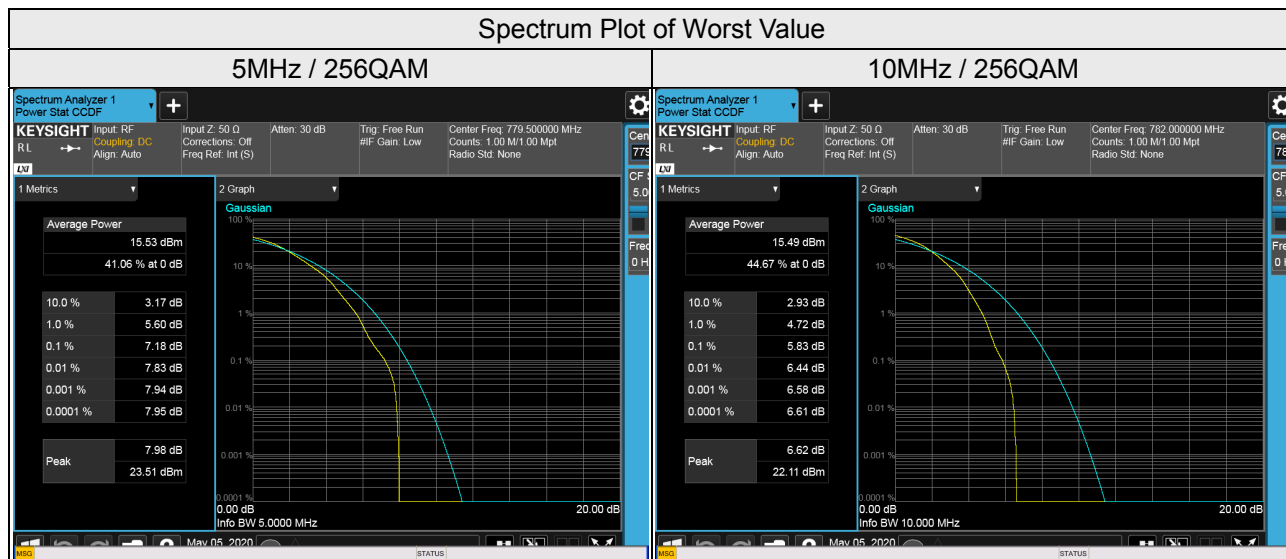


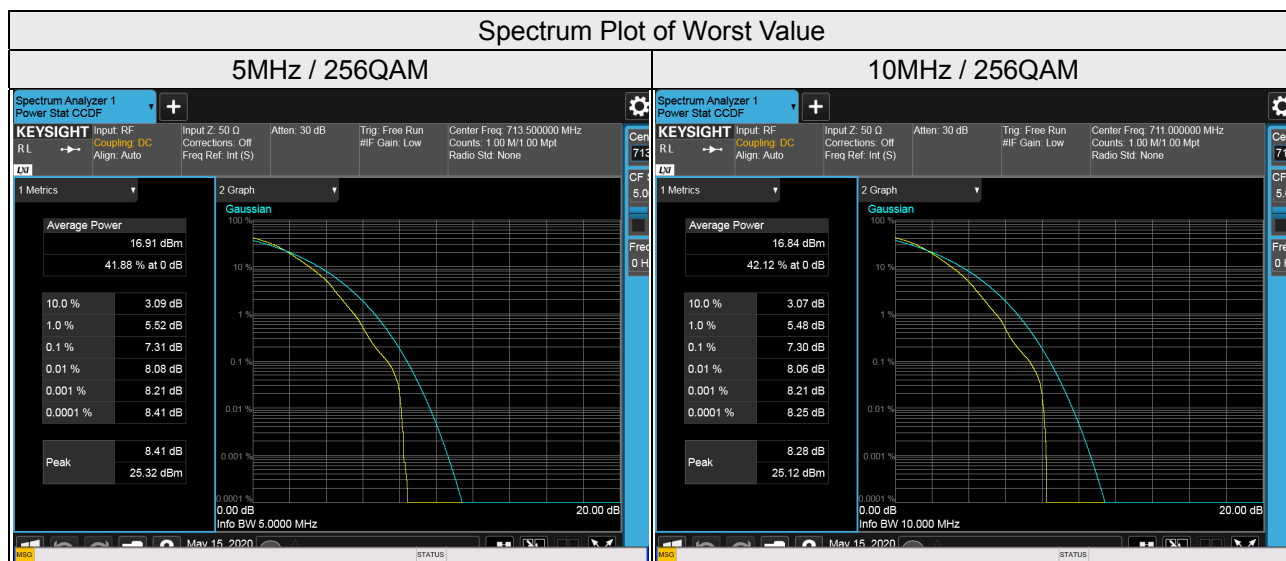
LTE Band 13

LTE Band 13, Channel Bandwidth 5MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
23205	779.5	7.18
23230	782.0	6.13
23255	784.5	6.17
LTE Band 13, Channel Bandwidth 10MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
23230	782.0	5.83



LTE Band 17

LTE Band 17, Channel Bandwidth 5MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
23755	706.5	7.00
23790	710.0	7.15
23825	713.5	7.31
LTE Band 17, Channel Bandwidth 10MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
23780	709.0	7.16
23790	710.0	7.08
23800	711.0	7.30

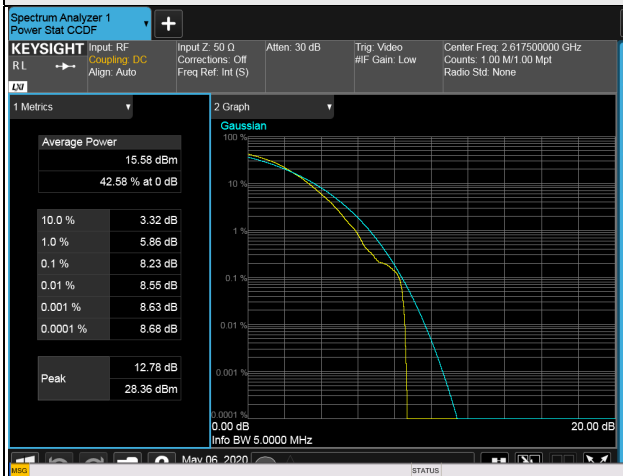


LTE Band 38

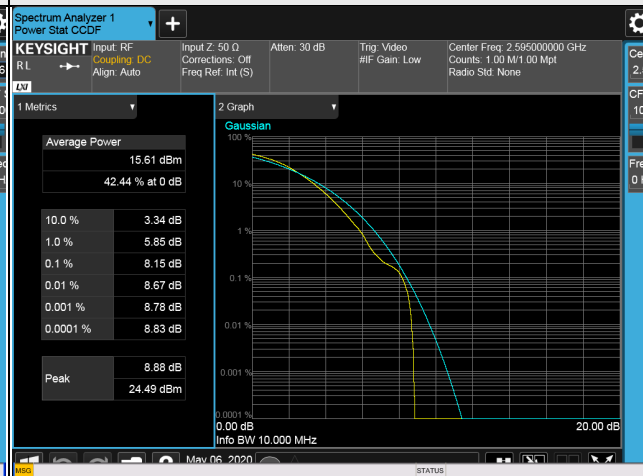
LTE Band 38, Channel Bandwidth 5MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
37775	2572.5	7.43
38000	2595.0	8.12
38225	2617.5	8.23
LTE Band 38, Channel Bandwidth 10MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
37800	2575.0	8.02
38000	2595.0	8.15
38200	2615.0	7.39
LTE Band 38, Channel Bandwidth 15MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
37825	2577.5	8.08
38000	2595.0	8.12
38175	2612.5	8.06
LTE Band 38, Channel Bandwidth 20MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
37850	2580.0	8.09
38000	2595.0	8.38
38150	2610.0	8.20

Spectrum Plot of Worst Value

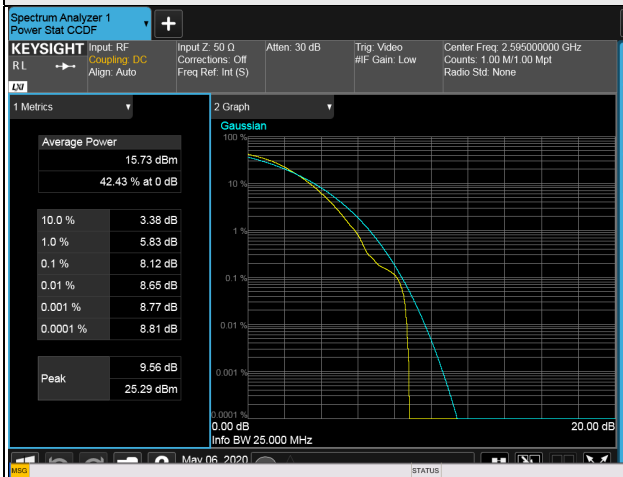
5MHz / 256QAM



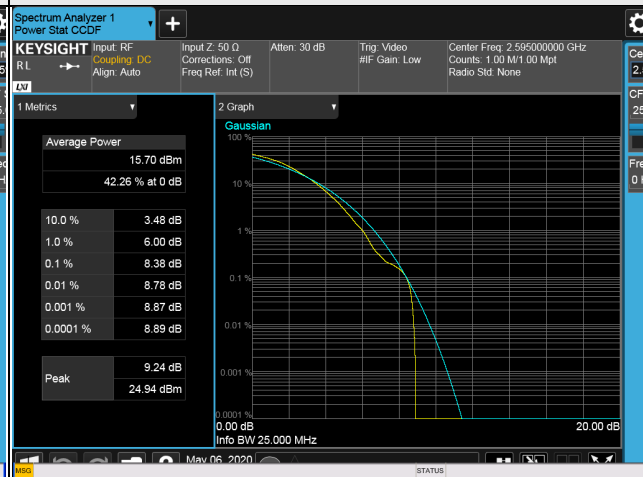
10MHz / 256QAM



15MHz / 256QAM



20MHz / 256QAM

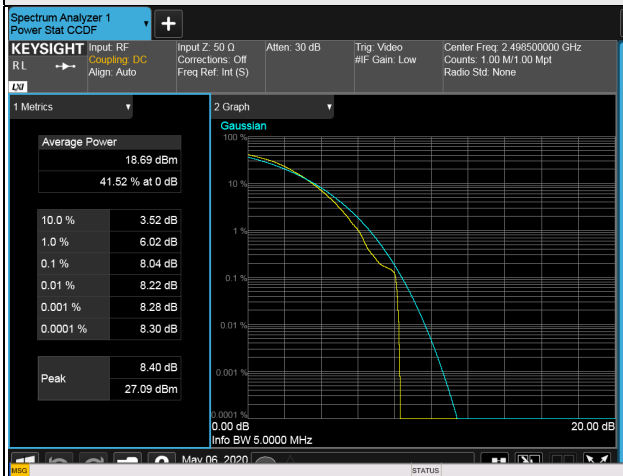


LTE Band 41

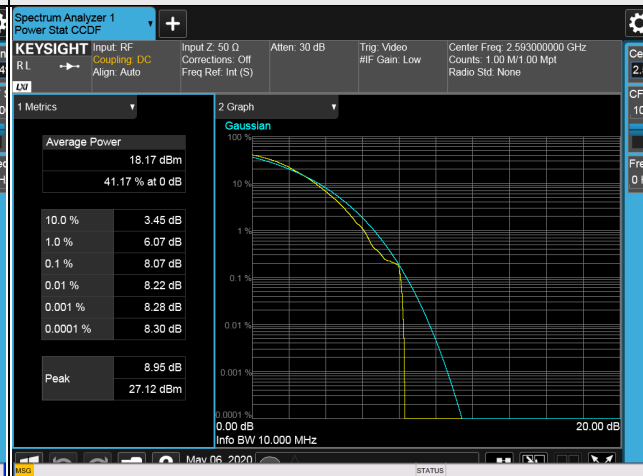
LTE Band 41, Channel Bandwidth 5MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
39675	2498.5	8.04
40620	2593	8.04
41565	2687.5	7.82
LTE Band 41, Channel Bandwidth 10MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
39700	2501	8.04
40620	2593	8.07
41540	2685	7.75
LTE Band 41, Channel Bandwidth 15MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
39725	2503.5	7.80
40620	2593	8.12
41515	2682.5	7.94
LTE Band 41, Channel Bandwidth 20MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
39750	2506	8.01
40620	2593	8.23
41490	2680	7.36

Spectrum Plot of Worst Value

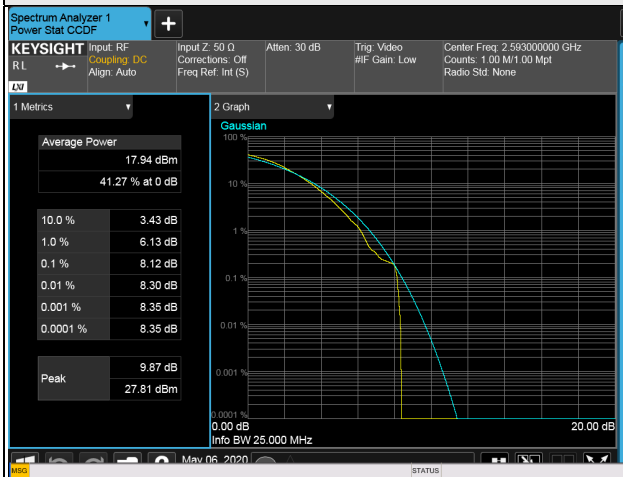
5MHz / 256QAM



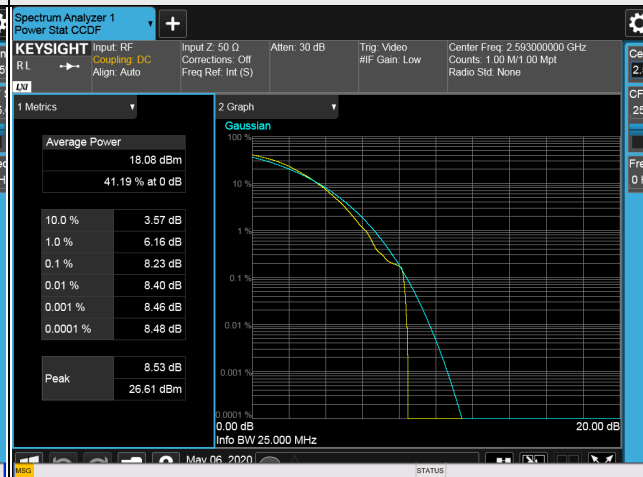
10MHz / 256QAM



15MHz / 256QAM



20MHz / 256QAM



LTE Band 66

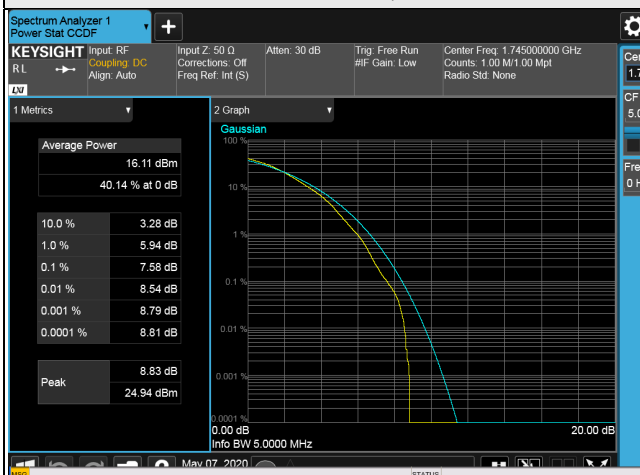
LTE Band 66, Channel Bandwidth 1.4MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
131979	1710.7	7.51
132322	1745.0	7.58
132665	1779.3	7.29
LTE Band 66, Channel Bandwidth 3MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
131987	1711.5	7.52
132322	1745.0	7.55
132657	1778.5	7.35
LTE Band 66, Channel Bandwidth 5MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
131997	1712.5	7.64
132322	1745.0	7.79
132647	1777.5	7.64
LTE Band 66, Channel Bandwidth 10MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
132022	1715.0	7.92
132322	1745.0	7.84
132622	1775.0	7.46
LTE Band 66, Channel Bandwidth 15MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
132047	1717.5	7.85
132322	1745.0	6.87
132597	1772.5	7.50

LTE Band 66, Channel Bandwidth 20MHz

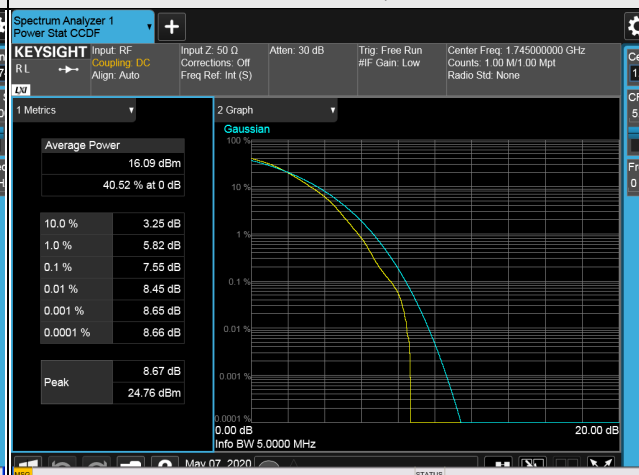
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
132072	1720.0	7.88
132322	1745.0	7.81
132572	1770.0	7.63

Spectrum Plot of Worst Value

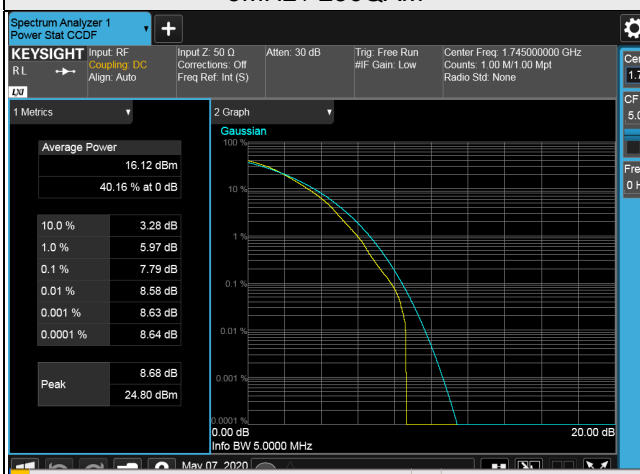
1.4MHz / 256QAM



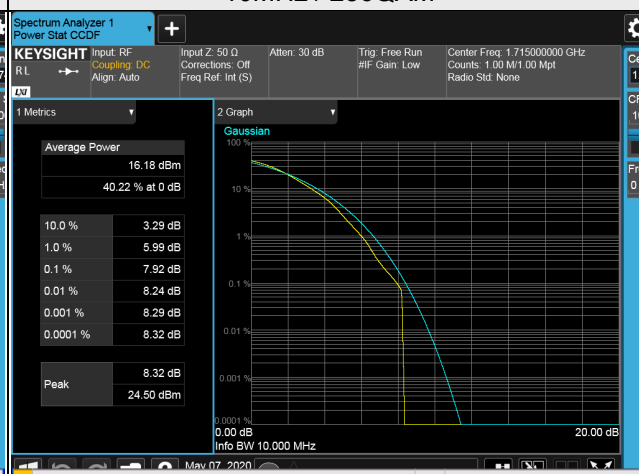
3MHz / 256QAM



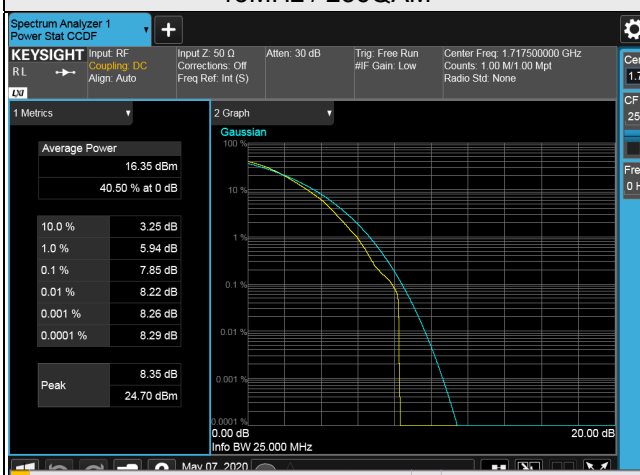
5MHz / 256QAM



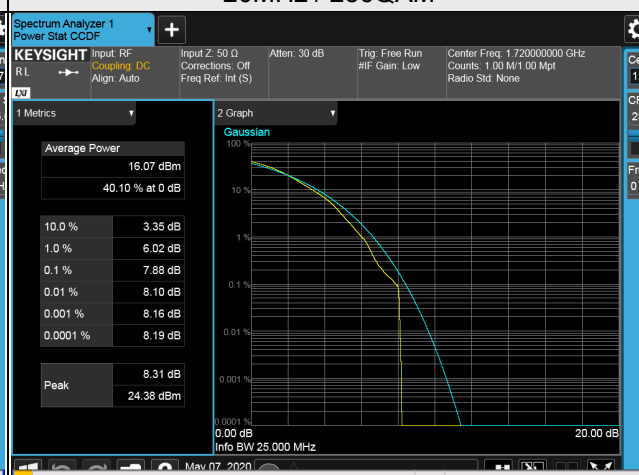
10MHz / 256QAM



15MHz / 256QAM



20MHz / 256QAM



LTE Band 71

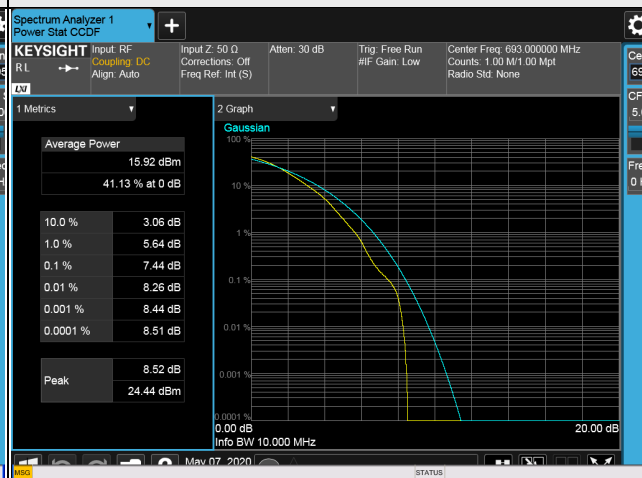
LTE Band 71, Channel Bandwidth 5MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
133147	665.5	7.16
133297	680.5	7.23
133447	695.5	7.33
LTE Band 71, Channel Bandwidth 10MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
133172	668	7.27
133297	680.5	7.28
133422	693	7.44
LTE Band 71, Channel Bandwidth 15MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
133197	670.5	7.09
133297	680.5	7.24
133397	690.5	7.29
LTE Band 71, Channel Bandwidth 20MHz		
Channel	Frequency (MHz)	Peak To Average Ratio (dB)
		256QAM
133222	673	7.48
133297	680.5	7.35
133372	688	6.57

Spectrum Plot of Worst Value

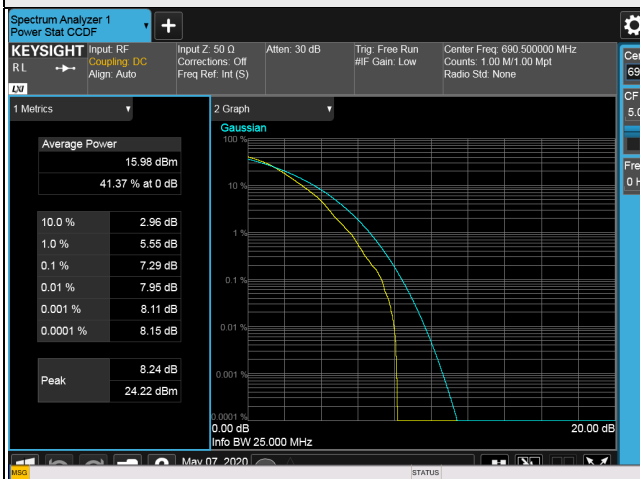
5MHz / 256QAM



10MHz / 256QAM



15MHz / 256QAM



20MHz / 256QAM



4.7 Conducted Spurious Emissions

4.7.1 Limits of Conducted Spurious Emissions Measurement

For LTE Band 4, 66

In the FCC 27.53(h), On any frequency outside a licensee's frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P)$ dB. The emission limit equal to -13dBm .

For LTE Band 7, 38, 41

In the FCC 27.53(m)(4), On any frequency outside a licensee's frequency block, The power of any emission shall be attenuated below the transmitter power (P) by at least $55 + 10 \log (P)$ dB. The emission limit equal to -25dBm .

For LTE Band 13

According to FCC 27.53(c)(2) for on any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB.

According to FCC 27.53(f) for operations in the 775-788 MHz, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz. The limit of emissions is equal to -40 dBm

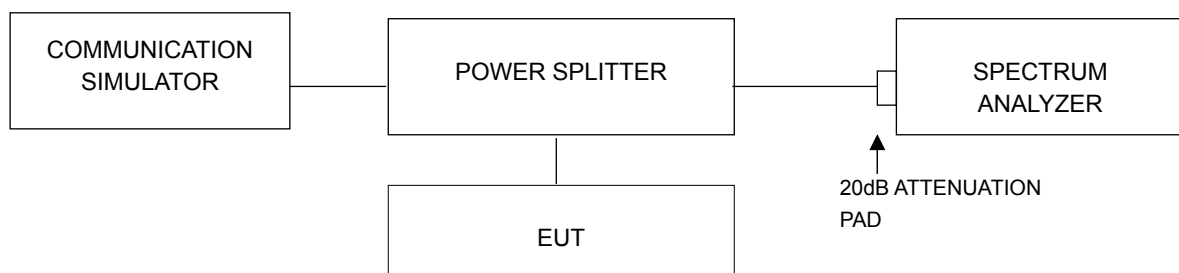
For LTE Band 12, 17, 71

According to FCC 27.53(g) for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater.

For LTE Band 30

In the FCC 27.53(a)(4)(iii), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $70 + 10 \log (P)$ dB. The limit of emission is equal to -40 dBm.

4.7.2 Test Setup



4.7.3 Test Procedure

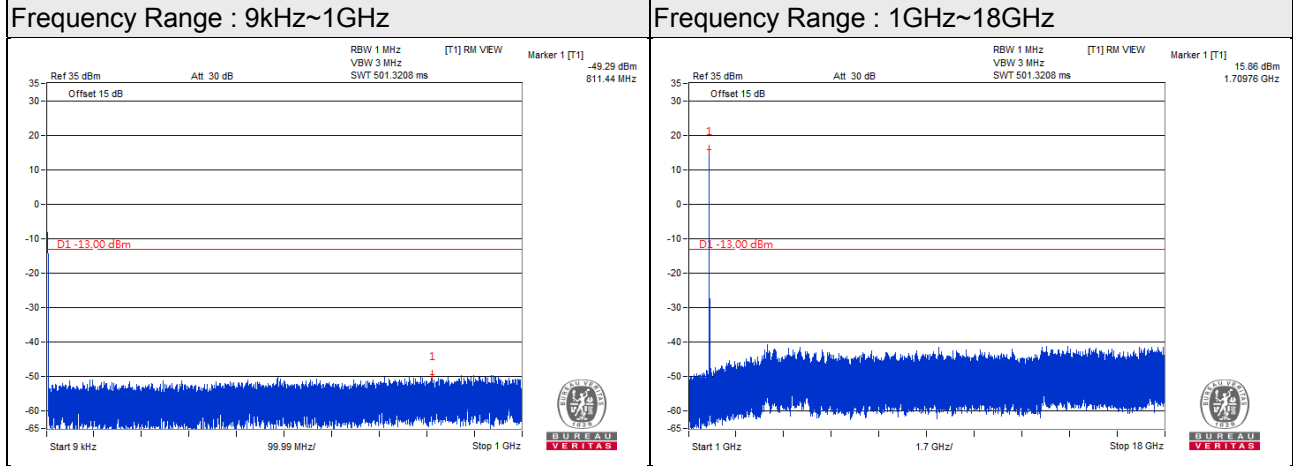
- All measurements were done at 3 channels: low, middle and high operational frequency range.
- When the spectrum scanned from 9kHz to 7GHz / 8GHz /18GHz /24GHz / 26GHz / 26.5GHz / 27GHz, it shall be connected to the attenuator with the carried frequency.

4.7.4 Test Results

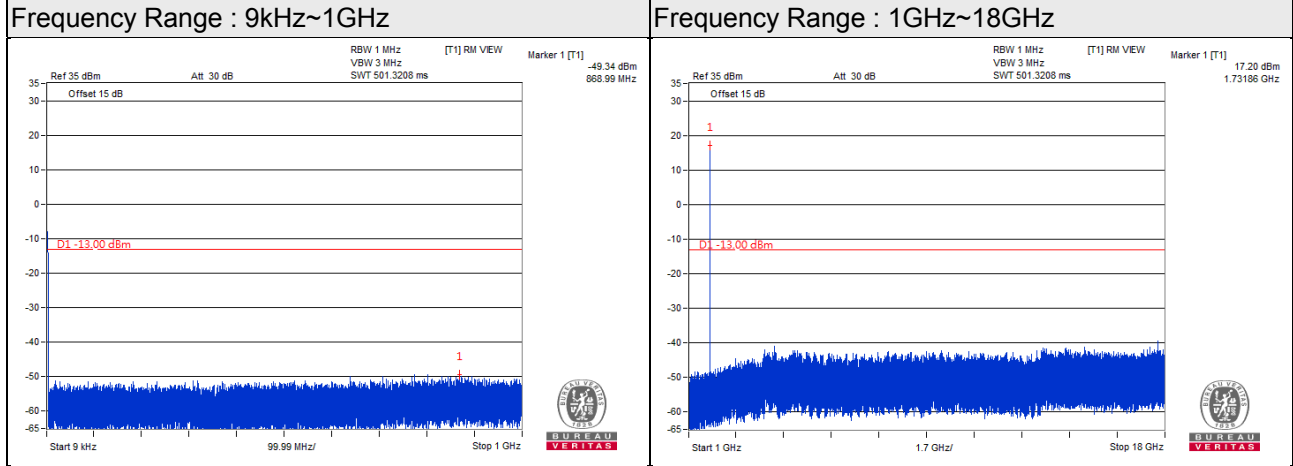
LTE Band 4

Channel Bandwidth: 1.4MHz

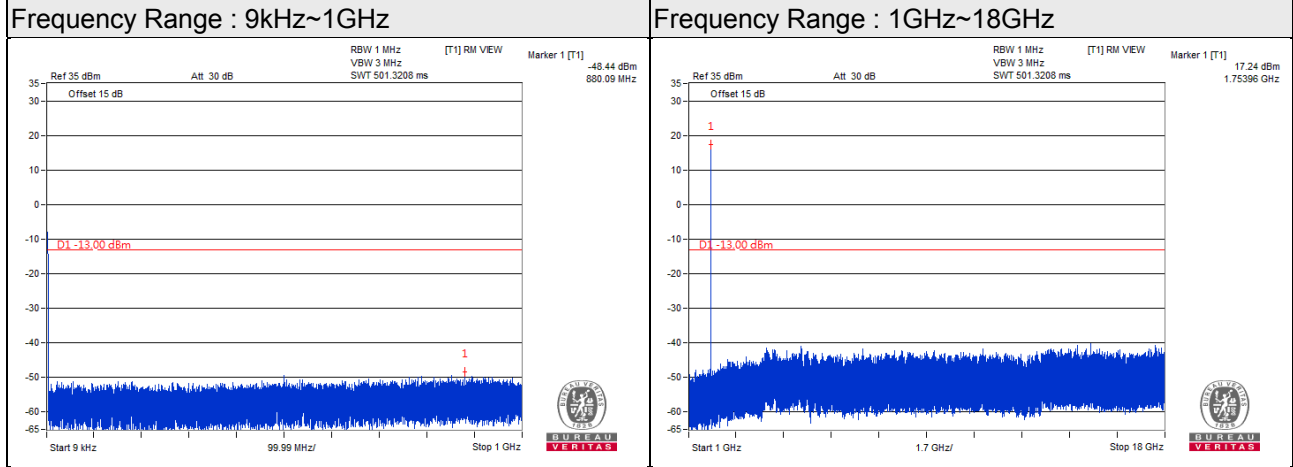
Channel 19957 (1710.7MHz)



Channel 20175 (1732.5MHz)



Channel 20393 (1754.3MHz)

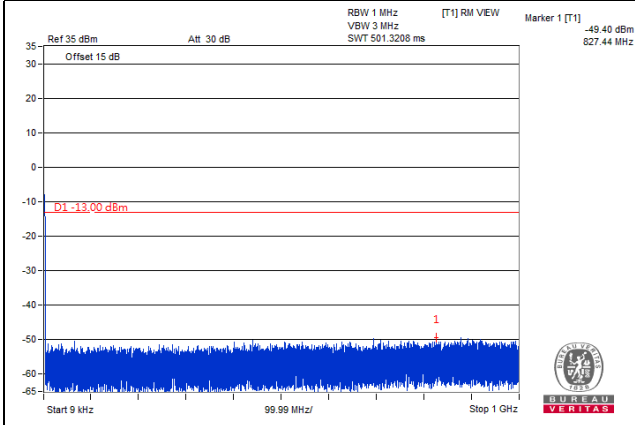


*The 9kHz signal over the limit is from Spectrum.

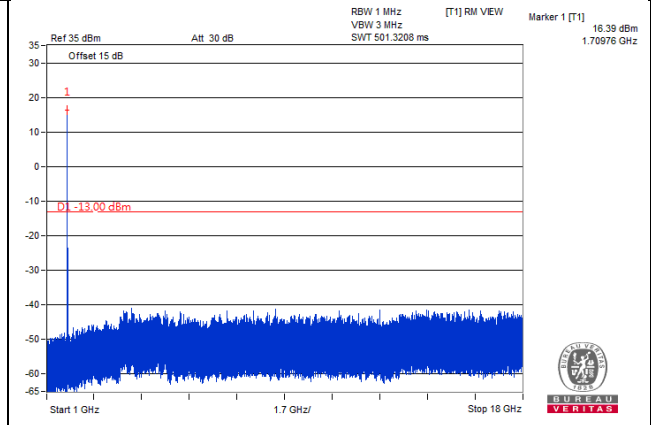
Channel Bandwidth: 3MHz

Channel 19965 (1711.5MHz)

Frequency Range : 9kHz~1GHz

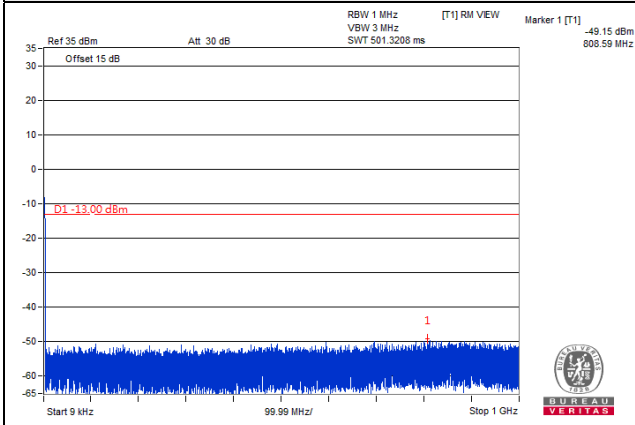


Frequency Range : 1GHz~18GHz

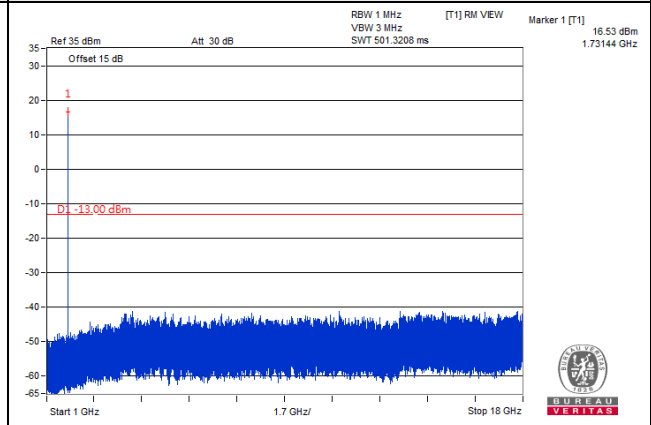


Channel 20175 (1732.5MHz)

Frequency Range : 9kHz~1GHz

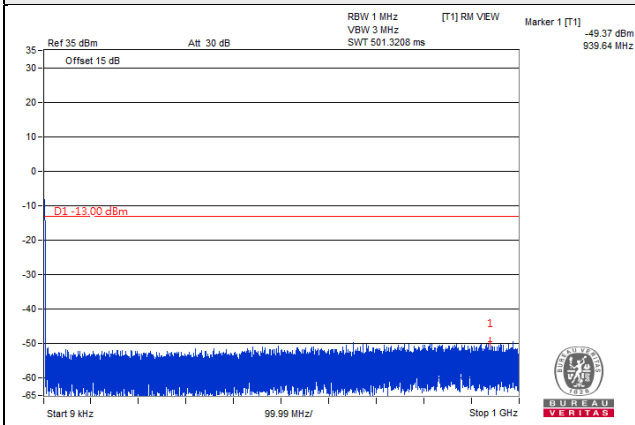


Frequency Range : 1GHz~18GHz

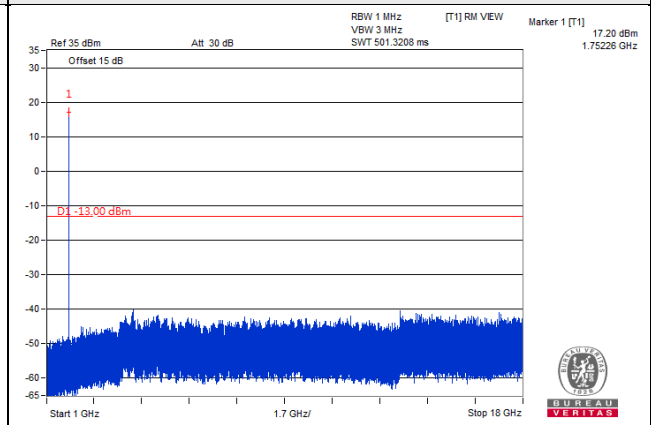


Channel 20385 (1753.5MHz)

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~18GHz

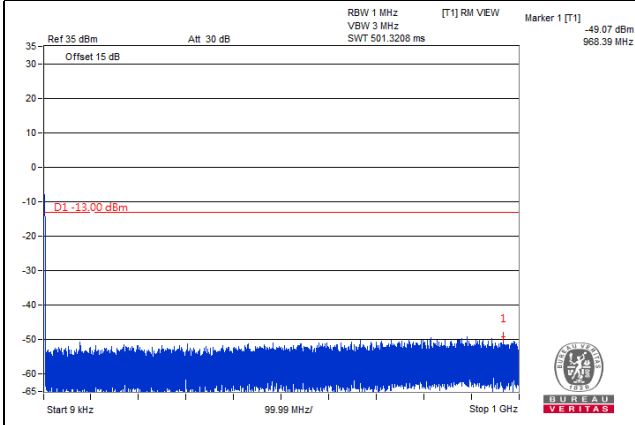


*The 9kHz signal over the limit is from Spectrum.

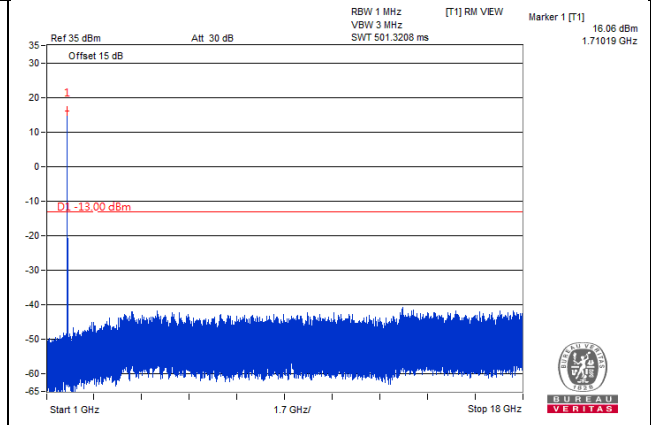
Channel Bandwidth: 5MHz

Channel 19975 (1712.5MHz)

Frequency Range : 9kHz~1GHz

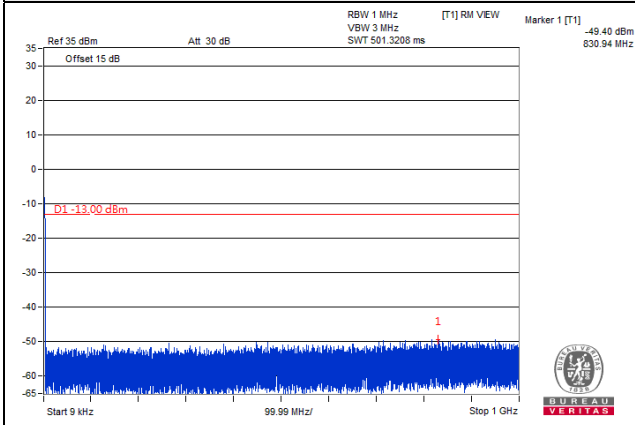


Frequency Range : 1GHz~18GHz

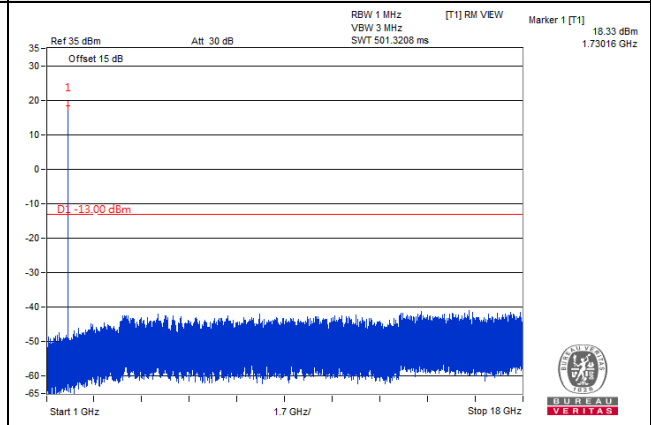


Channel 20175 (1732.5MHz)

Frequency Range : 9kHz~1GHz

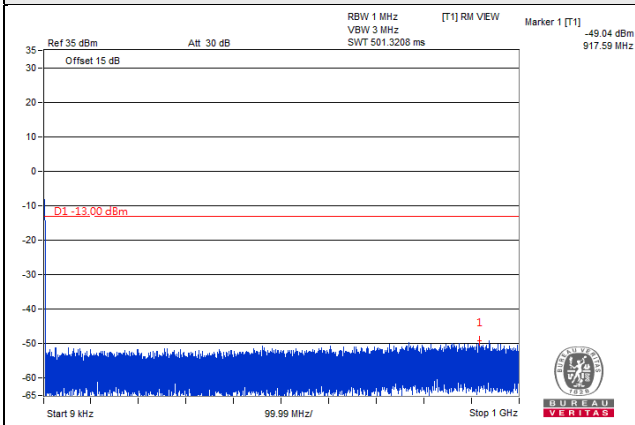


Frequency Range : 1GHz~18GHz

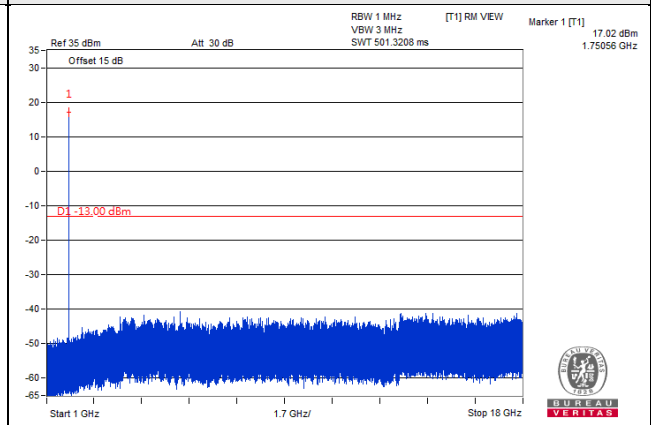


Channel 20375 (1752.5MHz)

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~18GHz

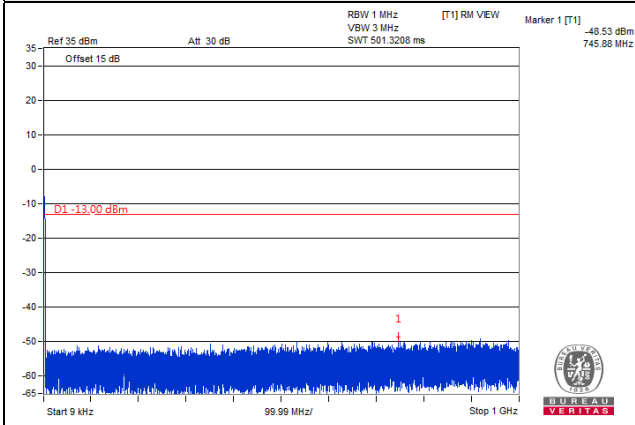


*The 9kHz signal over the limit is from Spectrum.

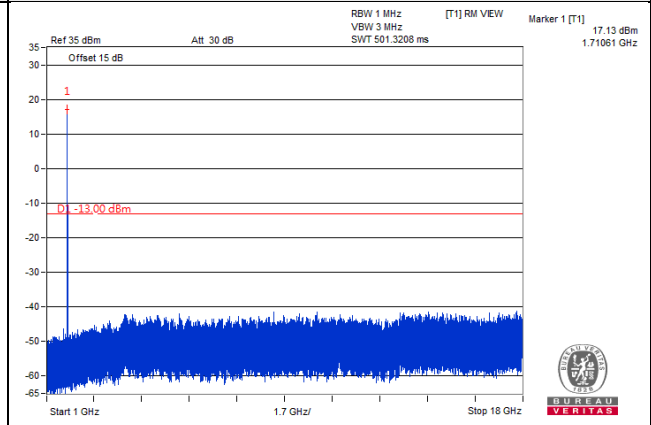
Channel Bandwidth: 10MHz

Channel 20000 (1715.0MHz)

Frequency Range : 9kHz~1GHz

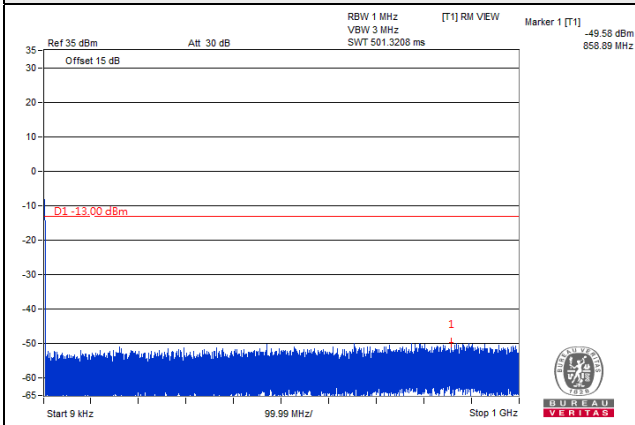


Frequency Range : 1GHz~18GHz

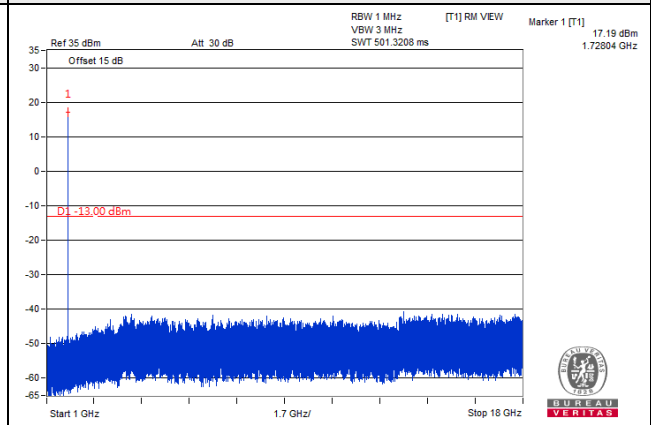


Channel 20175 (1732.5MHz)

Frequency Range : 9kHz~1GHz

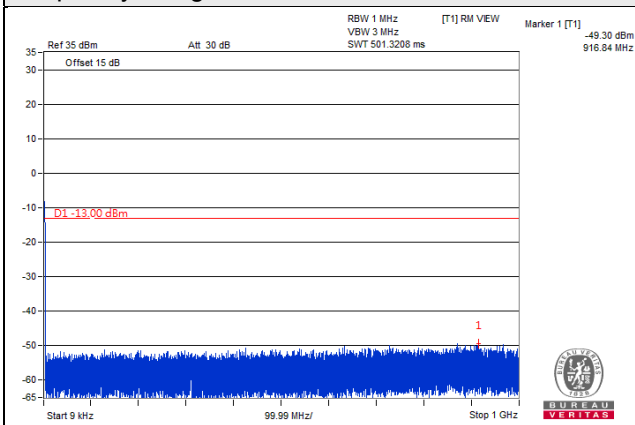


Frequency Range : 1GHz~18GHz

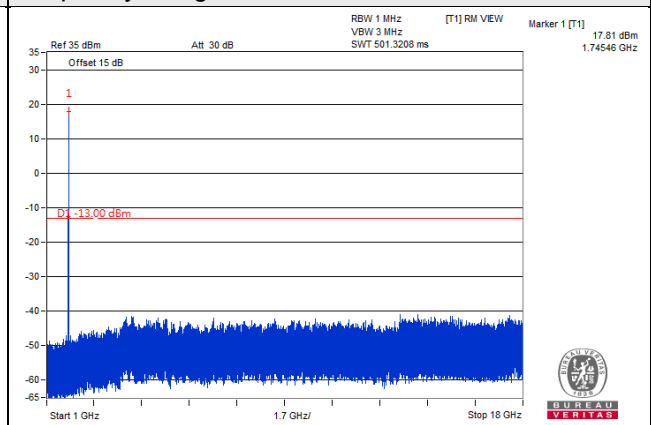


Channel 20350 (1750.0MHz)

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~18GHz

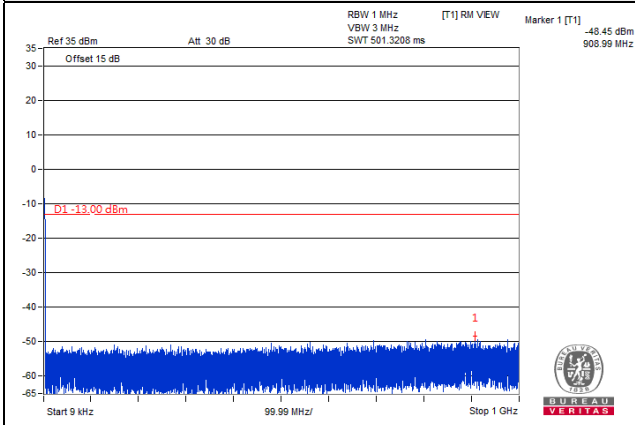


*The 9kHz signal over the limit is from Spectrum.

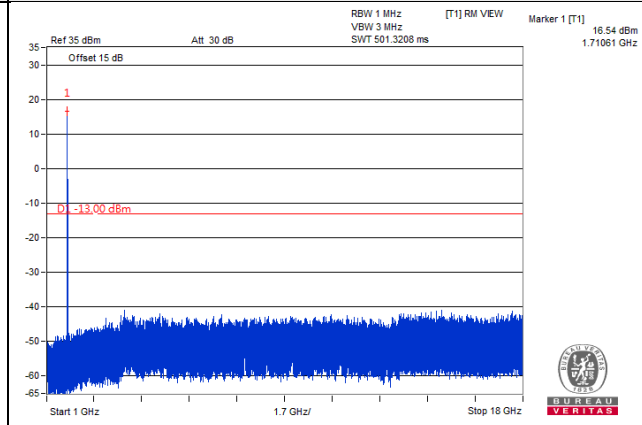
Channel Bandwidth: 15MHz

Channel 20025 (1717.5MHz)

Frequency Range : 9kHz~1GHz

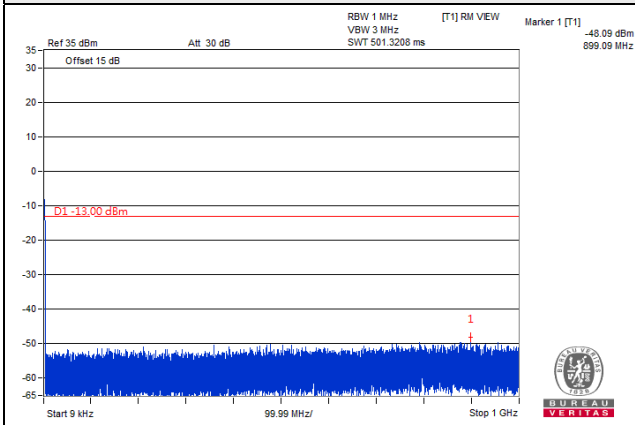


Frequency Range : 1GHz~18GHz

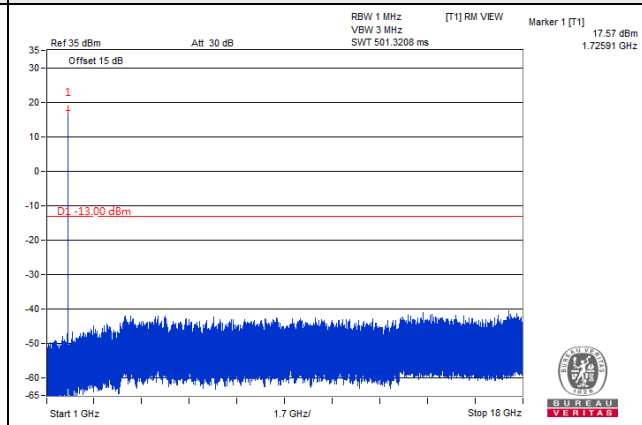


Channel 20175 (1732.5MHz)

Frequency Range : 9kHz~1GHz

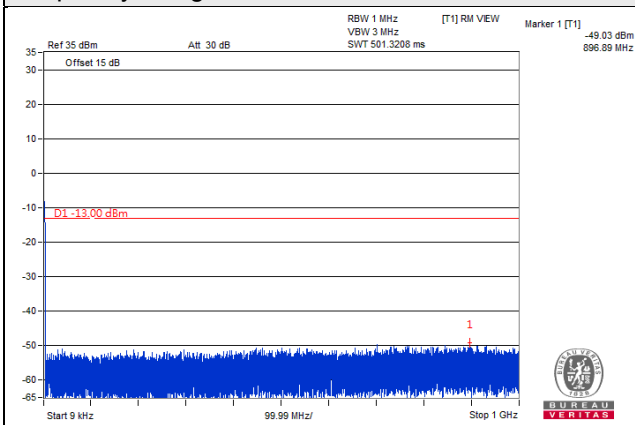


Frequency Range : 1GHz~18GHz

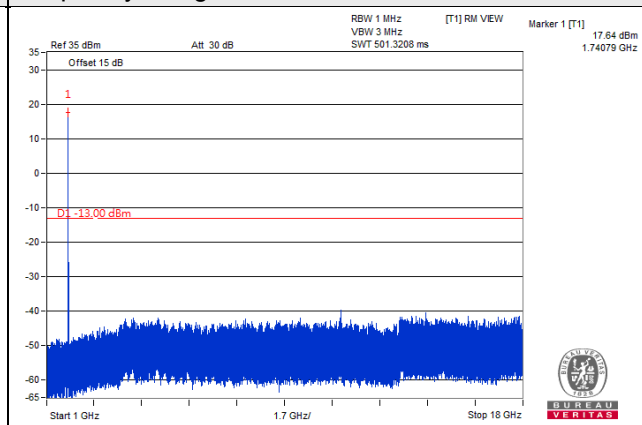


Channel 20325 (1747.5MHz)

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~18GHz

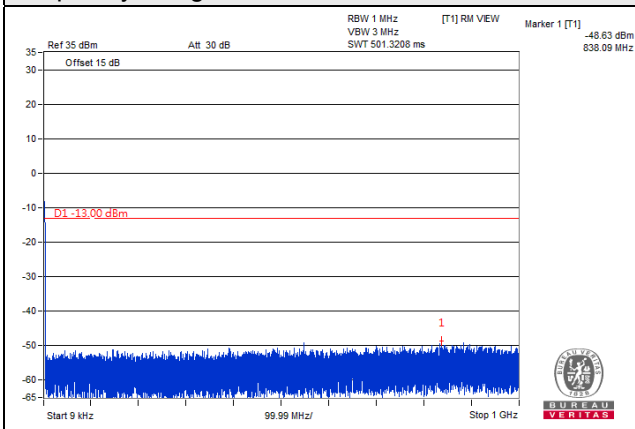


*The 9kHz signal over the limit is from Spectrum.

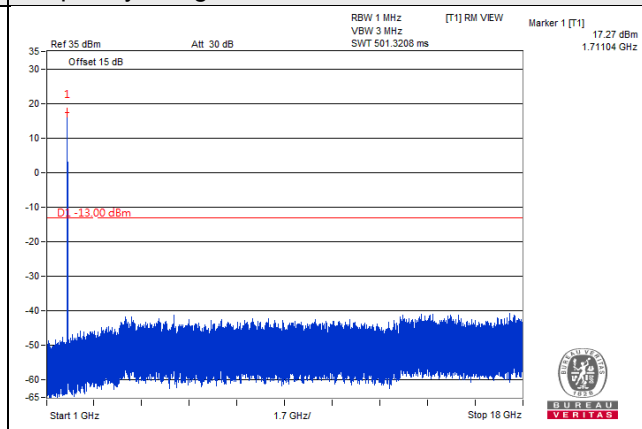
Channel Bandwidth: 20MHz

Channel 20050 (1720.0MHz)

Frequency Range : 9kHz~1GHz

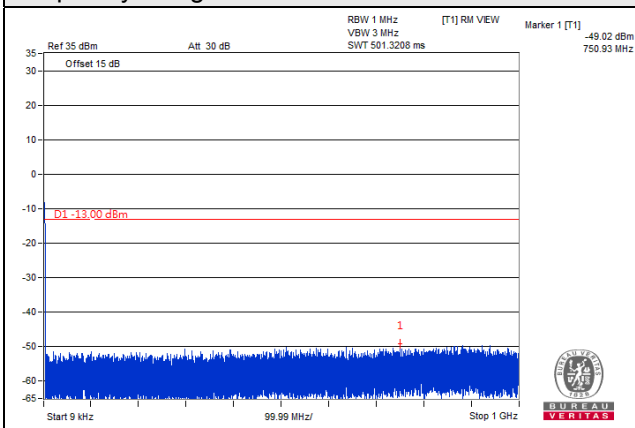


Frequency Range : 1GHz~18GHz

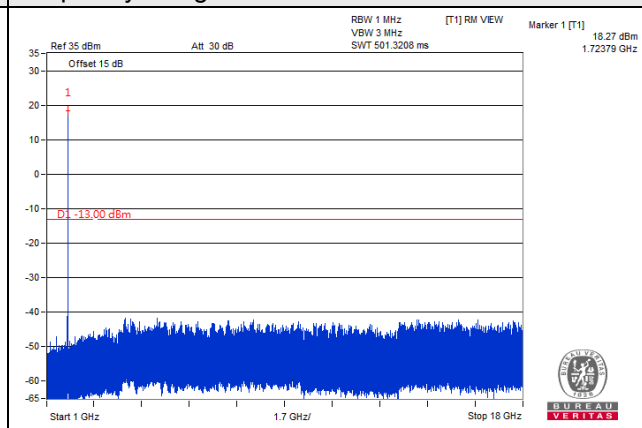


Channel 20175 (1732.5MHz)

Frequency Range : 9kHz~1GHz

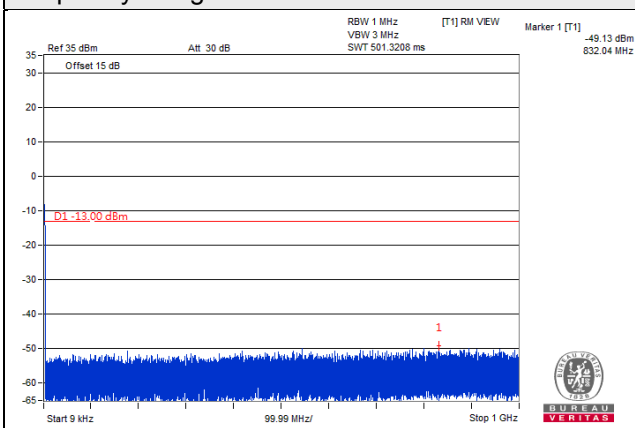


Frequency Range : 1GHz~18GHz

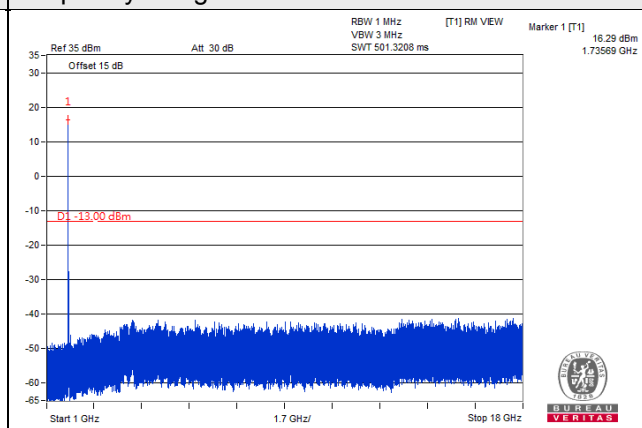


Channel 20300 (1745.0MHz)

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~18GHz



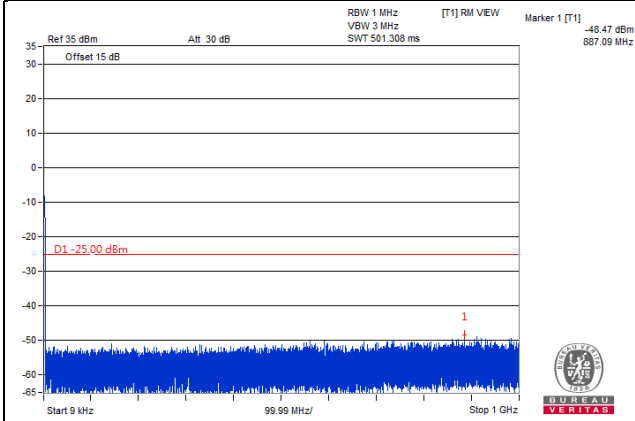
*The 9kHz signal over the limit is from Spectrum.

LTE Band 7

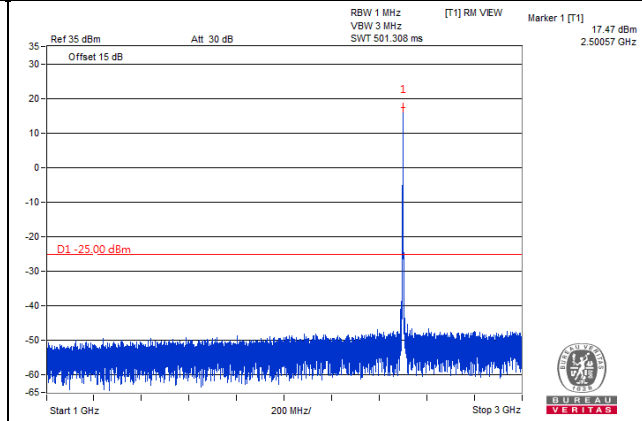
Channel Band width: 5MHz

Channel 20775(2502.5MHz)

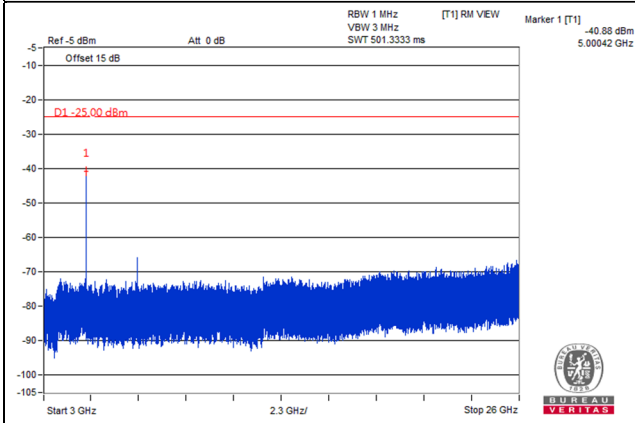
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

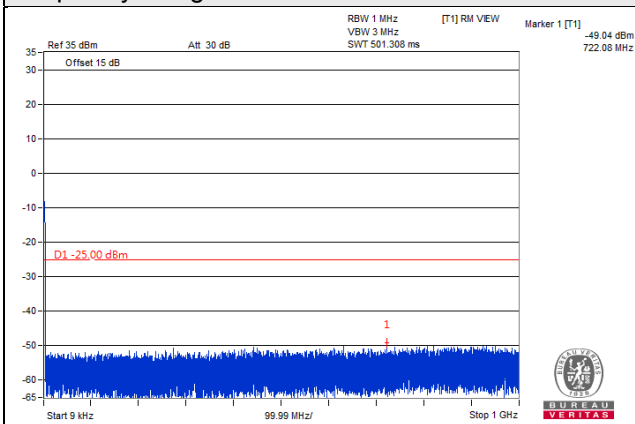


*The 9kHz signal over the limit is from Spectrum.

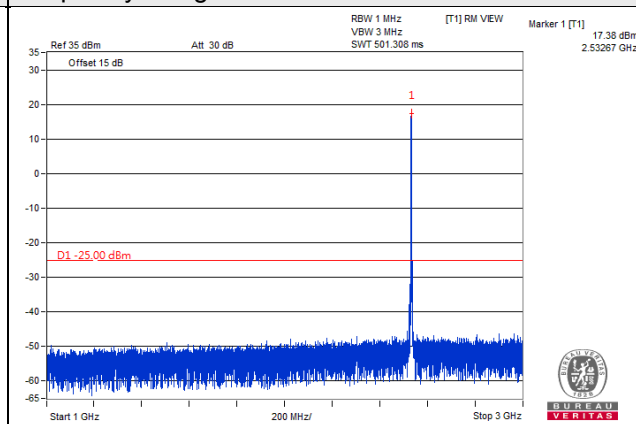
Channel Band width: 5MHz

Channel 21100(2535MHz)

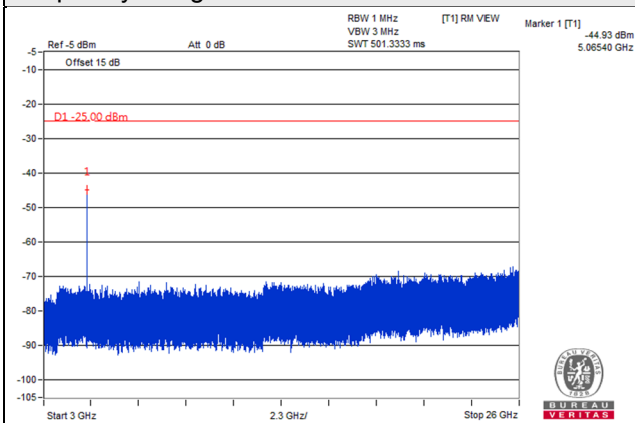
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

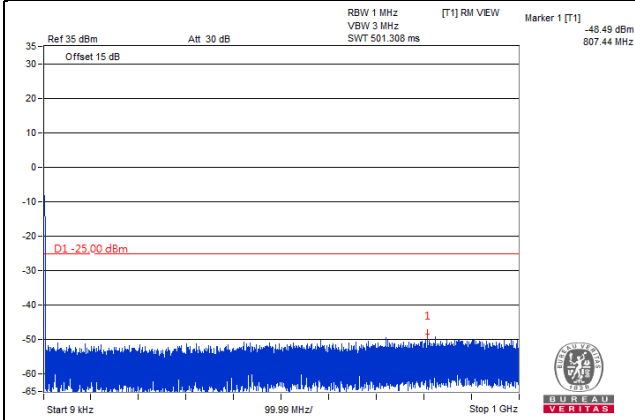


*The 9kHz signal over the limit is from Spectrum.

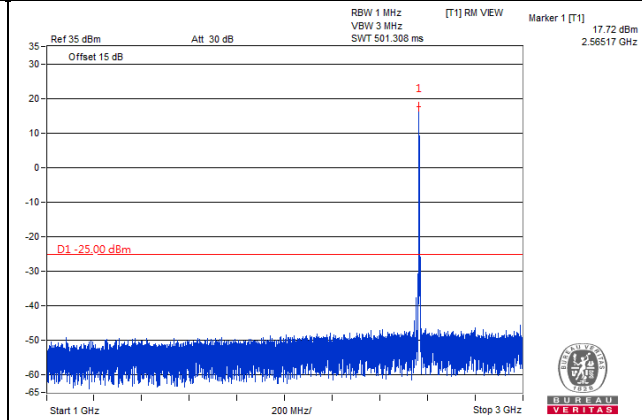
Channel Band width: 5MHz

Channel 21425(2567.5MHz)

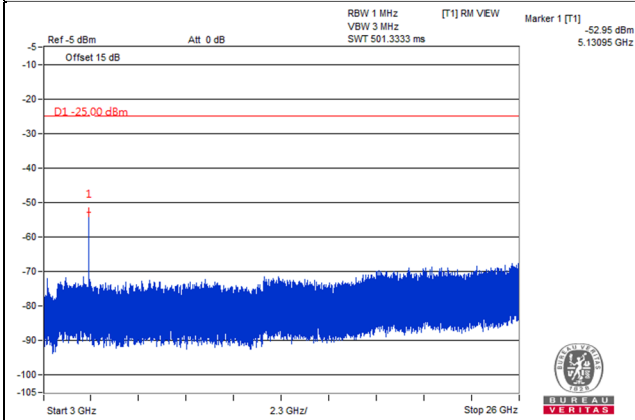
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

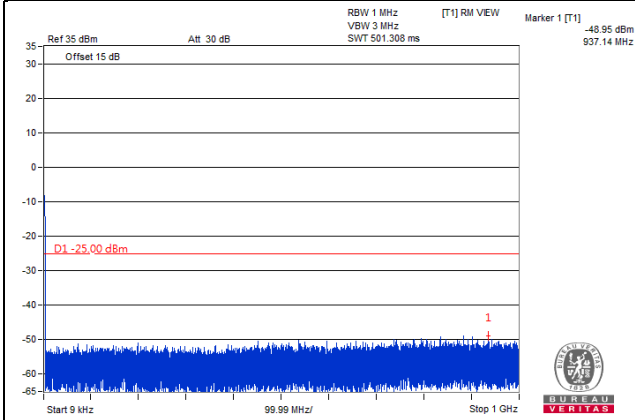


*The 9kHz signal over the limit is from Spectrum.

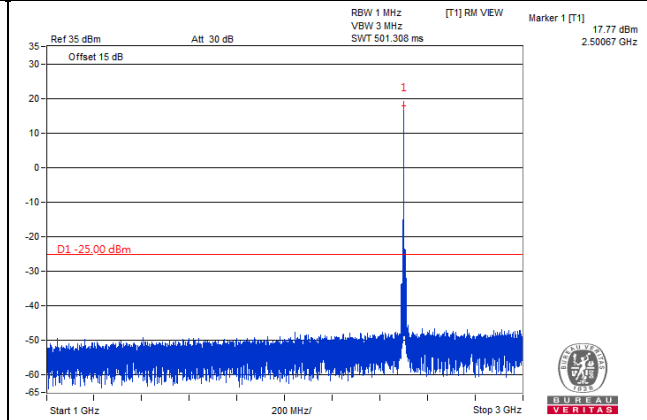
Channel Band width: 10MHz

Channel 20800(2505MHz)

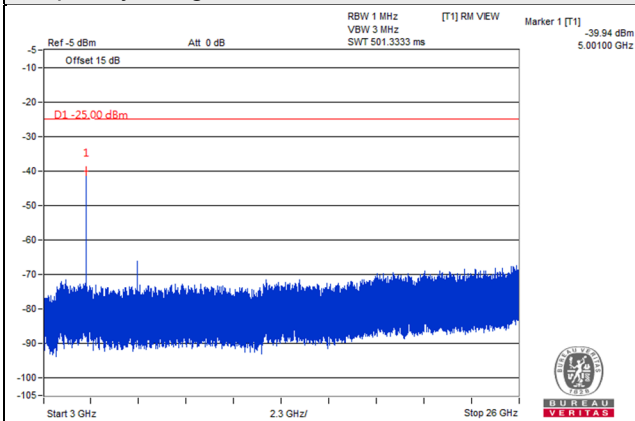
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

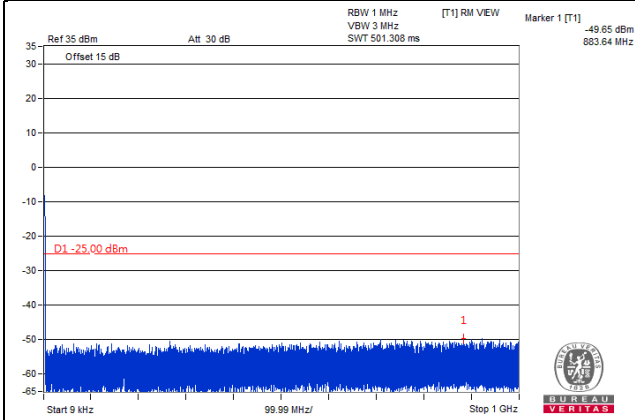


*The 9kHz signal over the limit is from Spectrum.

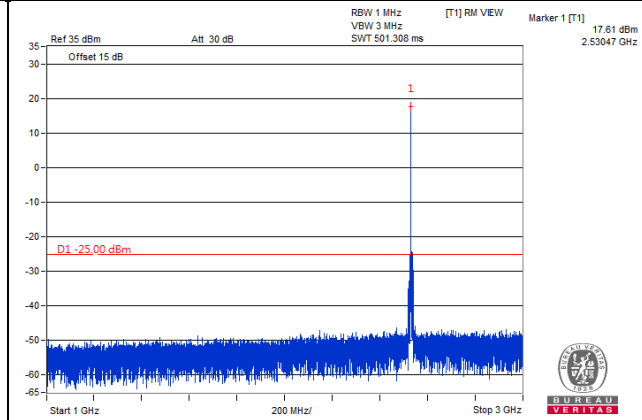
Channel Band width: 10MHz

Channel 21100(2535MHz)

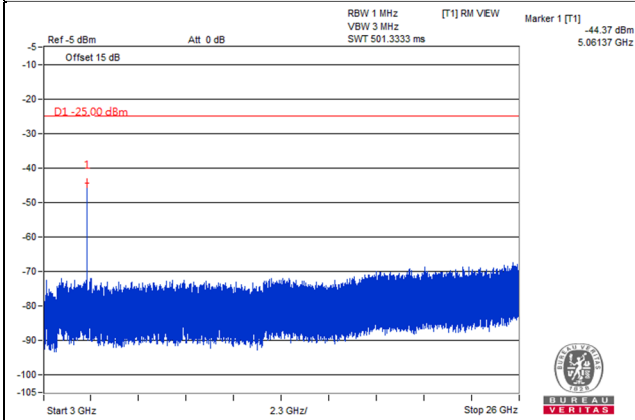
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

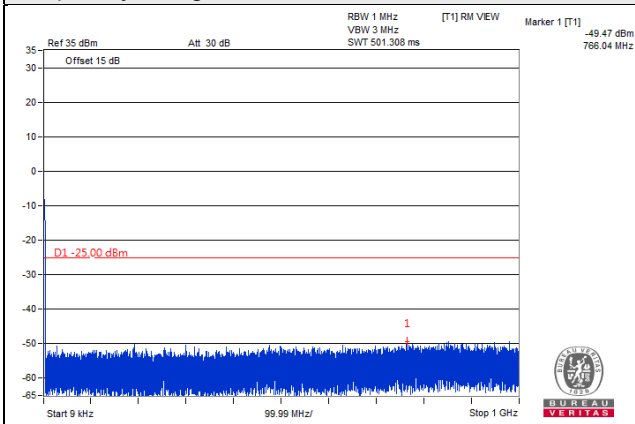


*The 9kHz signal over the limit is from Spectrum.

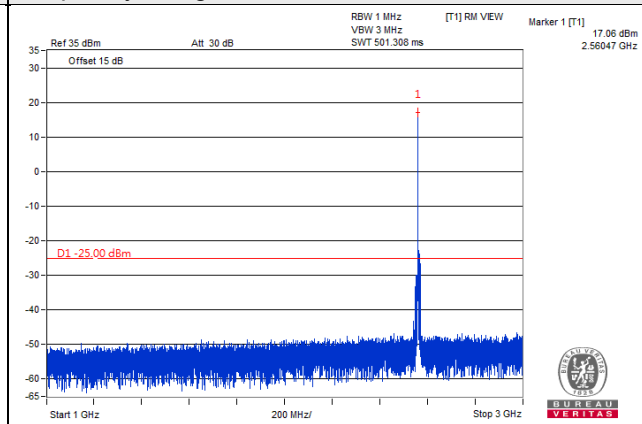
Channel Band width: 10MHz

Channel 21400(2565MHz)

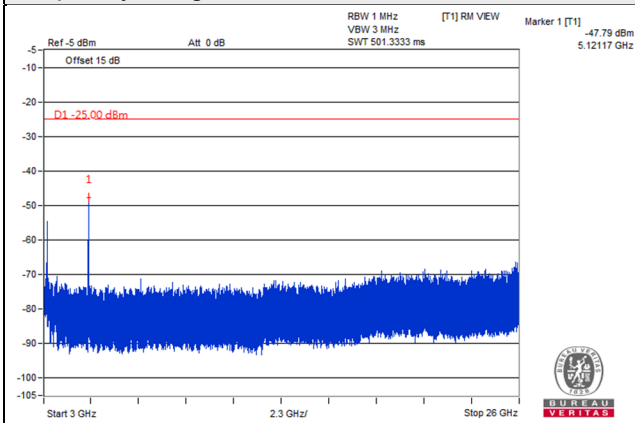
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

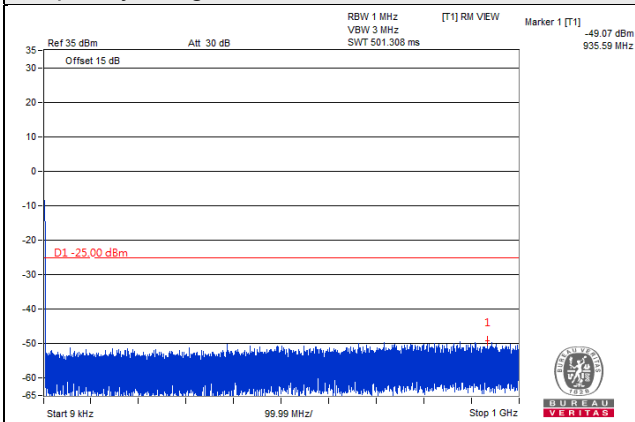


*The 9kHz signal over the limit is from Spectrum.

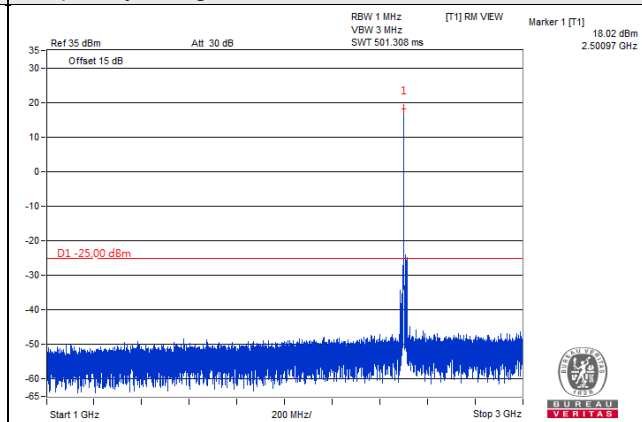
Channel Band width: 15MHz

Channel 20825(2507.5MHz)

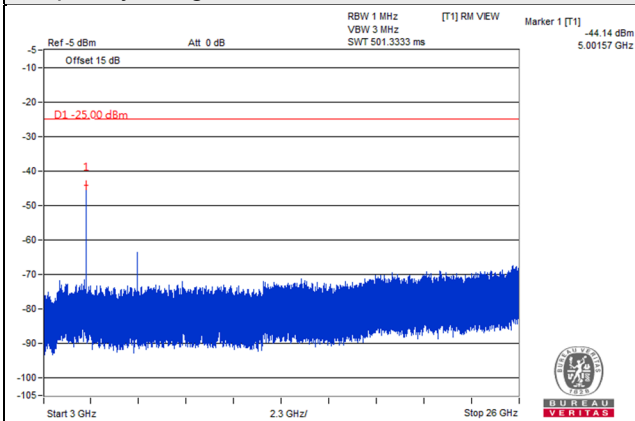
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

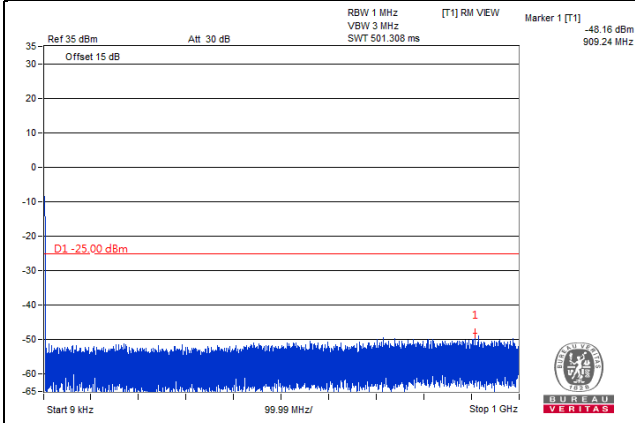


*The 9kHz signal over the limit is from Spectrum.

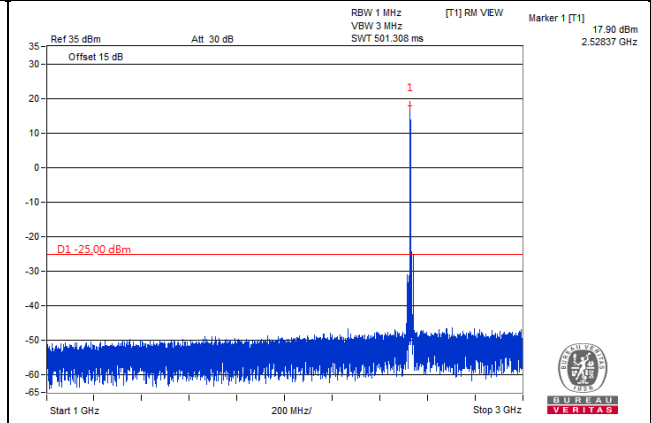
Channel Band width: 15MHz

Channel 21100(2535MHz)

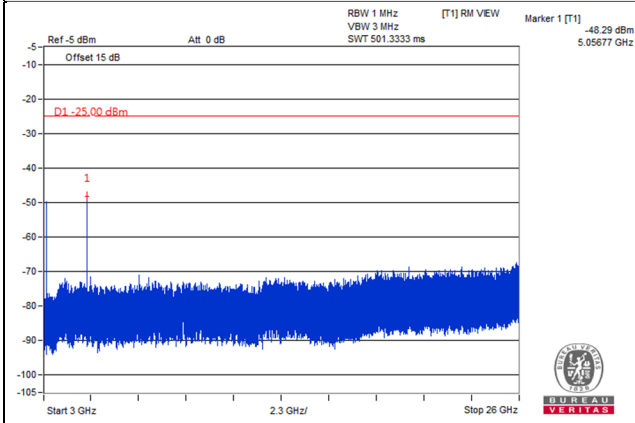
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

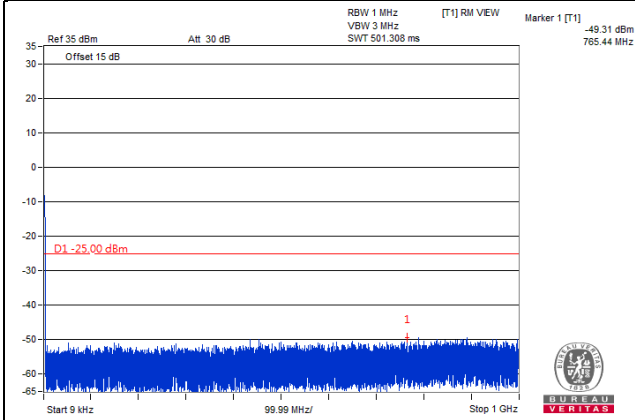


*The 9kHz signal over the limit is from Spectrum.

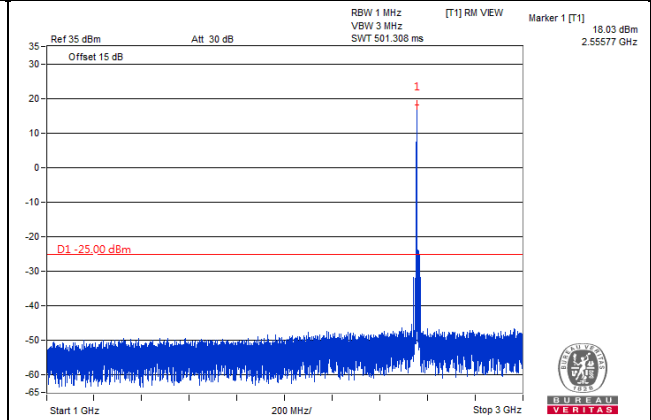
Channel Band width: 15MHz

Channel 21375(2562.5MHz)

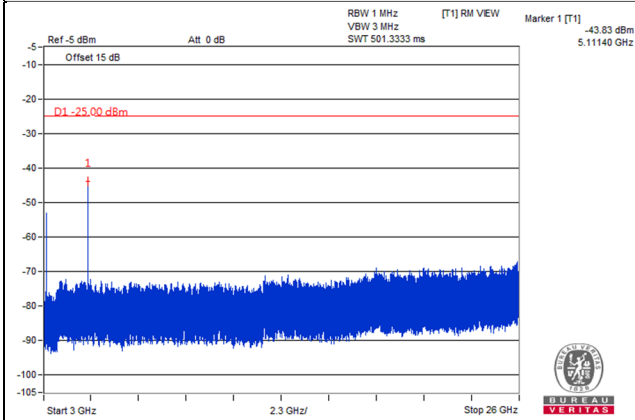
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

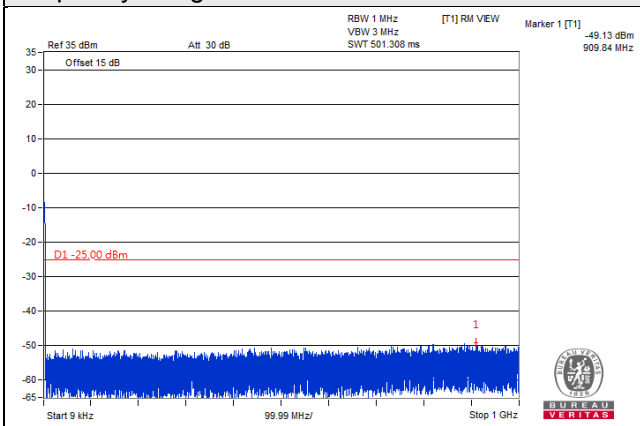


*The 9kHz signal over the limit is from Spectrum.

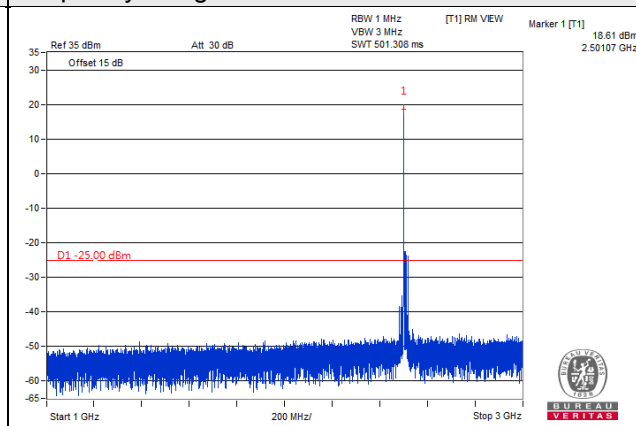
Channel Band width: 20MHz

Channel 20850(2510MHz)

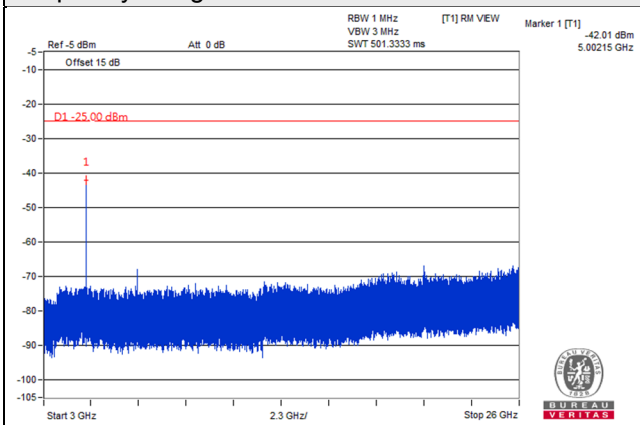
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

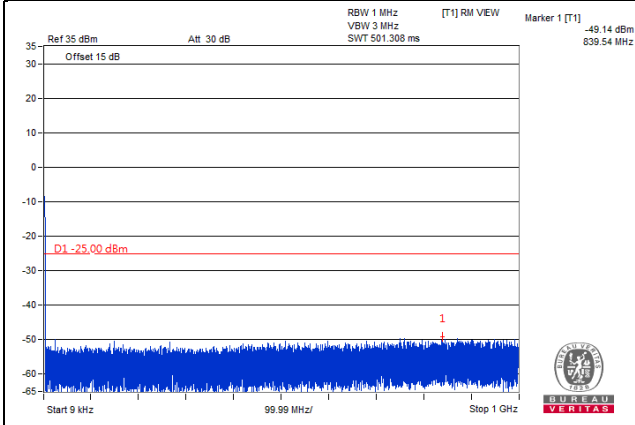


*The 9kHz signal over the limit is from Spectrum.

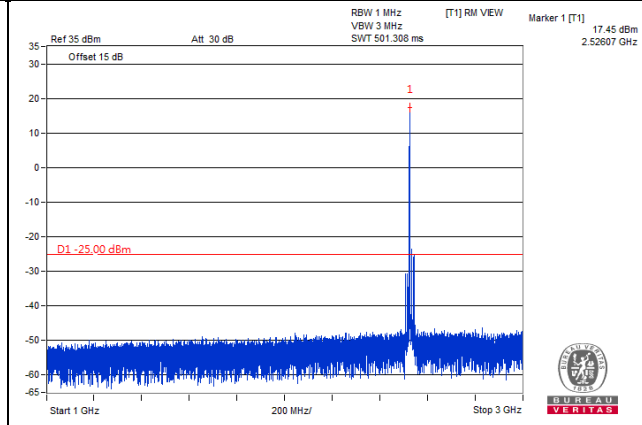
Channel Band width: 20MHz

Channel 21100(2535MHz)

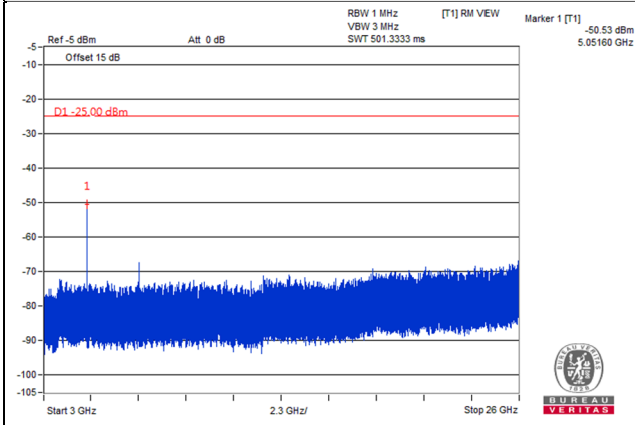
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz

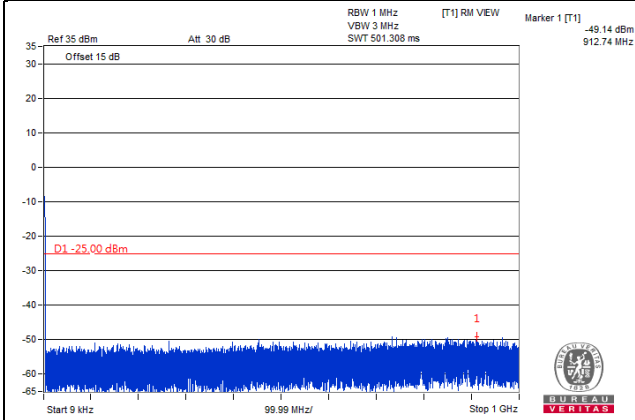


*The 9kHz signal over the limit is from Spectrum.

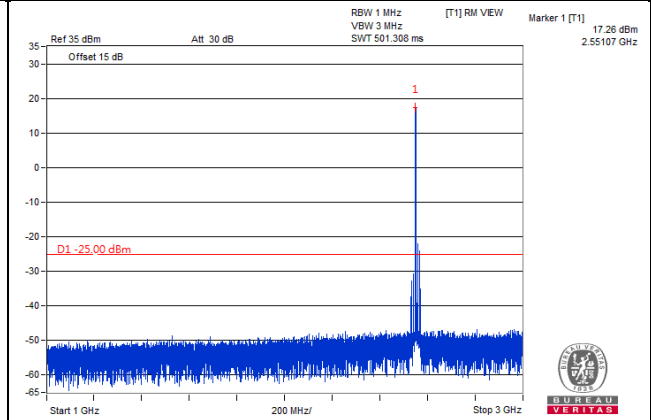
Channel Band width: 20MHz

Channel 21350(2560MHz)

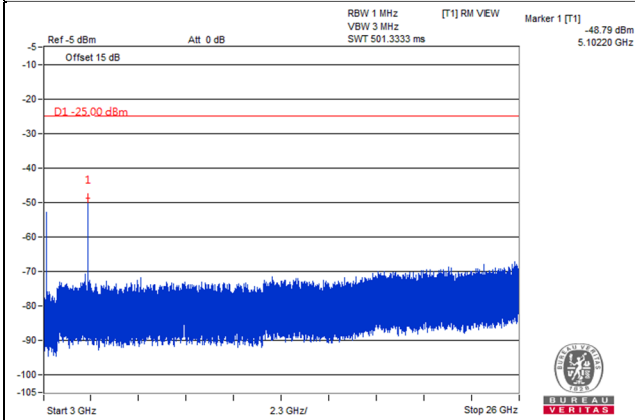
Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~3GHz



Frequency Range : 3GHz~26GHz



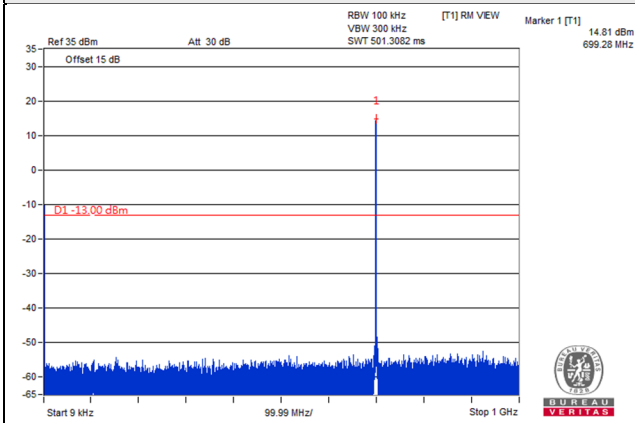
*The 9kHz signal over the limit is from Spectrum.

LTE Band 12

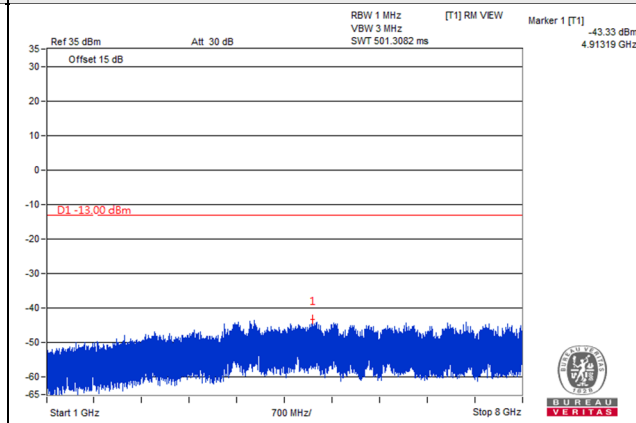
Channel Band width: 1.4MHz

Channel 23017 (699.7MHz)

Frequency Range : 9kHz~1GHz

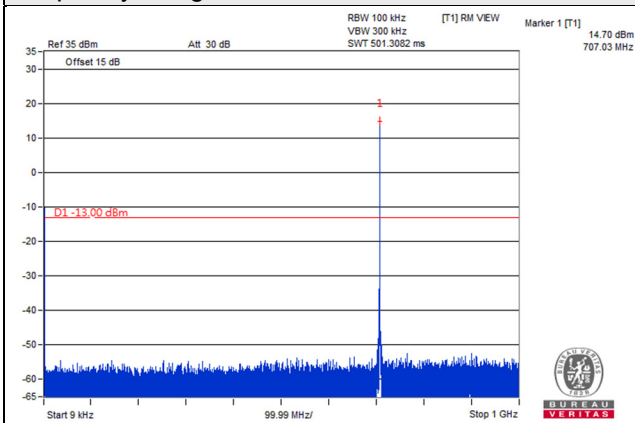


Frequency Range : 1GHz~8GHz

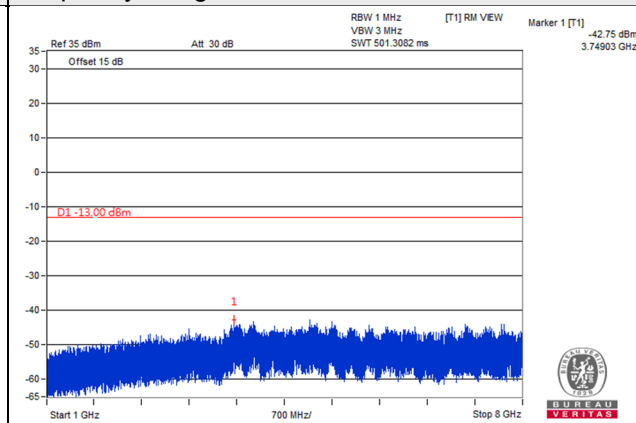


Channel 23095 (707.5MHz)

Frequency Range : 9kHz~1GHz

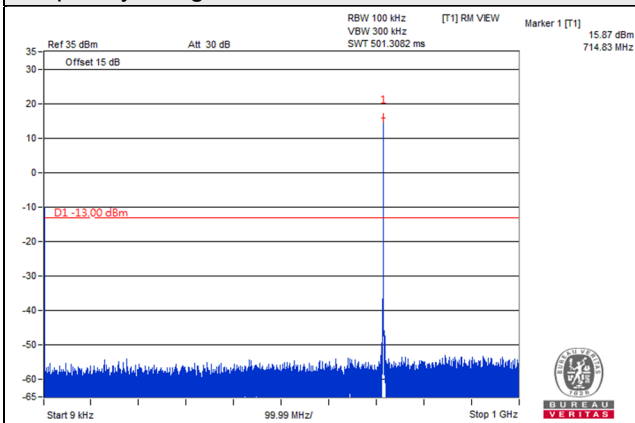


Frequency Range : 1GHz~8GHz

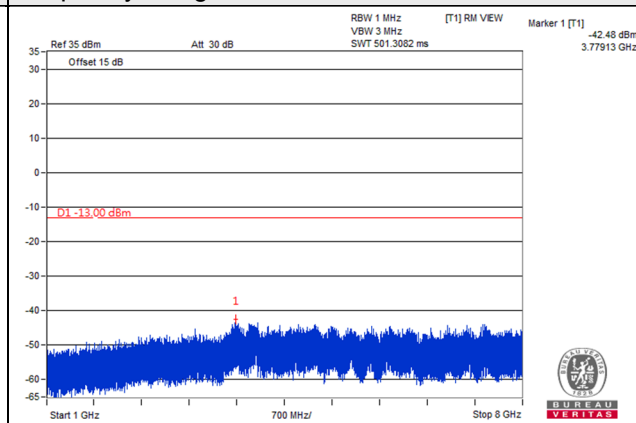


Channel 23173 (715.3MHz)

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~8GHz

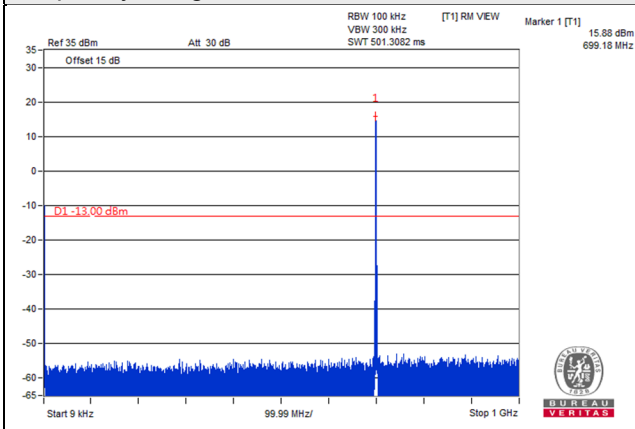


*The 9kHz signal over the limit is from Spectrum.

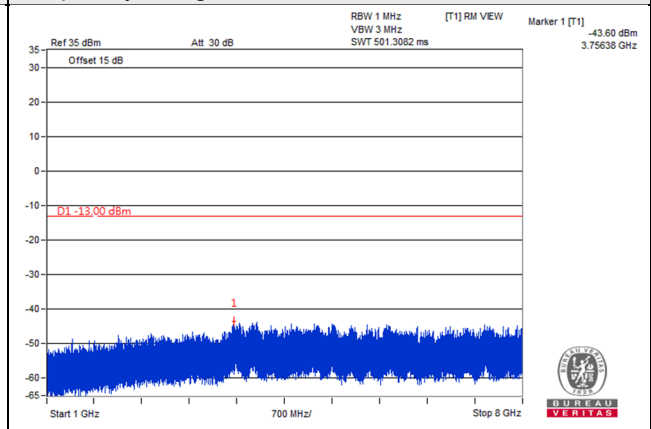
Channel Band width: 3MHz

Channel 23025 (700.5MHz)

Frequency Range : 9kHz~1GHz

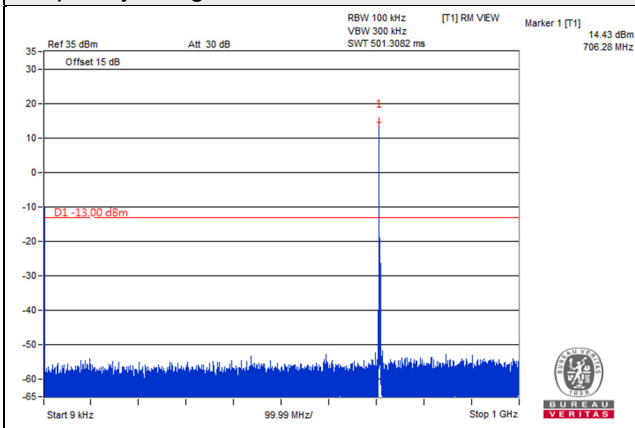


Frequency Range : 1GHz~8GHz

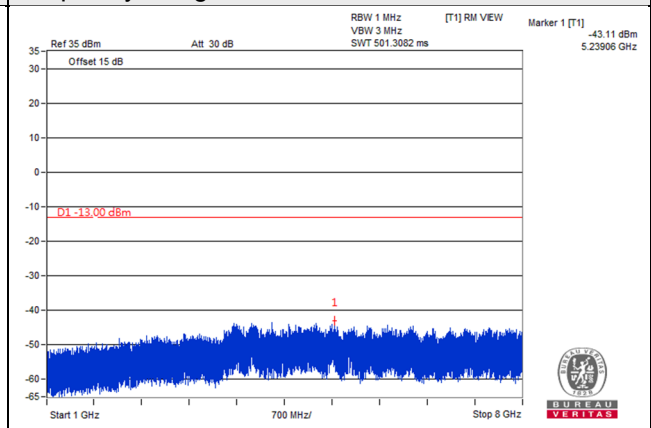


Channel 23095 (707.5MHz)

Frequency Range : 9kHz~1GHz

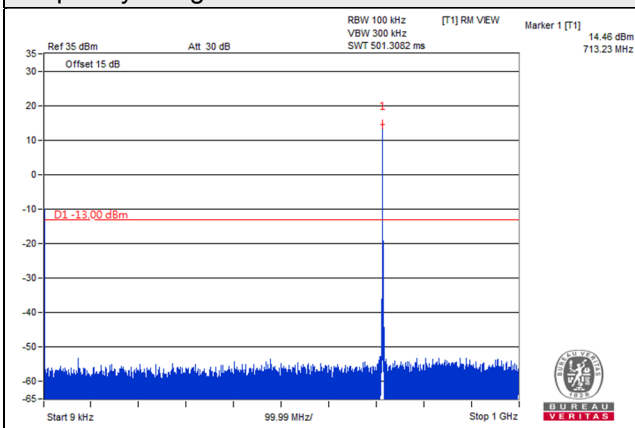


Frequency Range : 1GHz~8GHz

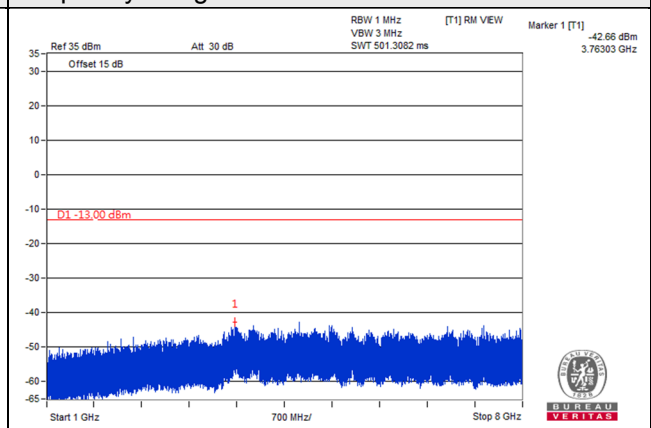


Channel 23165 (714.5MHz)

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~8GHz

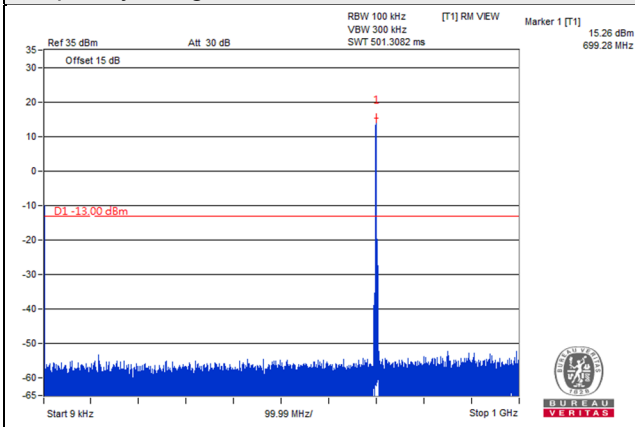


*The 9kHz signal over the limit is from Spectrum.

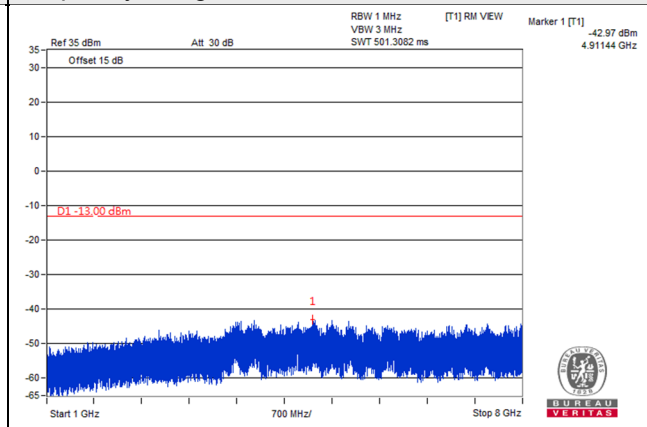
Channel Band width: 5MHz

Channel 23035 (701.5MHz)

Frequency Range : 9kHz~1GHz

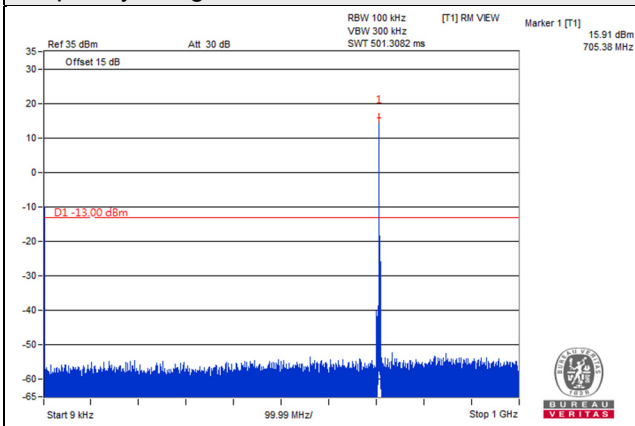


Frequency Range : 1GHz~8GHz

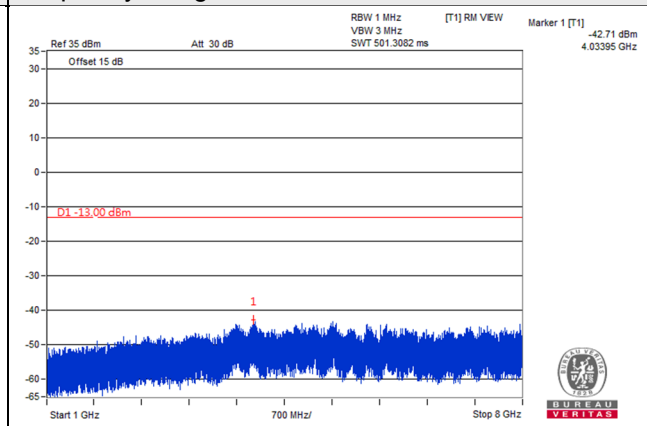


Channel 23095 (707.5MHz)

Frequency Range : 9kHz~1GHz

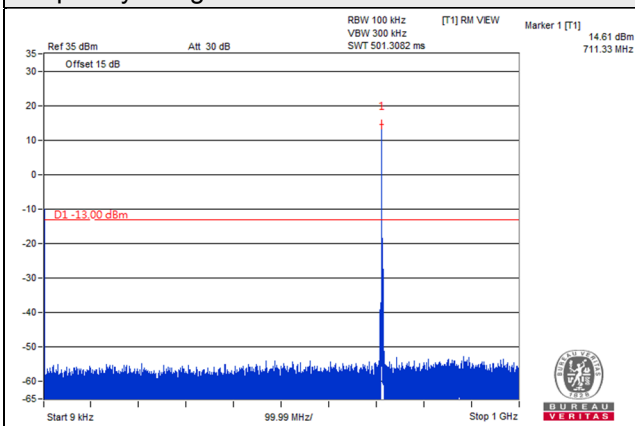


Frequency Range : 1GHz~8GHz

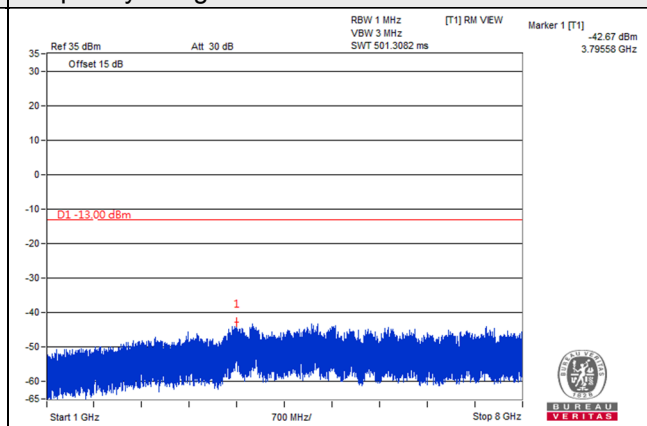


Channel 23155 (713.5MHz)

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~8GHz

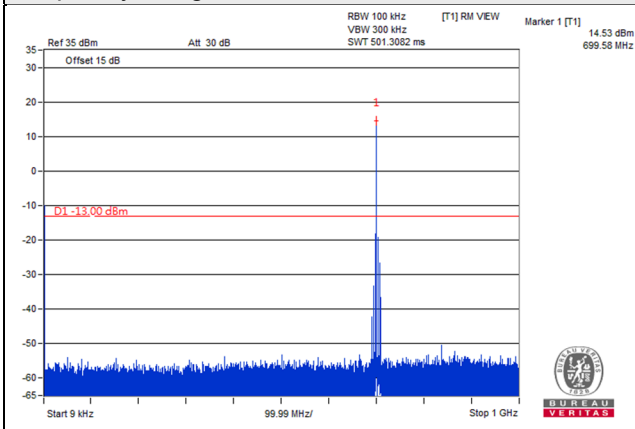


*The 9kHz signal over the limit is from Spectrum.

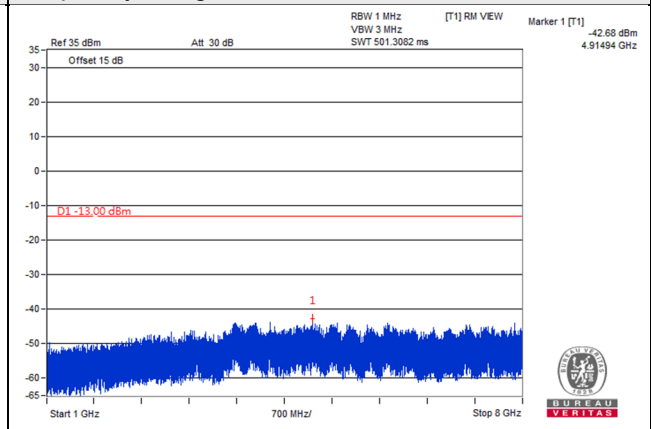
Channel Band width: 10MHz

Channel 23060 (704MHz)

Frequency Range : 9kHz~1GHz

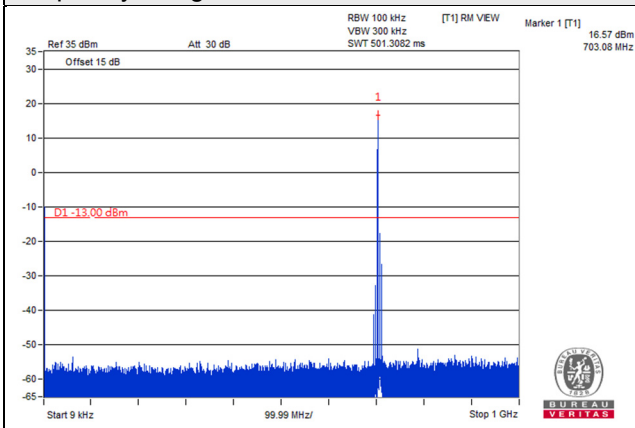


Frequency Range : 1GHz~8GHz

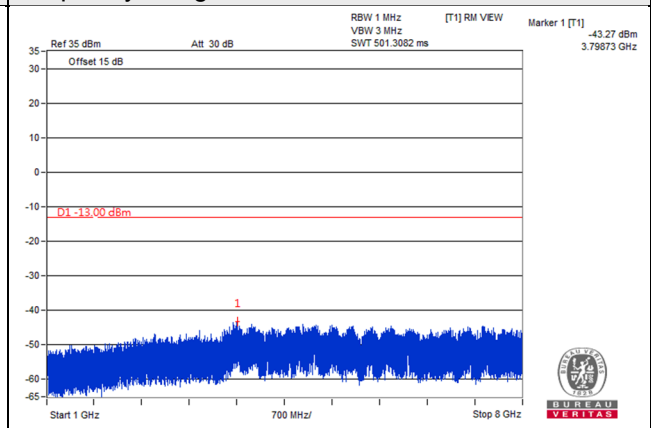


Channel 23095 (707.5MHz)

Frequency Range : 9kHz~1GHz

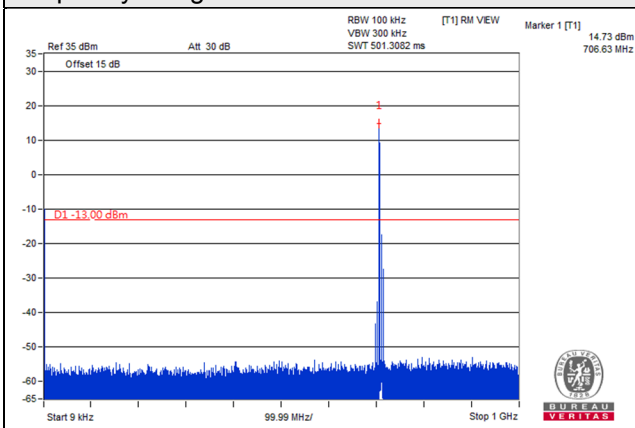


Frequency Range : 1GHz~8GHz

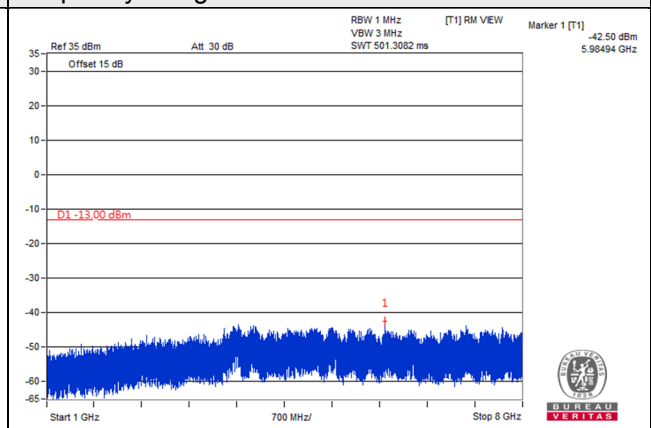


Channel 23130 (711MHz)

Frequency Range : 9kHz~1GHz



Frequency Range : 1GHz~8GHz



*The 9kHz signal over the limit is from Spectrum.