKEYTO = 0 RSSI_OFF_P = -120.80 RSSI_OFF_D = -120.90 TEMP_SP = -30, -22, -14, -6, 2, 10, 18, 26, 34, 42, 50, 58, 66, 74 FREQ_SP = 23, 67, 111, 156 PHASE_F1 = 0x18, 0x20, 0x20, 0x28, 0x28, 0x30, 0x30, 0x38, 0x38, 0x38, 0x40, 0x40, 0x40, 0x40, 0x48 PHASE_F2 = 0x28, 0x28, 0x28, 0x30, 0x30, 0x38, 0x38, 0x40, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50 PHASE_F3 = 0x30, 0x30, 0x38, 0x38, 0x38, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x58, 0x58, 0x58 PHASE_F4 = 0x30, 0x38, 0x38, 0x38, 0x38, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x58, 0x58, 0x58 PHASE_F5 = 0x40, 0x40, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x60, 0x60 OK					

End Sequence: MainSequence

End UUT Report

METEORCOMM LLC

Manufacturing Test reports Pre-Preproduction 2 Radios

4. Base 48V Radio Manufacturing Test Report

(Report 4 of 4)

UUT Report

Station ID	Serial Number	Date	Time	Operator	Execution Time	Number of Results	UUT Result
OXN-WKSDRM	63B4000234CA	Wednesday, April 18, 2012	5:06:59 PM	DHanson	1111.6902049 seconds	1368	Passed

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Begin Sequence: MainSequence

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Report Sequence File Version	Done					
Report Text:	0.0.4.52					
Initialize	Passed					

Begin Sequence: InitializeRadioEthernetCom

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Open Port	Passed					
Report Text:	01/03/00 04:25:11 Booted, Initializing... RAMDISK initialized FLASH Drive C: initialized FLASH Drive D: initialized -- FPGA load success -- -- DSP load success -- 04:25:14.410 System RF Initialization Start 04:25:14.411 New Boot Launcher was Loaded 04:25:14.420 BootRestore: port:0, mode:0, rev:0, size:0 01/03/00 04:25:14 NO CIM Found 04:25:14.533 System RF Initialization Complete 01/03/00 04:25:14 CBUF port 16 ITC PACKET DATA RADIO (c) Copyright 2011 Meteorcomm LLC All Rights Reserved S/W Part Number P63020-A18-00.29.02 ITC SVN r23151 Tue Jan 03 12:27:53 2012 S/W Part Number P63020-D04-00.29.02 DSP SVN r23104 Tue Jan 02 20:18:45 2012 S/W Part Number P63020-F07-00.29.02 FPGA SVN r23090 Wed Dec 28 23:11:05 2011 S/W Part Number P63020-C00 Flexbus CPLD Version 2.7 Tue Nov 22 19:26:37 2011 S/W Part Number P63020-B01 Boot Launcher Rev. 0.22.1 SVN 17525 2011-07-29 H/W Base Board ITC Role: Base Open SSL Copyright (C) 1998 Eric Young (eay@cryptsoft.com) RC2 Provided by BNSF 9/22/2006. RC2 is a trademark of RSA Security Inc. 04:25:14.631 CIM script failed to run 04:25:14.709 Message No: 00000500:002, 0008 CHARS, 002 SEGMENTS 04:25:14.710 Routing 00000500:002 RMP to: 00000002 04:25:15.764 GPS Antenna State Change - Antenna State: UNKNOWN Antenna Power: UNKNOWN 04:25:16.426 Interface opened on port: Ethernet1 IP:10.10.1.254 04:25:18.041 GPS Antenna State Change - Antenna State: INIT Antenna Power: ON 04:25:18.887 Interface opened on port: Ethernet2 IP:10.10.2.254 04:25:21.429 Ethernet port 1 Connected 04:25:21.491 Ethernet port 2 Connected 04:25:28.421 Connection Opened:10.10.1.10:54404 04:25:28.492 Connection Opened:10.10.1.10:54404 +					
Disable CIM	Done					
Report Text:	INILOCK,OFF 01/03/00 04:25:31 +					
Unlock Cal	Passed					
Report Text:	CALRAND 30545 + CAL,UNLOCK,30545 Unlocking CAL Parameters OK					
Read Cal	Passed					

Report Text:	Cal Params are UNLOCKED Cal Data Version(1024): 0A.04 XO = 278 IDC = 591 QDC = 223 IGAIN = 566 QGAIN = 566 CBUS_R2 = 0xec CBUS_R5 = 0x20 CBUS_R6 = 0x1e CBUS_R7 = 0x00 CBUS_R8 = 0x00 TXKEYTO = 0 RSSI_OFF_P = -100.00 RSSI_OFF_D = -100.00 TEMP_SP = -30, -22, -14, -6, 2, 10, 18, 26, 34, 42, 50, 58, 66, 74 FREQ_SP = 23, 67, 111, 156 PHASE_F1 = 0x18, 0x20, 0x20, 0x28, 0x28, 0x30, 0x30, 0x38, 0x38, 0x38, 0x40, 0x40, 0x40, 0x40, 0x48 PHASE_F2 = 0x28, 0x28, 0x28, 0x30, 0x30, 0x38, 0x38, 0x40, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50 PHASE_F3 = 0x30, 0x30, 0x38, 0x38, 0x38, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x58, 0x58, 0x58 PHASE_F4 = 0x38, 0x40, 0x40, 0x40, 0x40, 0x48, 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x60, 0x60, 0x60 PHASE_F5 = 0x40, 0x40, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x60, 0x60 OK
Read ipconfig	Passed
Report Text:	Ethernet1(+): Enabled:Yes DHCP:OFF NAT:OFF Poll:0ms IP:10.10.1.254 Ethernet2(+): Enabled:Yes DHCP:OFF NAT:OFF Poll:0ms IP:10.10.2.254 Gateway: (Auto) Mask E1: 255.255.255.0 Mask E2: 255.255.255.0 MAC E1: 00-15-23-01-05-A6 MAC E2: 00-15-23-01-05-A7 EthTxRate: 100 Mbps
Query Post	Done
Report Text:	********** Host Post Log ********** Board Type: Base HOST: DDR Address Line Test : PASS HOST: DDR Data Line Test : PASS HOST: SPI : PASS HOST: SDCARD Present : PASS HOST: SDCARD Fail Pin : PASS HOST: SDCARD Write Protect : OFF HOST: SDCARD Access : PASS HOST: I2C Controller : PASS HOST: I2C Mux : PASS HOST: RTC : PASS HOST: BOOT FLASH (C:) : PASS HOST: BOOT FLASH (D:) : PASS HOST: DATA FLASH (E:) : PASS HOST: SEEPROM STAMP : PASS HOST: CALIBRATION PARAMETERS : PASS HOST: REG PARAMETERS : PASS HOST: ID PARAMETERS : PASS HOST: CHANNEL TABLE : PASS HOST: SITENAME : PASS HOST: DHCP CONTROL : PASS HOST: SERIAL NUMBER : FAIL HOST: FPGA LOAD : PASS HOST: DSP LOAD : PASS HOST: DSP RUNNING : PASS HOST: FAN CONTROLLER : PASS HOST: MAC 0 : PASS HOST: MAC 1 : PASS HOST: GPS : PASS HOST: CIM : FAIL HOST: 28v Supply : PASS : 28.754 HOST: 11.5v Supply : PASS : 11.428 HOST: 5v Supply : PASS : 5.012 HOST: 3.3v Supply : PASS : 3.288 HOST: 2.5v Supply : PASS : 2.469 HOST: 1.8v Supply (Host) : PASS : 1.801 HOST: 1.8v Supply (DSP) : PASS : 1.819 HOST: 1.5v Supply : PASS : 1.477 HOST: 1.2v Supply : PASS : 1.191 HOST: ExtV Supply : PASS : 2.402 HOST: 12V PS Temp : PASS : 27.580 HOST: 28V PS Temp : PASS : 27.491 HOST: PA Temp : PASS : 26.457 HOST: Driver Temp : PASS : 25.021 HOST: PA Current : PASS : 0.000 HOST: Driver Current : PASS : 0.000 DSP: CLOCK : PASS DSP: EDMA : PASS DSP: GPIO : PASS

	DSP: SPI : PASS DSP: MCASP : PASS DSP: PSC : PASS DSP: EXTERNAL CLOCK : PASS DSP: IQ MIXER : PASS DSP: RX ADC : PASS DSP: TX NULL ADC : PASS DSP: DDS : PASS FPGA: MEMORY : PASS boot loader version 0.22.1 SVN 17525 2011-07-29 reset_count 1 active_index 1 active_source Flash1 active_user USER_BOOT Inx Pri Stat Fail Lnch Name Notes Last Status --- --- ---- ---- ---- ---------- ----- ---------- 1 1 RDY 1 0 C:A1802902.BIN ACTV Success						
TxPower Query	Done					
Report Text:	Site Assigned Tx Power Level = 48.75 dBm					
Get PA Temp	Passed	26.457	degrees Celsius			LOG

End Sequence: InitializeRadioEthernetCom

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Format and Partition	Passed					

Begin Sequence: Format & Flash

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Test POST	Passed					

End Sequence: Format & Flash

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx Tests	Passed					

Begin Sequence: RXTESTS

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
RSSI Cal Diversity	Passed					

Begin Sequence: Cal RSSI

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					
RSSI Cal	Passed	-50		-50.1	-49.9	GELE(>= <=)
RSSI CAL [Out]:	-115.1					
Save Cal	Passed					
Report Text:	CALRAND 31089 + CAL,SAVE,31089 Saving CAL Parameters OK					

End Sequence: Cal RSSI

				Limits		

Step	Status	Measurement	Units	Low Limit	High Limit	Comparison Type
RSSI Cal Primary	Passed					

Begin Sequence: Cal RSSI

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					
RSSI Cal	Passed	-50		-50.1	-49.9	GELE(>= <=)
RSSI CAL [Out]:	-114.3					
Save Cal	Passed					
Report Text:	CALRAND 7320 + CAL,SAVE,7320 Saving CAL Parameters OK					

End Sequence: Cal RSSI

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Tx Port 217.7125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.50	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	5.40e-005		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.0256917					
Statistics.RSSI [Out]:	-109.6					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 219.9125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.50	ampere	0.20	0.60	GELE(>= <=)

Get BER	Passed					
Measurement:						
BER	Passed	1.16e-005		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.005928854					
Statistics.RSSI [Out]:	-108.7					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 221.8875 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.50	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	5.40e-005		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.0256917					
Statistics.RSSI [Out]:	-109.6					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Tx Port 217.7125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-112.7					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.50	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-112					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port 221.8875 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.50	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	505		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-112.7					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Rx1 Port 217.7125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					

Frequency Hz [In]:	217712500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	3.47e-005		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.01782178					
Statistics.RSSI [Out]:	-109.1					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port 219.9125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	3.08e-005		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.01577909					
Statistics.RSSI [Out]:	-108.2					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port 221.8875 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	9.25e-005		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.04142012					
Statistics.RSSI [Out]:	-109.1					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Rx1 Port 217.7125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	3.87e-006		1.00e-004		LE(<=)
Packets	Passed	505		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0.001980198					
Statistics.RSSI [Out]:	-112					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	3.85e-006		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0.001972387					
Statistics.RSSI [Out]:	-111.3					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port 221.8875 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					

Frequency Hz [In]:	221887500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	7.70e-006		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0.003944773					
Statistics.RSSI [Out]:	-112.7					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Rx2 Port 217.7125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	3.85e-006		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0.001972387					
Statistics.RSSI [Out]:	-109					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 219.9125 MHz Full Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-107.8					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 221.8875 MHz Full Rate	Passed					

Begin Sequence: Receive
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-108					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-109					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Rx2 Port 217.7125 MHz Half Rate	Passed					

Begin Sequence: Receive
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217712500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-112.1					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: Receive
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-111					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port 221.8875 MHz Half Rate	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221887500					
Amplitude [In]:	-111					
Rx Max Current Drain	Passed	0.49	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	20					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-112.1					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Full Rate	Done					
Symbol Rate [In]:	16000					
Tx Port High Input Level 217.7625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217762500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.51	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					

Statistics.PER [Out]:	0
Statistics.RSSI [Out]:	-21.9

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port High Input Level 219.9625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219962500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.51	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-21.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Port High Input Level 221.9375 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221937500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.51	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-21.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port High Input Level 217.7625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

				Limits		
				Low		

Step	Status	Measurement	Units	Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217762500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.51	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-21.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port High Input Level 219.9625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219962500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.51	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-21.9					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx1 Port High Input Level 221.9375 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221937500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.50	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					

Statistics.RSSI [Out]:	-21.9

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port High Input Level 217.7625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	217762500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.51	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	506		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-22.7					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port High Input Level 219.9625 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219962500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.51	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	504		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-22.7					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Rx2 Port High Input Level 221.9375 MHz	Passed					

Begin Sequence: Receive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

				Limits		
				Low	High Limit	Comparison Type

Step	Status	Measurement	Units	Limit		
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	221937500					
Amplitude [In]:	-7					
Rx Max Current Drain	Passed	0.51	ampere	0.20	0.60	GELE(>= <=)
Get BER	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	507		495		GT(>)
Duration [In]:	10					
Statistics.PER [Out]:	0					
Statistics.RSSI [Out]:	-22.7					

End Sequence: Receive

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Configure ESG For Half Rate	Done					
Symbol Rate [In]:	8000					
Tx Port 219.9125 MHz Half Rate	Passed					

Begin Sequence: SimultaneousReceive

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set ESG Frequency & Amplitude	Done					
Frequency Hz [In]:	219912500					
Amplitude [In]:	-50					
Rx Max Current Drain	Passed	0.497	ampere			LOG
Get BER Channel 1	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	254		0		GT(>)
Get BER Channel 2	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)
Get BER Channel 4	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)
Get BER Channel 5	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)
Get BER Channel 6	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	254		0		GT(>)
Get BER Channel 7	Passed					
Measurement:						

BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)
Get BER Channel 8	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	254		0		GT(>)
Get BER Channel 9	Passed					
Measurement:						
BER	Passed	0.00e+000		1.00e-004		LE(<=)
Packets	Passed	253		0		GT(>)

End Sequence: SimultaneousReceive

End Sequence: RXTESTS

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
GPS	Passed					

Begin Sequence: GPS

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
GPS Lock	Passed					
min value [Out]:	21					
NMEA Data.GSA.NMEA [Out]:	$GPGSA,A,3,27,23,04,20,08,25,13,,,,,,3.41,1.36,3.13*0E					
NMEA Data.GGA.NMEA [Out]:	$GPGGA,010054.00,1949.13269,N,15559.28050,W,1,07,1.36,88.7,M,2.1,M,,*41					
GPS Input Level (dBm):	-130					
GPS DC Source	Passed	2.81		2.25	2.95	GELE(>= <=)

End Sequence: GPS

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Bias Check	Passed					

Begin Sequence: PA BIAS Setpoint

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Read PA Bias Current	Passed	2714.84375	milliampere	2475	3025	GELE(>= <=)
Voltage Average [Out]:	1.0859375					
Value Average [Out]:	2.7244					
Read Driver Bias Current	Passed	228.3960459183674	milliampere			LOG
Voltage Average [Out]:	0.4567920918367					
Value Average [Out]:	0.2292					

End Sequence: PA BIAS Setpoint

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Set TxPower Max	Done					
Report Text:	TXPOWER,+99 Restrict to maximum allowed level Site Assigned Tx Power Level = 48.75 dBm +					
PAR	Passed					

Begin Sequence: Peak to Average Power Ratio

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx PAR Current Drain	Passed	3.307	ampere			LOG
Measure PAR	Passed	3.72	dB			LOG
Measurement Data[0] [Out]:	45.07671032					

End Sequence: Peak to Average Power Ratio

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 48V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.29	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.83	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.02E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-6.70E-001					
Modulation Accuracy - EVM-AVG	Passed	0.75	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1097.60				LOG
Reverse Power	Passed	352.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 48V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.32	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.86	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-2.69E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-5.91E-001					
Modulation Accuracy - EVM-AVG	Passed	0.76	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	764.40				LOG
Reverse Power	Passed	431.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 48V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.35	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.87	dBm PEP	48.25	49.25	GELE(>= <=)

Tx Frequency Accuracy	Passed	-3.24E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.04E-001					
Modulation Accuracy - EVM-AVG	Passed	0.75	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1058.40				LOG
Reverse Power	Passed	470.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 42V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.72	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.85	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.15E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-6.98E-001					
Modulation Accuracy - EVM-AVG	Passed	0.75	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1352.40				LOG
Reverse Power	Passed	313.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 42V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.76	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.87	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-2.93E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-6.43E-001					
Modulation Accuracy - EVM-AVG	Passed	0.76	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	999.60				LOG
Reverse Power	Passed	392.00				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 42V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.79	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.87	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.37E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.33E-001					
Modulation Accuracy - EVM-AVG	Passed	0.75	%rms	0.10	2.00	GELE(>= <=)

Forward Power	Passed	1254.40				LOG
Reverse Power	Passed	548.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 221.9875MHz 54V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.96	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.85	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.16E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.02E-001					
Modulation Accuracy - EVM-AVG	Passed	0.74	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	960.40				LOG
Reverse Power	Passed	333.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 54V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.98	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.87	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-2.84E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-6.25E-001					
Modulation Accuracy - EVM-AVG	Passed	0.76	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	980.00				LOG
Reverse Power	Passed	431.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 217.6125MHz 54V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.01	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.86	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.40E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.41E-001					
Modulation Accuracy - EVM-AVG	Passed	0.75	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1117.20				LOG
Reverse Power	Passed	568.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 217.6125MHz 48V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.33	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.81	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.57E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.78E-001					
Modulation Accuracy - EVM-AVG	Passed	0.78	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1234.80				LOG
Reverse Power	Passed	548.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 48V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.30	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.82	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-2.97E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-6.52E-001					
Modulation Accuracy - EVM-AVG	Passed	0.76	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	901.60				LOG
Reverse Power	Passed	392.00				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 221.9875MHz 48V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.27	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.81	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.28E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.28E-001					
Modulation Accuracy - EVM-AVG	Passed	0.75	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1058.40				LOG
Reverse Power	Passed	352.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Transmit DQPSK @ 217.6125MHz 42V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.77	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.83	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.38E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.36E-001					
Modulation Accuracy - EVM-AVG	Passed	0.76	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1234.80				LOG
Reverse Power	Passed	568.40				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 42V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.73	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.84	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.04E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-6.68E-001					
Modulation Accuracy - EVM-AVG	Passed	0.77	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1176.00				LOG
Reverse Power	Passed	431.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 221.9875MHz 42V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	3.69	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.81	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.36E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.46E-001					
Modulation Accuracy - EVM-AVG	Passed	0.75	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1234.80				LOG
Reverse Power	Passed	333.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 217.6125MHz 54V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.99	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.83	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.62E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.88E-001					
Modulation Accuracy - EVM-AVG	Passed	0.76	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	1117.20				LOG
Reverse Power	Passed	509.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 54V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.97	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.84	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.13E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-6.88E-001					
Modulation Accuracy - EVM-AVG	Passed	0.75	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	940.80				LOG
Reverse Power	Passed	392.00				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 221.9875MHz 54V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.94	ampere	2.00	6.00	GELE(>= <=)
Tx Nominal Rated Output Power	Passed	48.82	dBm PEP	48.25	49.25	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.51E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.80E-001					
Modulation Accuracy - EVM-AVG	Passed	0.77	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	960.40				LOG
Reverse Power	Passed	352.80				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Power Control Range	Passed					

Begin Sequence: Power Control Range

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Set Power Level	Done					
Report Text:	Site Assigned Tx Power Level = 40.00 dBm					

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 48V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.46	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.15	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.14E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-6.90E-001					
Modulation Accuracy - EVM-AVG	Passed	0.73	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	705.60				LOG
Reverse Power	Passed	333.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 48V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.46	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.10	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.15E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-6.92E-001					
Modulation Accuracy - EVM-AVG	Passed	0.73	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	627.20				LOG
Reverse Power	Passed	313.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 42V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.77	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.17	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.16E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-6.95E-001					
Modulation Accuracy - EVM-AVG	Passed	0.72	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	744.80				LOG
Reverse Power	Passed	333.20				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 42V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.77	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.10	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.21E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.06E-001					
Modulation Accuracy - EVM-AVG	Passed	0.75	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	646.80				LOG
Reverse Power	Passed	313.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK_HALF @ 219.8125MHz 54V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.24	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.16	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.20E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.04E-001					
Modulation Accuracy - EVM-AVG	Passed	0.73	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	666.40				LOG
Reverse Power	Passed	313.60				LOG

End Sequence: Transmit

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Transmit DQPSK @ 219.8125MHz 54V	Passed					

Begin Sequence: Transmit

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Tx Max Current Drain	Passed	2.24	ampere			LOG
Tx Nominal Rated Output Power	Passed	40.10	dBm PEP	39.50	40.50	GELE(>= <=)
Tx Frequency Accuracy	Passed	-3.26E-003	ppm	-2.50E-002	2.50E-002	GELE(>= <=)
Frequency Error (Hz) [Out]:	-7.17E-001					
Modulation Accuracy - EVM-AVG	Passed	0.74	%rms	0.10	2.00	GELE(>= <=)
Forward Power	Passed	725.20				LOG
Reverse Power	Passed	313.60				LOG

End Sequence: Transmit

				Limits

Step	Status	Measurement	Units	Low Limit	High Limit	Comparison Type
Restore Power Level	Done					
Report Text:	TXPOWER,+8.750000 Site Assigned Tx Power Level = 48.75 dBm					

End Sequence: Power Control Range

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR Low Frequency	Passed					

Begin Sequence: ACPR
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	45.15	dBm			LOG
Lower Adjacent Channel Power	Passed	-72.27	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-71.49	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR Mid Frequency	Passed					

Begin Sequence: ACPR
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	45.11	dBm			LOG
Lower Adjacent Channel Power	Passed	-72.82	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-71.69	dBc	-70.00		LE(<=)

End Sequence: ACPR

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR High Frequency	Passed					

Begin Sequence: ACPR
(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
ACPR	Passed					
Measurement:						
Reference Carrier Power	Passed	45.08	dBm			LOG
Lower Adjacent Channel Power	Passed	-72.45	dBc	-70.00		LE(<=)
Upper Adjacent Channel Power	Passed	-71.57	dBc	-70.00		LE(<=)

End Sequence: ACPR

				Limits

Step	Status	Measurement	Units	Low Limit	High Limit	Comparison Type
Tx Sideband Spectrum	Passed					

Begin Sequence: TX Sideband Spectrum

(C:\Program Files\CalAmp Test Systems\MCC Unit Level Test\MCC\MCC - Unit Test.seq)

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Sideband Spectrum	Passed					

End Sequence: TX Sideband Spectrum

Step	Status	Measurement	Units	Limits		
				Low Limit	High Limit	Comparison Type
Ping LAN Port	Passed					
LED Test	Passed					
Fan Test	Passed					
Lock Cal	Passed					
Report Text:	CALRAND 15125 + CAL,LOCK,15125 Locking CAL Parameters OK					
Read Cal	Passed					
Report Text:	Cal Params are LOCKED Cal Data Version(1024): 0A.04 XO = 278 IDC = 591 QDC = 223 IGAIN = 566 QGAIN = 566 CBUS_R2 = 0xec CBUS_R5 = 0x20 CBUS_R6 = 0x1e CBUS_R7 = 0x00 CBUS_R8 = 0x00 TXKEYTO = 0 RSSI_OFF_P = -114.30 RSSI_OFF_D = -115.10 TEMP_SP = -30, -22, -14, -6, 2, 10, 18, 26, 34, 42, 50, 58, 66, 74 FREQ_SP = 23, 67, 111, 156 PHASE_F1 = 0x18, 0x20, 0x20, 0x28, 0x28, 0x30, 0x30, 0x38, 0x38, 0x38, 0x40, 0x40, 0x40, 0x40, 0x48 PHASE_F2 = 0x28, 0x28, 0x28, 0x30, 0x30, 0x38, 0x38, 0x40, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50 PHASE_F3 = 0x30, 0x30, 0x38, 0x38, 0x38, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x58, 0x58, 0x58 PHASE_F4 = 0x38, 0x40, 0x40, 0x40, 0x40, 0x48, 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x60, 0x60, 0x60 PHASE_F5 = 0x40, 0x40, 0x40, 0x40, 0x48, 0x48, 0x48, 0x50, 0x50, 0x50, 0x58, 0x58, 0x58, 0x60, 0x60 OK					

End Sequence: MainSequence

End UUT Report
