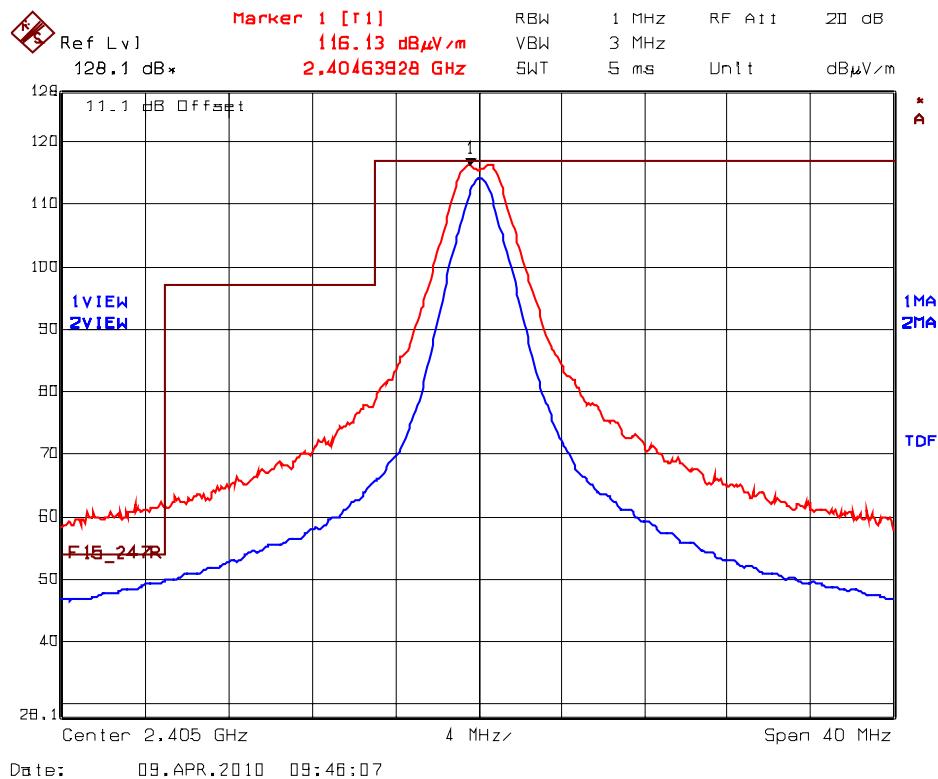
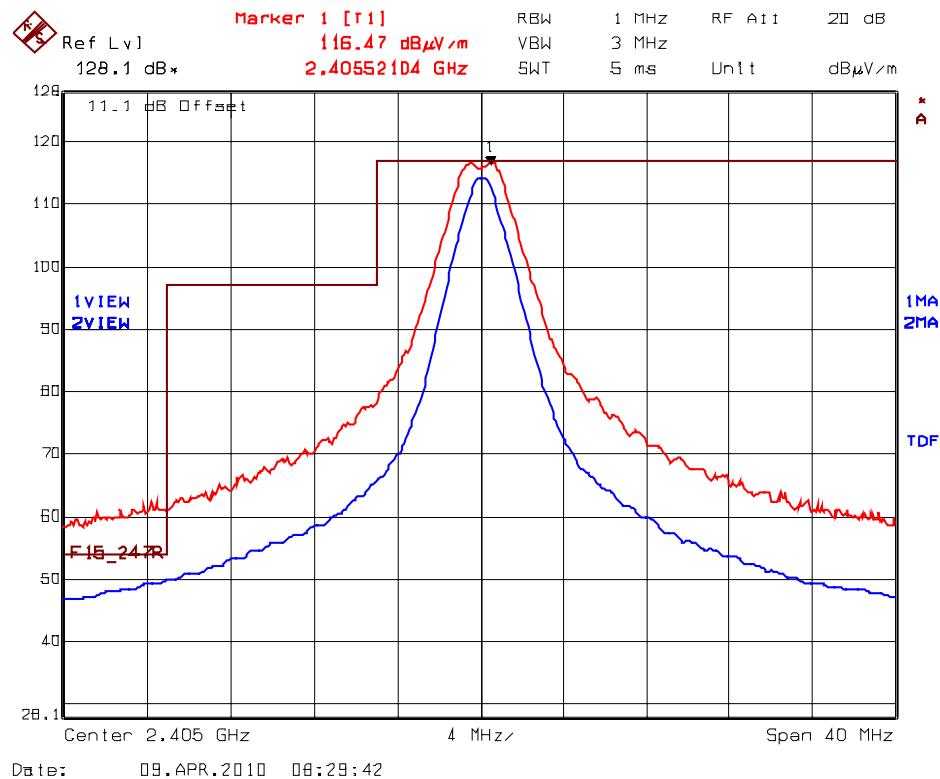


Plot 5.9.4.3.1. Band-Edge RF Radiated Emissions @ 3 m
Low End of Frequency Band, 2405 MHz
Rx Antenna Orientation: Horizontal



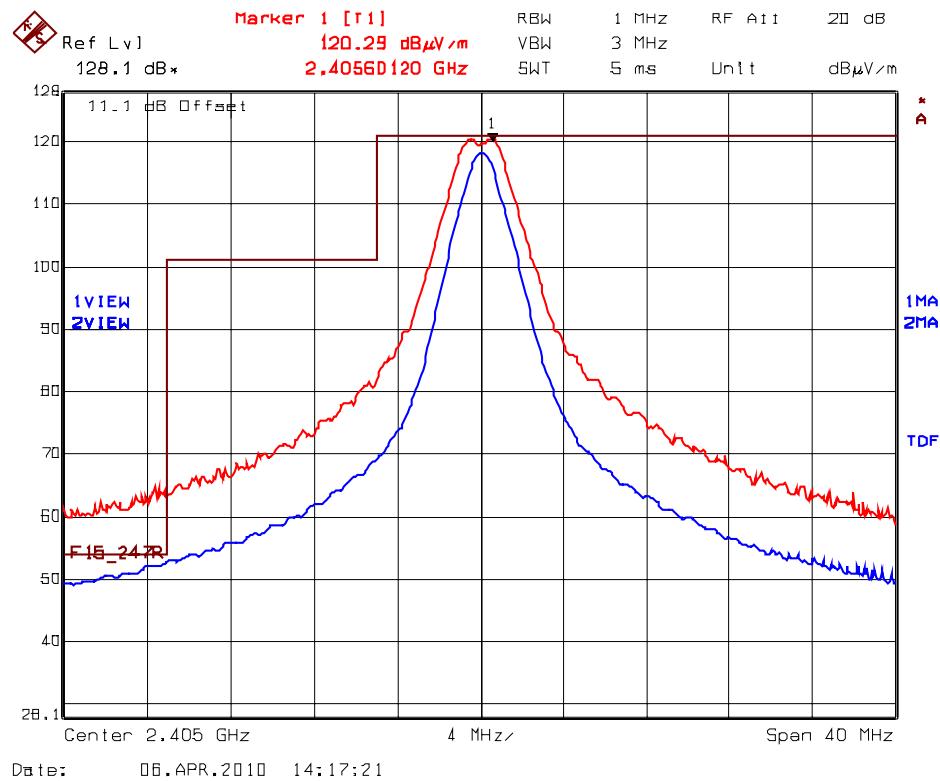
Trace 1: RBW = 1 MHz, VBW = 3 MHz
Trace 2: RBW = 1 MHz, VBW = 10 Hz

Plot 5.9.4.3.2. Band-Edge RF Radiated Emissions @ 3 m
Low End of Frequency Band, 2405 MHz
Rx Antenna Orientation: Vertical



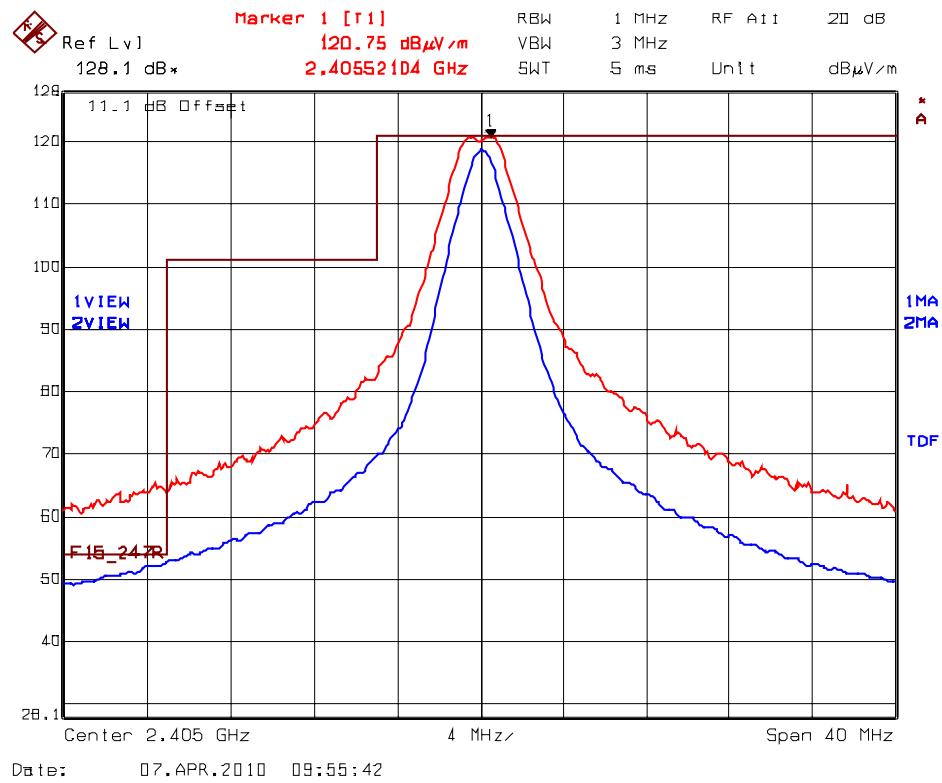
Trace 1: RBW = 1 MHz, VBW = 3 MHz
Trace 2: RBW = 1 MHz, VBW = 10 Hz

Plot 5.9.4.4.1. Band-Edge RF Radiated Emissions @ 3 m
Low End of Frequency Band, 2405 MHz
Rx Antenna Orientation: Horizontal

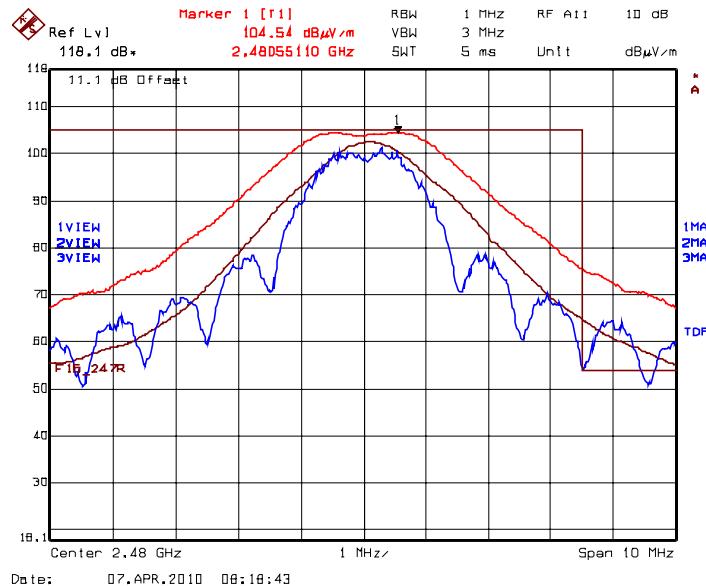


Trace 1: RBW = 1 MHz, VBW = 3 MHz
Trace 2: RBW = 1 MHz, VBW = 10 Hz

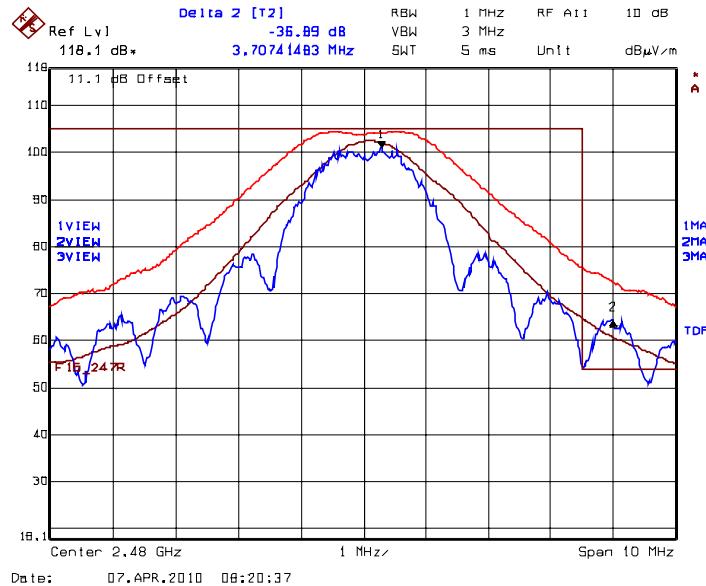
Plot 5.9.4.4.2. Band-Edge RF Radiated Emissions @ 3 m
Low End of Frequency Band, 2405 MHz
Rx Antenna Orientation: Vertical



Plot 5.9.4.4.7. Band-Edge RF Radiated Emissions @ 3 m
High End of Frequency Band, 2480 MHz, Rx Antenna Orientation: Horizontal



Plot 5.9.4.4.8. Band-Edge RF Radiated Emissions @ 3 m
High End of Frequency Band, 2480 MHz, Rx Antenna Orientation: Horizontal



Trace 1: RBW = 1 MHz, VBW = 3 MHz

Trace 2: RBW = 100 kHz, VBW = 300 kHz, Delta (Peak to Band-Edge): 36.89 dB

Trace 3: RBW = 1 MHz, VBW = 10 Hz

Peak Band-Edge at 2483.5 MHz: Peak = 104.54 dBμV/m – 36.89 dB = 67.65 dBμV/m (limit 74 dBμV/m)

Average: 64.72 dBμV/m – 11.37 dB = 53.35 dBμV/m (limit 54 dBμV/m)

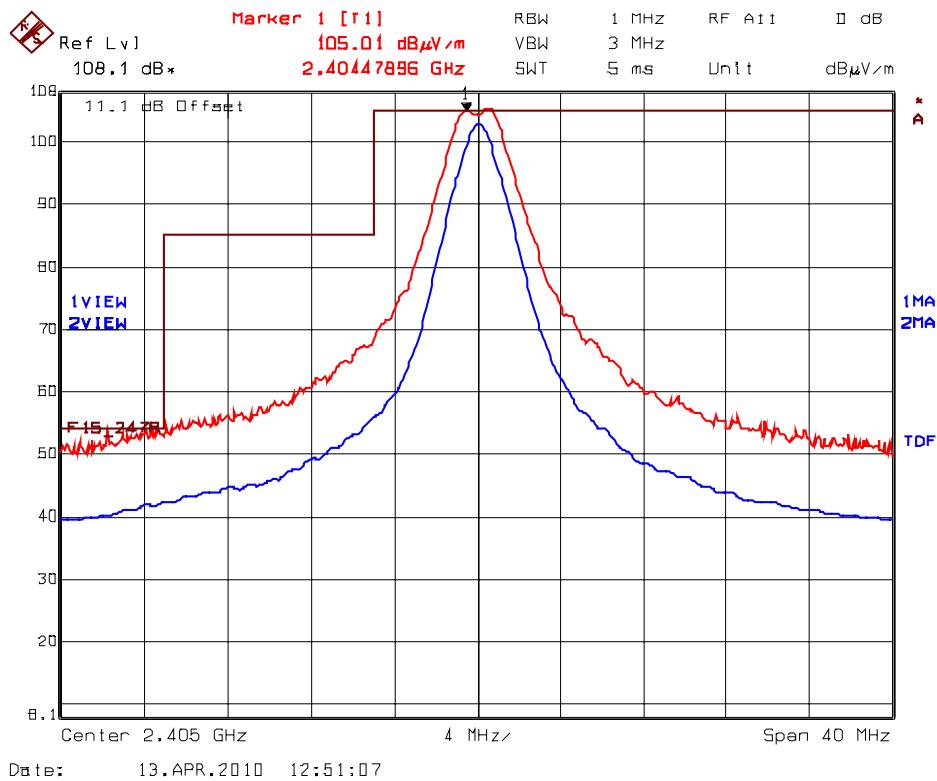
5.9.4.5. EUT with Integrated Whip Monopole Antenna (1.5 dBi Gain)

Fundamental Frequency: 2405 MHz							
Test Frequency Range: 30 MHz – 25 GHz							
Frequency (MHz)	RF Peak Level (dB μ V/m)	RF Avg Level (dB μ V/m)	Antenna Plane (H/V)	Limit 15.209 (dB μ V/m)	Limit 15.247 (dB μ V/m)	Margin (dB)	Pass/Fail
2405	100.95	—	V	--	--	—	--
2405	105.01	--	H	--	--	—	--
30-25000	*	*	V/H	*	85.0	*	Pass

*The spurious emissions from intentional radiators are more than 20 dB below the specified limit.

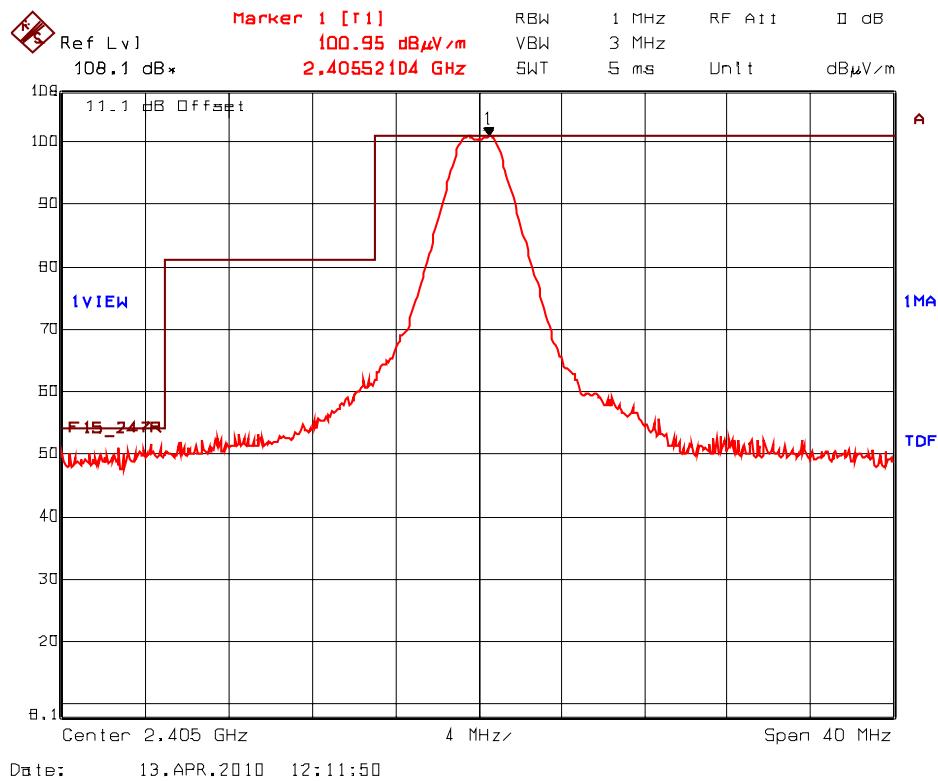
See the following test data plots for band-edge emissions.

Plot 5.9.4.5.1. Band-Edge RF Radiated Emissions @ 3 m
Low End of Frequency Band, 2405 MHz
Rx Antenna Orientation: Horizontal

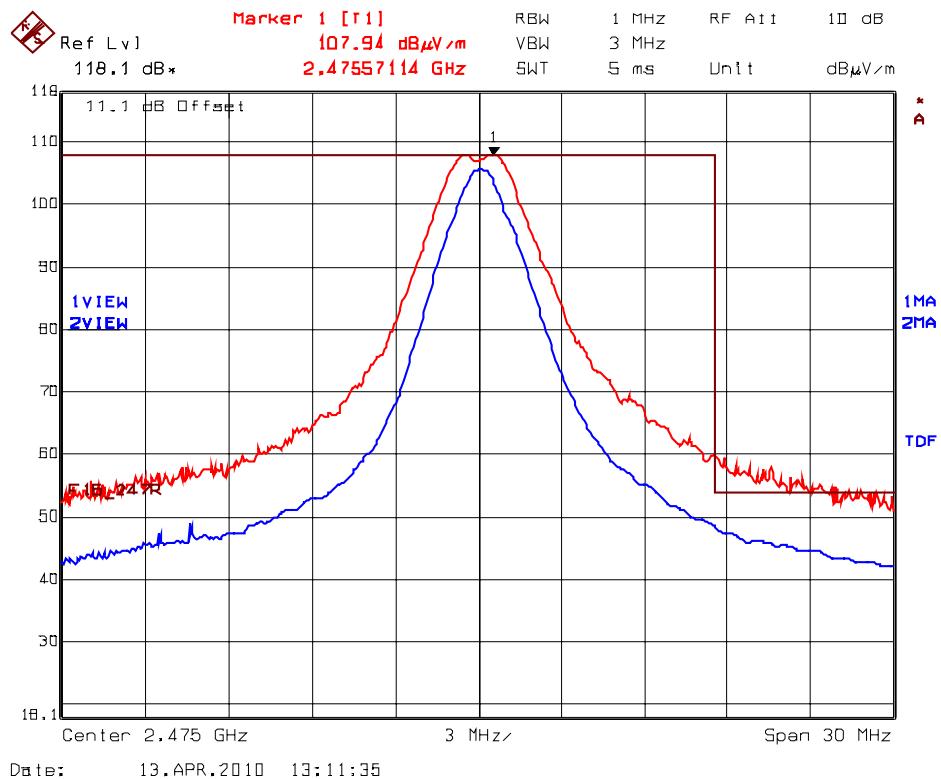


Trace 1: RBW = 1 MHz, VBW = 3 MHz
Trace 2: RBW = 1 MHz, VBW = 10 Hz

Plot 5.9.4.5.2. Band-Edge RF Radiated Emissions @ 3 m
Low End of Frequency Band, 2405 MHz
Rx Antenna Orientation: Vertical

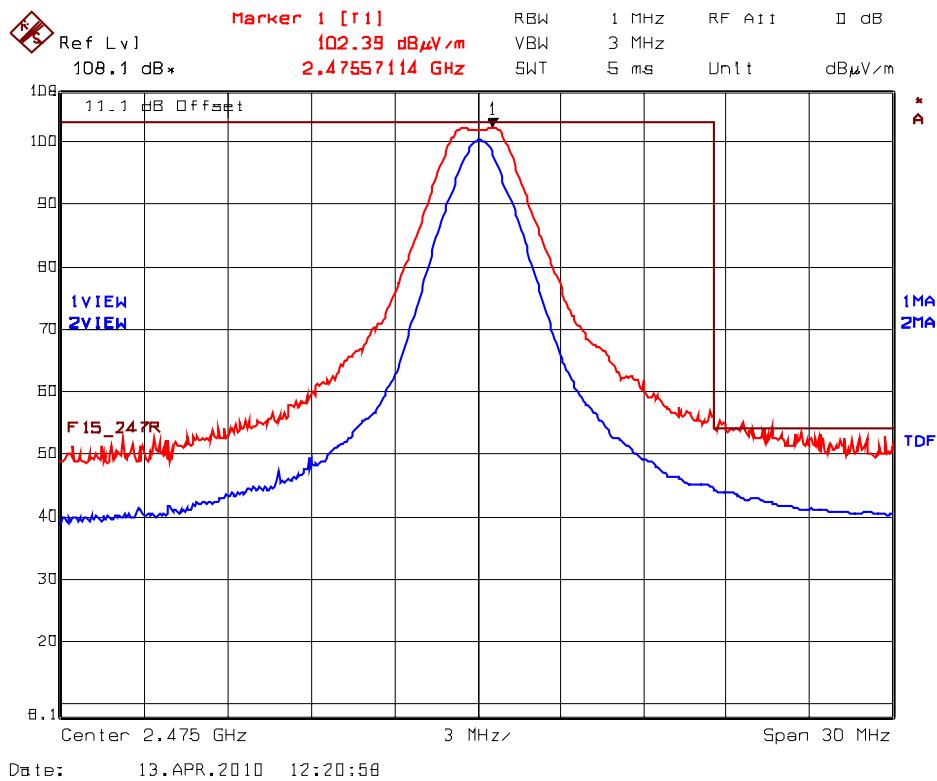


Plot 5.9.4.5.3. Band-Edge RF Radiated Emissions @ 3 m
High End of Frequency Band, 2475 MHz
Rx Antenna Orientation: Horizontal



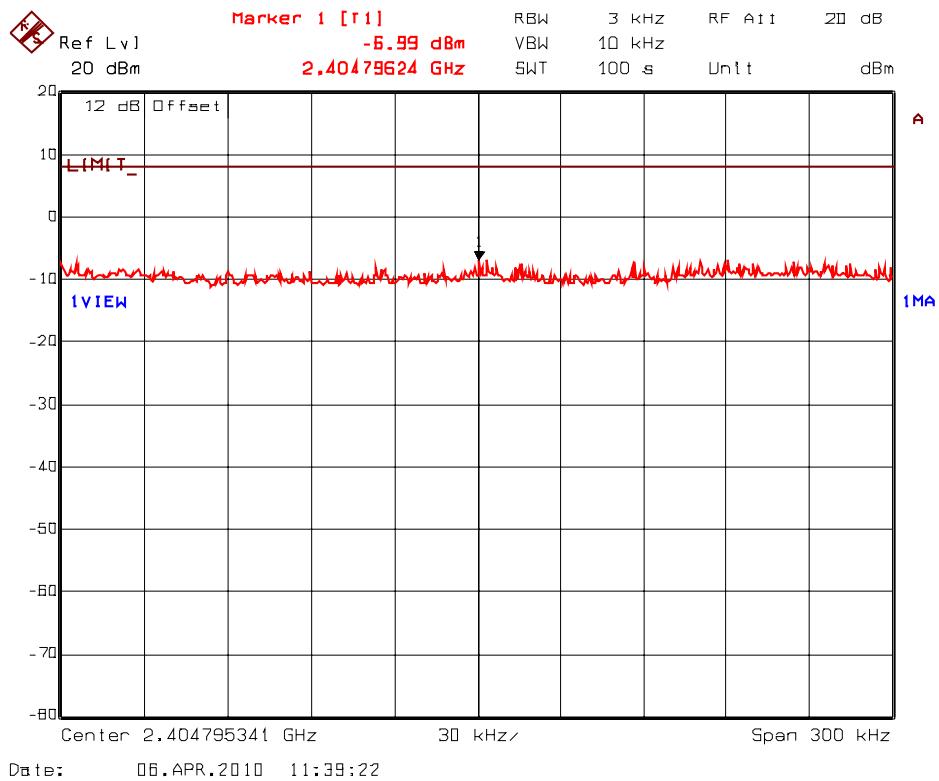
Trace 1: RBW = 1 MHz, VBW = 3 MHz
Trace 2: RBW = 1 MHz, VBW = 10 Hz

Plot 5.9.4.5.4. Band-Edge RF Radiated Emissions @ 3 m
High End of Frequency Band, 2475 MHz
Rx Antenna Orientation: Vertical

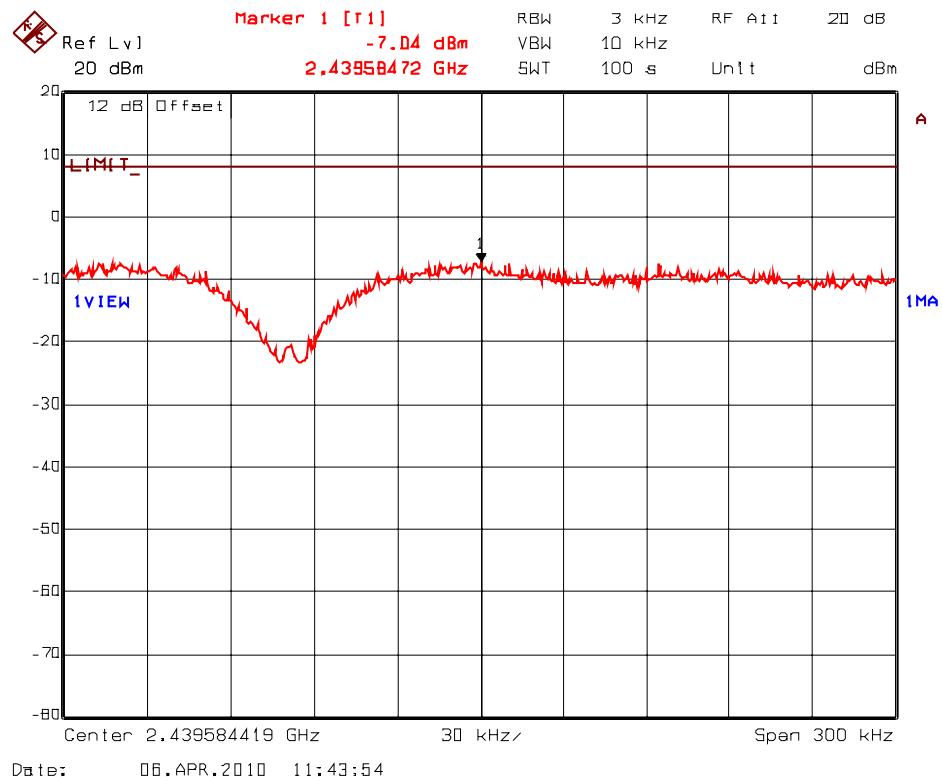


Trace 1: RBW = 1 MHz, VBW = 3 MHz
Trace 2: RBW = 1 MHz, VBW = 10 Hz

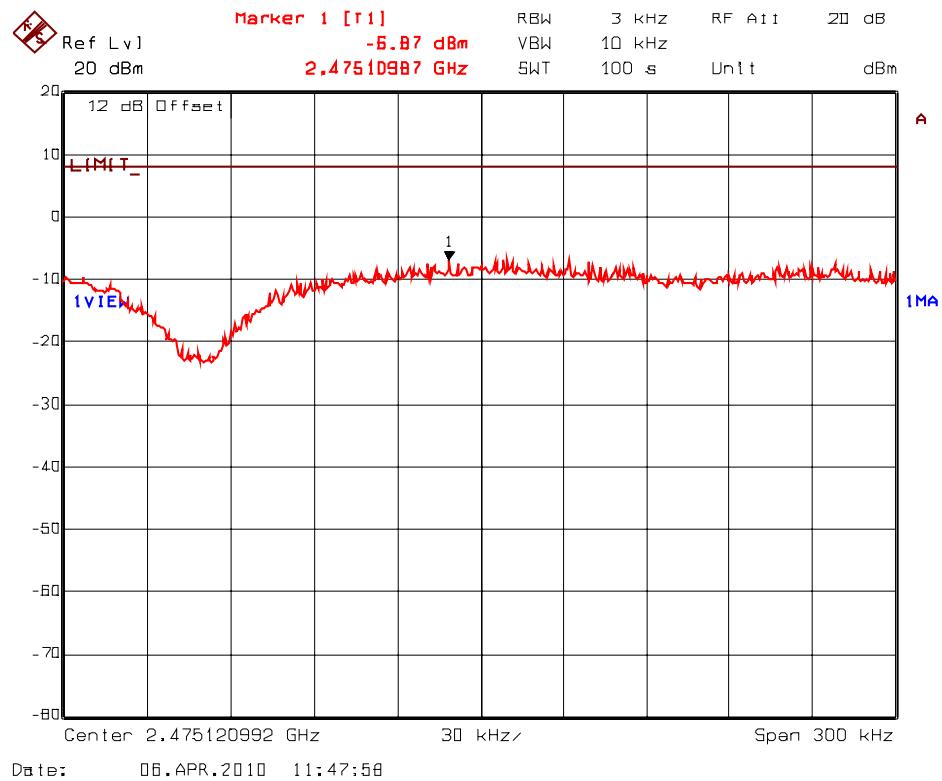
Plot 5.10.4.1. Power Spectral Density
Test Frequency: 2405 MHz (CH 11)



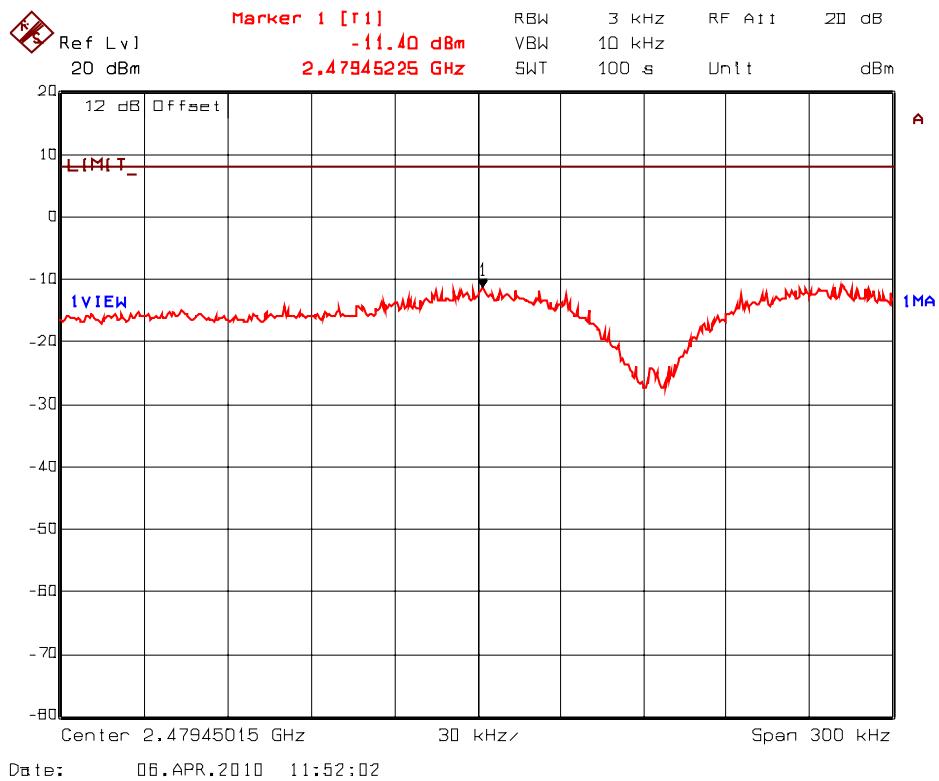
Plot 5.10.4.2. Power Spectral Density
Test Frequency: 2440 MHz (CH 18)



Plot 5.10.4.3. Power Spectral Density
Test Frequency: 2475 MHz (CH 25)



Plot 5.10.4.4. Power Spectral Density
Test Frequency: 2480 MHz (CH 26)



Calculation Method of RF Safety Distance:

$$S = \frac{P \cdot G}{4 \cdot \pi \cdot r^2} = \frac{EIRP}{4 \cdot \pi \cdot r^2}$$

Where:
P: power input to the antenna in mW
EIRP: Equivalent (effective) isotropic radiated power
S: power density mW/cm²
G: numeric gain of antenna relative to isotropic radiator
r: distance to centre of radiation in cm

5.11.2. RF Evaluation

Evaluation of RF Exposure Compliance Requirements	
RF Exposure Requirements	Compliance with FCC Rules
Minimum calculated separation distance between antenna and persons required: * 6.3 cm	Manufacturer' instruction for separation distance between antenna and persons required: 20 cm.
Antenna installation and device operating instructions for installers (professional/unskilled users), and the parties responsible for ensuring compliance with the RF exposure requirement	Antenna installation and device operating instructions shall be provided to installers to maintain and ensure compliance with RF exposure requirements.
Caution statements and/or warning labels that are necessary in order to comply with the exposure limits	Refer to User's Manual for RF Exposure Information.
Any other RF exposure related issues that may affect MPE compliance	None.

*The minimum separation distance between the antenna and bodies of users are calculated using the following formula:

$$r = \sqrt{\frac{P \cdot G}{4 \cdot \pi \cdot S}} = \sqrt{\frac{EIRP}{4 \cdot \pi \cdot S}}$$

S = 1.0 mW/cm²

EIRP = 8 dBm (max. conducted power) + 19 dBi (max. antenna gain) = 27 dBm = 10^(27/10) mW = 501 mW (Worst Case)

$$(\text{Minimum Safe Distance, } r) = \sqrt{\frac{EIRP}{4 \cdot \pi \cdot S}} = \sqrt{\frac{501}{4 \cdot \pi \cdot (1.0)}} \approx 6.3cm$$

