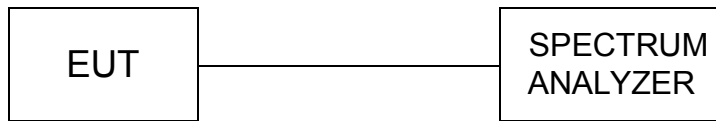


4.7. Spurious RF Conducted Emission

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 measure frequency range from 30MHz to 26.5GHz.

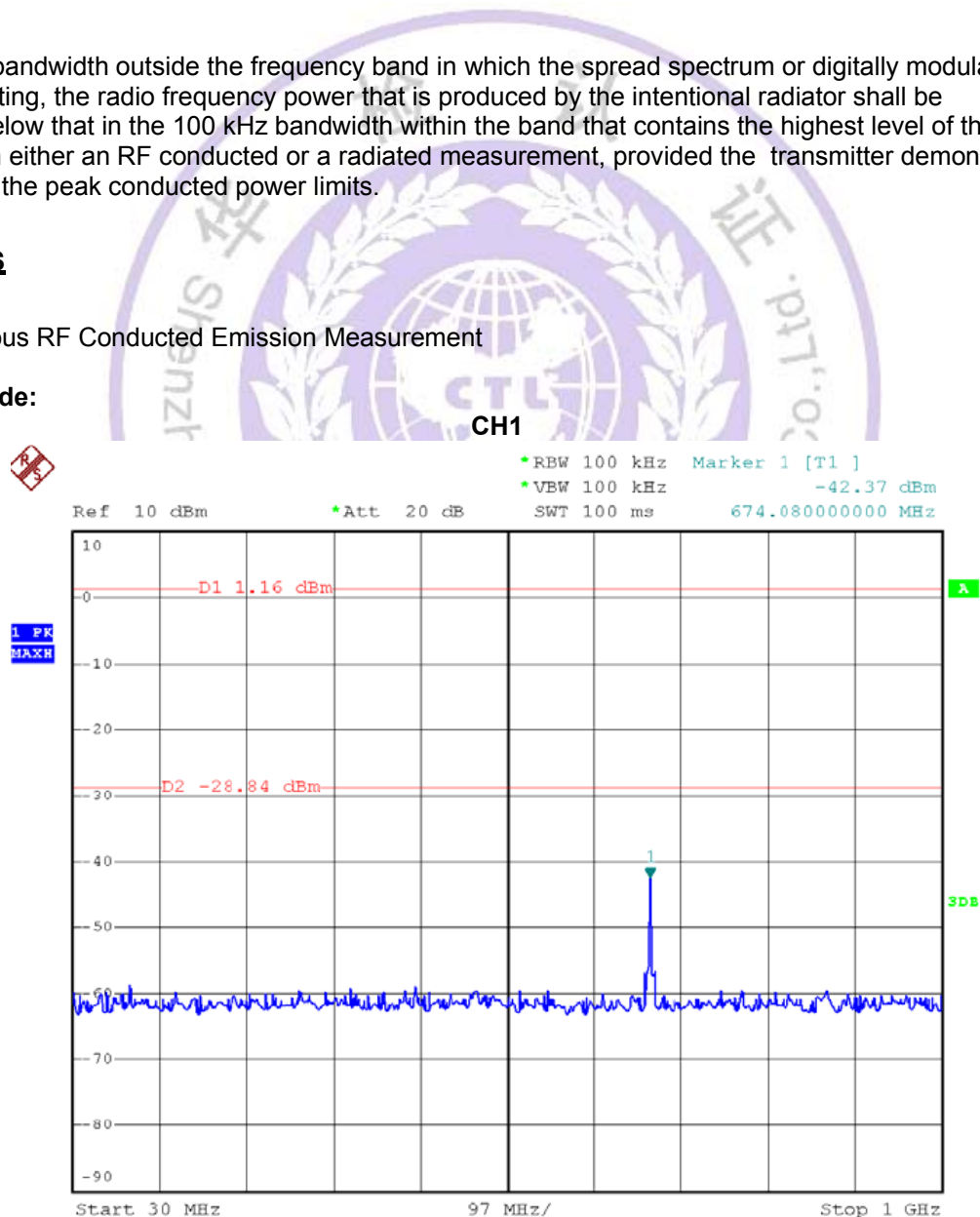
LIMIT

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

TEST RESULTS

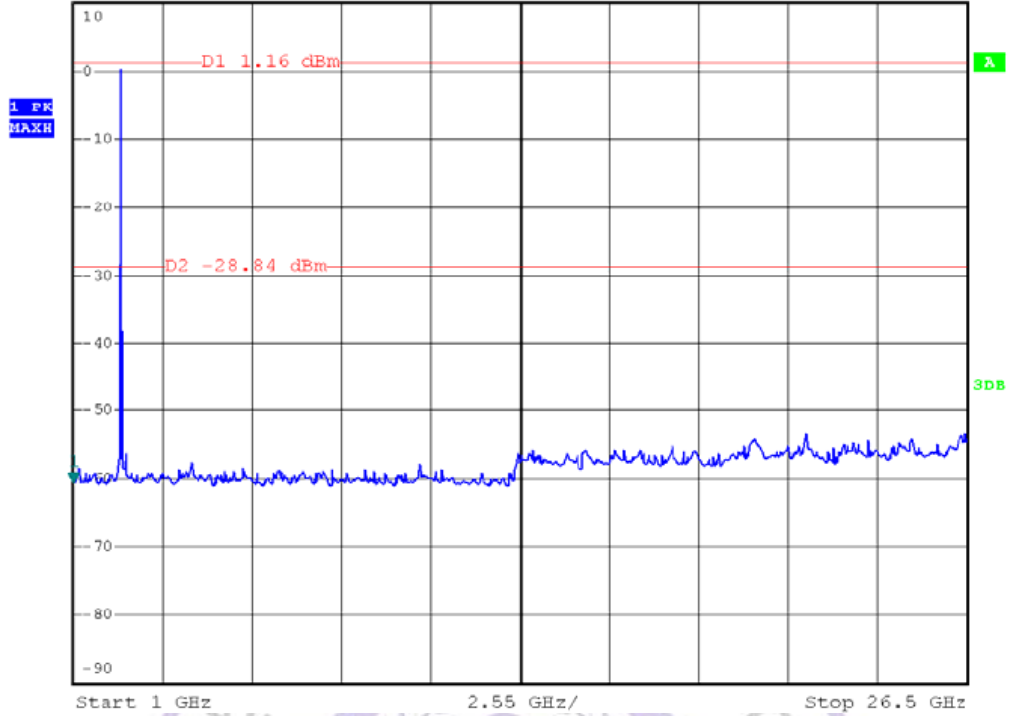
Photos of Spurious RF Conducted Emission Measurement

For 802.11b Mode:

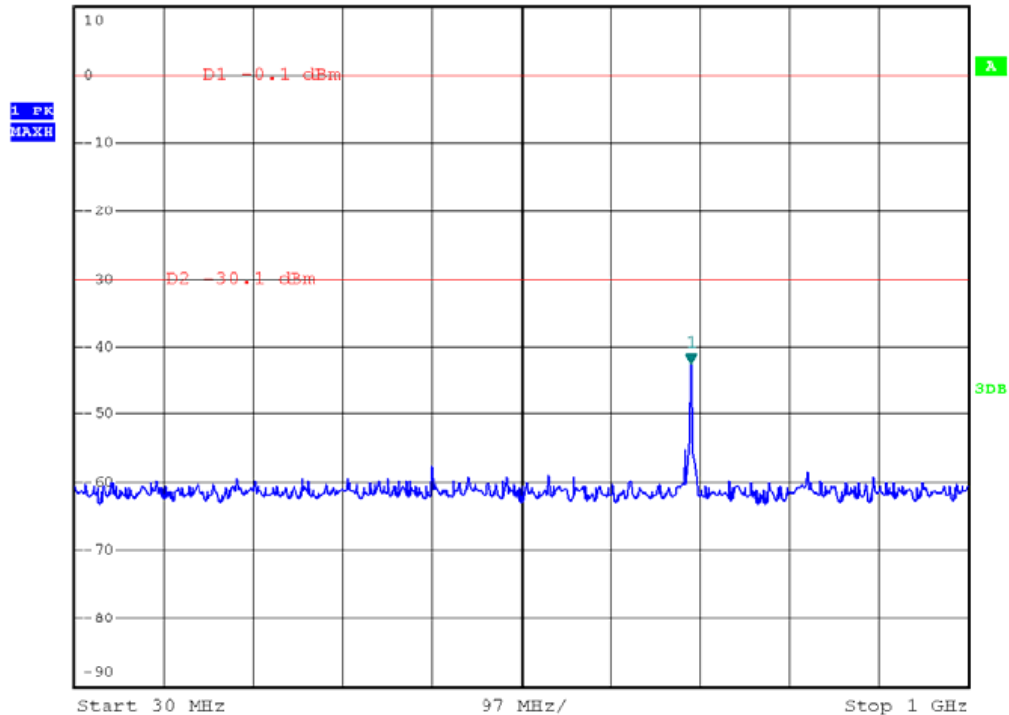


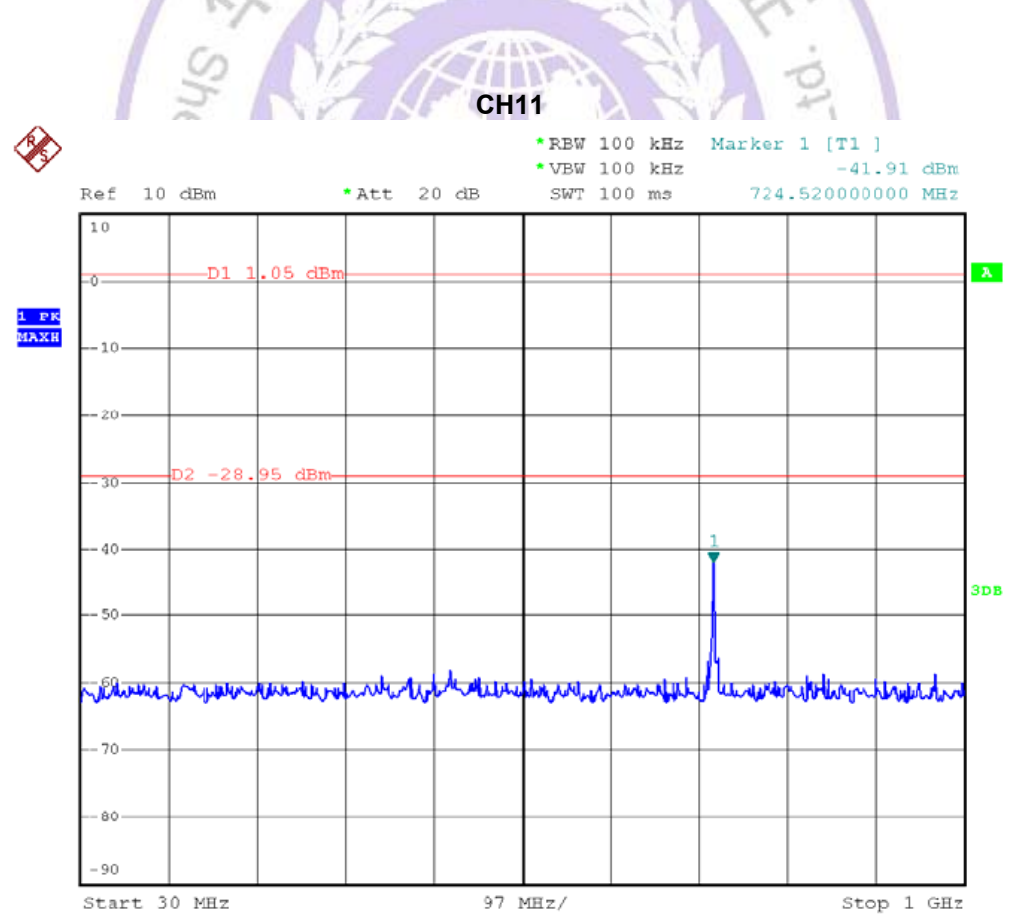
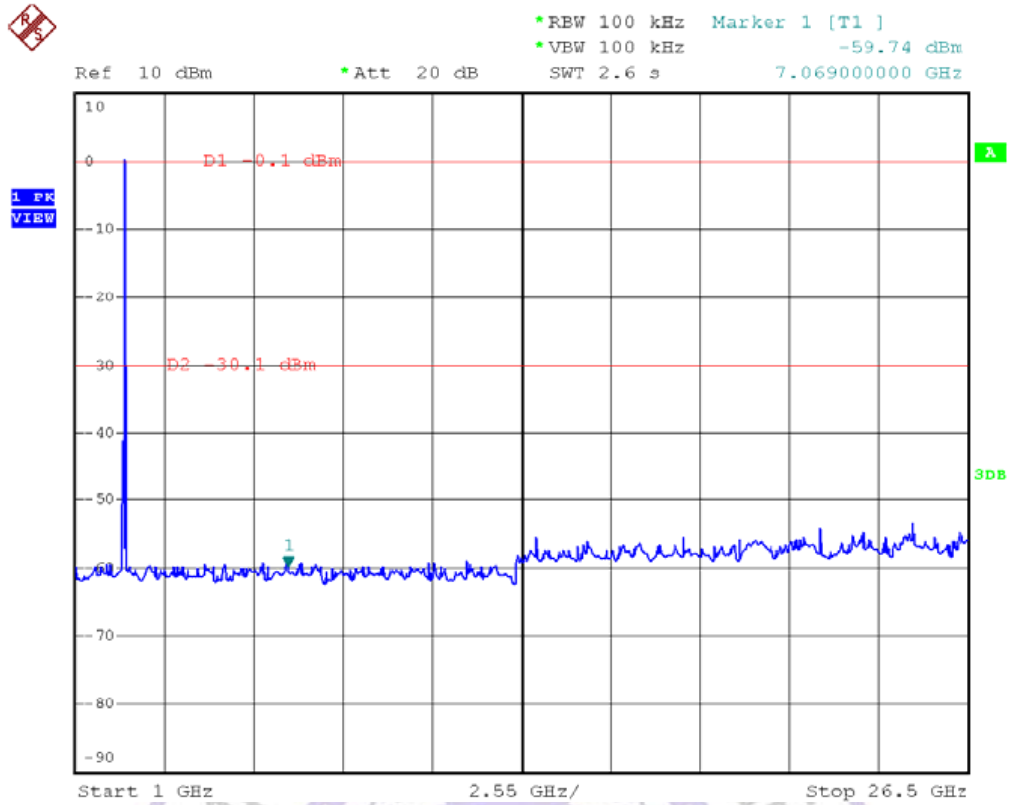


*RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -60.55 dBm
Ref 10 dBm *Att 20 dB SWT 2.6 s 1.000000000 GHz



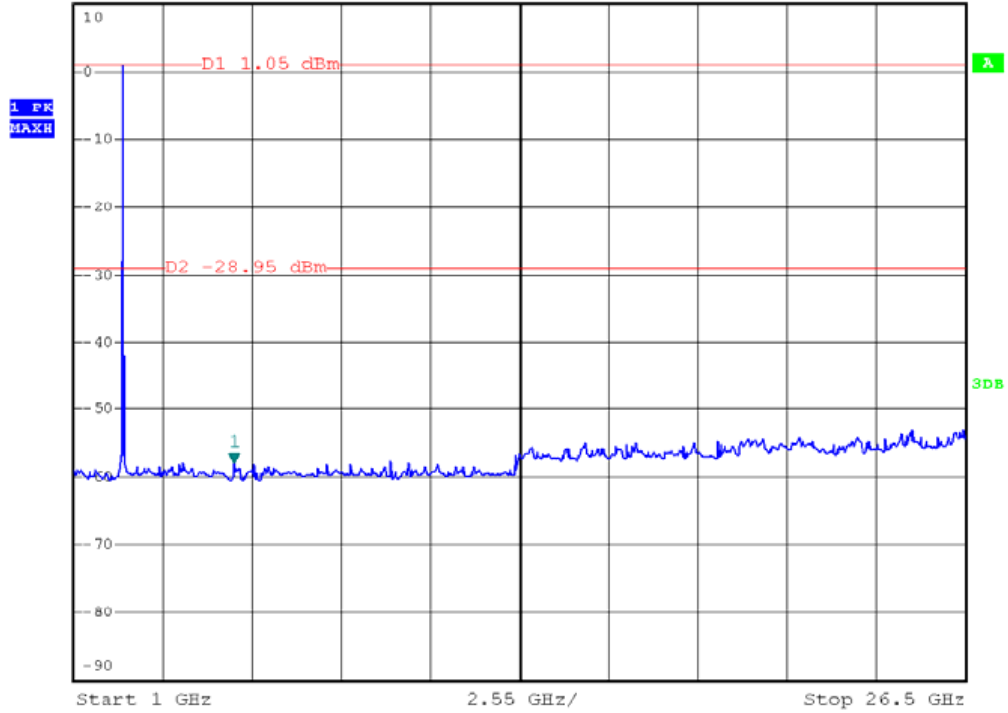
CH6
*RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -42.36 dBm
Ref 10 dBm *Att 20 dB SWT 100 ms 699.300000000 MHz







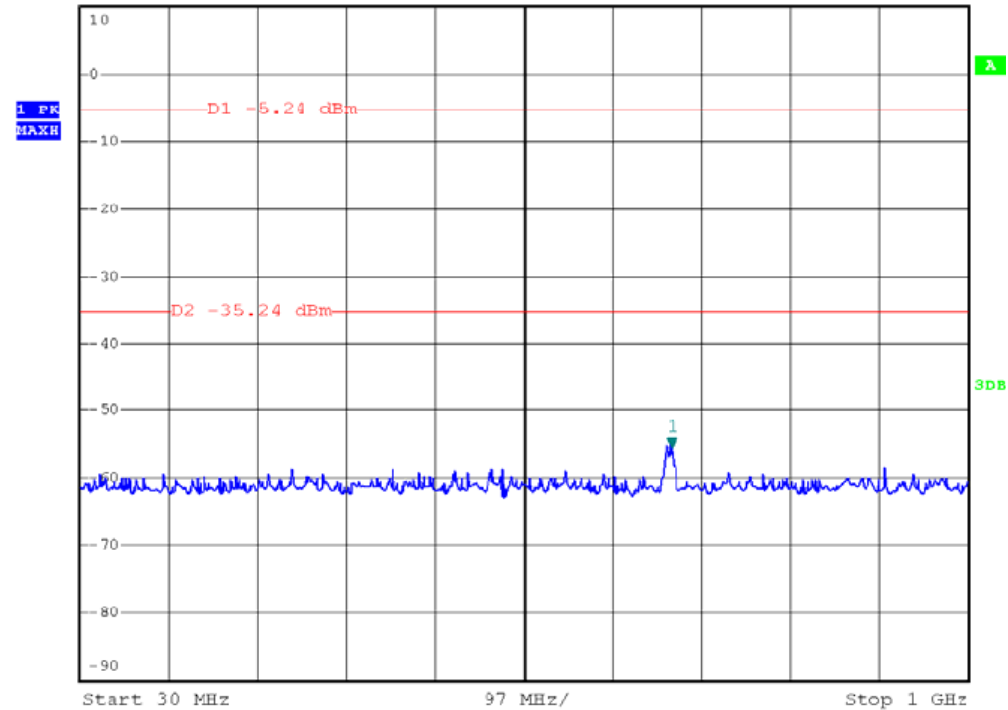
Ref 10 dBm *Att 20 dB *RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -57.97 dBm
SWT 2.6 s 5.590000000 GHz



For 802.11g Mode:

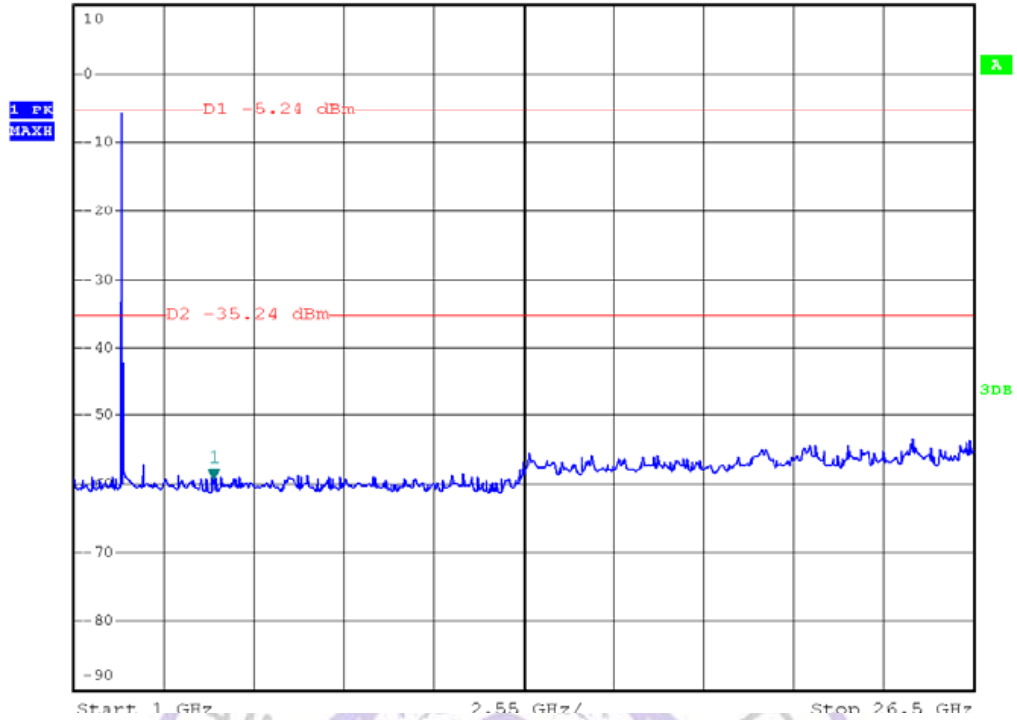


Ref 10 dBm *Att 20 dB *RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -55.37 dBm
SWT 100 ms 676.020000000 MHz

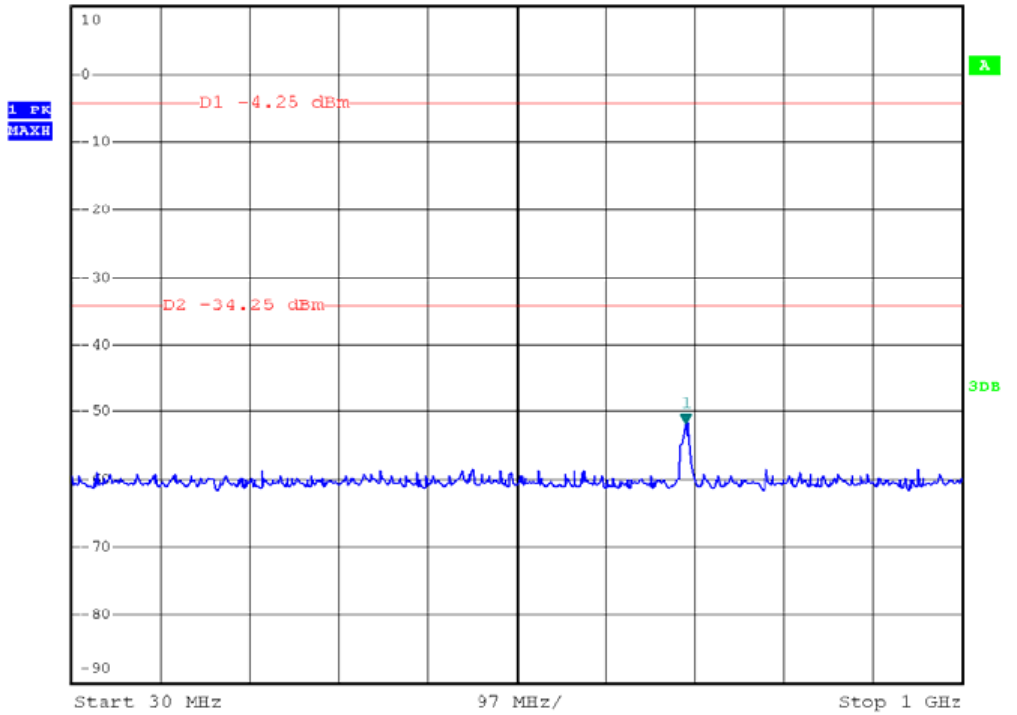




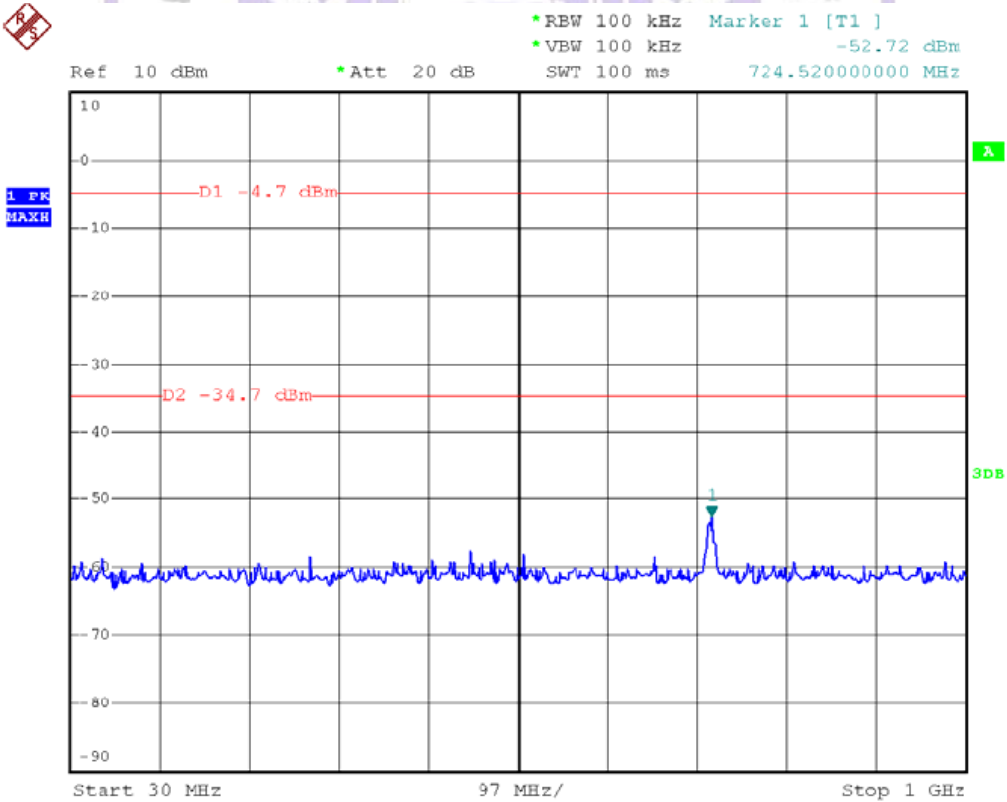
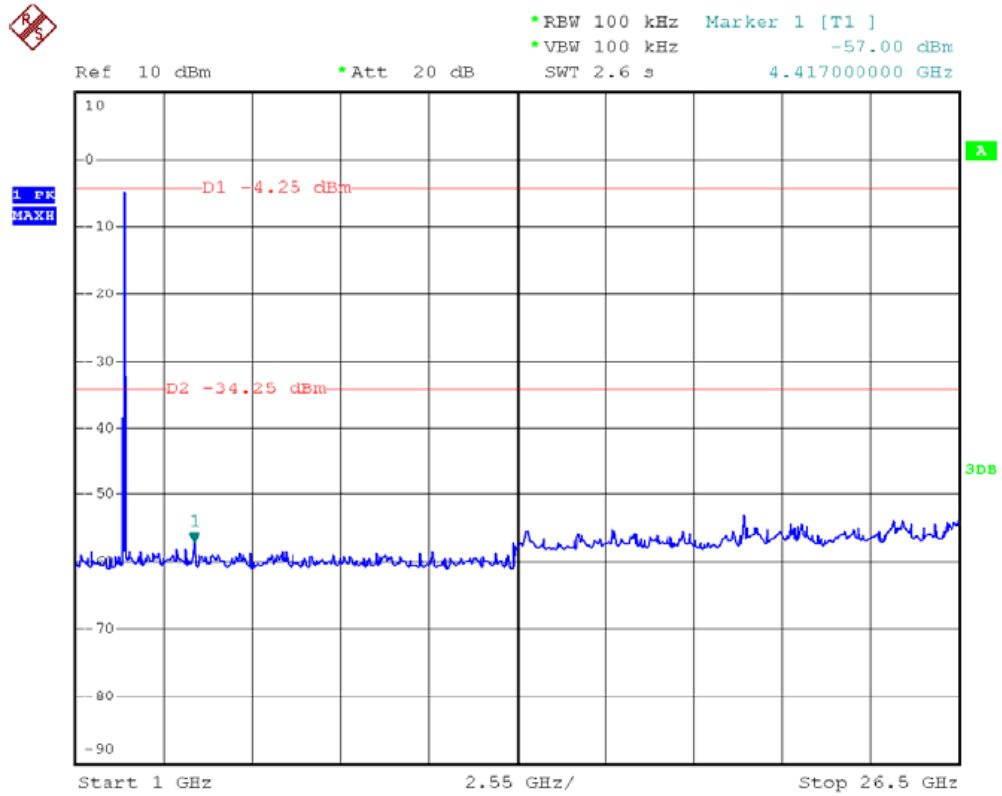
Ref 10 dBm *Att 20 dB SWT 2.6 s 4.978000000 GHz
*RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -59.03 dBm

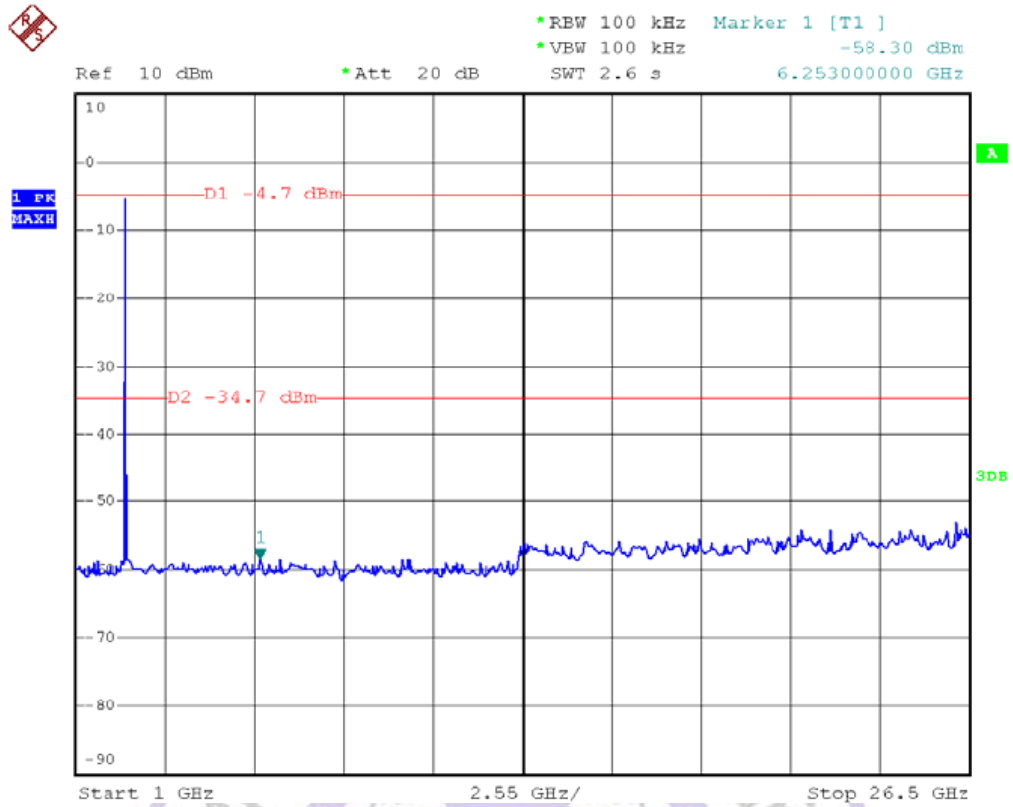


Ref 10 dBm *Att 20 dB SWT 100 ms 699.300000000 MHz
*RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -51.80 dBm

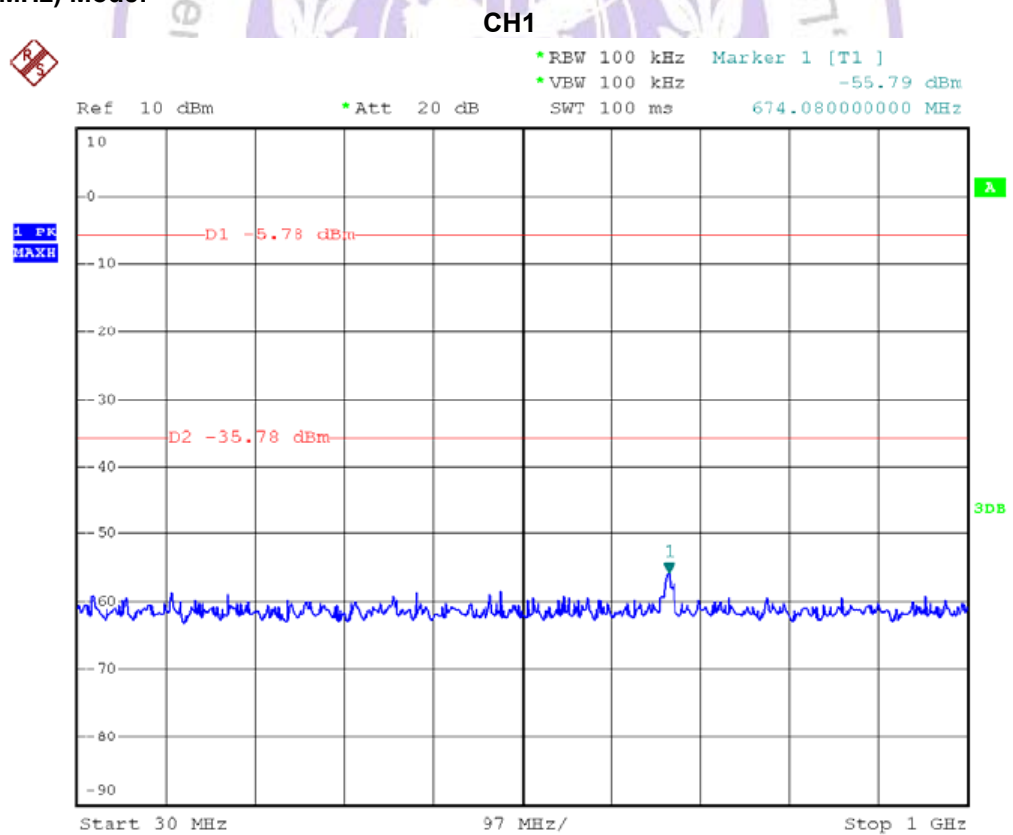


CH6



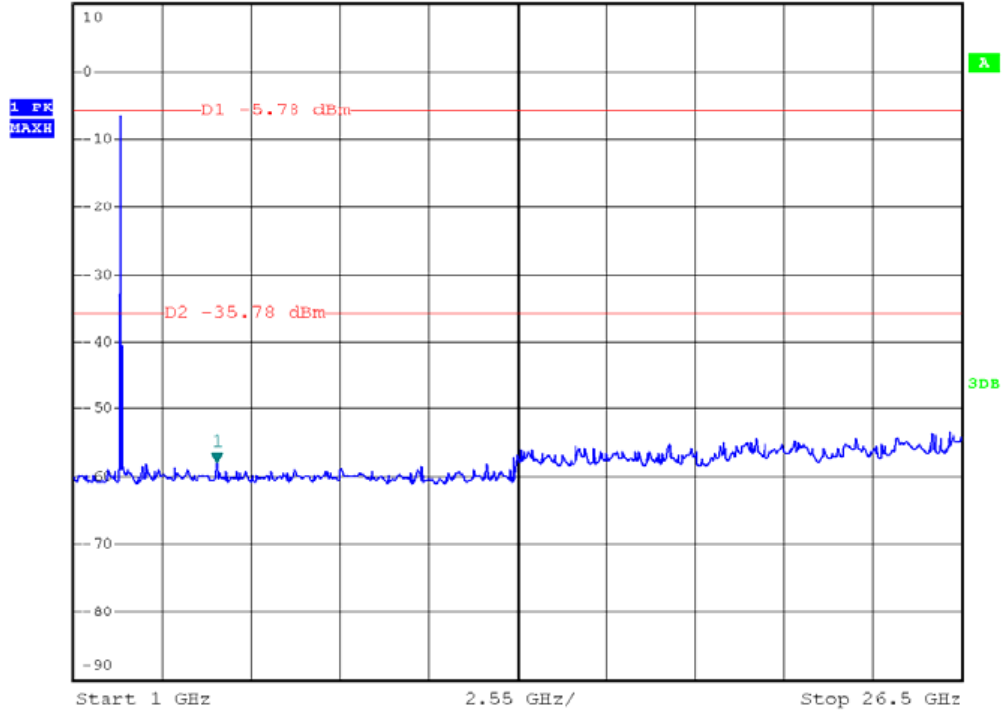


For 802.11n (20MHz) Mode:

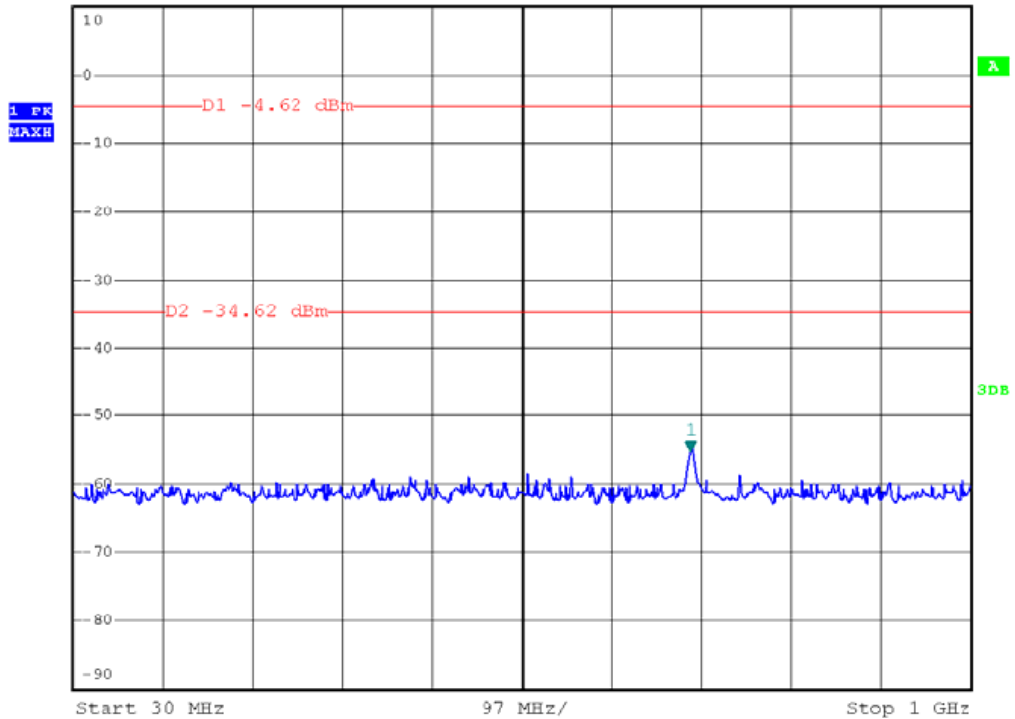


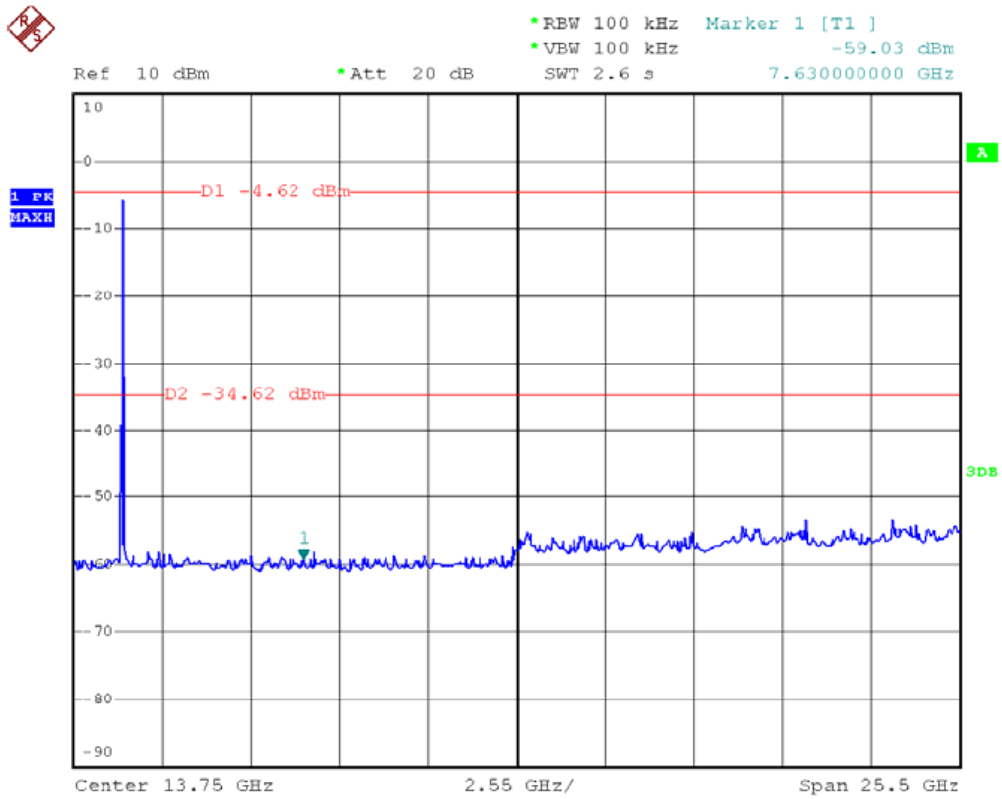


*RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -57.88 dBm
Ref 10 dBm *Att 20 dB SWT 2.6 s 5.131000000 GHz

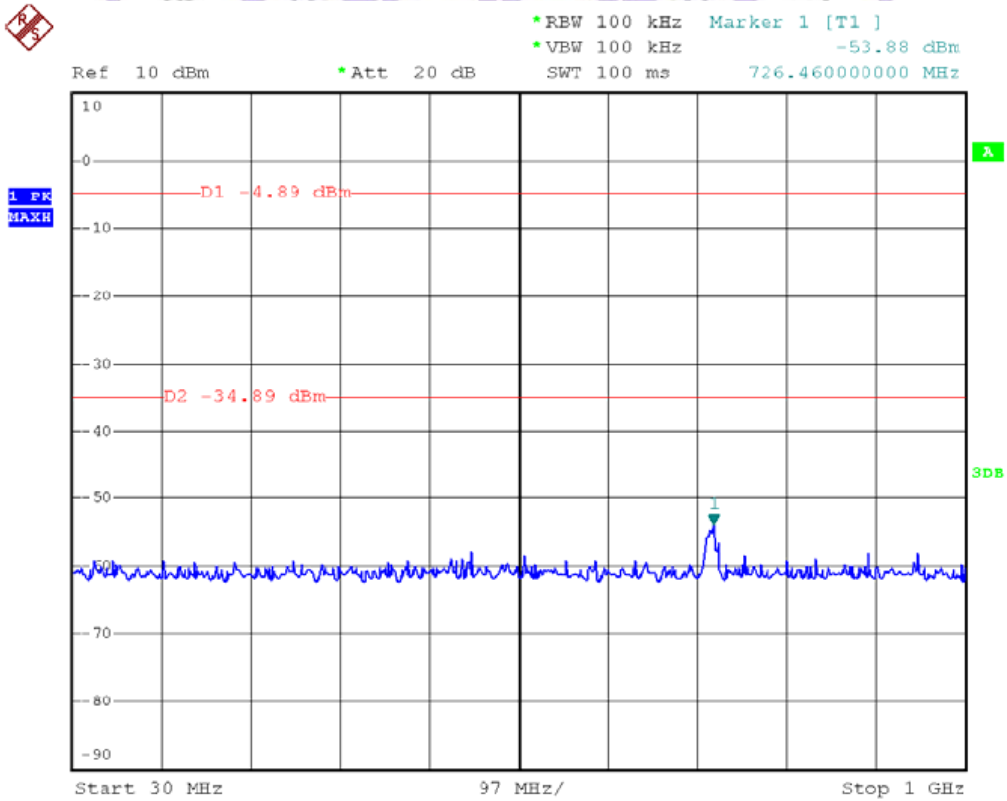


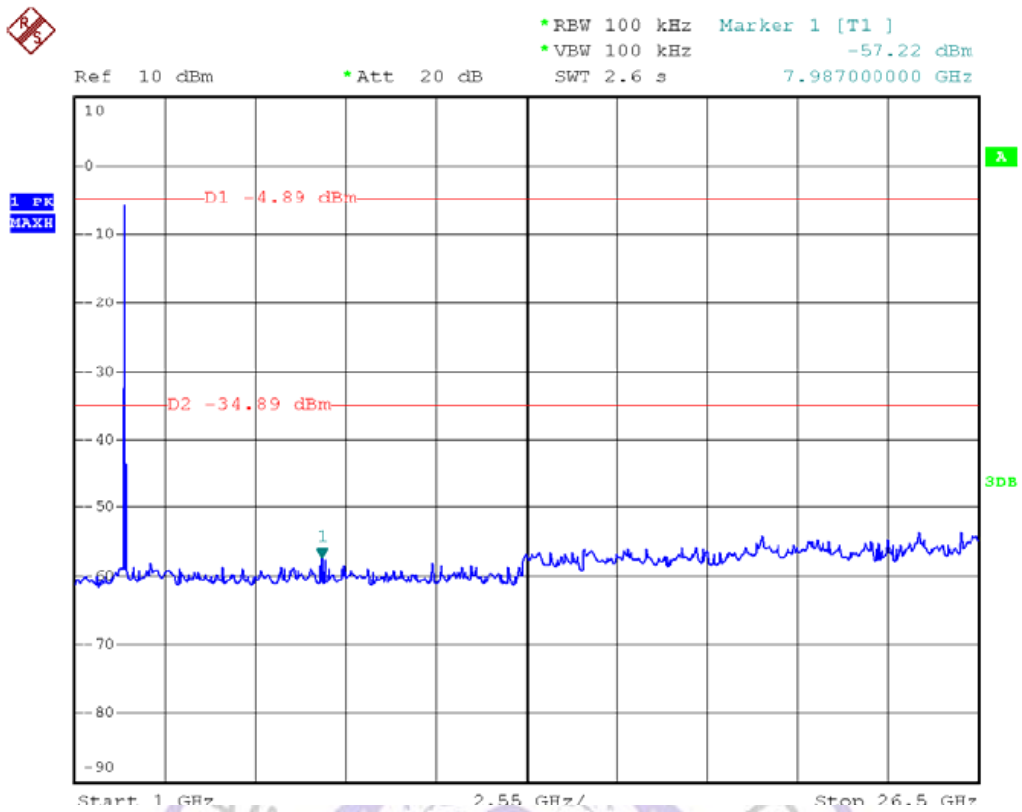
*RBW 100 kHz Marker 1 [T1]
*VBW 100 kHz -55.20 dBm
Ref 10 dBm *Att 20 dB SWT 100 ms 697.360000000 MHz





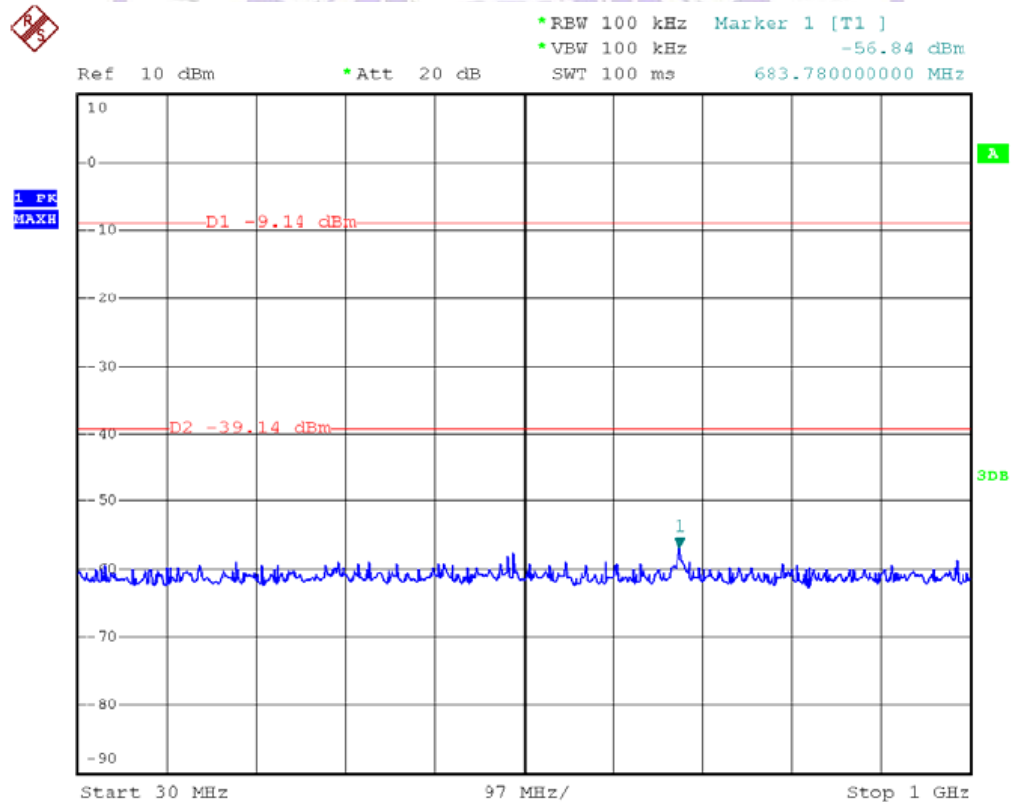
CH11





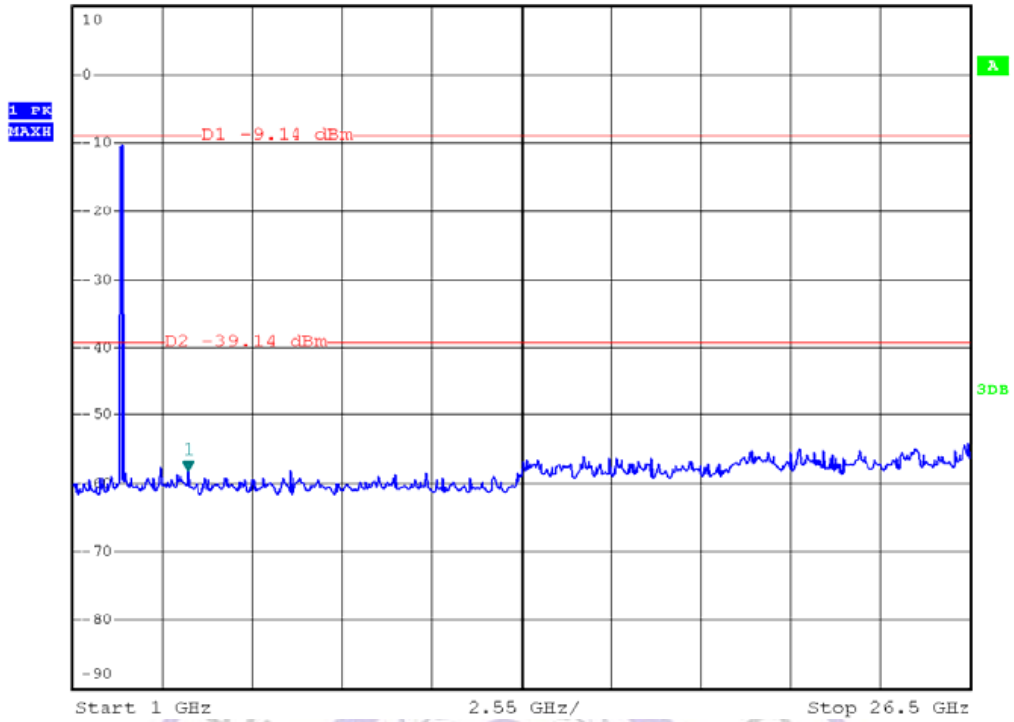
For 802.11n (40MHz) Mode:

CH3





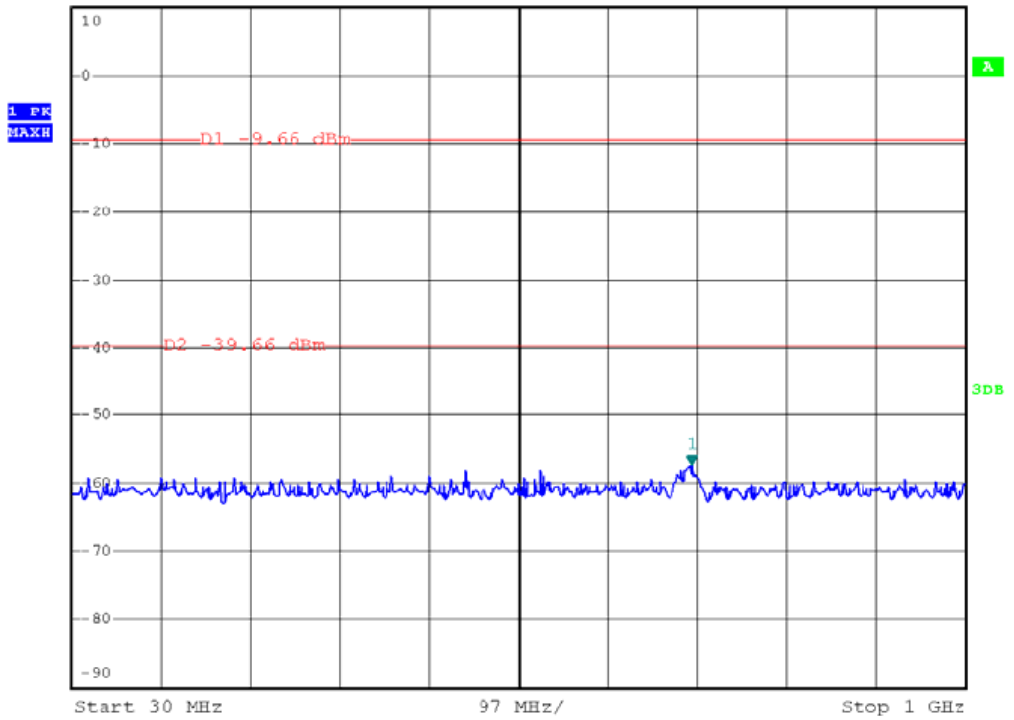
Ref 10 dBm *Att 20 dB *RBW 100 kHz Marker 1 [T1] *VBW 100 kHz -58.08 dBm SWT 2.6 s 4.264000000 GHz

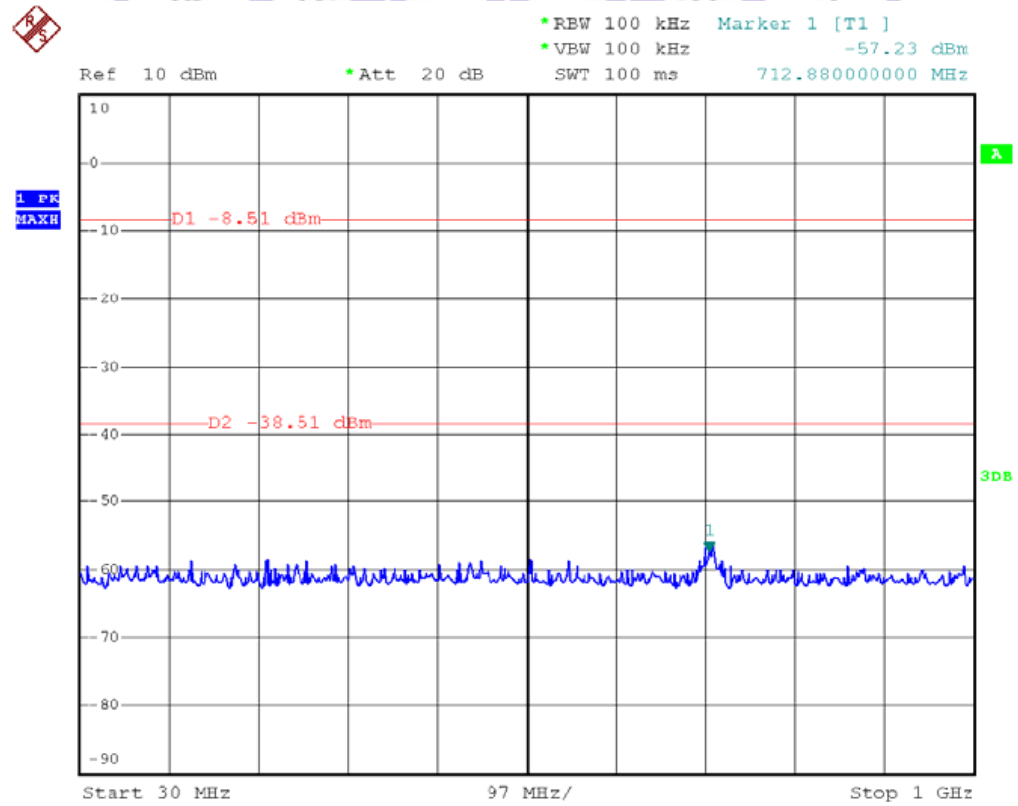
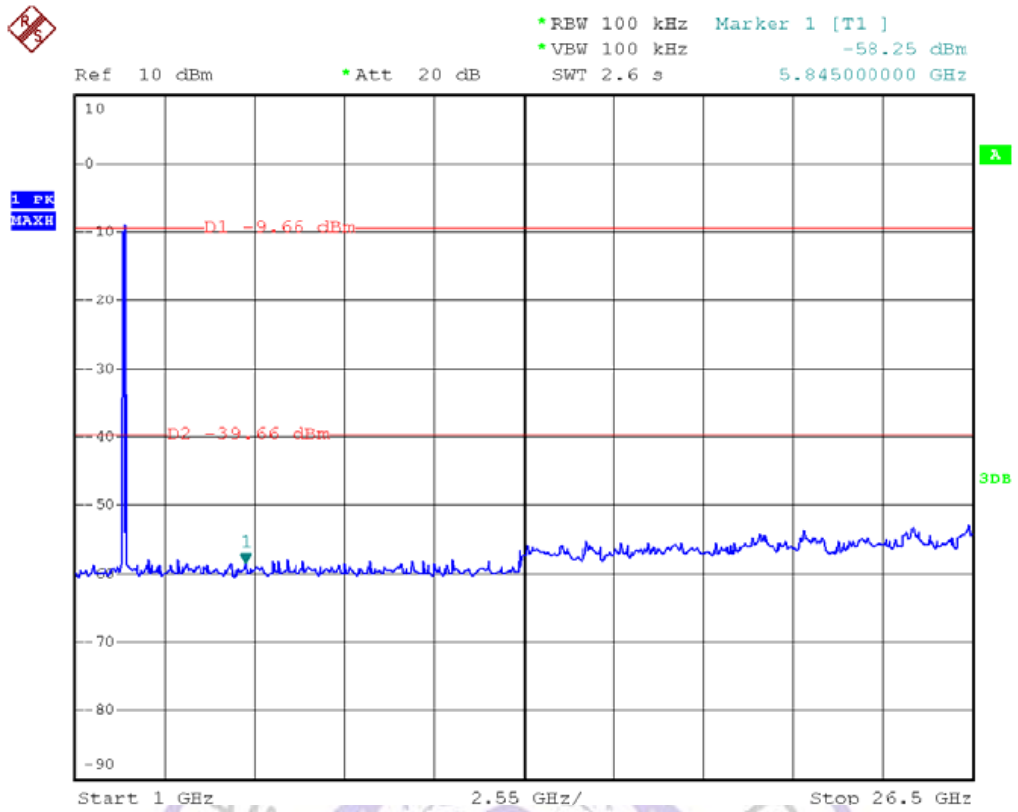


CH6



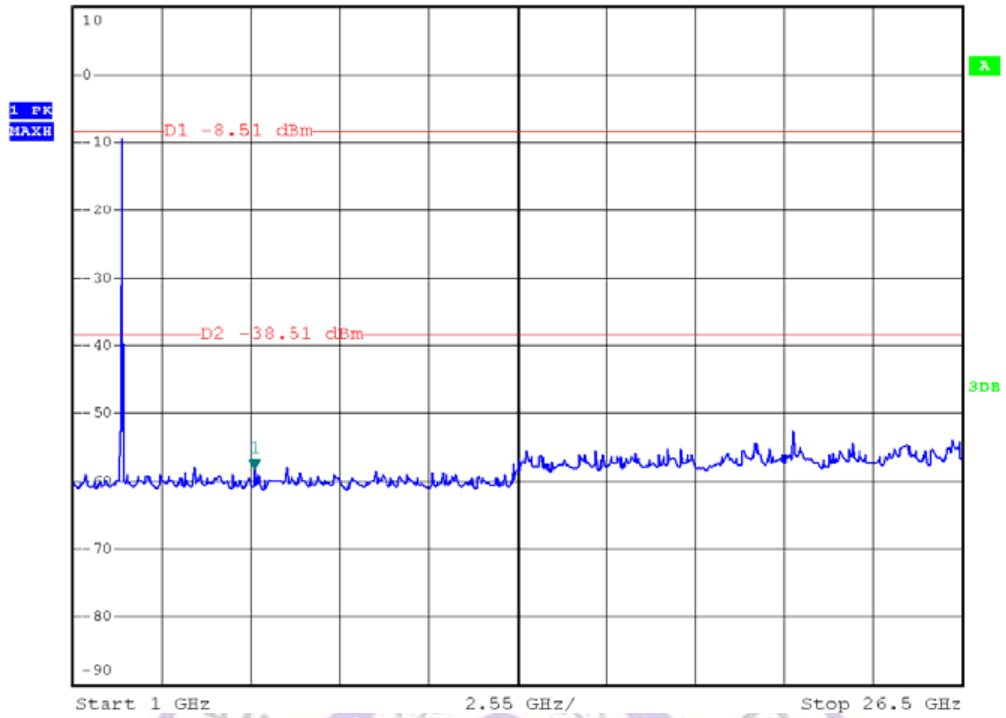
Ref 10 dBm *Att 20 dB *RBW 100 kHz Marker 1 [T1] *VBW 100 kHz -57.35 dBm SWT 100 ms 703.180000000 MHz



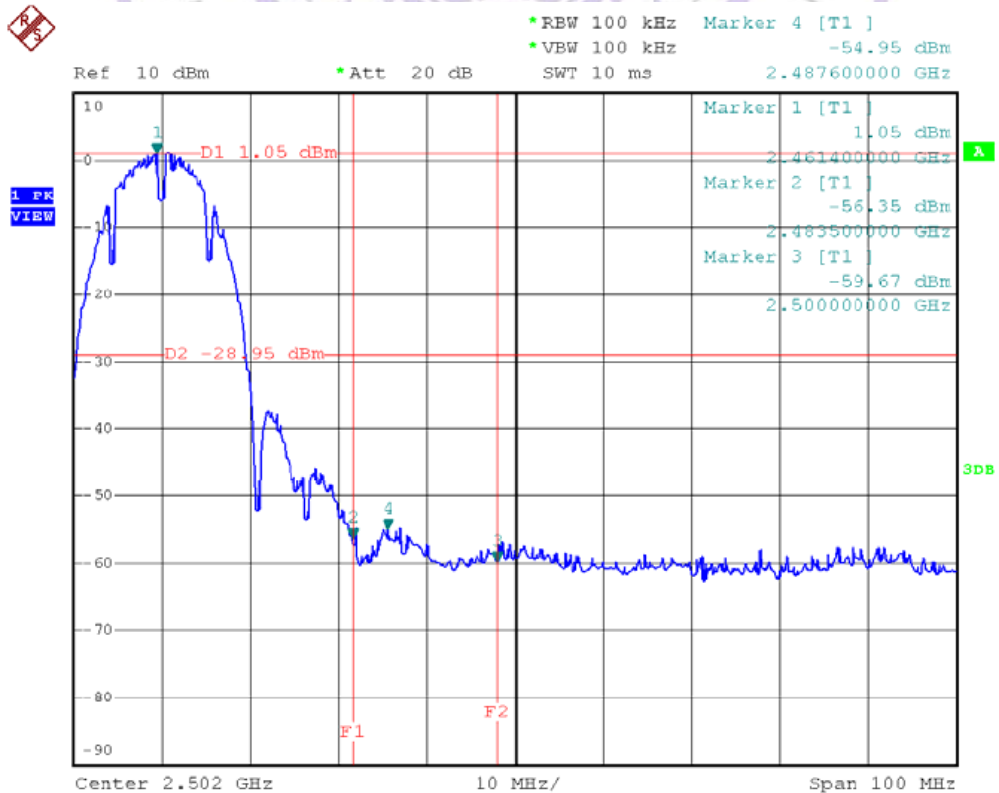
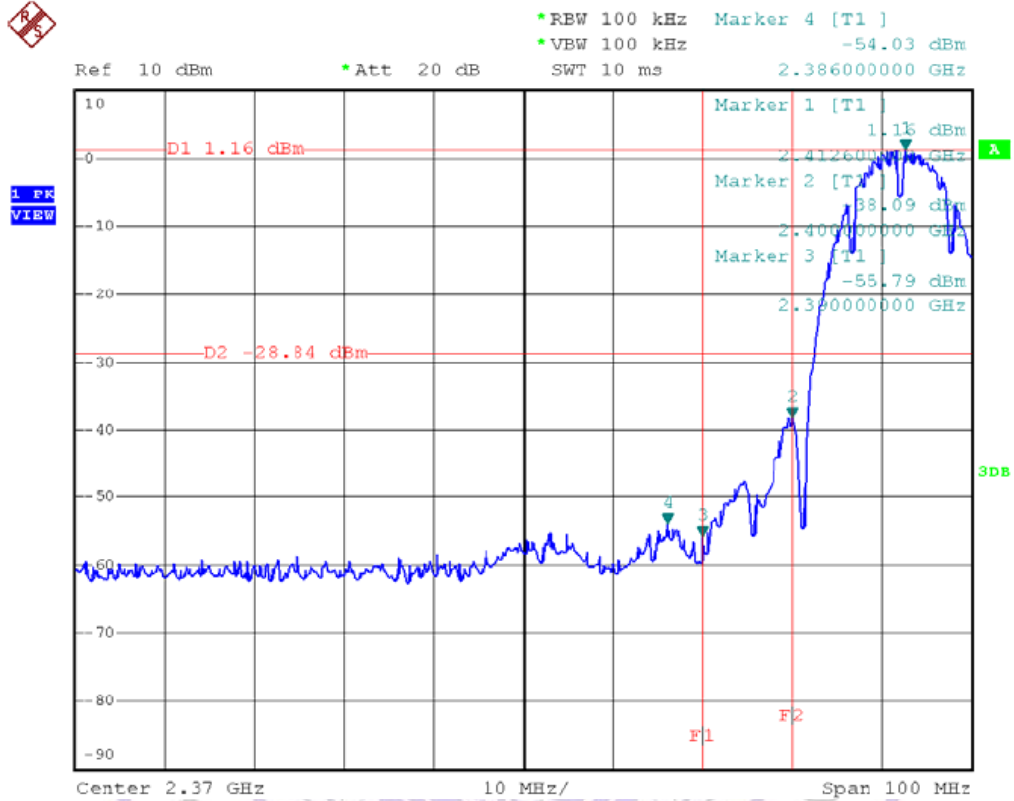




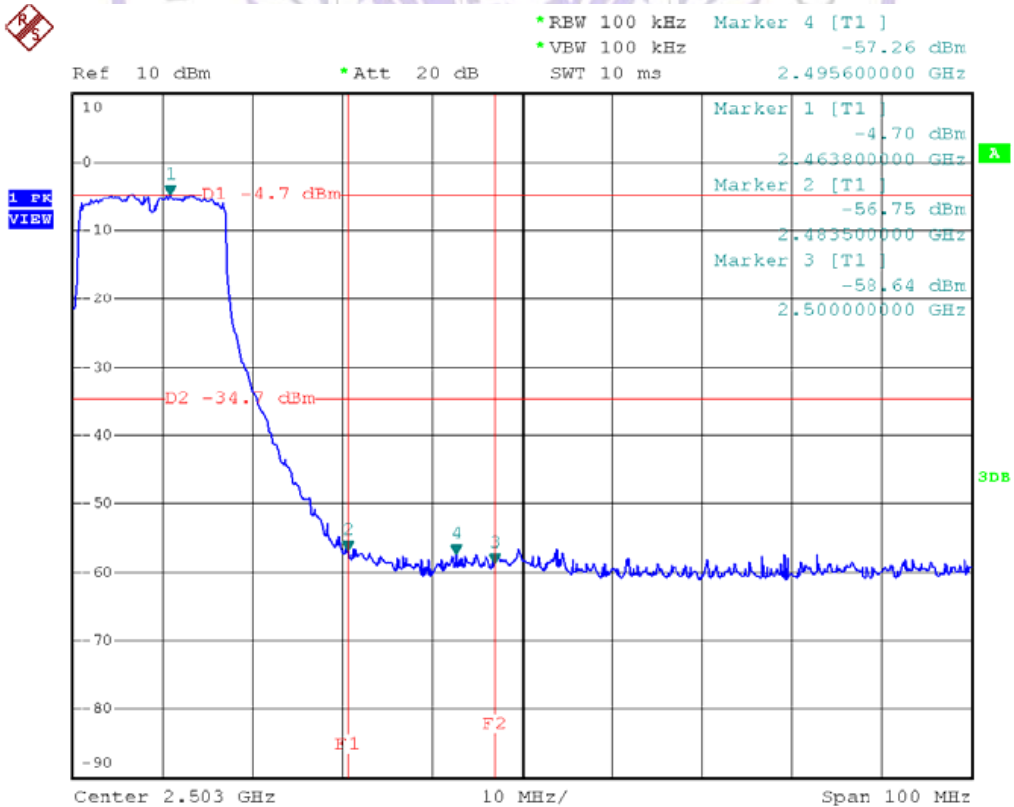
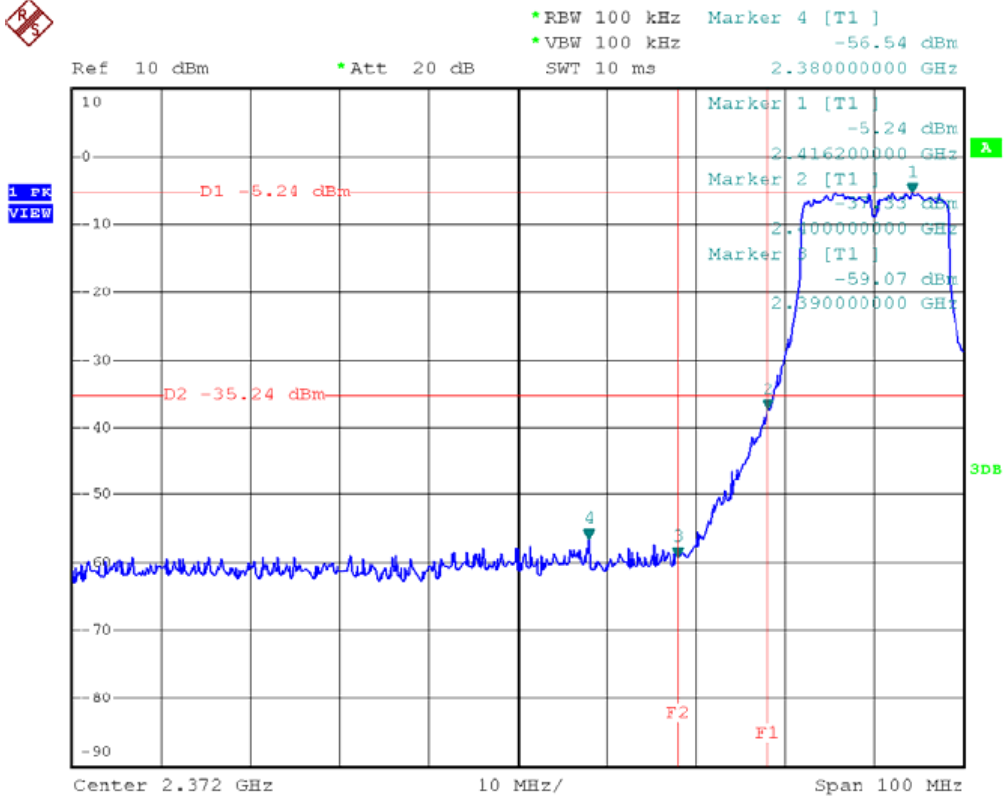
Ref 10 dBm *Att 20 dB *RBW 100 kHz Marker 1 [T1] *VBW 100 kHz -58.12 dBm
SWT 2.6 s 6.202000000 GHz



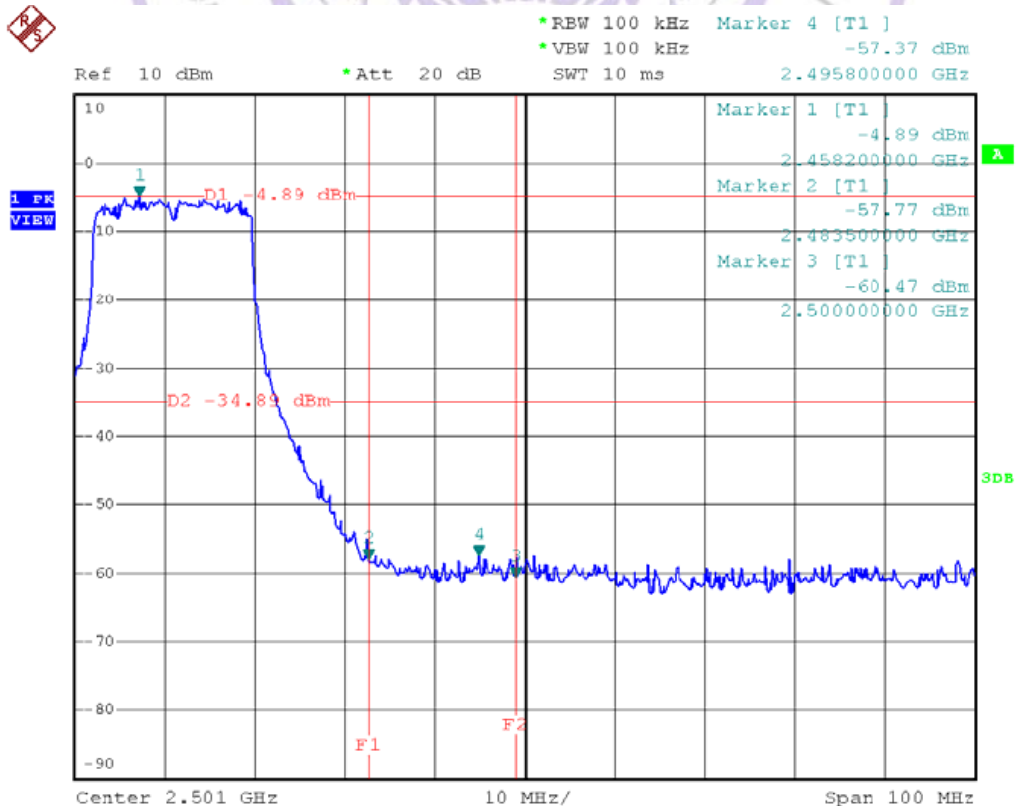
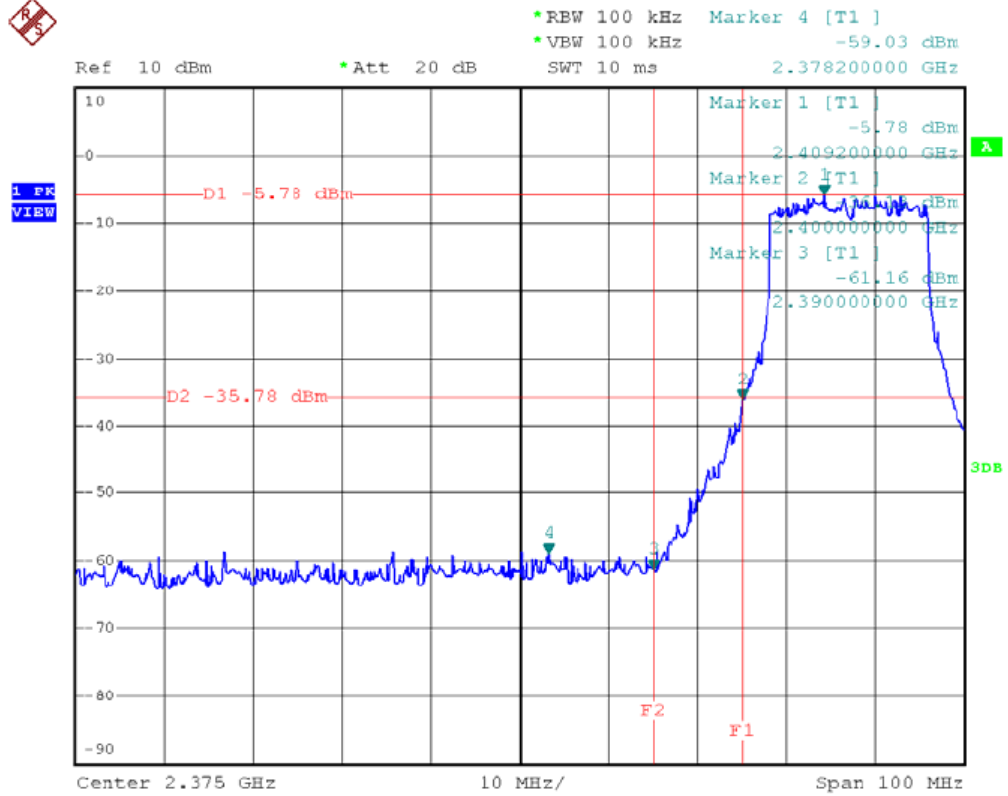
Test mode	Frequency	Delta peak to band emission	Limit(dBc)
802.11b	2400MHz	38.09	20
	2483.5MHz	56.35	20



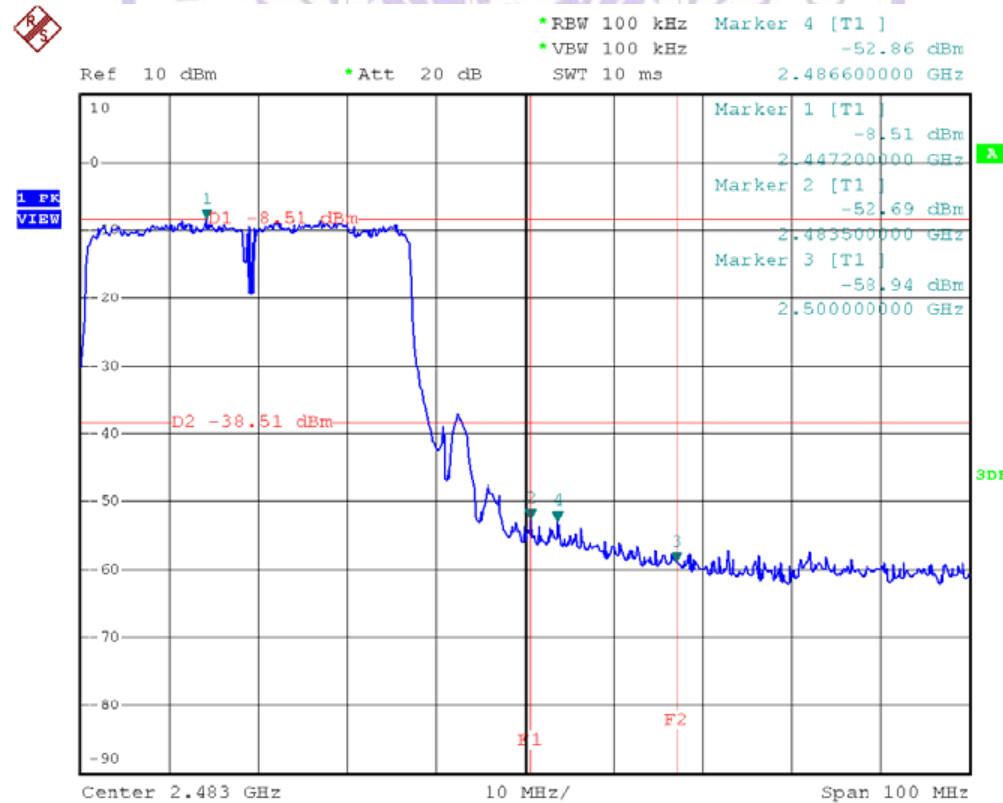
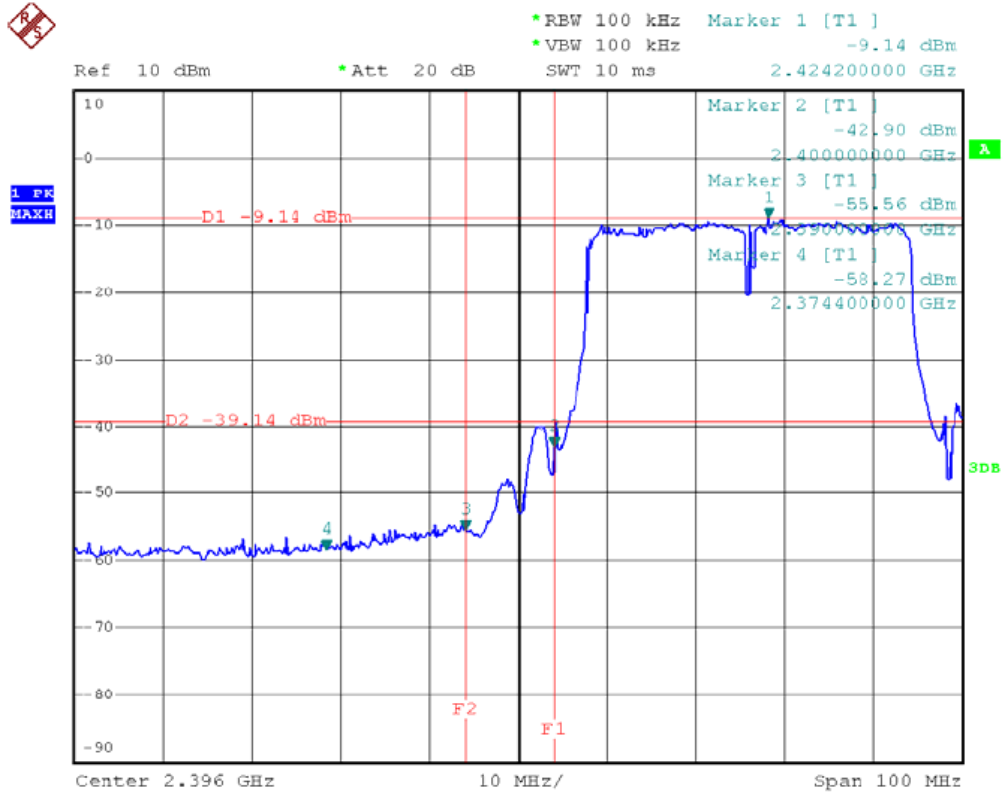
Test mode	Frequency	Delta peak to band emission	Limit(dBc)
802.11g	2400MHz	37.33	20
	2483.5MHz	56.75	20



Test mode	Frequency	Delta peak to band emission	Limit(dBc)
802.11N HT20M	2400MHz	36.18	20
	2483.5MHz	57.77	20



Test mode	Frequency	Delta peak to band emission	Limit(dBc)
802.11N HT40M	2400MHz	42.90	20
	2483.5MHz	52.69	20



4.8. Antenna Requirement

STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

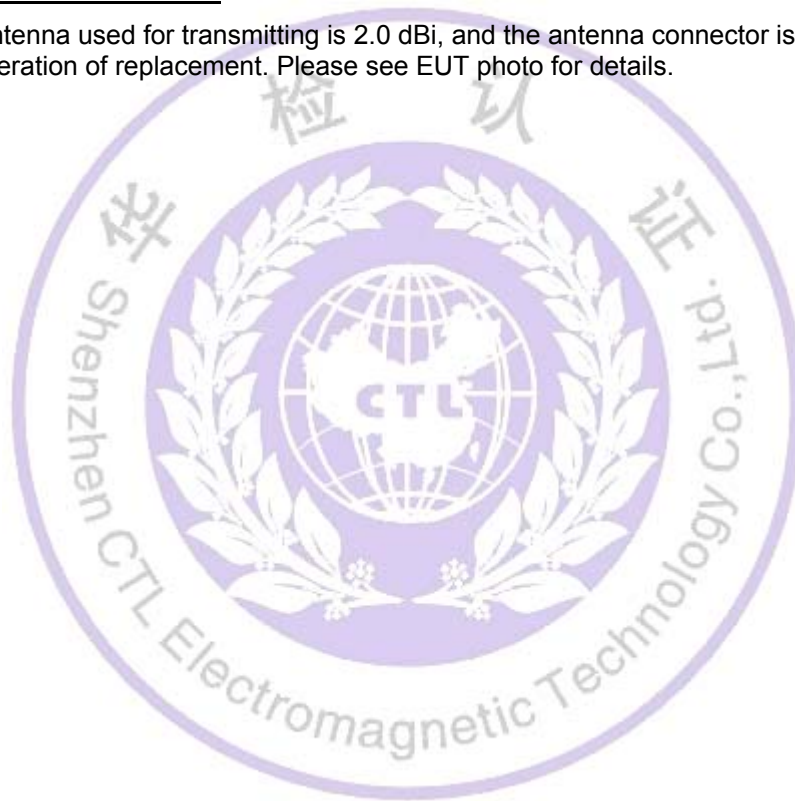
And according to FCC 47 CFR Section 15.247 (c), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Refer to statement below for compliance.

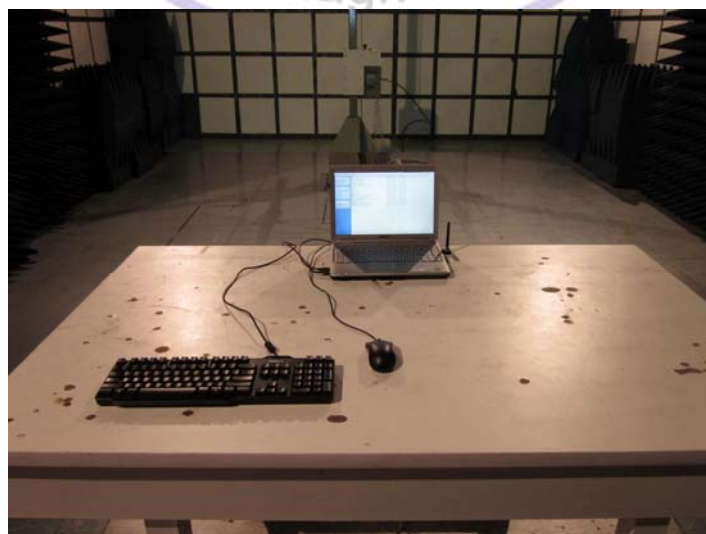
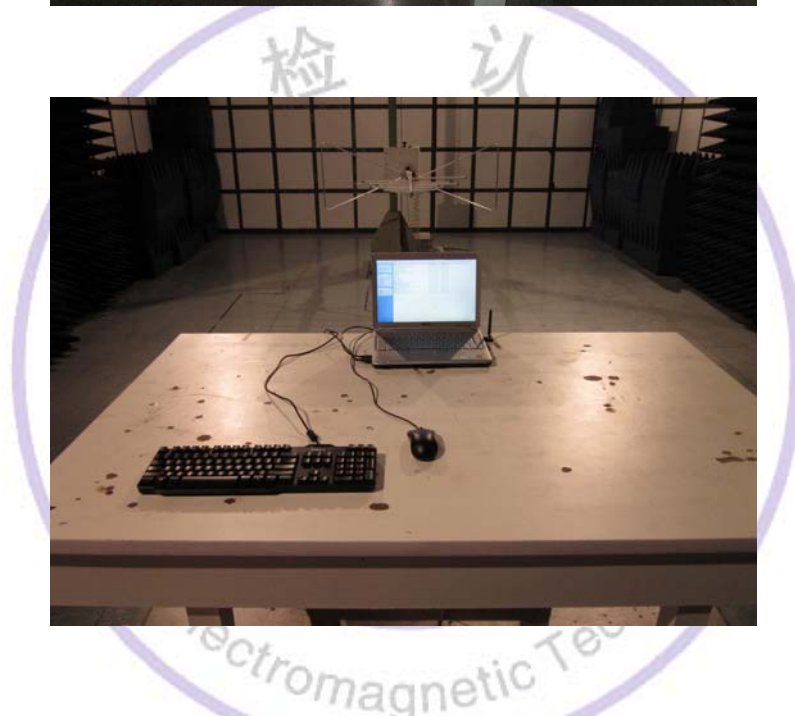
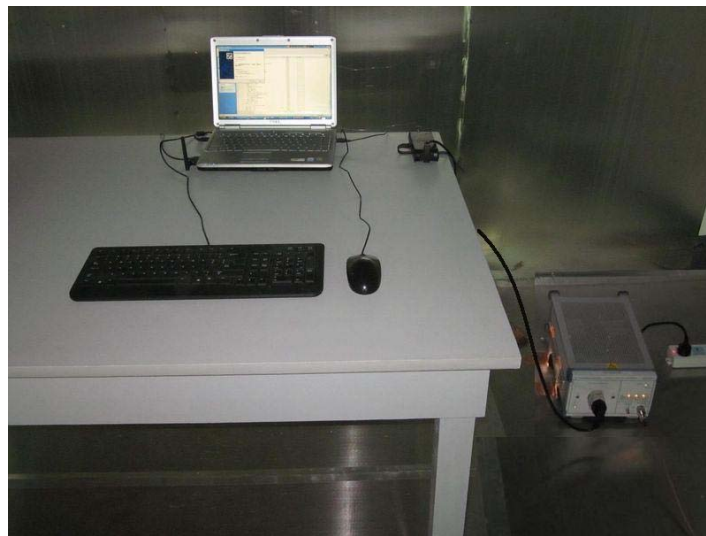
The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

ANTENNA CONNECTED CONSTRUCTION

The directional gains of antenna used for transmitting is 2.0 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Please see EUT photo for details.



5. Test Setup Photos of the EUT



6. External and Internal Photos of the EUT

External Photos



N-SMA connector



Internal Photos



.....End of Report.....