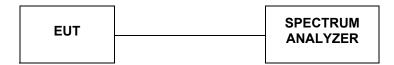
4.9 Spurious RF Conducted Emission

TEST CONFIGURATION



TEST PROCEDURE

The Spurious RF conducted emissions compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10-2009 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW=100kHz and VBM= 300KHz to measure the peak field strength, and measurement frequency range from 9KHz to 26.5GHz.

LIMIT

- 1. Below -20dB of the highest emission level in operating band.
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

TEST RESULTS

Remark:

- 1. We test Frequency Separation at difference Packet Type (DH1, DH3 and DH5), recorded worst case at DH5.
- 2.For 9KHz -30MHz, Because there was only background, So We did not recorded data.

4.9.1 GFSK Test Mode

A. Test Verdict

Channel	Frequency (MHz)	Frequency Range	Refer to Plot	Limit (dBc)	Verdict
00	2402	2.402 GHz	Plot 4.9.1 A1		PASS
		30MHz-3GHz	Plot 4.9.1 A2	-20	PASS
		3GHz-5GHz	Plot 4.9.1 A3	-20	PASS
		5GHz-10GHz	Plot 4.9.1 A4	-20	PASS
		10GHz-15GHz	Plot 4.9.1 A5	-20	PASS
		15GHz-25GHz	Plot 4.9.1 A6	-20	PASS
39	2441	2.441 GHz	Plot 4.9.1 B1		PASS
		30MHz-3GHz	Plot 4.9.1 B2	-20	PASS
		3GHz-5GHz	Plot 4.9.1 B3	-20	PASS
		5GHz-10GHz	Plot 4.9.1 B4	-20	PASS
		10GHz-15GHz	Plot 4.9.1 B5	-20	PASS
		15GHz-25GHz	Plot 4.9.1 B6	-20	PASS
78	2480	2.480 GHz	Plot 4.9.1 C1		PASS
		30MHz-3GHz	Plot 4.9.1 C2	-20	PASS
		3GHz-5GHz	Plot 4.9.1 C3	-20	PASS
		5GHz-10GHz	Plot 4.9.1 C4	-20	PASS
		10GHz-15GHz	Plot 4.9.1 C5	-20	PASS
		15GHz-25GHz	Plot 4.9.1 C6	-20	PASS

Note:

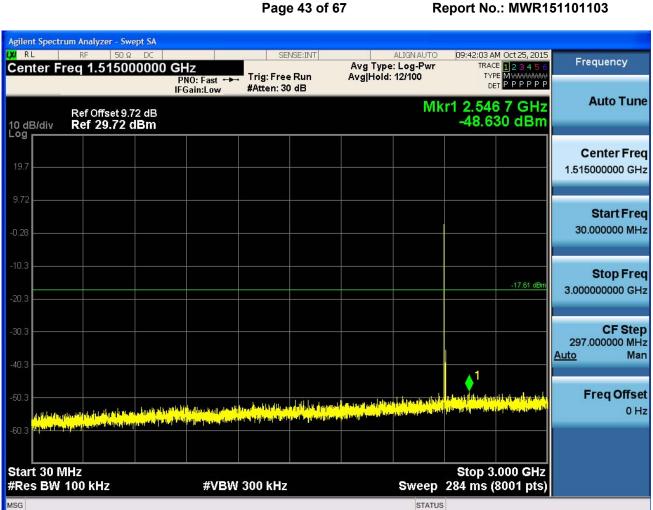
- 1. The test results including the cable lose.
- B. Test Plots



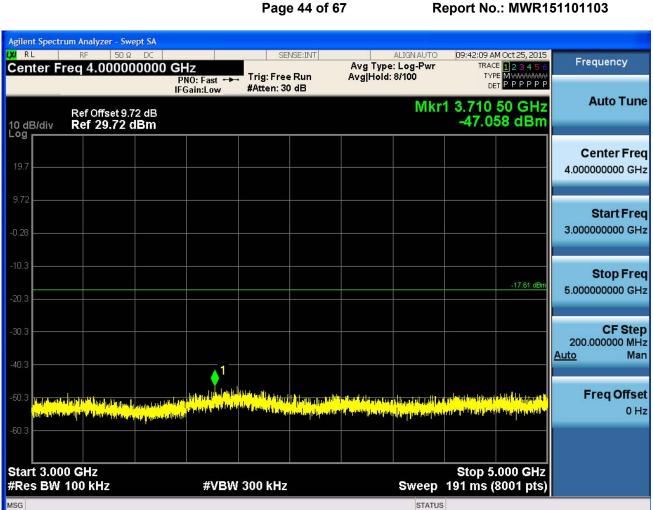
(Plot 4.9.1 A1: Channel 00: 2402MHz @ GFSK)

STATUS

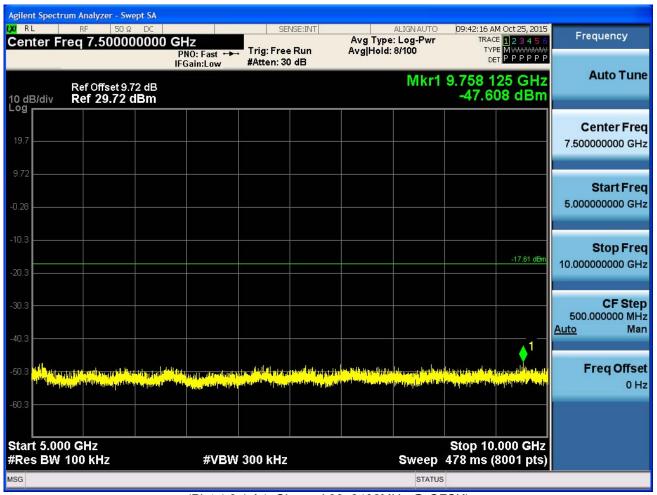
MSG



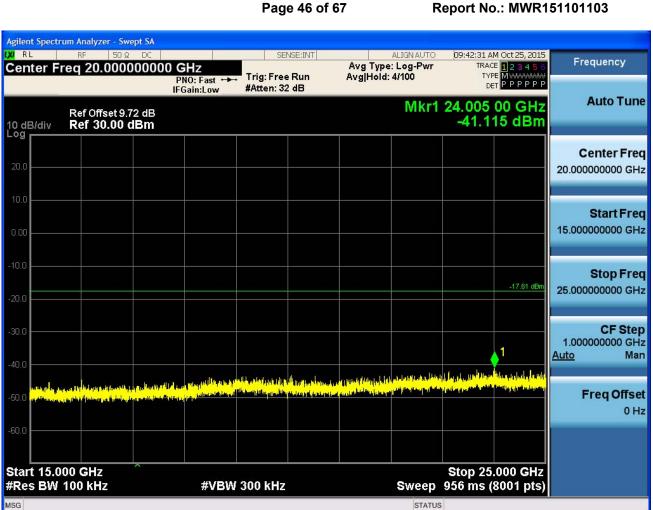
(Plot 4.9.1 A2: Channel 00: 2402MHz @ GFSK)



(Plot 4.9.1 A3: Channel 00: 2402MHz @ GFSK)



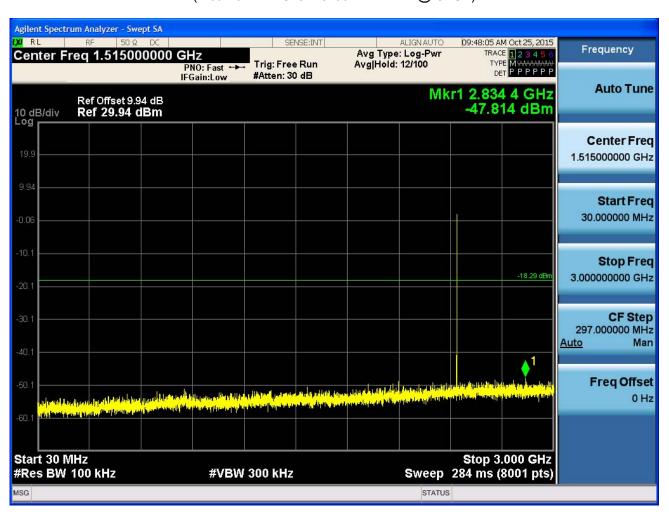
(Plot 4.9.1 A4: Channel 00: 2402MHz @ GFSK) Agilent Spectrum Analyzer - Swept SA SENSE:INT ALIGN AUTO 09:42:24 AM Oct 25, 2015 Frequency TRACE 123456
TYPE MINIMUM
DET PPPPP Center Freq 12.500000000 GHz Avg Type: Log-Pwr Trig: Free Run Avg|Hold: 7/100 IFGain:Low #Atten: 30 dB **Auto Tune** Mkr1 13.742 500 GHz Ref Offset 9.72 dB Ref 29.72 dBm -45.405 dBm 10 dB/div Center Freq 12.500000000 GHz Start Freq 10.000000000 GHz Stop Freq -17.61 dBr 15.000000000 GHz **CF Step** 500.000000 MHz <u>Auto</u> Man Freq Offset Stop 15.000 GHz Start 10.000 GHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 478 ms (8001 pts) MSG



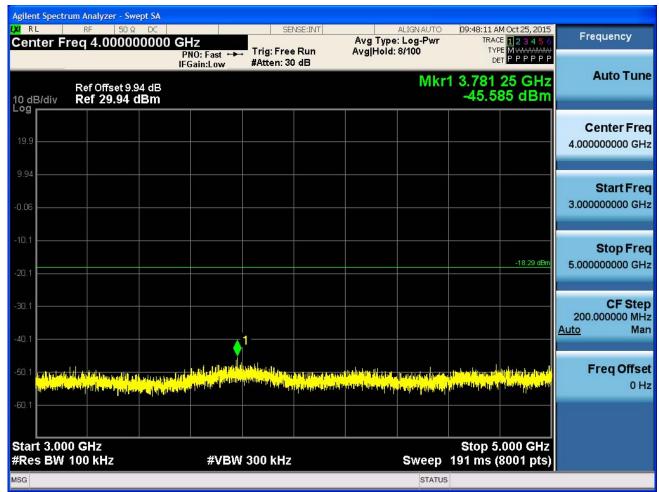
(Plot 4.9.1 A6: Channel 00: 2402MHz @ GFSK)



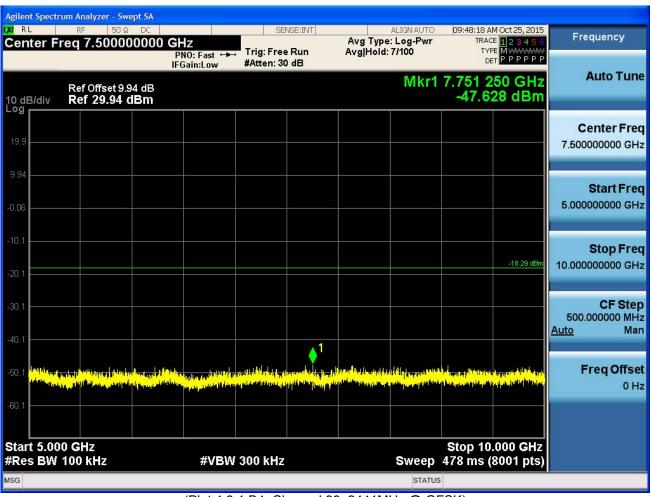
(Plot 4.9.1 B1: Channel 39: 2441MHz @ GFSK)

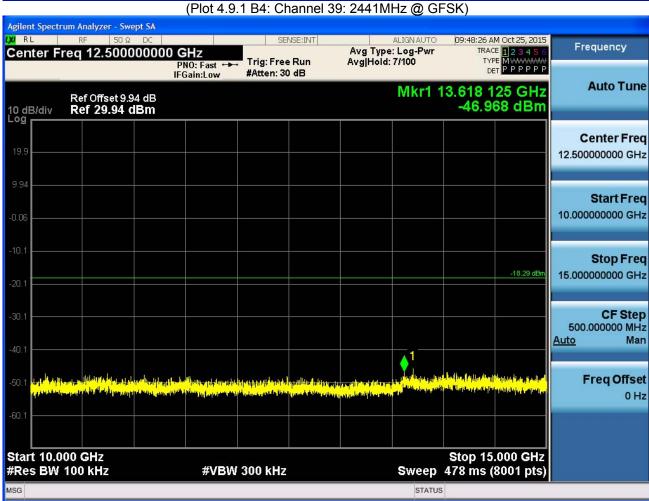


(Plot 4.9.1 B2: Channel 39: 2441MHz @ GFSK)

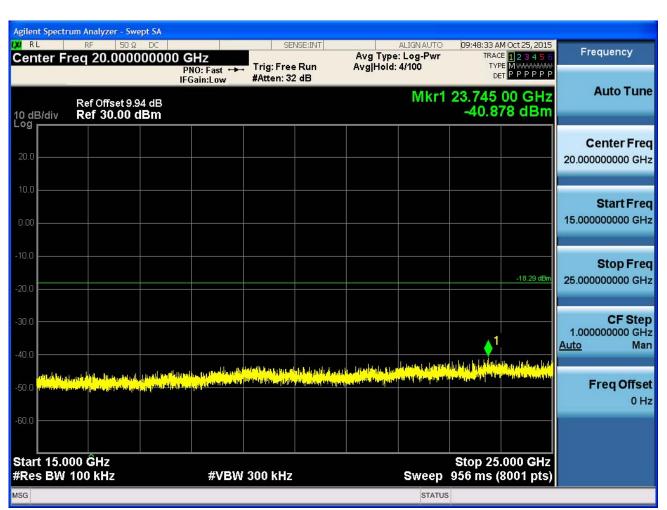


(Plot 4.9.1 B3: Channel 39: 2441MHz @ GFSK)





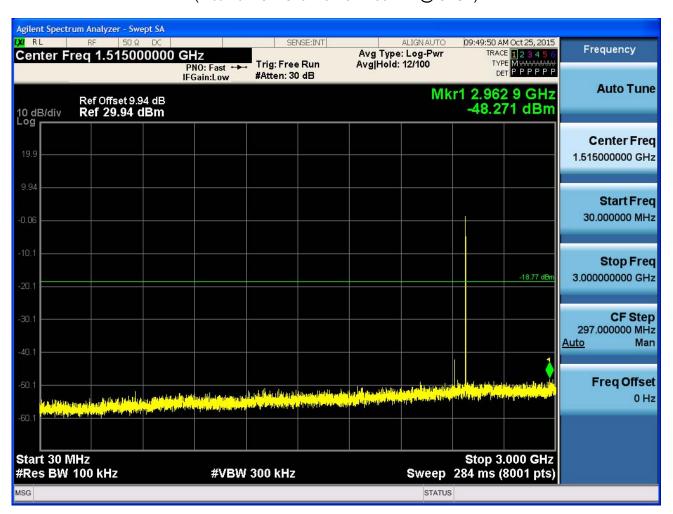
Report No.: MWR151101103



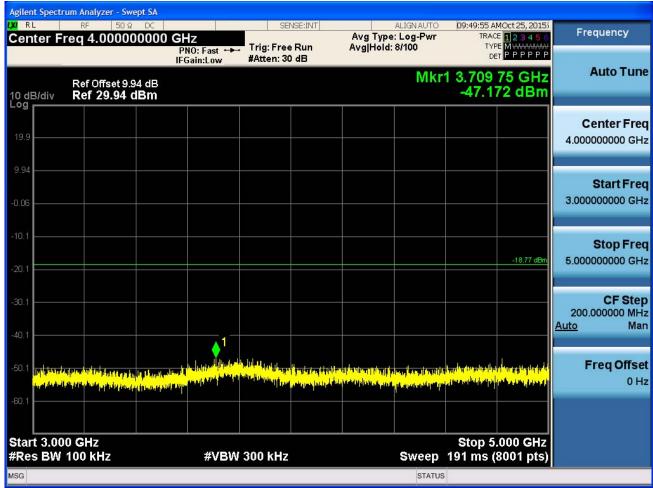
(Plot 4.9.1 B6: Channel 39: 2441MHz @ GFSK)



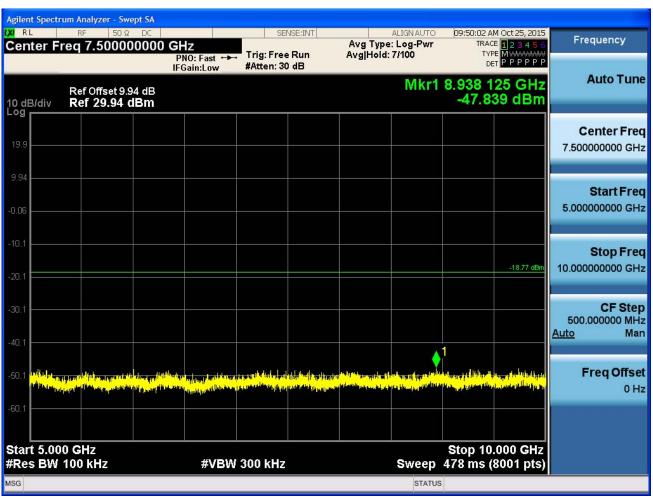
(Plot 4.9.1 C1: Channel 78: 2480MHz @ GFSK)



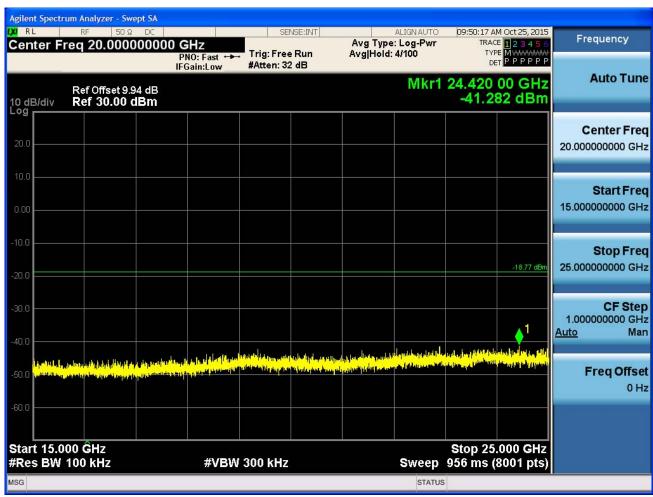
(Plot 4.9.1 C2: Channel 78: 2480MHz @ GFSK)



(Plot 4.9.1 C3: Channel 78: 2480MHz @ GFSK)



(Plot 4.9.1 C4: Channel 78: 2480MHz @ GFSK) Agilent Spectrum Analyzer - Swept SA SENSE:INT ALIGN AUTO 09:50:10 AM Oct 25, 2015 Frequency TRACE 1 2 3 4 5 6 TYPE M WWW WWW DET P P P P P P Center Freq 12.500000000 GHz Avg Type: Log-Pwr Trig: Free Run Avg|Hold: 7/100 IFGain:Low #Atten: 30 dB **Auto Tune** Mkr1 14.838 750 GHz Ref Offset 9.94 dB Ref 29.94 dBm -47.026 dBm 10 dB/div Center Freq 12.500000000 GHz Start Freq 10.000000000 GHz Stop Freq 15.000000000 GHz -18.77 dBr **CF Step** 500.000000 MHz <u>Auto</u> Man Freq Offset Stop 15.000 GHz Start 10.000 GHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 478 ms (8001 pts) MSG



(Plot 4.9.1 C6: Channel 78: 2480MHz @ GFSK)

4.9.2 8DPSK Test Mode

A. Test Verdict

Channel	Frequency (MHz)	Frequency Range	Refer to Plot	Limit (dBc)	Verdict
00	2402	2.402 GHz	Plot 4.9.2 A1		PASS
		30MHz-3GHz	Plot 4.9.2 A2	-20	PASS
		3GHz-5GHz	Plot 4.9.2 A3	-20	PASS
		5GHz-10GHz	Plot 4.9.2 A4	-20	PASS
		10GHz-15GHz	Plot 4.9.2 A5	-20	PASS
		15GHz-20GHz	Plot 4.9.2 A6	-20	PASS
39	2441	2.402 GHz	Plot 4.9.2 B1		PASS
		30MHz-3GHz	Plot 4.9.2 B2	-20	PASS
		3GHz-5GHz	Plot 4.9.2 B3	-20	PASS
		5GHz-10GHz	Plot 4.9.2 B4	-20	PASS
		10GHz-15GHz	Plot 4.9.2 B5	-20	PASS
		15GHz-20GHz	Plot 4.9.2 B6	-20	PASS
78	2480	2.402 GHz	Plot 4.9.2 C1		PASS
		30MHz-3GHz	Plot 4.9.2 C2	-20	PASS
		3GHz-5GHz	Plot 4.9.2 C3	-20	PASS
		5GHz-10GHz	Plot 4.9.2 C4	-20	PASS
		10GHz-15GHz	Plot 4.9.2 C5	-20	PASS
		15GHz-20GHz	Plot 4.9.2 C6	-20	PASS

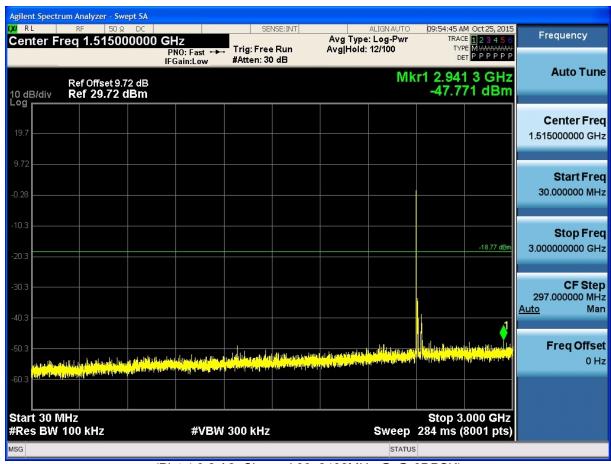
Note:

1. The test results including the cable lose.

B. Test Plots



(Plot 4.9.2 A1: Channel 00: 2402MHz @ 8DPSK)



(Plot 4.9.2 A2: Channel 00: 2402MHz @ @ 8DPSK)