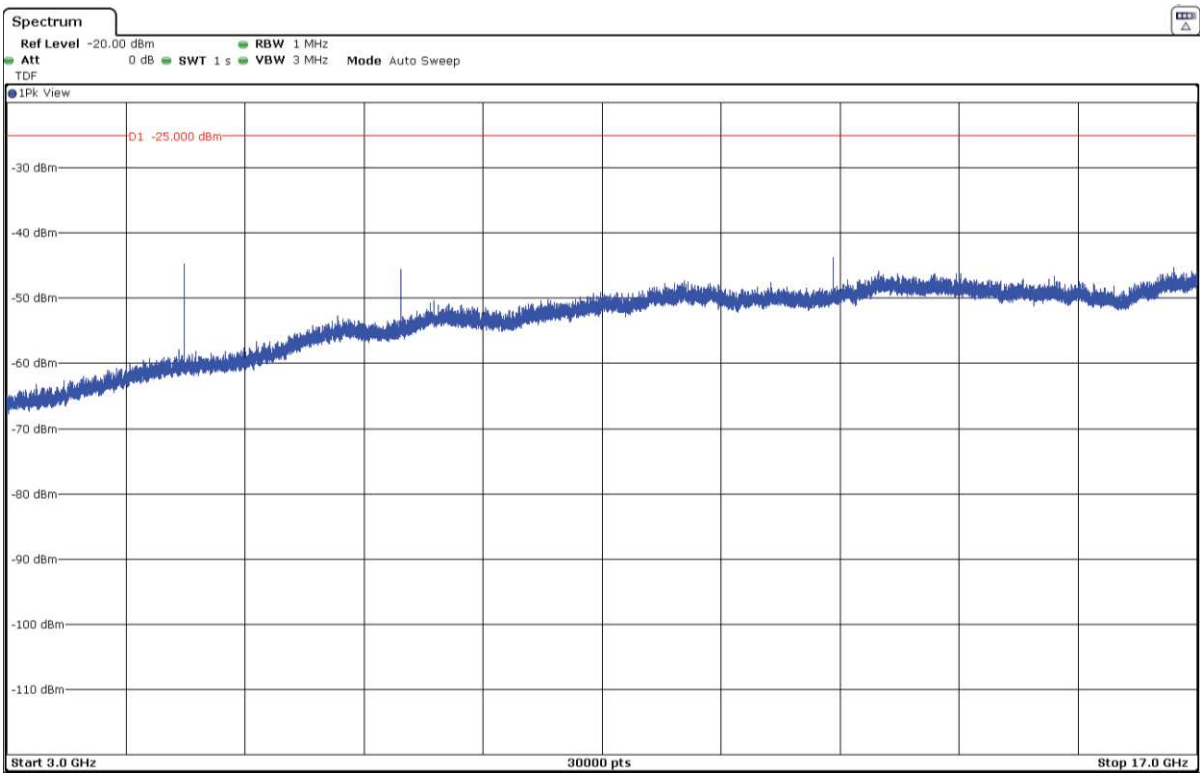
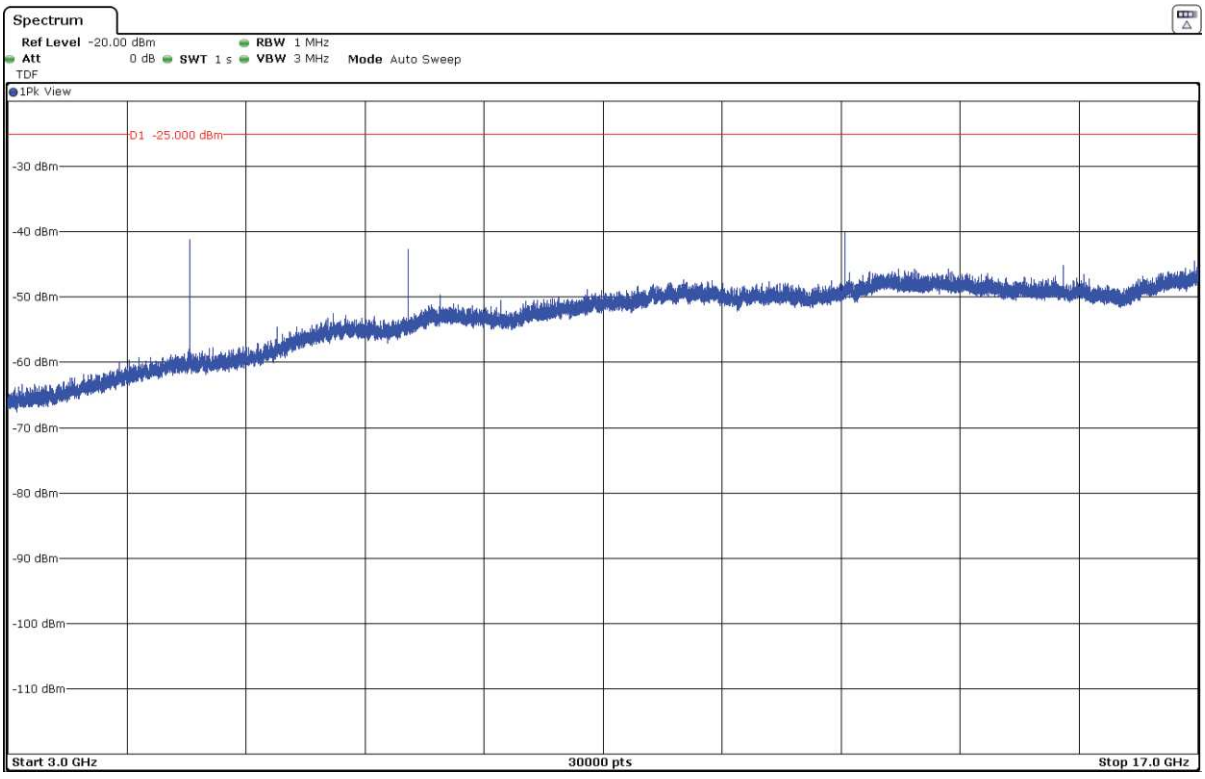
- Middle Channel:

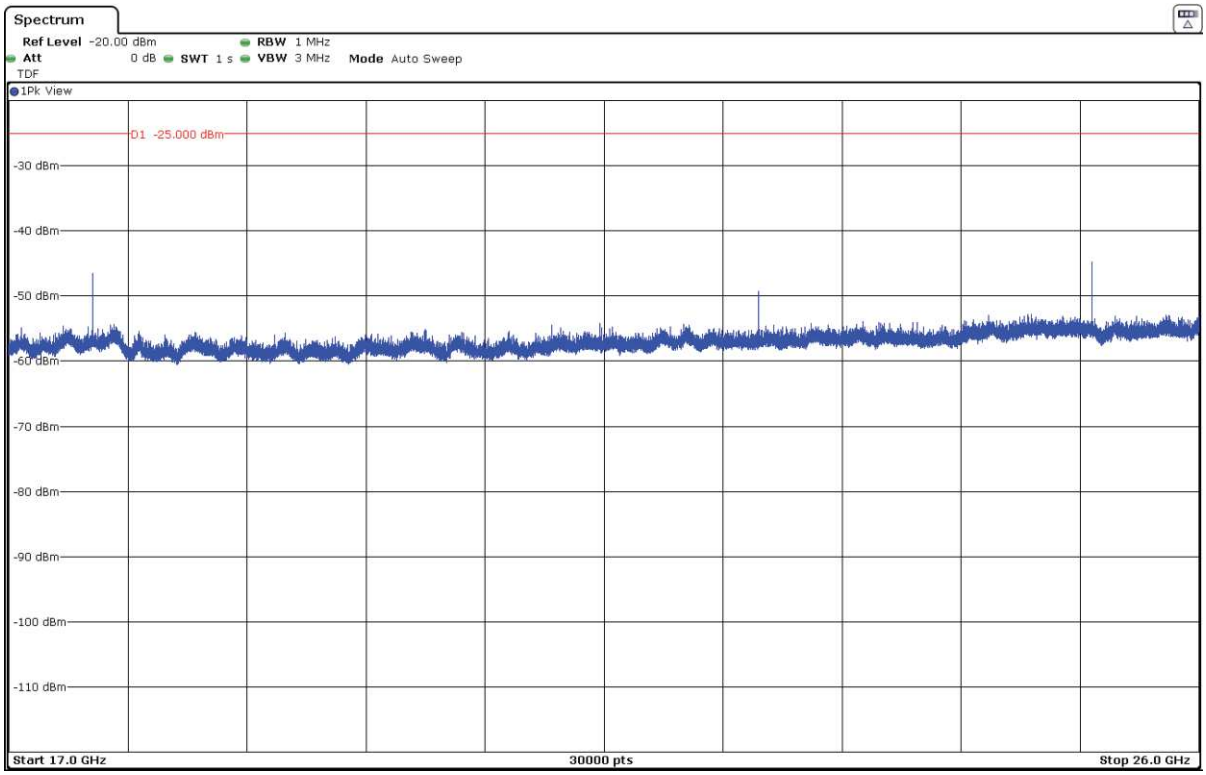


- Highest Channel:

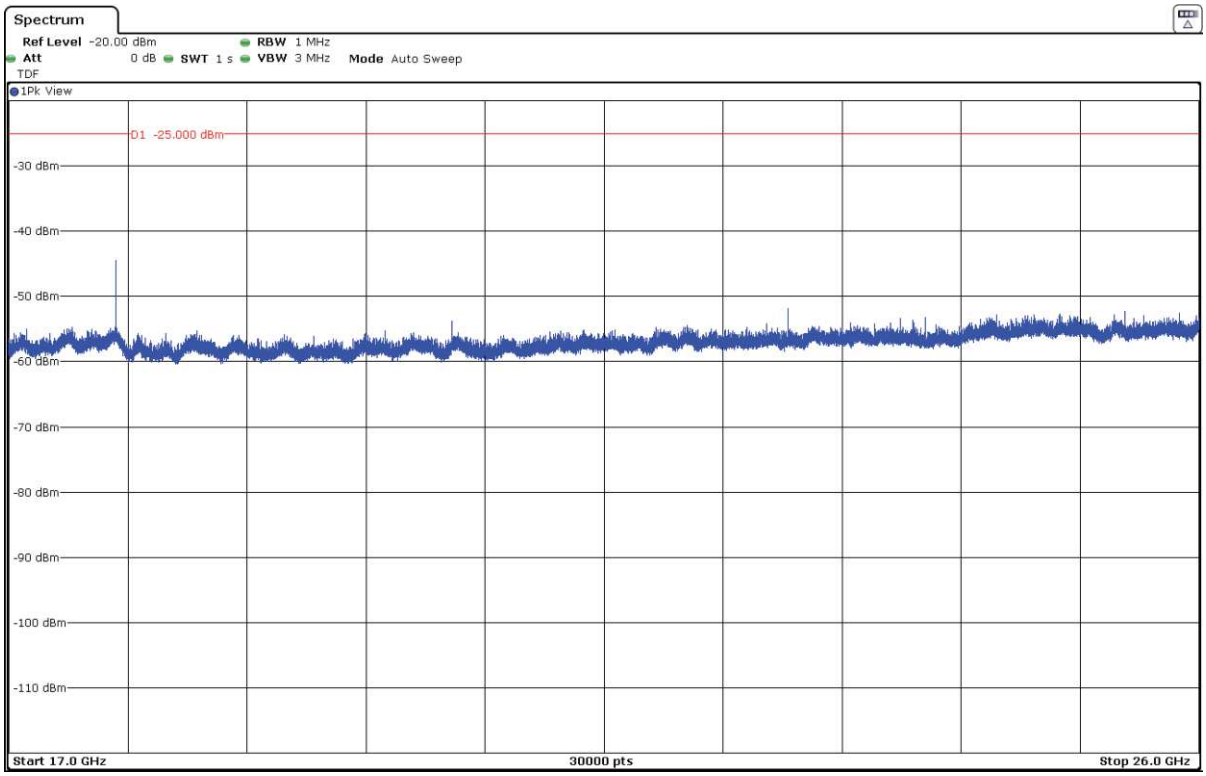


FREQUENCY RANGE 17 - 26 GHz

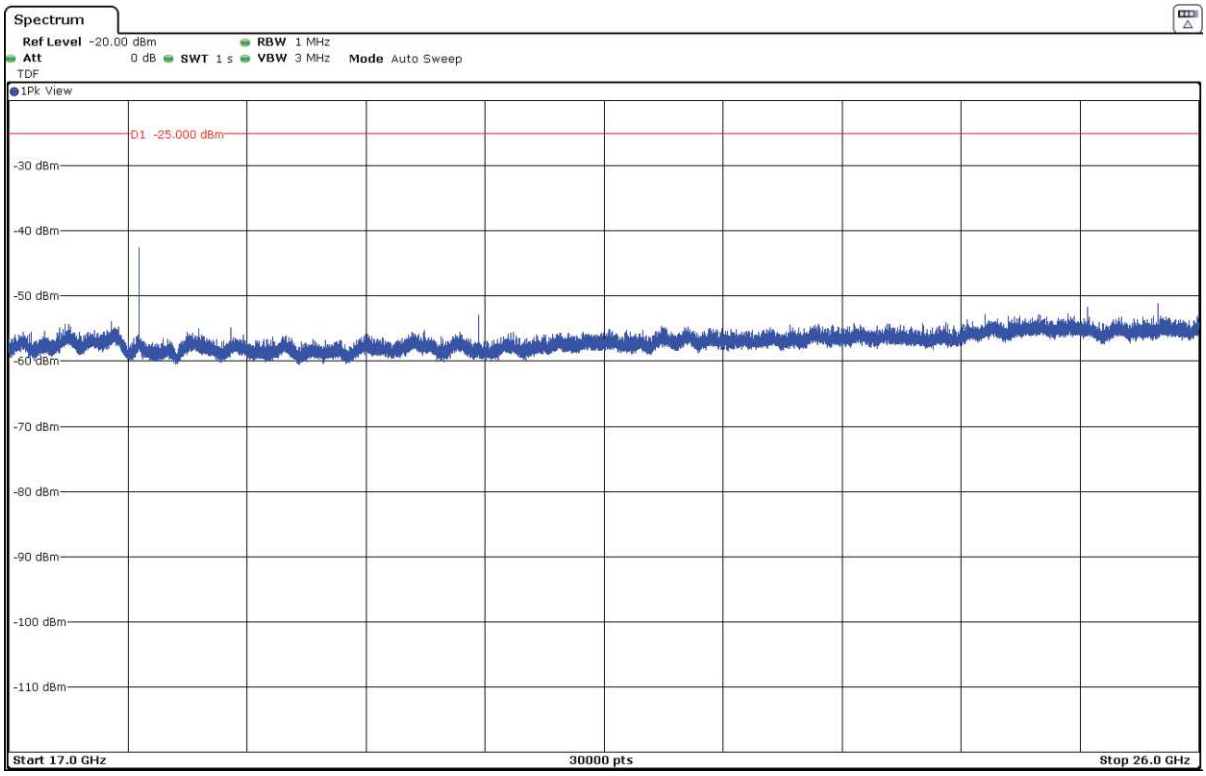
- Lowest Channel:



- Middle Channel:

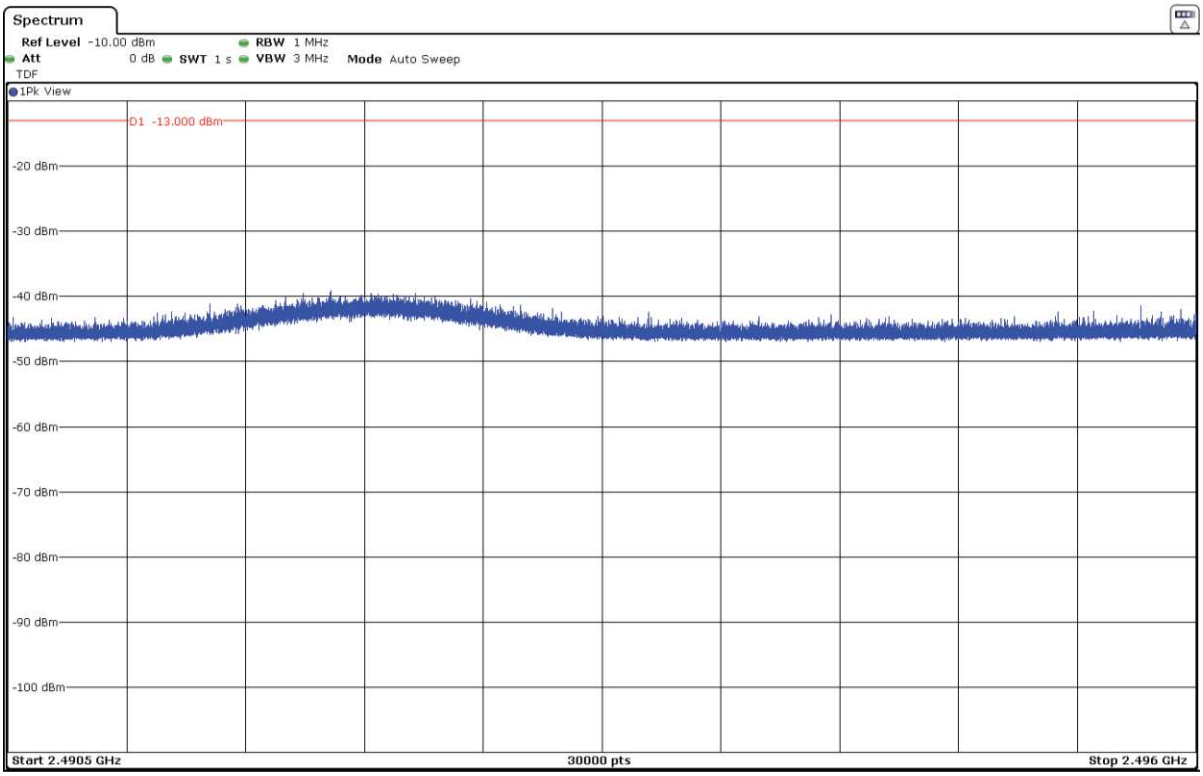


- Highest Channel:

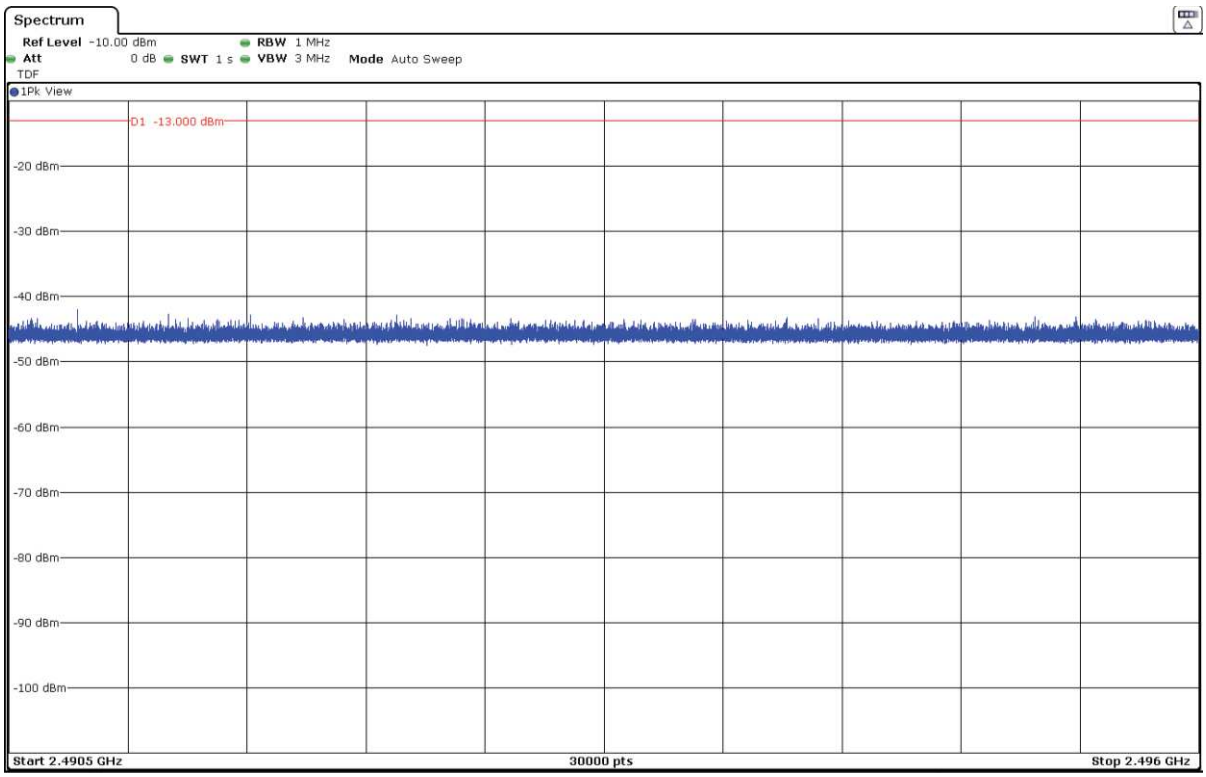


FREQUENCY RANGE 2490.5 - 2496 MHz

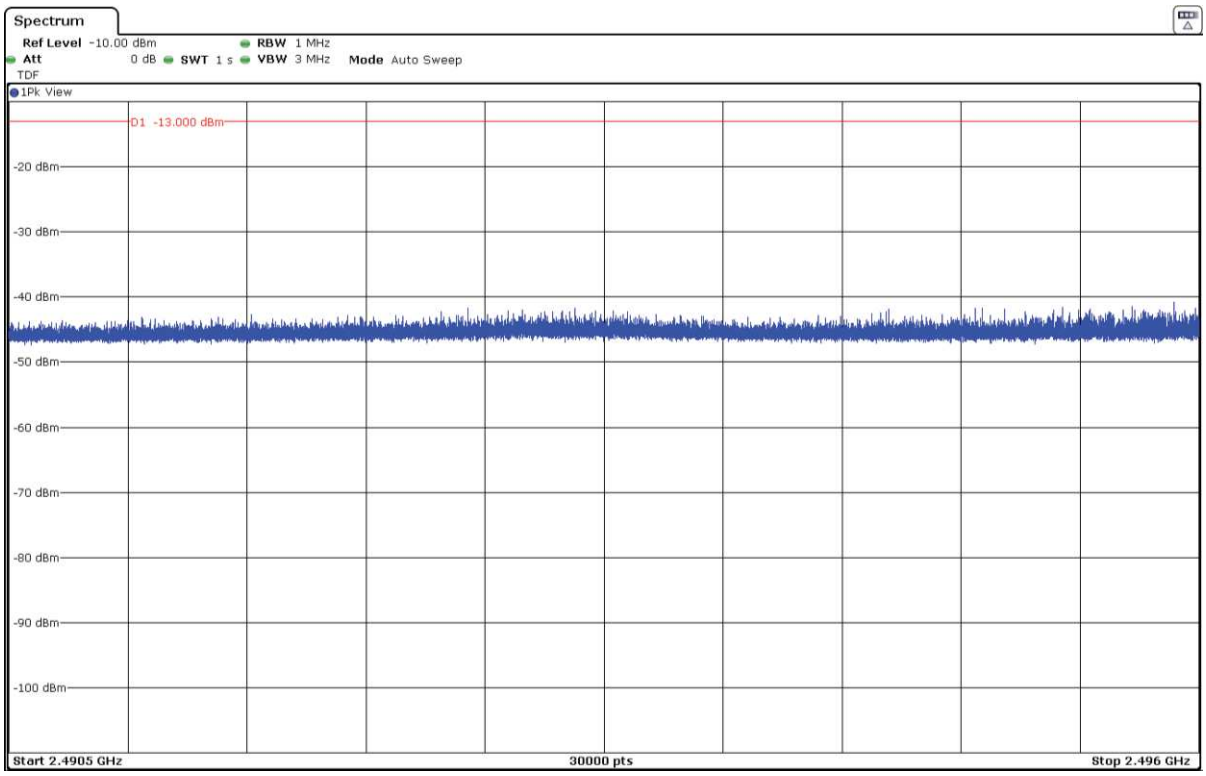
- Lowest Channel:



- Middle Channel:



- Highest Channel:



LTE Band 12:

QPSK and 16QAM Modulations:
A preliminary scan determined the 16QAM modulation, BW=3 MHz, RB=1, Offset=7 as the worst case.

- Lowest Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 8 GHz

No spurious frequencies at less than 20 dB below the limit.

- Middle Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 8 GHz

No spurious frequencies at less than 20 dB below the limit.

- Highest Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 8 GHz

No spurious frequencies at less than 20 dB below the limit.

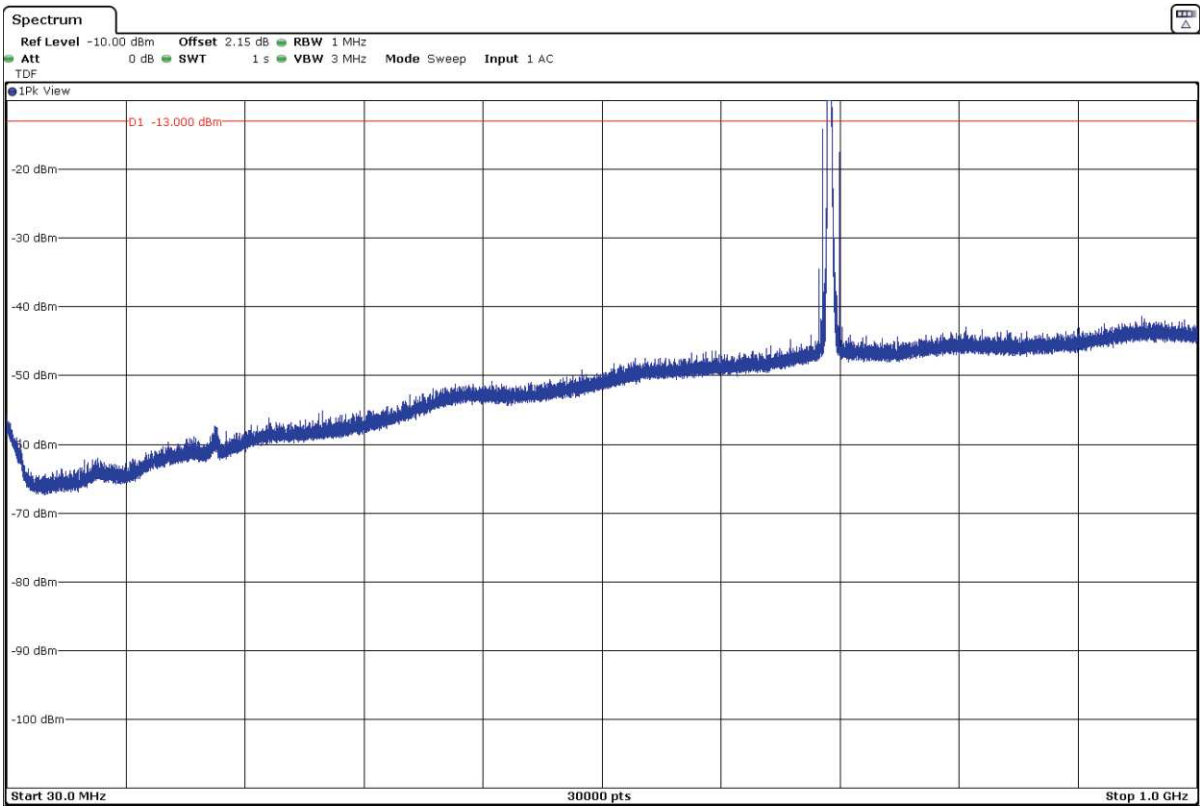
Measurement uncertainty (dB)	<±3.88 for f < 1GHz <±3.70 for f ≥ 1 GHz up to 18 GHz

Verdict: PASS

FREQUENCY RANGE 30 MHz - 1 GHz

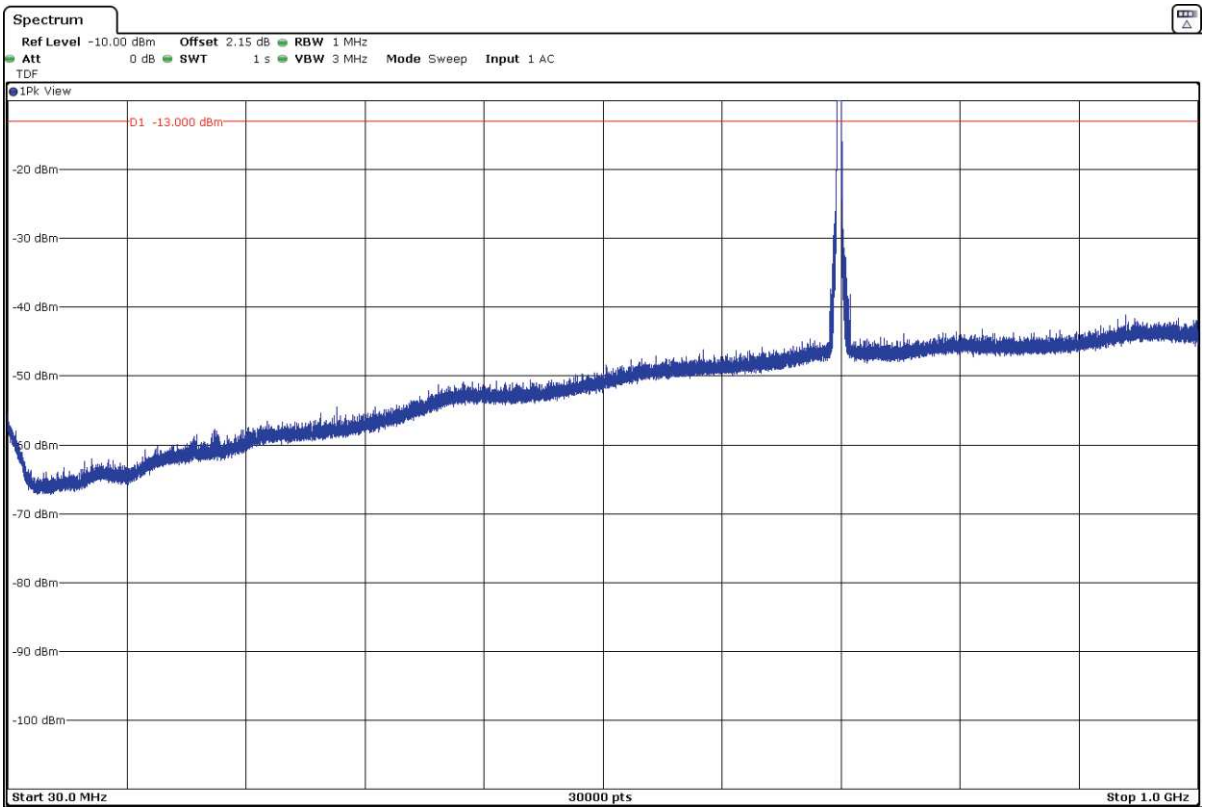
16QAM MODULATION

- Lowest Channel:



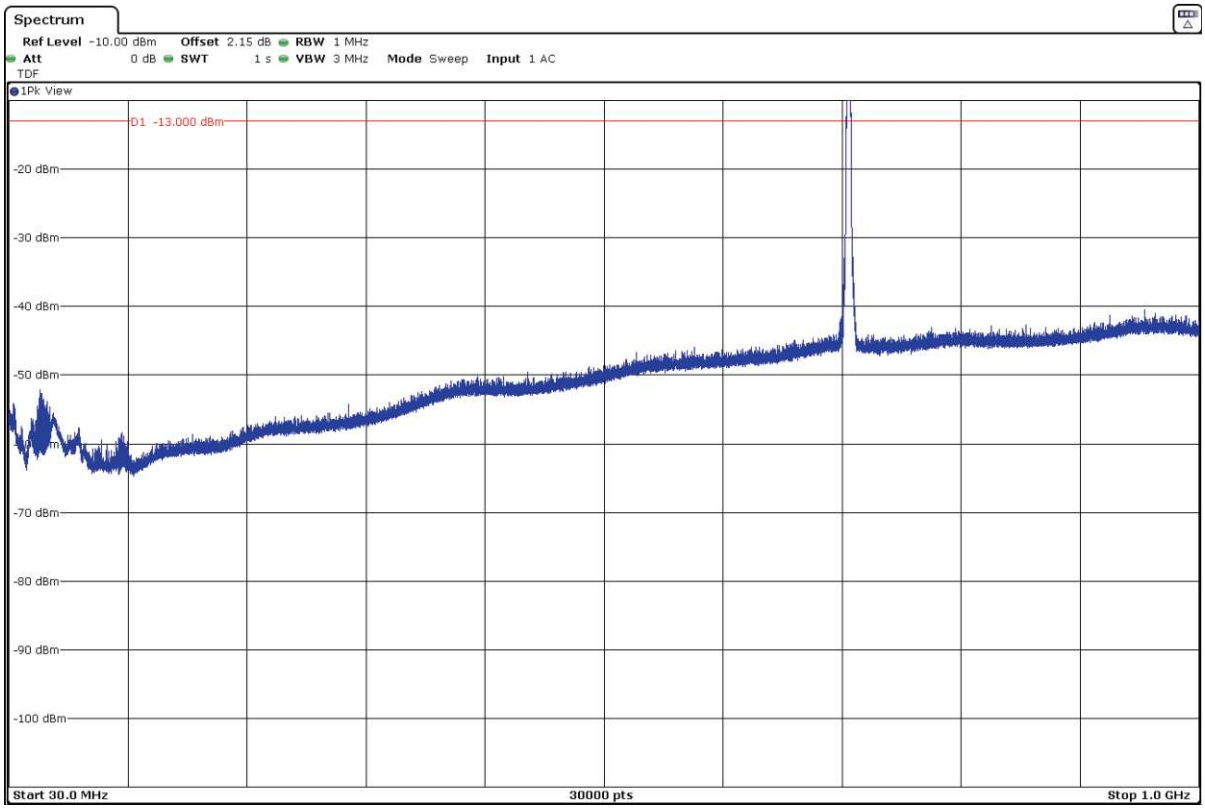
The peak above the limit is the carrier frequency:

- Middle Channel:



The peak above the limit is the carrier frequency:

- Highest Channel:

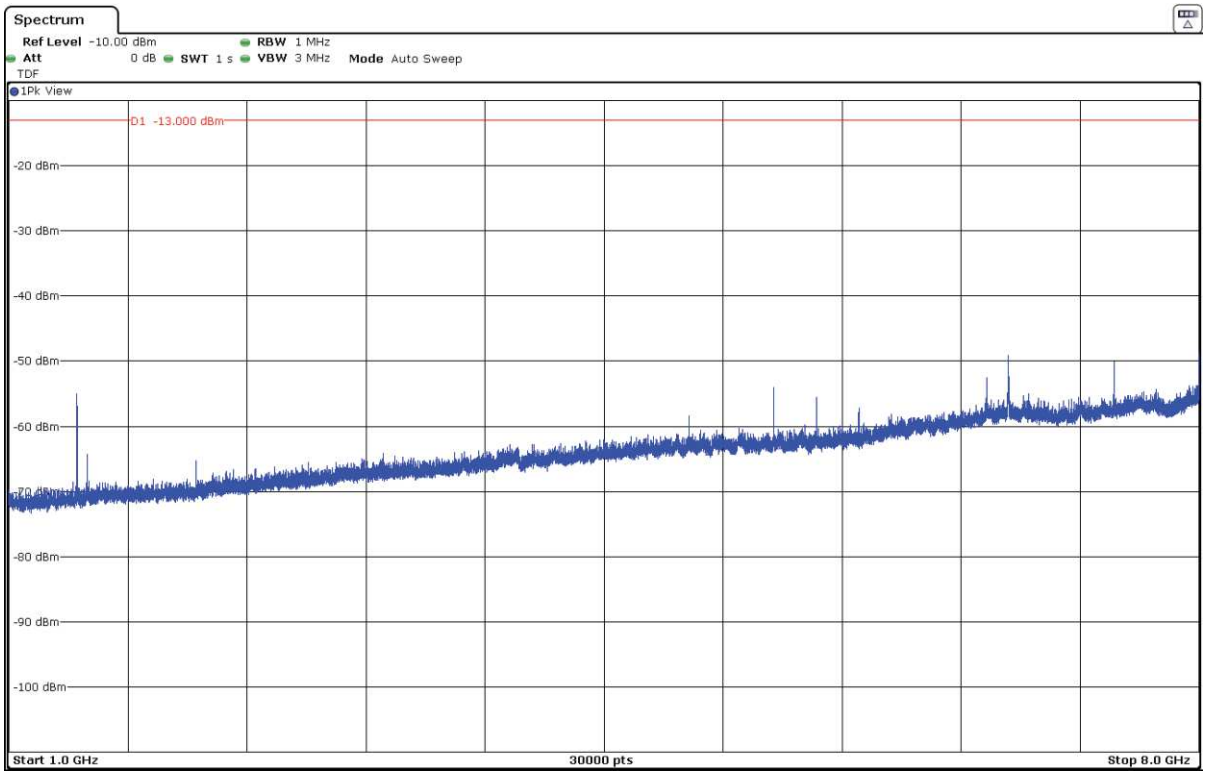


The peak above the limit is the carrier frequency:

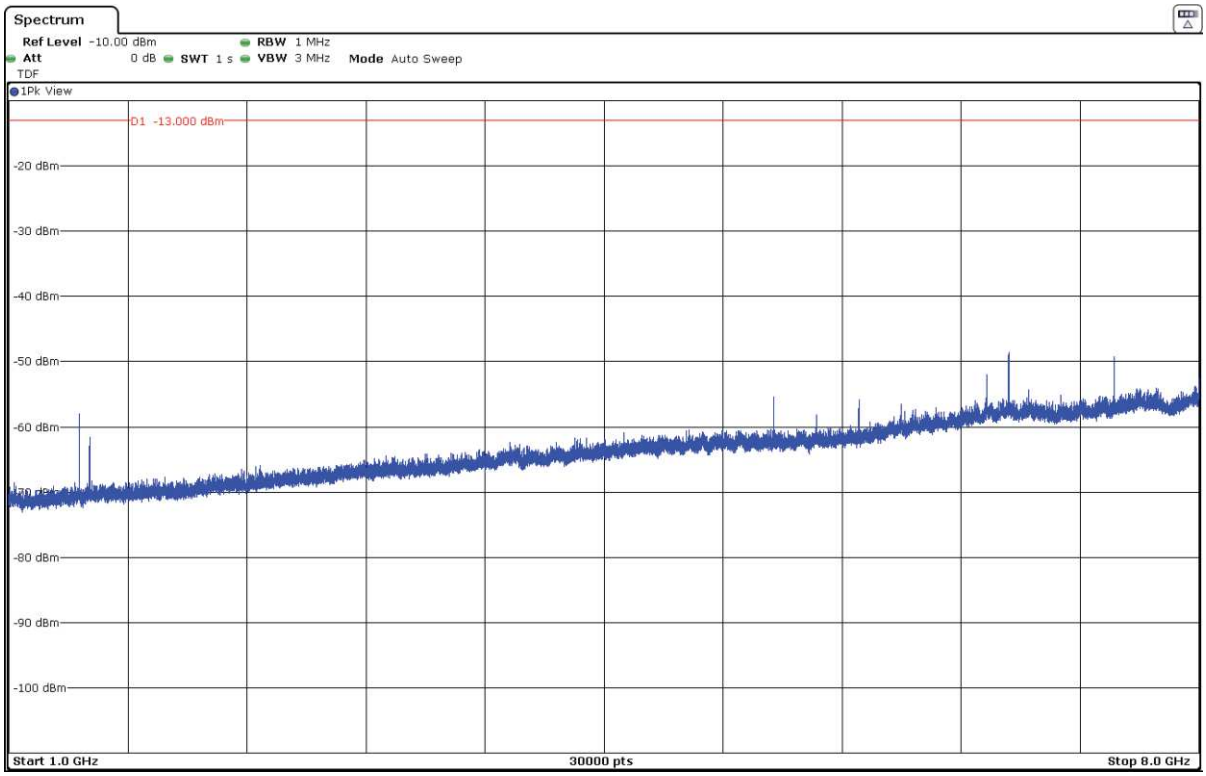
FREQUENCY RANGE 1 - 8 GHz

QPSK MODULATION

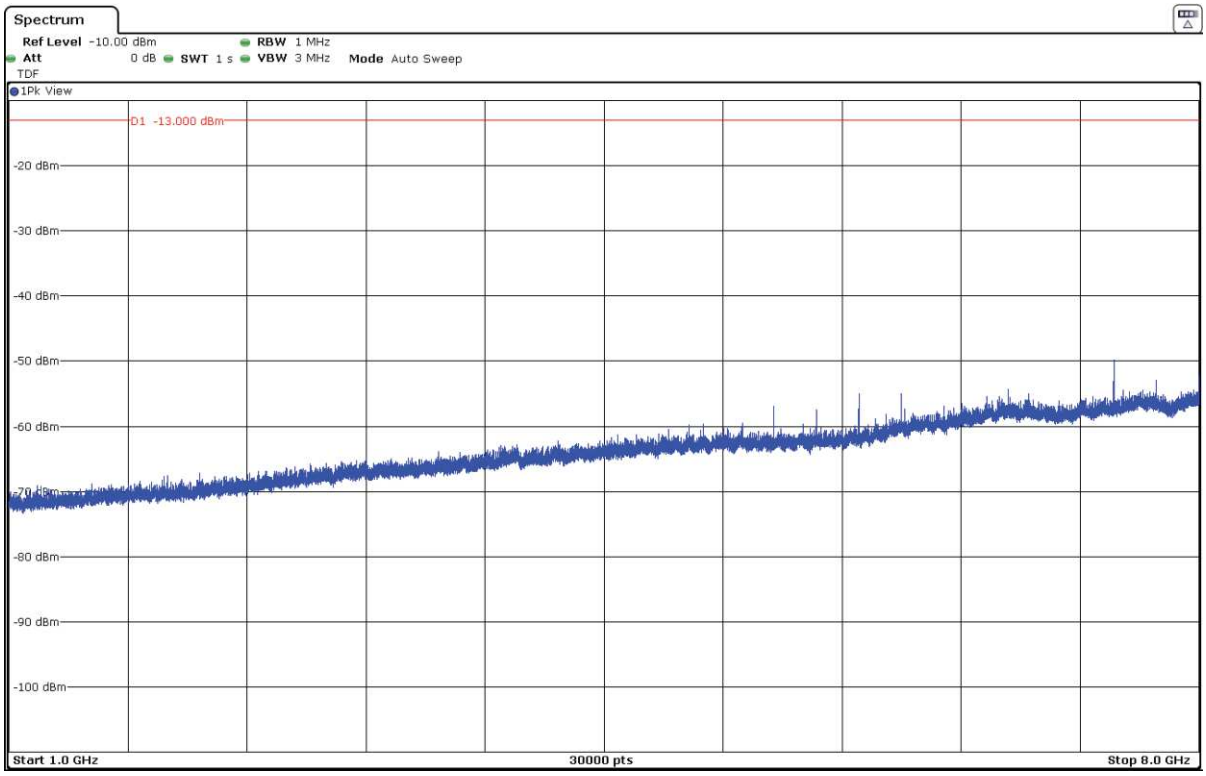
- Lowest Channel:



- Middle Channel:



- Highest Channel:



LTE Band 13:

QPSK and 16QAM Modulations:
A preliminary scan determined the 16QAM modulation, BW=10 MHz, RB=1, Offset=49 as the worst case.

- Middle Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 8 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 763 - 775 MHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 793 - 806 MHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1559 - 1610 MHz

Spurious frequencies at less than 20 dB below the limit:

Frequency (GHz)	Instrument reading (dBm)	Polarization	(1) Generator output (dBm)	(2) Cable loss (dB)	(3) Substitution antenna gain Gi (respect to isotropic radiator) (dB)	E.I.R.P. (dBm) = (1) – (2) + (3)
1.5728814	-30.92	H	-50.07	0.79	8.31	-42.56

No discrete signals were detected. Only wideband signals were detected.

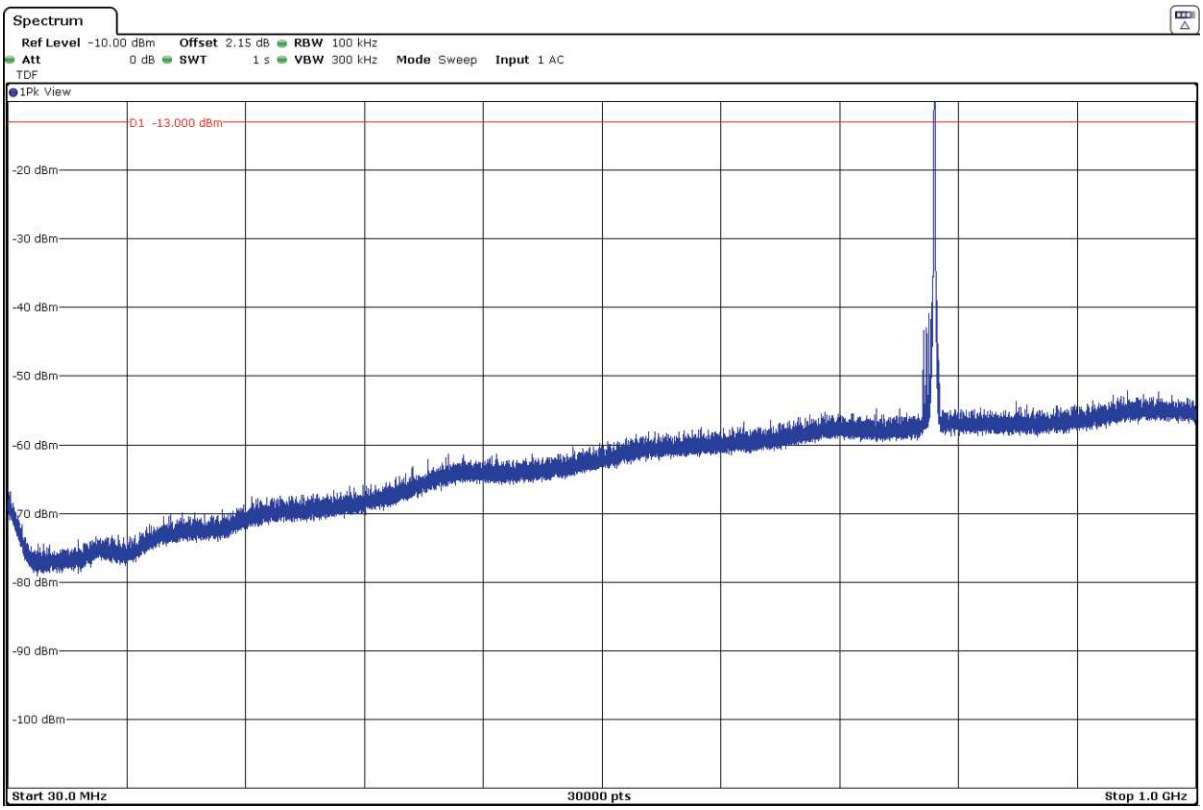
Measurement uncertainty (dB)	<±3.88 for f < 1GHz <±3.70 for f ≥ 1 GHz up to 18 GHz

Verdict: PASS

FREQUENCY RANGE 30 MHz - 1 GHz

16QAM MODULATION

- Middle Channel:

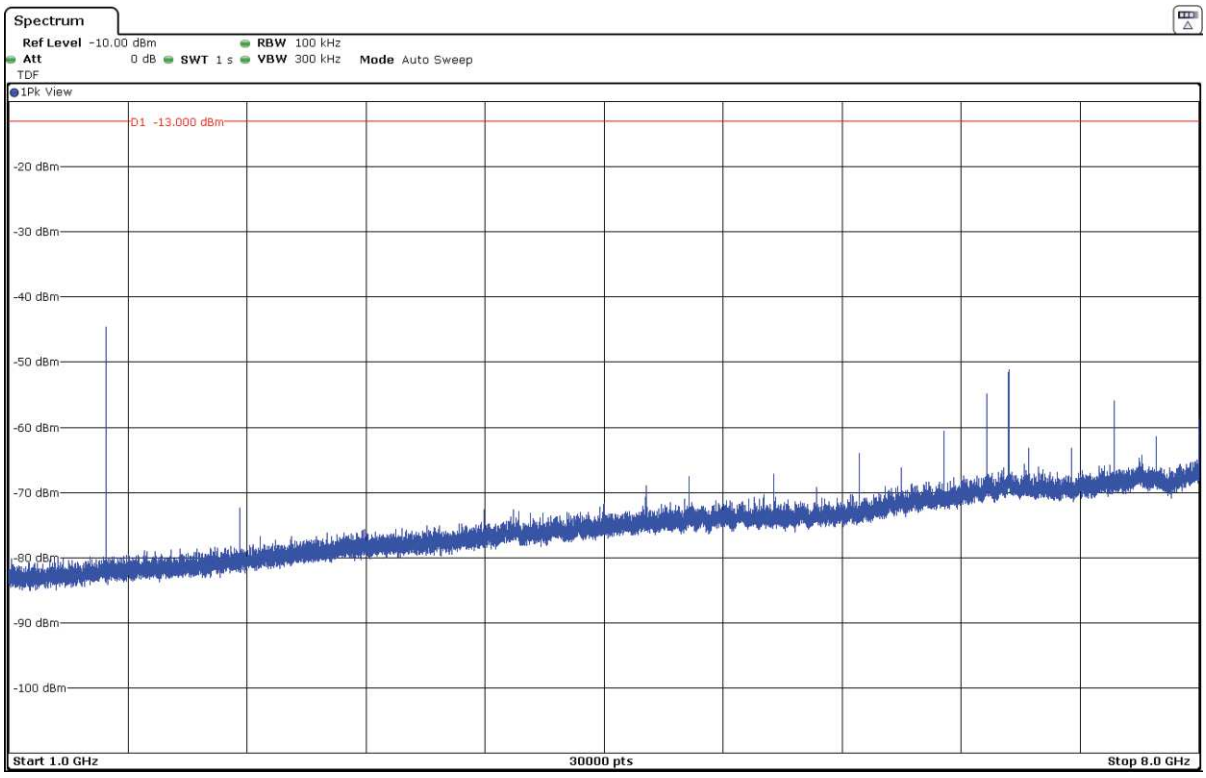


The peak above the limit is the carrier frequency:

FREQUENCY RANGE 1 - 8 GHz

16QAM MODULATION

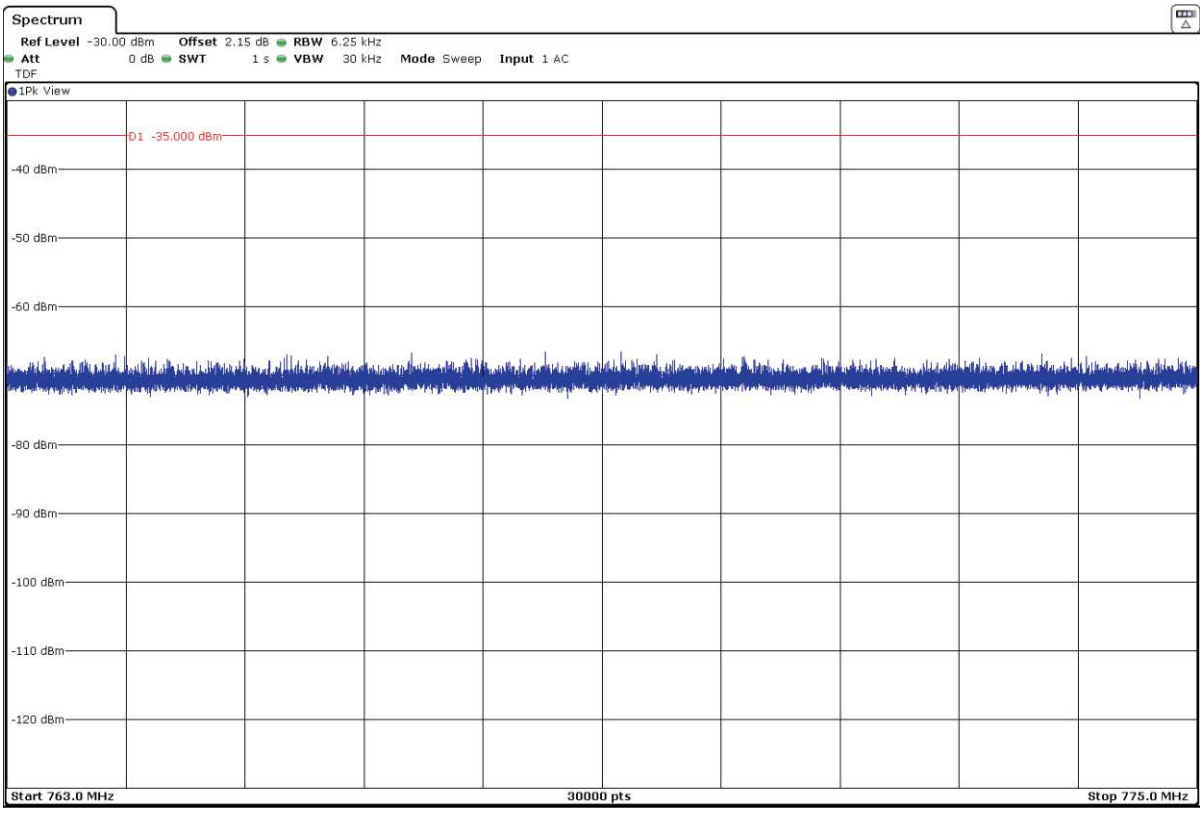
- Middle Channel:



FREQUENCY RANGE 763 - 775 MHz

16QAM MODULATION

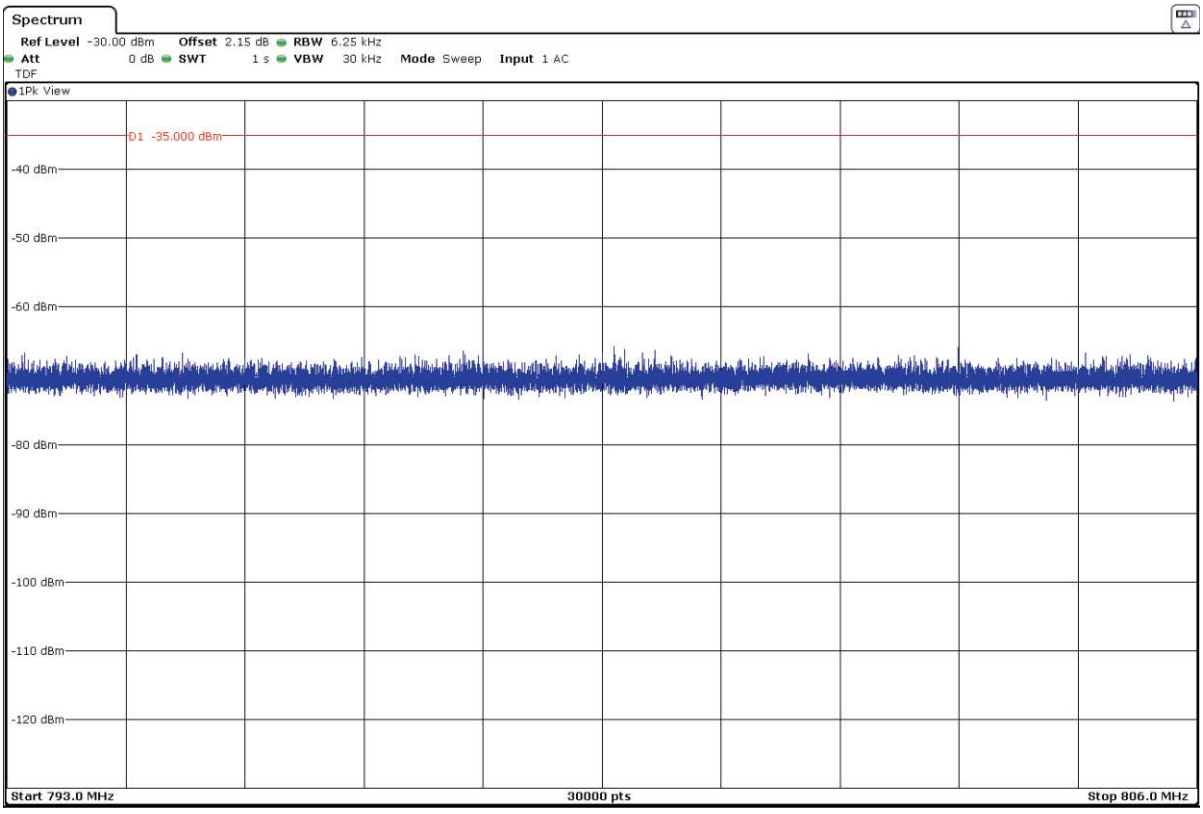
- Middle Channel:



FREQUENCY RANGE 793 - 806 MHz

16QAM MODULATION

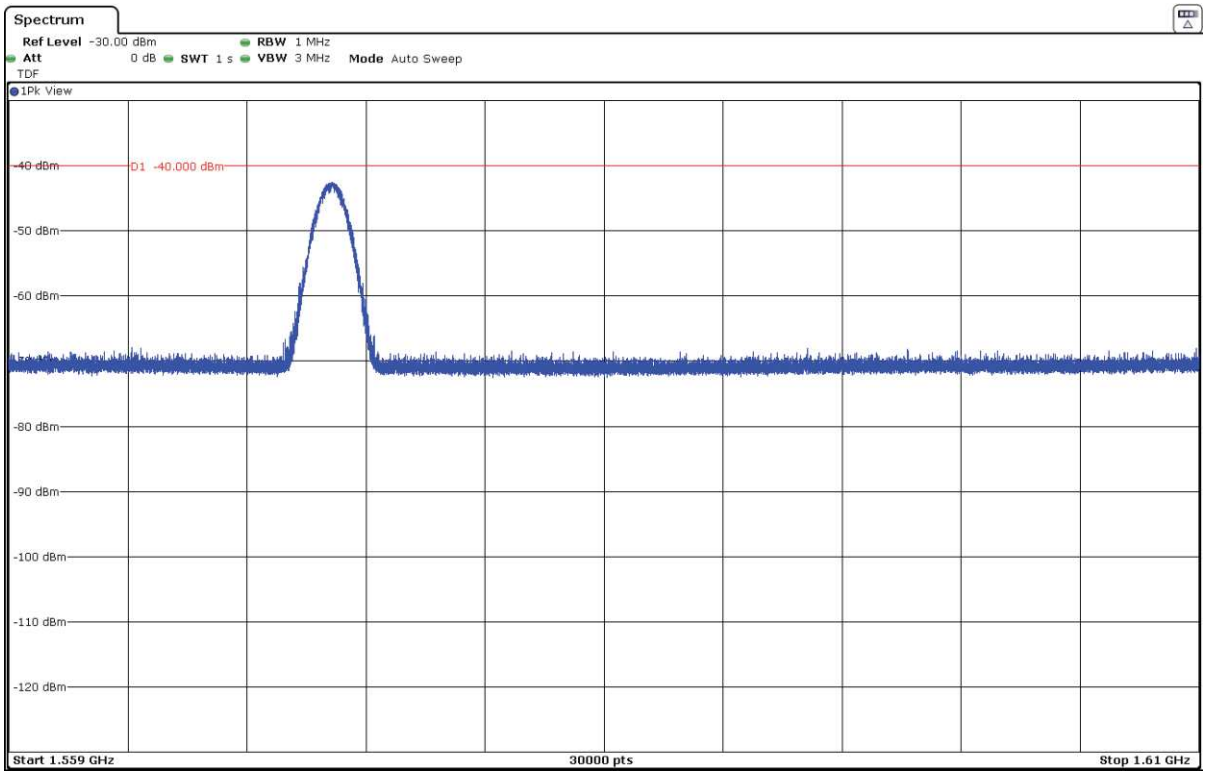
- Middle Channel:



FREQUENCY RANGE 1559 - 1610 MHz

16QAM MODULATION

- Middle Channel:



LTE Band 30:

QPSK and 16QAM Modulations:
A preliminary scan determined the QPSK modulation, BW=5 MHz, RB=1, Offset=0 as the worst case.

- Lowest Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 10 dB below the limit.

Frequency range 1 - 26 GHz

Spurious frequencies at less than 20 dB below the limit:

Frequency (GHz)	Instrument reading (dBm)	Polarization	(1) Generator output (dBm)	(2) Cable loss (dB)	(3) Substitution antenna gain Gi (respect to isotropic radiator) (dB)	E.I.R.P. (dBm) = (1) – (2) + (3)
4.6107	-47.59	V	-61.92	1.51	11.68	-51.75
6.91603	-47.61	V	-53.85	1.88	10.07	-45.66
14.51477	-60.80	V	-54.20	2.81	12.17	-44.84
16.13737	-59.96	V	-59.19	2.98	15.90	-46.27
18.44285	-47.56	H	-56.52	3.24	17.88	-41.87

Frequency range 2190 – 2400 MHz

No spurious frequencies found.

- Middle Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 10 dB below the limit.

Frequency range 1 - 26 GHz

Spurious frequencies at less than 20 dB below the limit:

Frequency (GHz)	Instrument reading (dBm)	Polarization	(1) Generator output (dBm)	(2) Cable loss (dB)	(3) Substitution antenna gain Gi (respect to isotropic radiator) (dB)	E.I.R.P. (dBm) = (1) – (2) + (3)
4.61537	-49.74	V	-64.06	1.51	11.68	-53.89
6.9235	-43.76	V	-49.97	1.88	10.07	-41.78
9.23163	-53.97	V	-56.57	2.20	10.74	-48.04
16.15463	-58.86	V	-57.93	2.98	15.80	-45.11
18.46295	-45.78	H	-54.74	3.24	17.88	-40.09

Frequency range 2190 – 2400 MHz

No spurious frequencies found.

- Highest Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 10 dB below the limit.

Frequency range 1 - 26 GHz

Spurious frequencies at less than 20 dB below the limit:

Frequency (GHz)	Instrument reading (dBm)	Polarization	(1) Generator output (dBm)	(2) Cable loss (dB)	(3) Substitution antenna gain Gi (respect to isotropic radiator) (dB)	E.I.R.P. (dBm) = (1) – (2) + (3)
4.6205	-52.70	H	-67	1.51	11.68	-56.84
6.93097	-44.47	V	-50.63	1.88	10.05	-42.46
18.48275	-46.50	H	-55.46	3.24	17.89	-40.81

Frequency range 2190 – 2400 MHz

No spurious frequencies found.

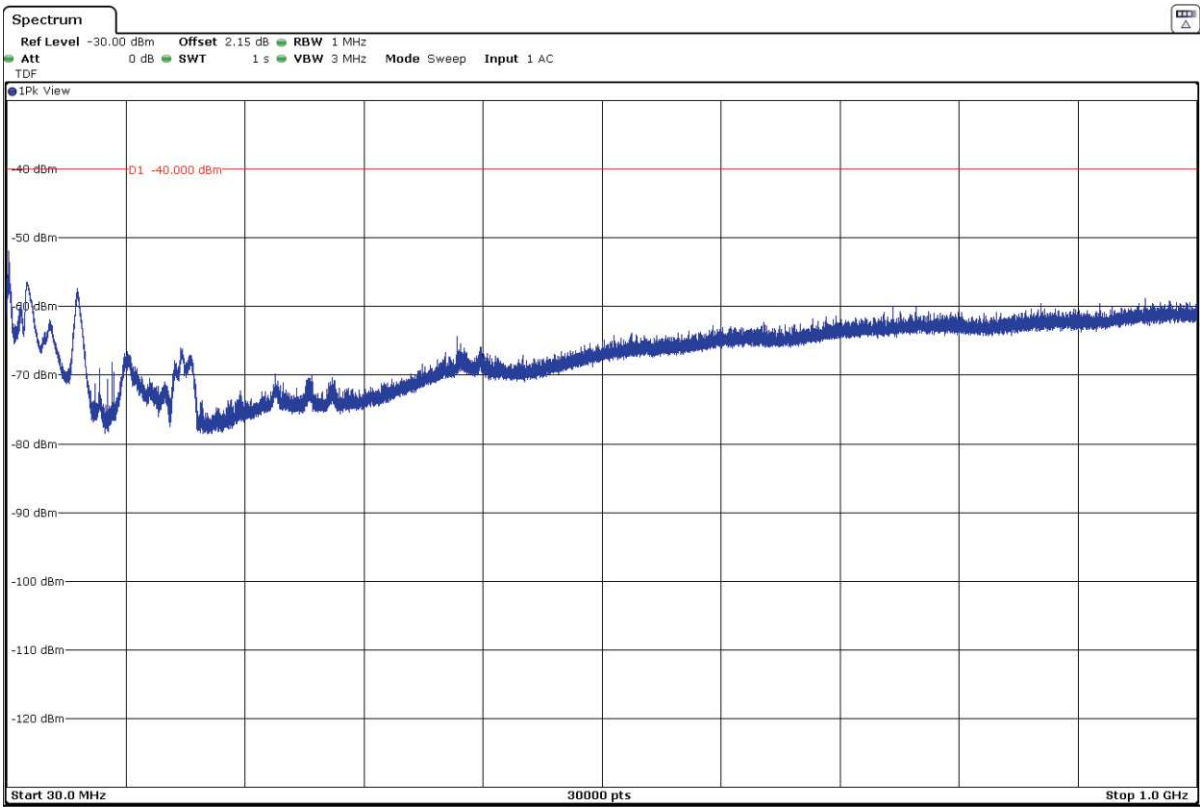
Measurement uncertainty (dB)	<±3.88 for f < 1GHz <±3.70 for f ≥ 1 GHz up to 18 GHz <±3.33 for f ≥ 18 GHz up to 26 GHz

Verdict: PASS

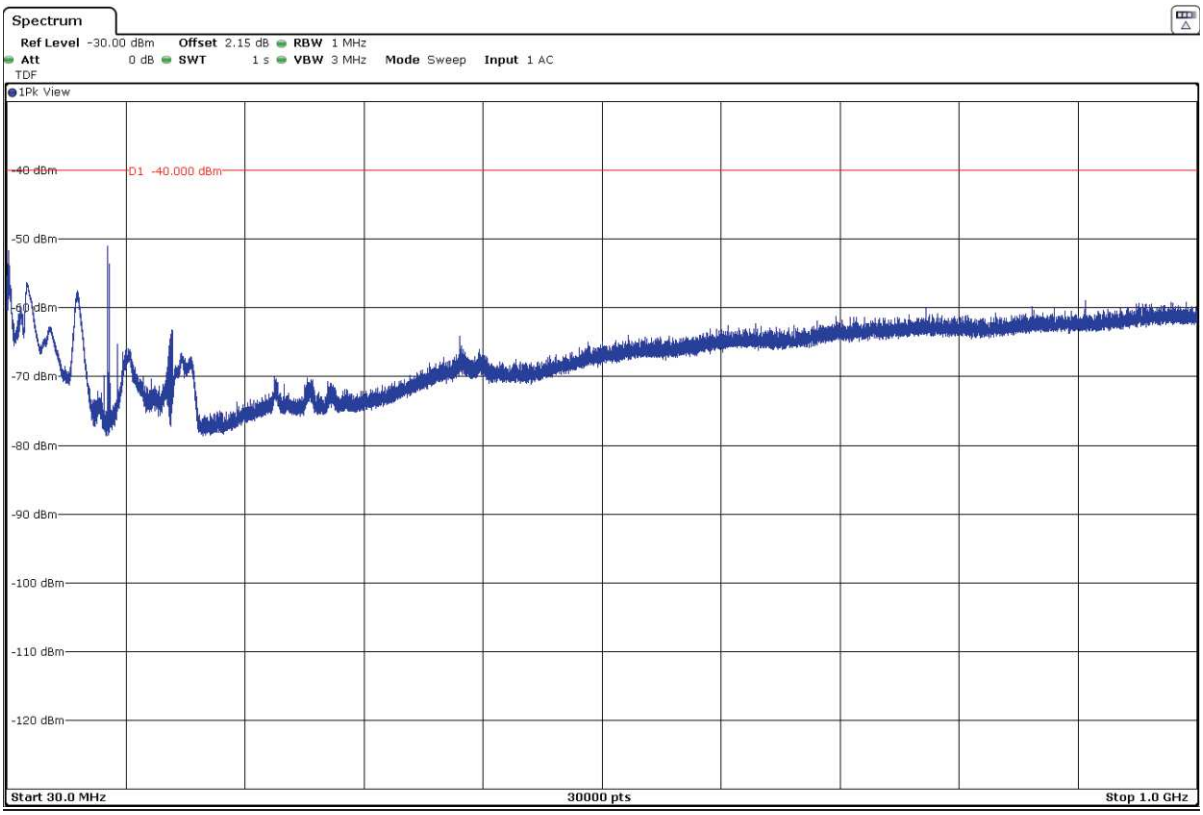
FREQUENCY RANGE 30 MHz - 1 GHz

QPSK MODULATION

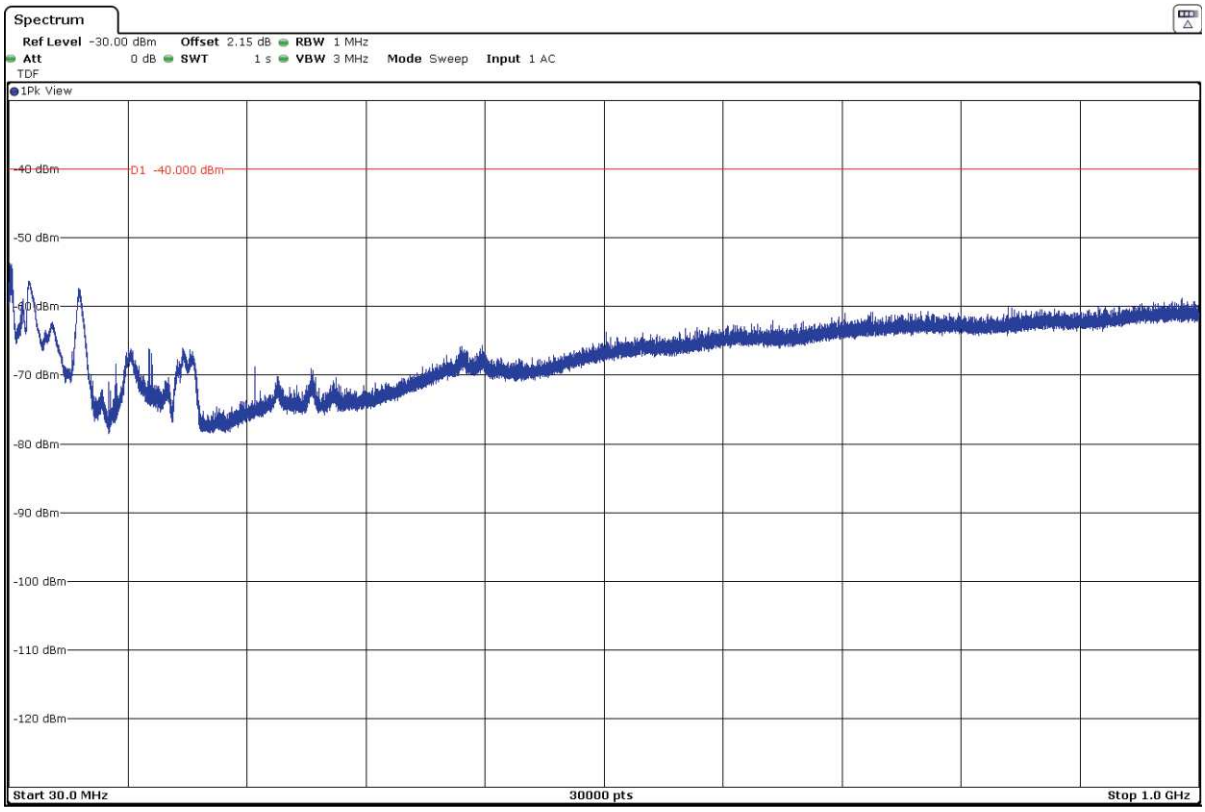
- Lowest Channel:



- Middle Channel:



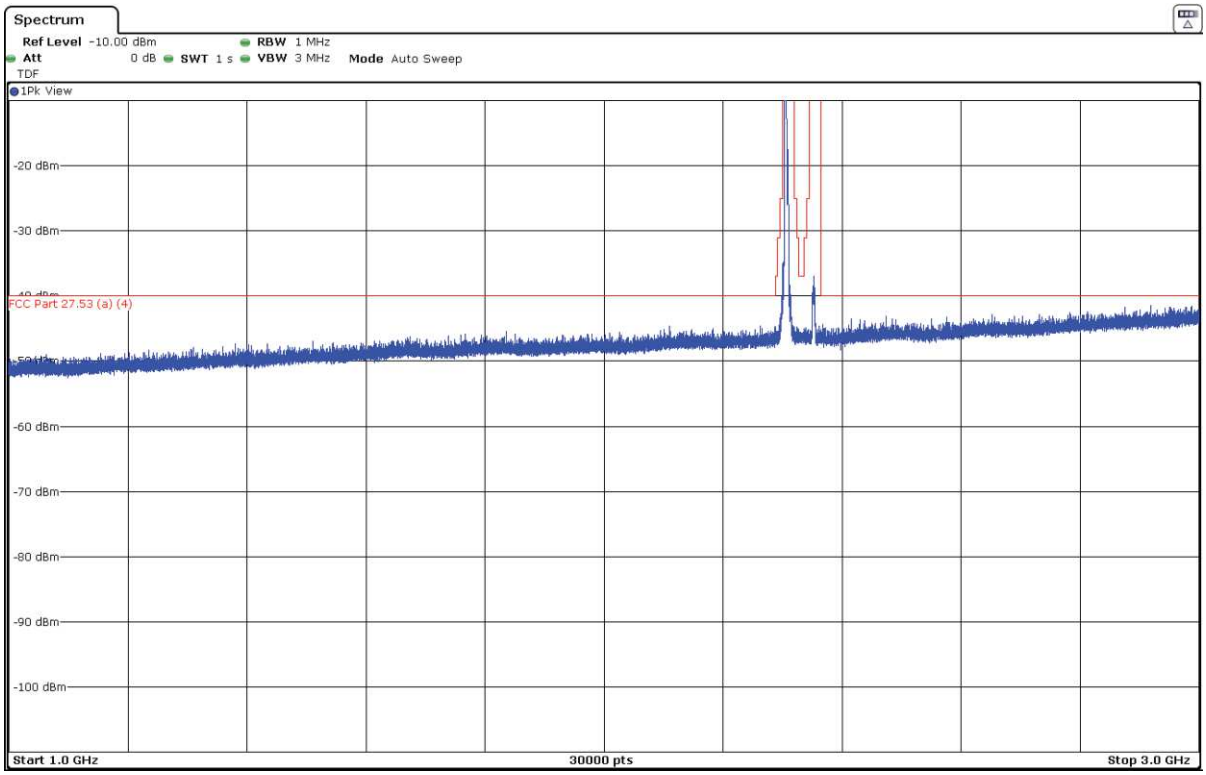
- Highest Channel:



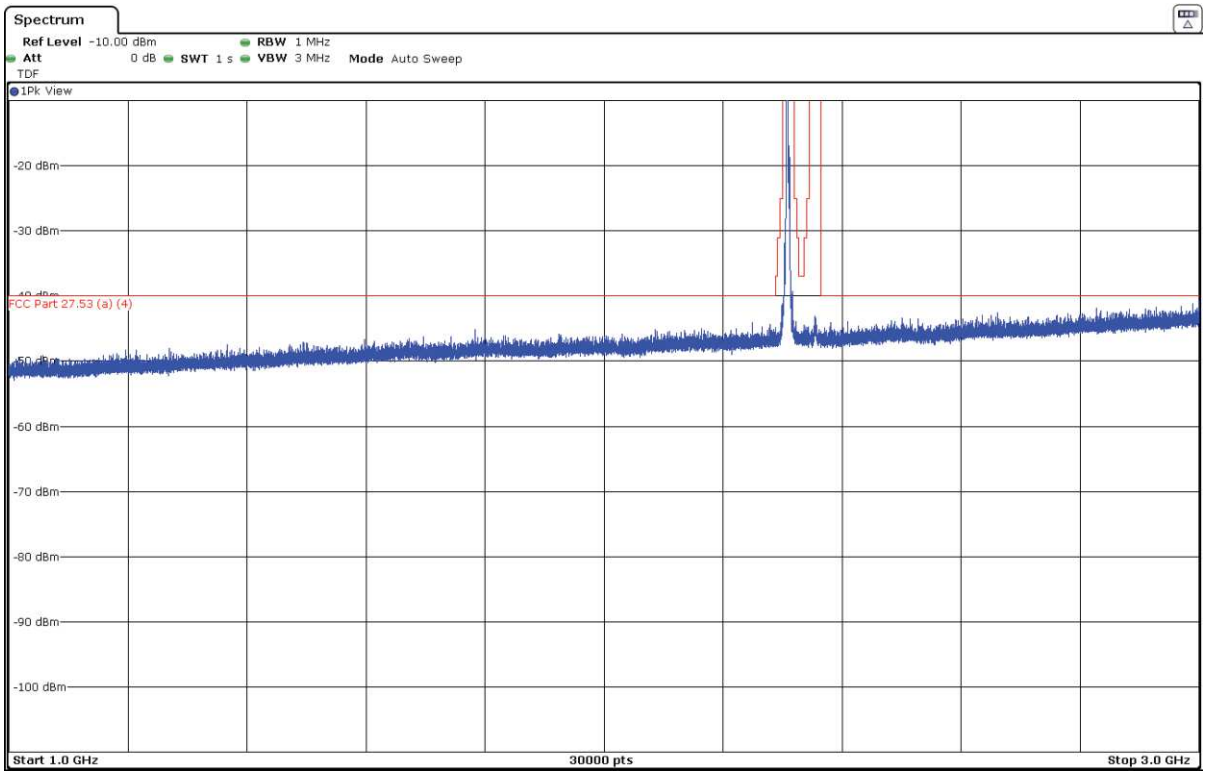
FREQUENCY RANGE 1 - 3 GHz

QPSK MODULATION

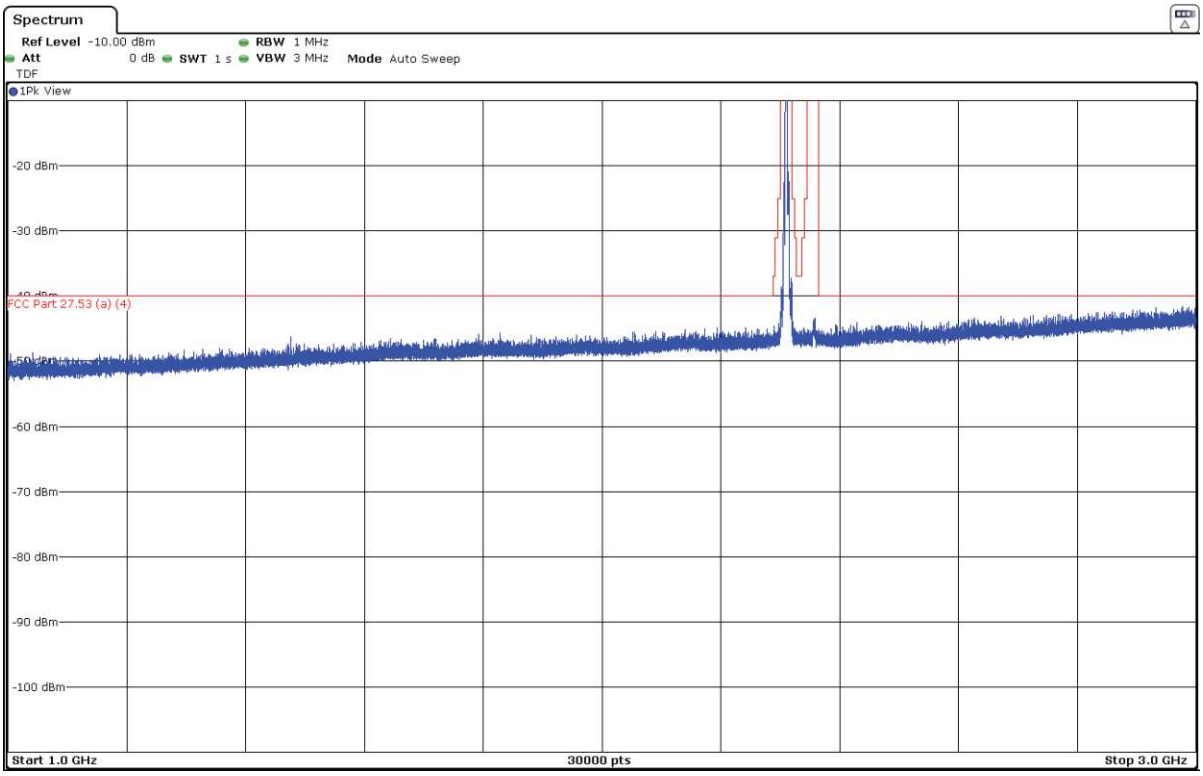
- Lowest Channel:



- Middle Channel:

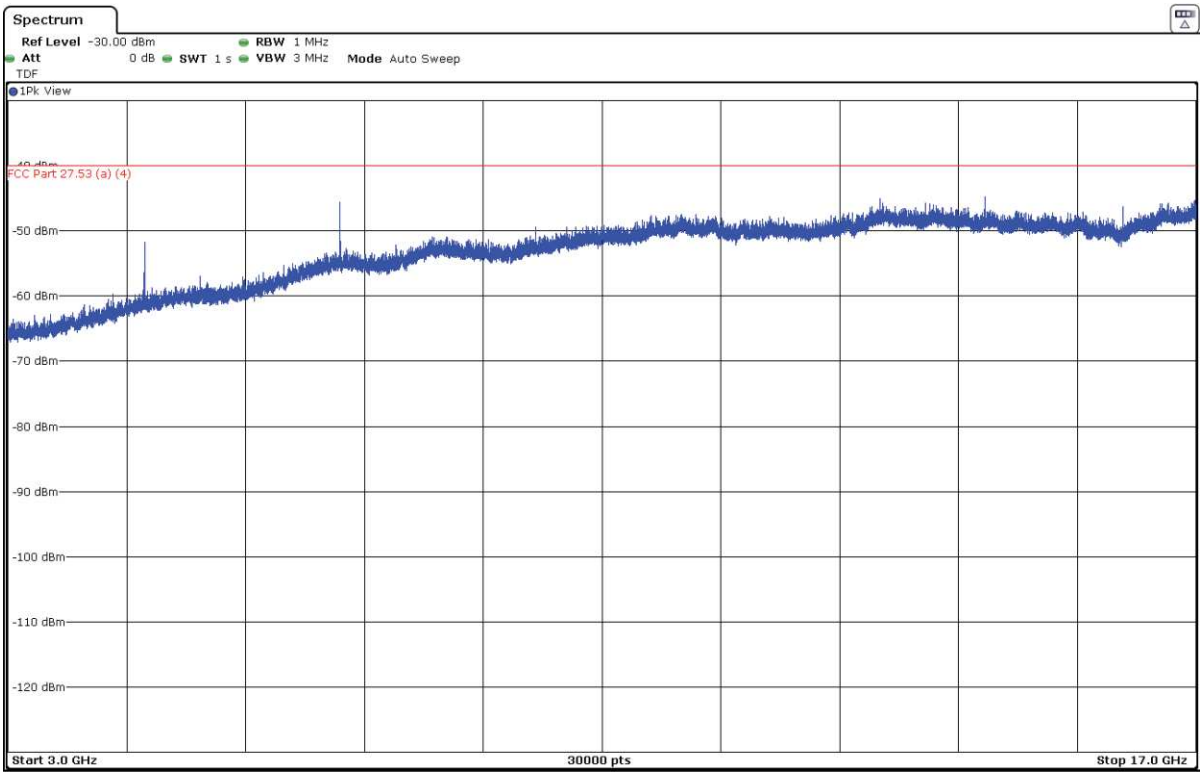


- Highest Channel:

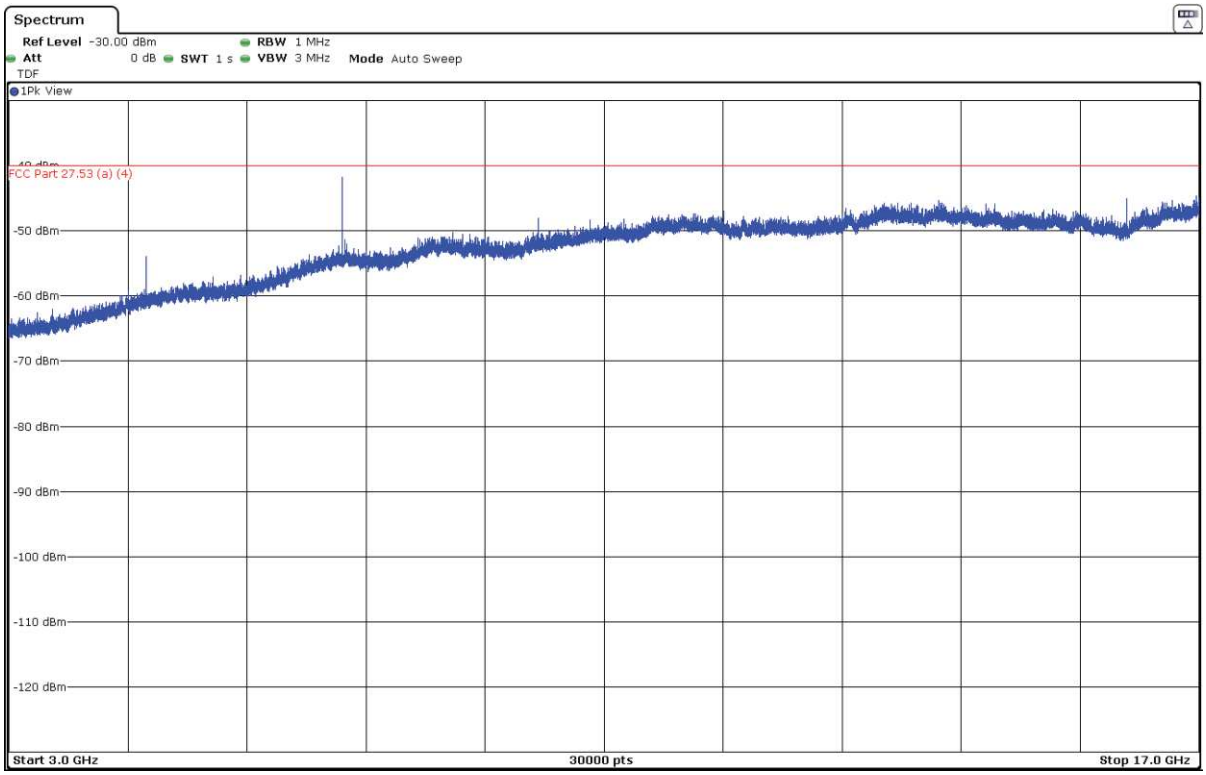


FREQUENCY RANGE 3 – 17 GHz

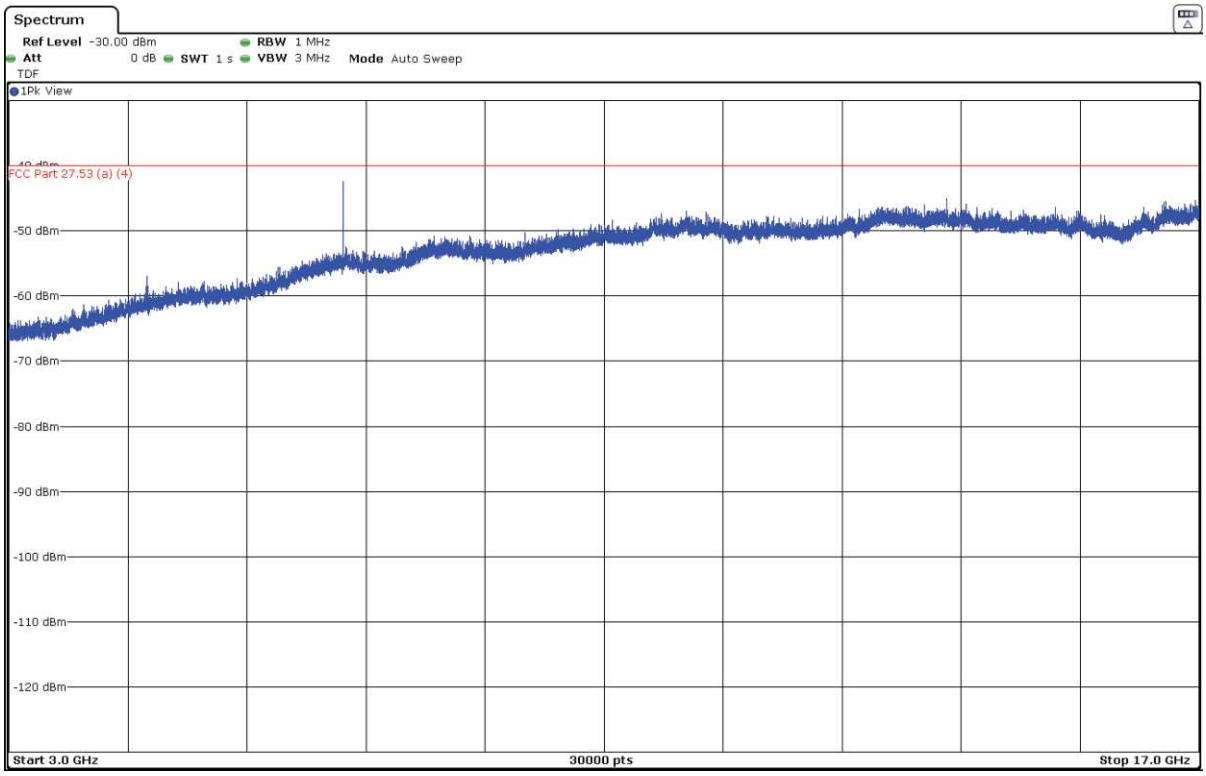
- Lowest Channel:



- Middle Channel:

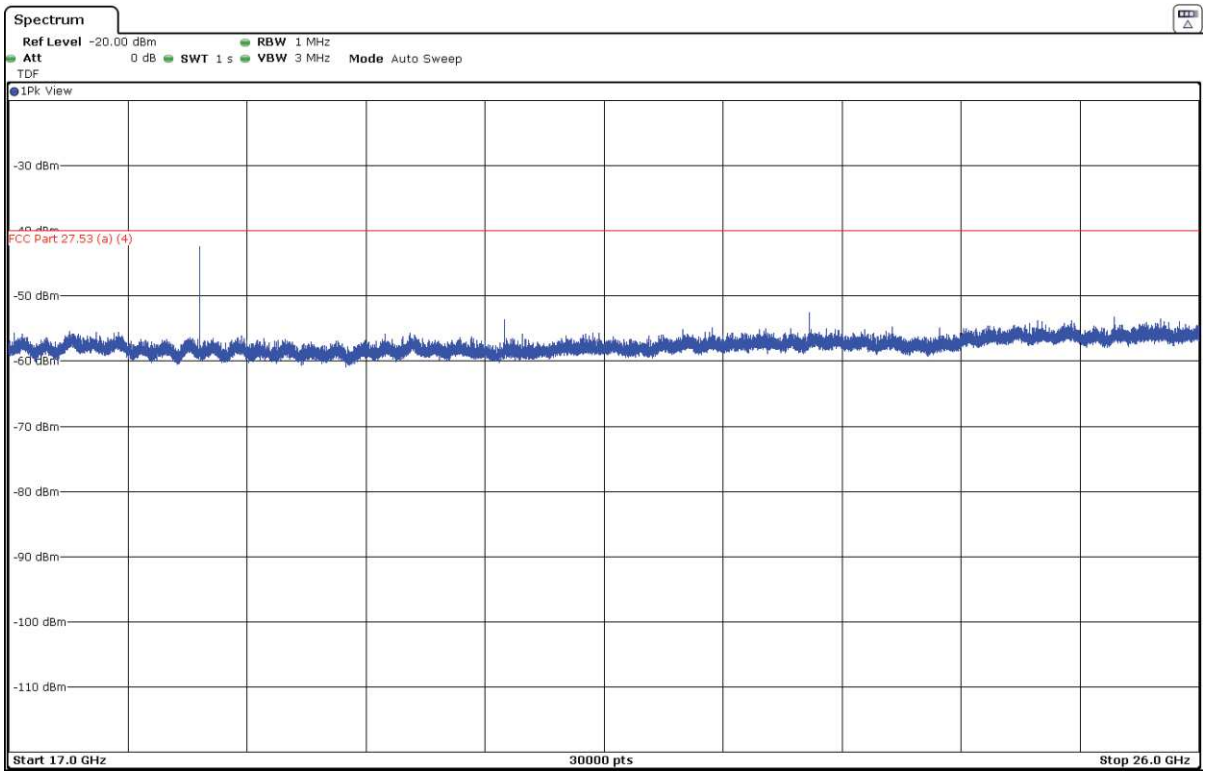


- Highest Channel:

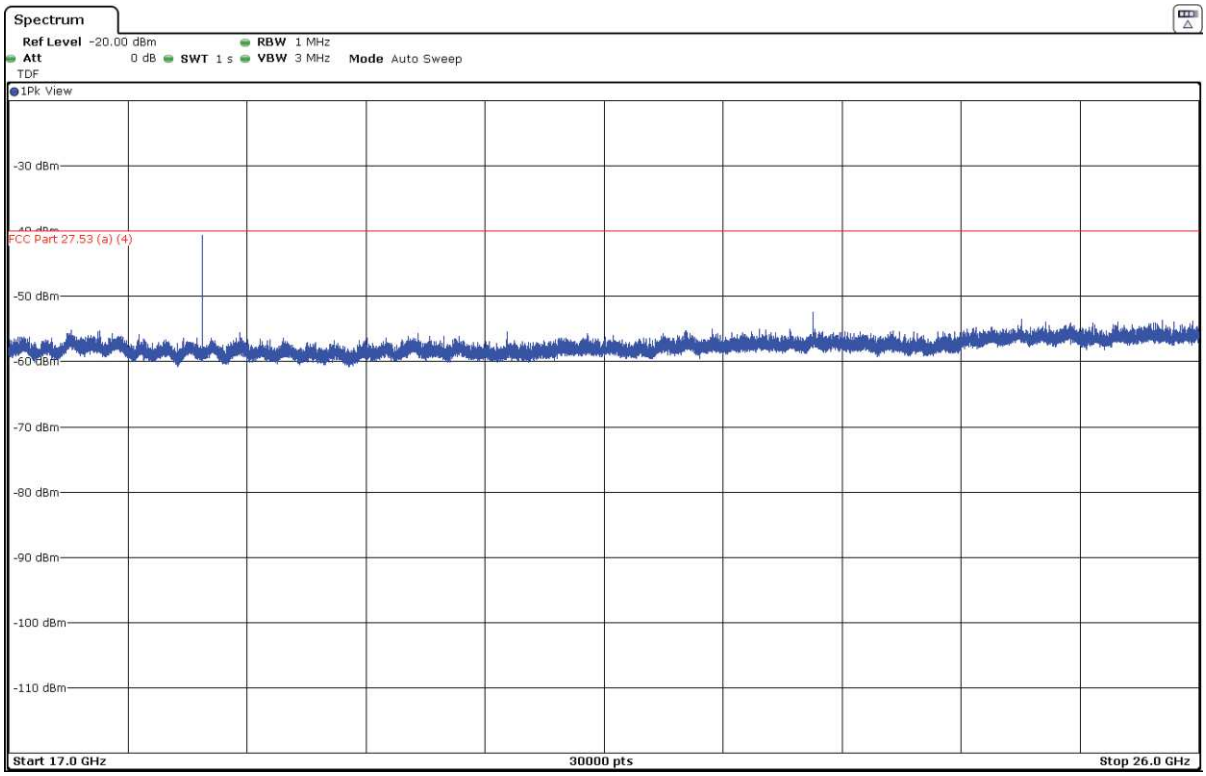


FREQUENCY RANGE 17 - 26 GHz

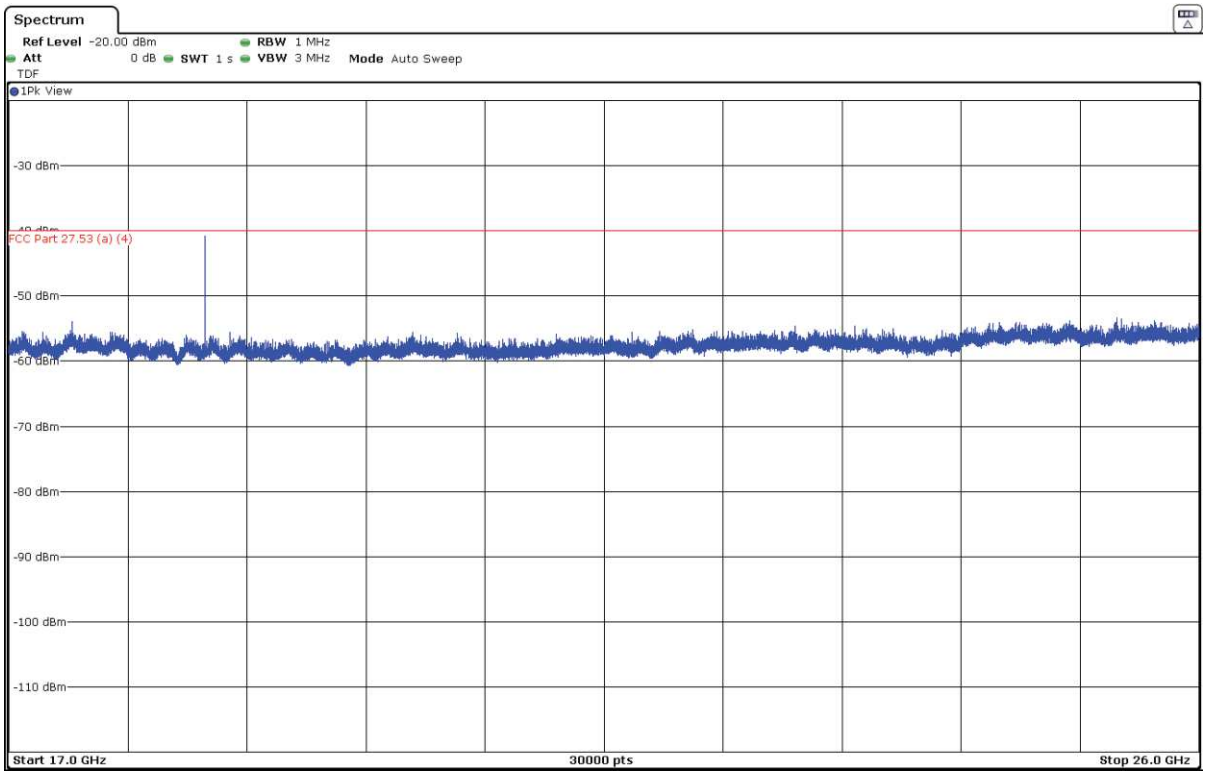
- Lowest Channel:



- Middle Channel:

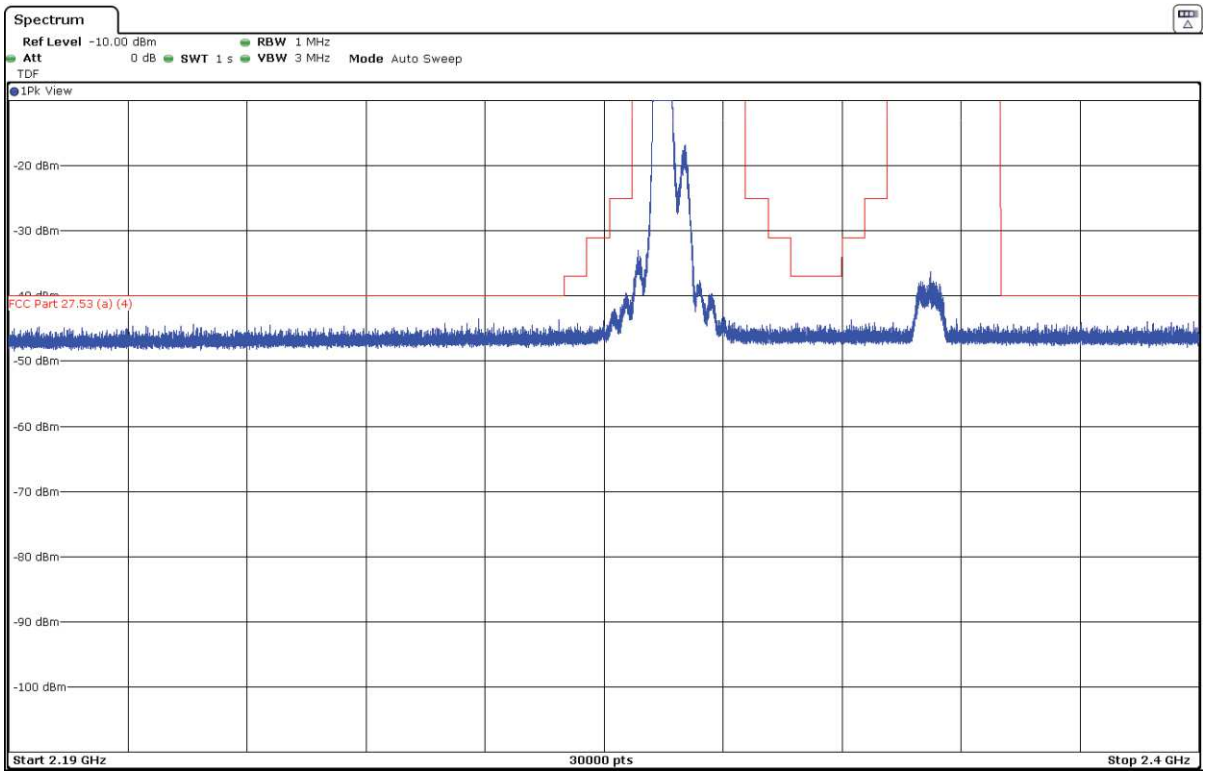


- Highest Channel:

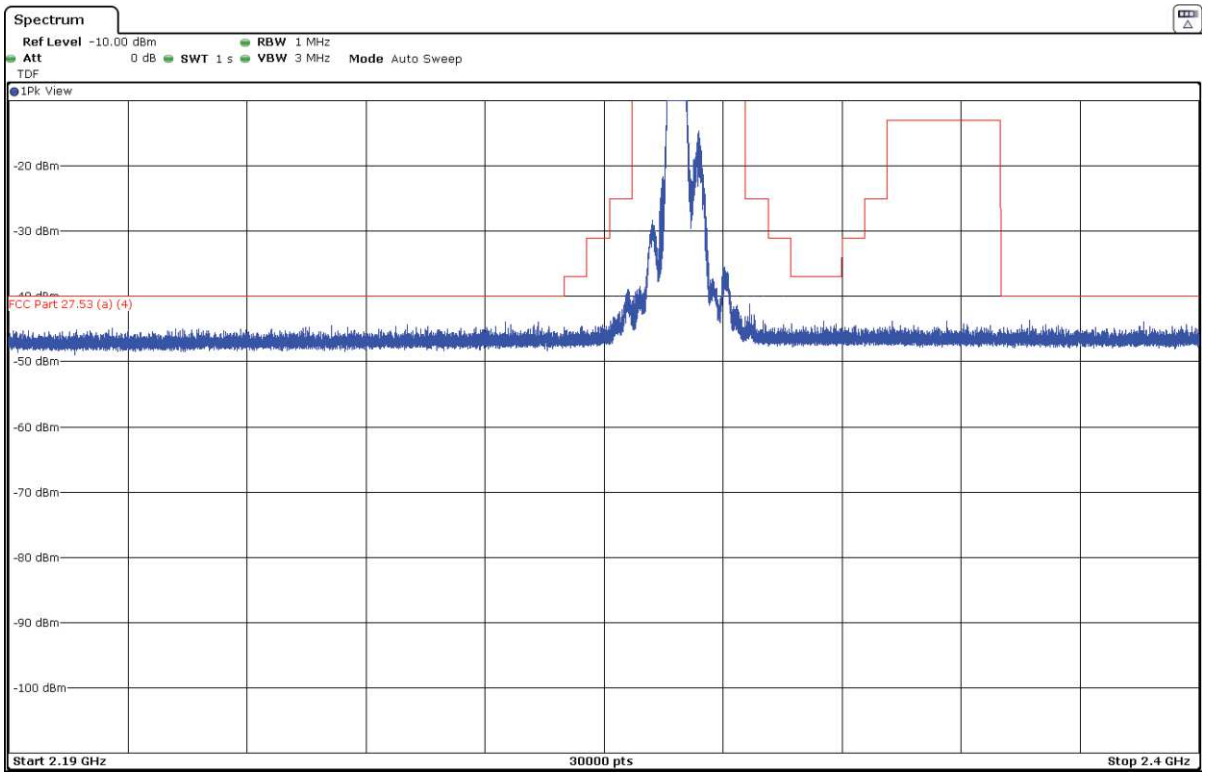


FREQUENCY RANGE 2190 - 2400 MHz

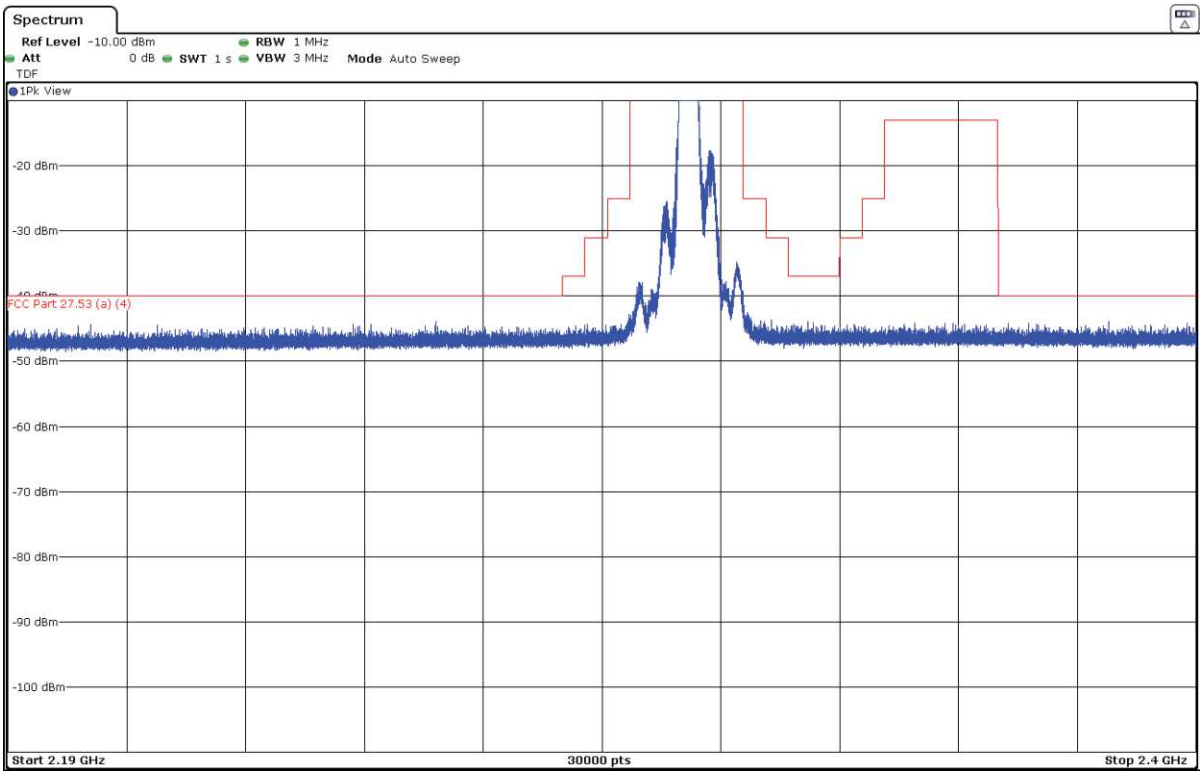
- Lowest Channel:



- Middle Channel:



- Highest Channel:



LTE Band 38:

QPSK and 16QAM Modulations:
A preliminary scan determined the 16QAM modulation, BW=5 MHz, RB=1, Offset=12 as the worst case.

- Lowest Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 26 GHz

Spurious frequencies at less than 20 dB below the limit:

Frequency (GHz)	Instrument reading (dBm)	Polarization	(1) Generator output (dBm)	(2) Cable loss (dB)	(3) Substitution antenna gain Gi (respect to isotropic radiator) (dB)	E.I.R.P. (dBm) = (1) – (2) + (3)
2.527967	-28.48	H	-47.06	1.08	10.62	-37.52
7.7173	-44.98	H	-51.12	2	10.90	-42.21
18.00725	-44.61	V	-53.59	3.17	17.80	-38.97

Frequency range 2490.5 - 2496 MHz

No spurious frequencies at less than 20 dB below the limit.

- Middle Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 26 GHz

Spurious frequencies at less than 20 dB below the limit:

Frequency (GHz)	Instrument reading (dBm)	Polarization	(1) Generator output (dBm)	(2) Cable loss (dB)	(3) Substitution antenna gain Gi (respect to isotropic radiator) (dB)	E.I.R.P. (dBm) = (1) – (2) + (3)
2.507767	-28	H	-46.64	1.08	10.61	-37.11
7.78497	-44.21	H	-50.28	2	11	-41.29
18.16505	-42.57	V	-51.53	3.18	17.80	-36.91

Frequency range 2490.5 - 2496 MHz

No spurious frequencies at less than 20 dB below the limit.

- Highest Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 26 GHz

Spurious frequencies at less than 20 dB below the limit:

Frequency (GHz)	Instrument reading (dBm)	Polarization	(1) Generator output (dBm)	(2) Cable loss (dB)	(3) Substitution antenna gain Gi (respect to isotropic radiator) (dB)	E.I.R.P. (dBm) = (1) – (2) + (3)
2.5245	-27.39	H	-45.98	1.08	10.62	-36.44
7.85263	-43.91	H	-49.92	2.01	11.09	-40.84
10.47017	-51.54	H	-50.99	2.35	10.13	-43.21
13.08723	-55.03	H	-54.34	2.66	12.66	-44.34
18.32255	-44.90	V	-53.85	3.20	17.83	-39.22

Frequency range 2490.5 - 2496 MHz

No spurious frequencies at less than 20 dB below the limit.

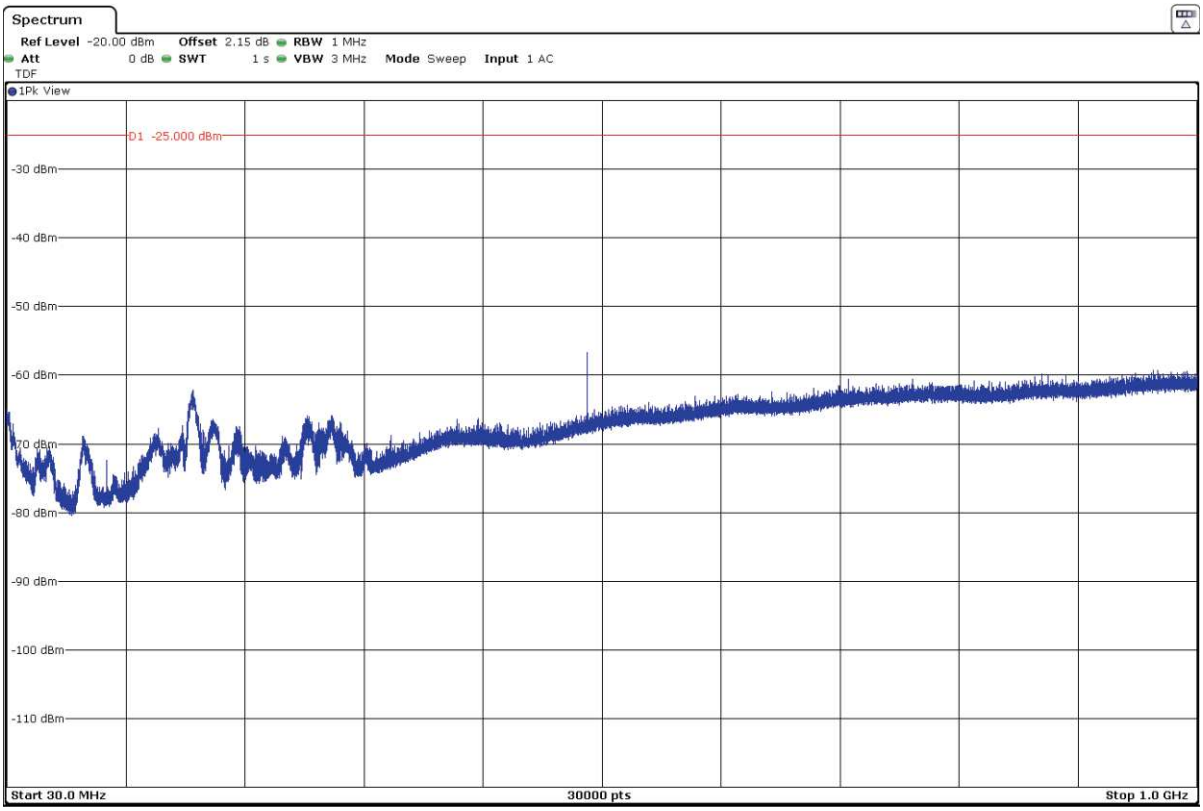
Measurement uncertainty (dB)	<±3.88 for f < 1GHz <±3.70 for f ≥ 1 GHz up to 18 GHz <±3.33 for f ≥ 18 GHz up to 26 GHz

Verdict: PASS

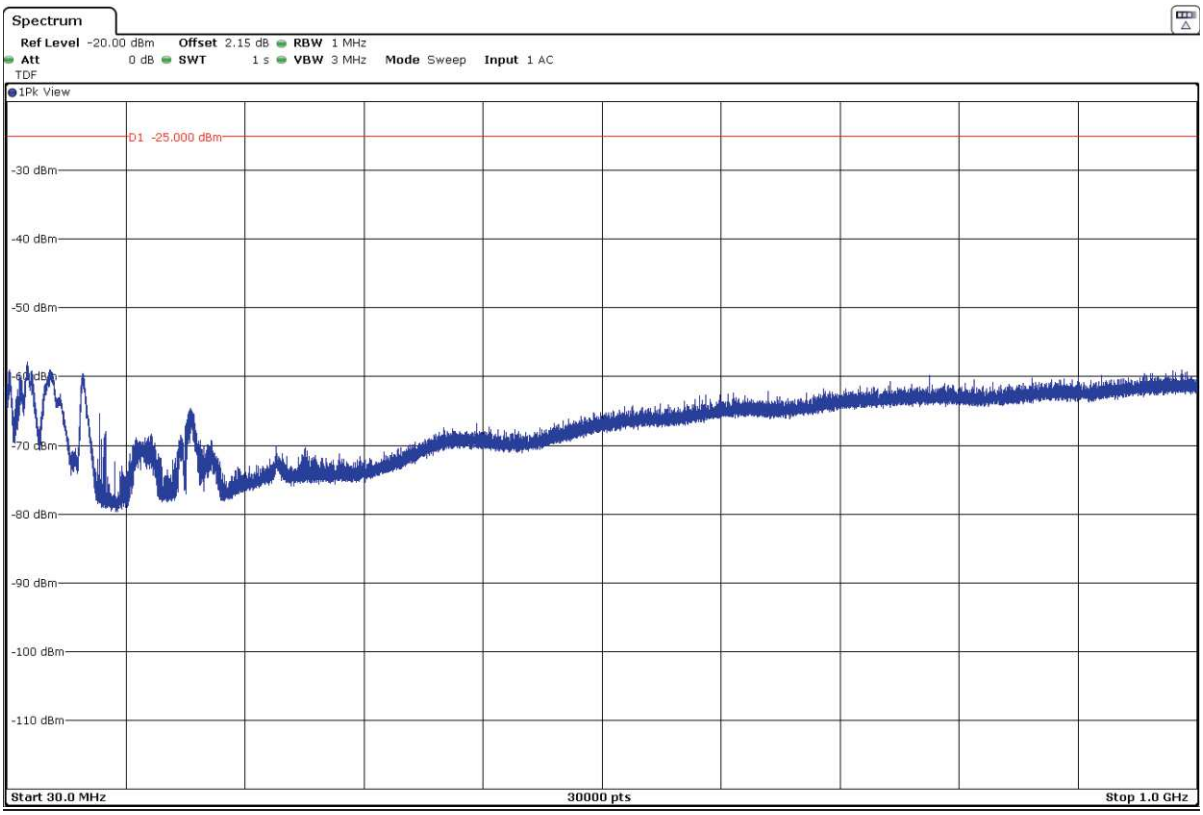
FREQUENCY RANGE 30 MHz - 1 GHz

16QAM MODULATION

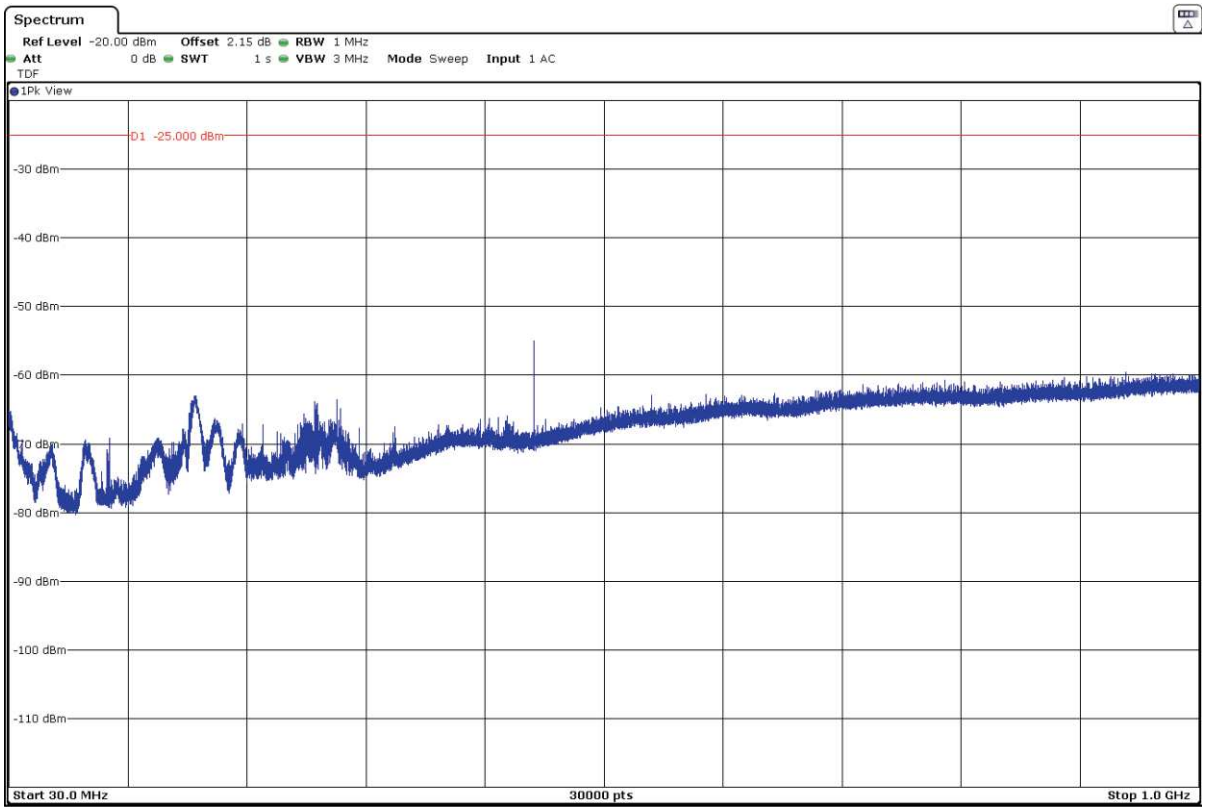
- Lowest Channel:



- Middle Channel:



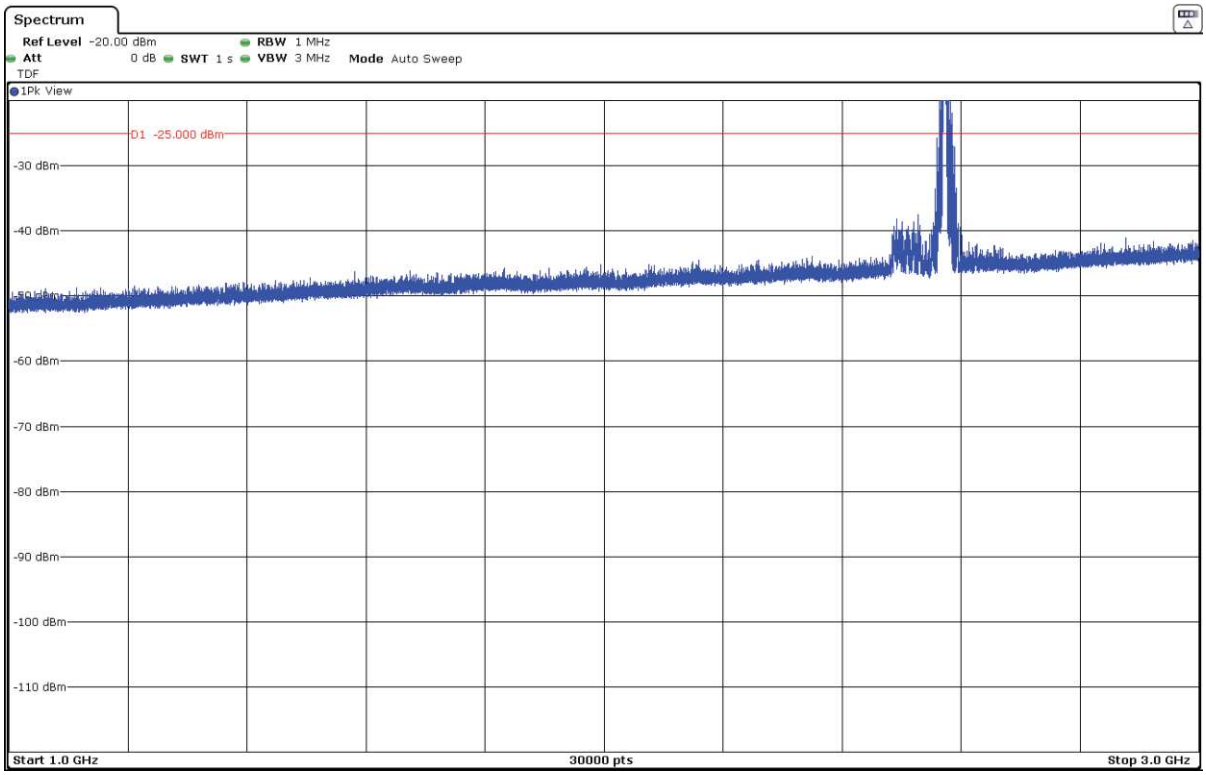
- Highest Channel:



FREQUENCY RANGE 1 - 3 GHz

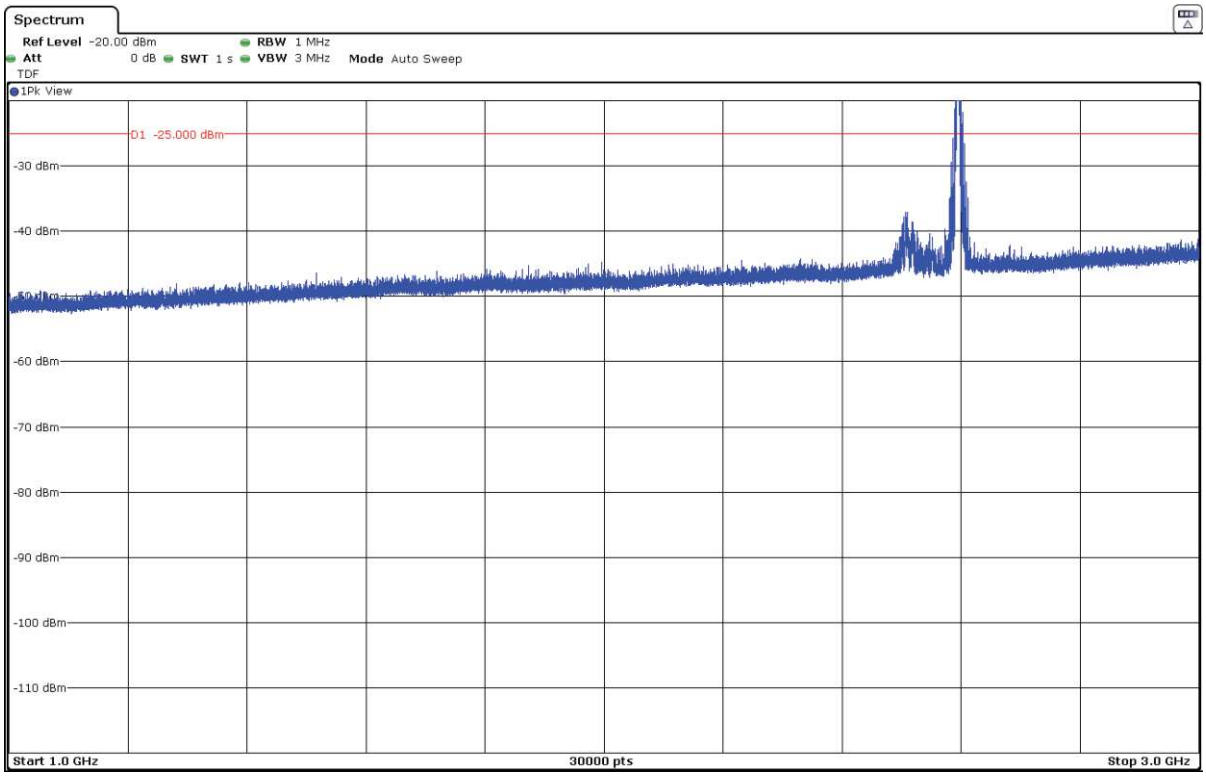
16QAM MODULATION

- Lowest Channel:



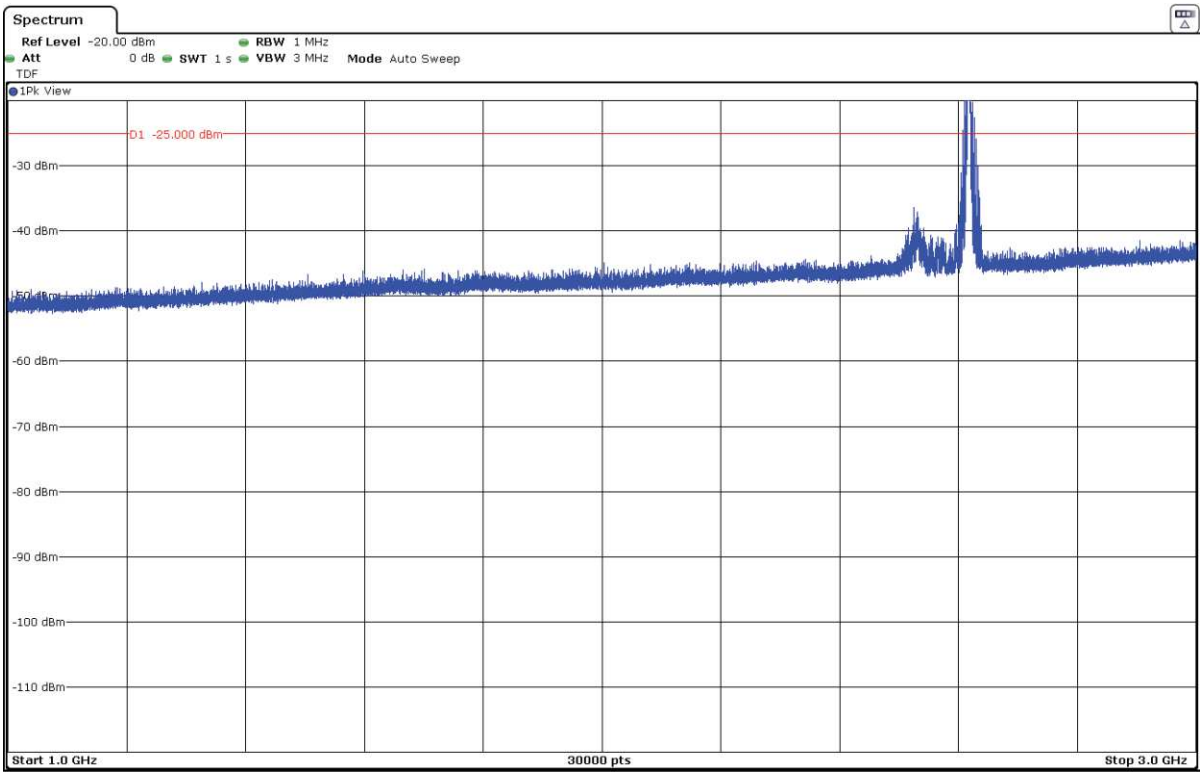
The peak above the limit is the carrier frequency:

- Middle Channel:



The peak above the limit is the carrier frequency:

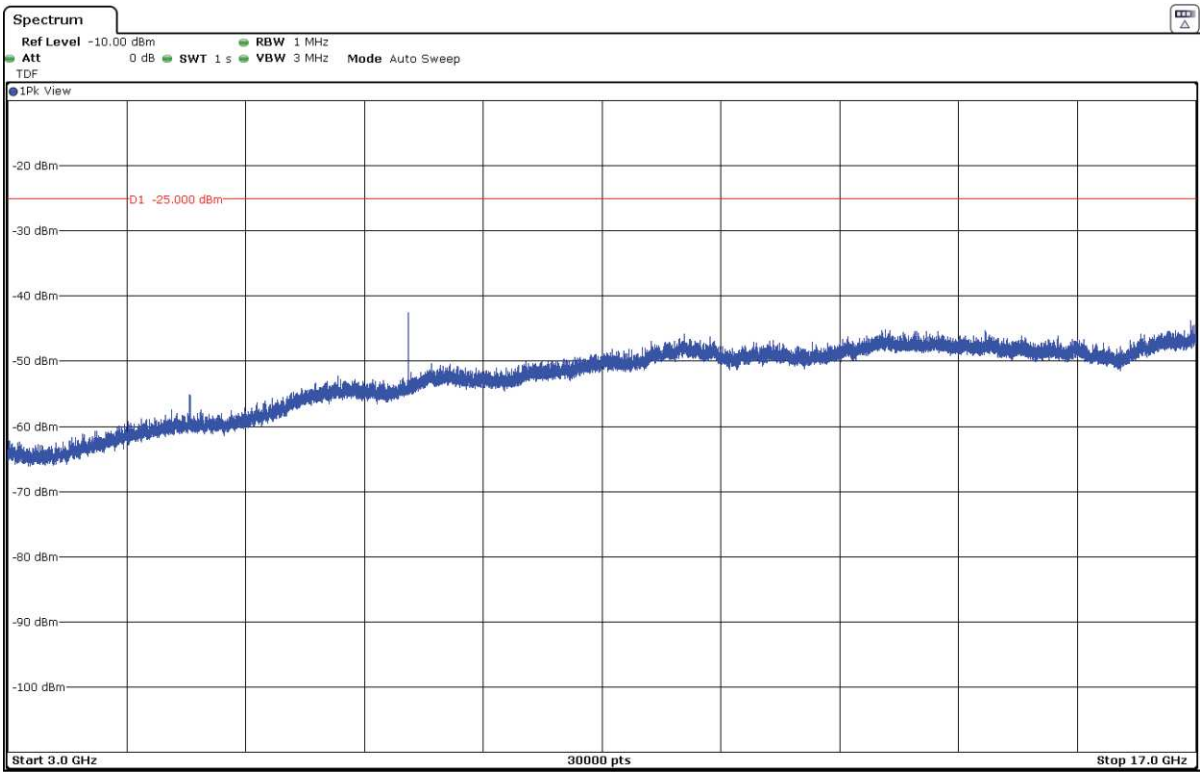
- Highest Channel:



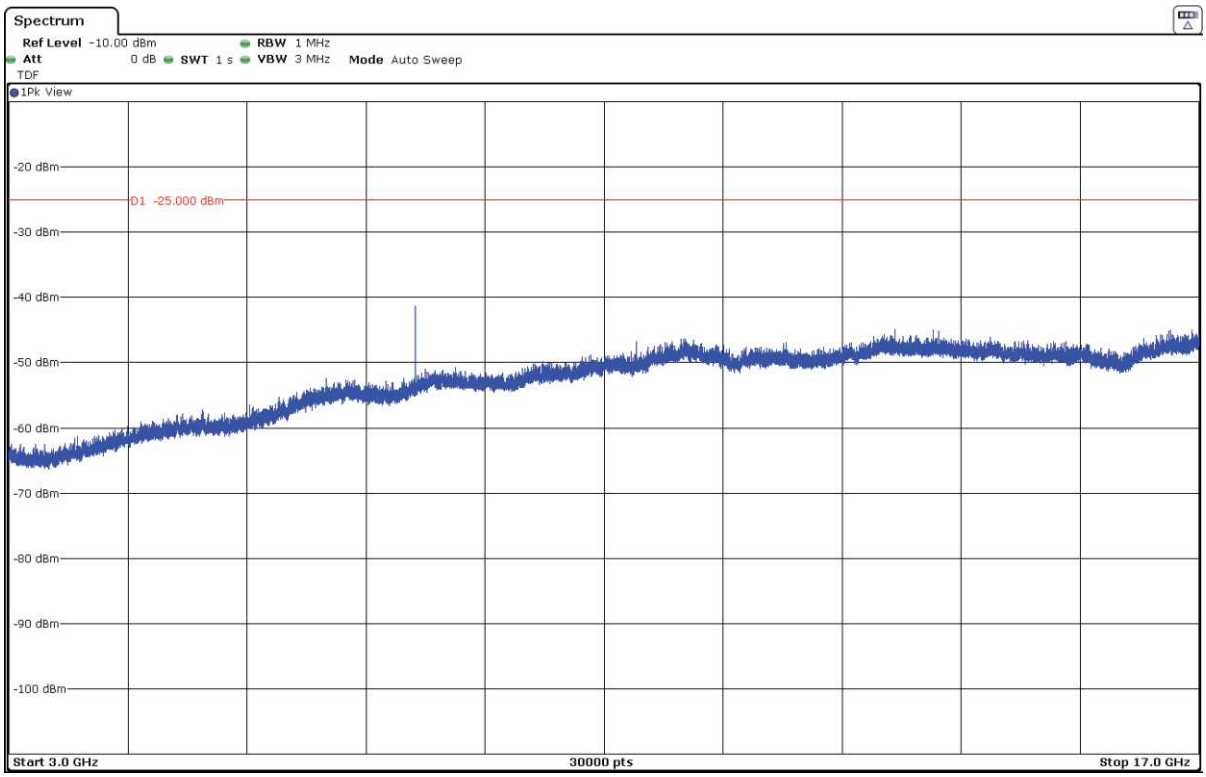
The peak above the limit is the carrier frequency:

FREQUENCY RANGE 3 – 17 GHz

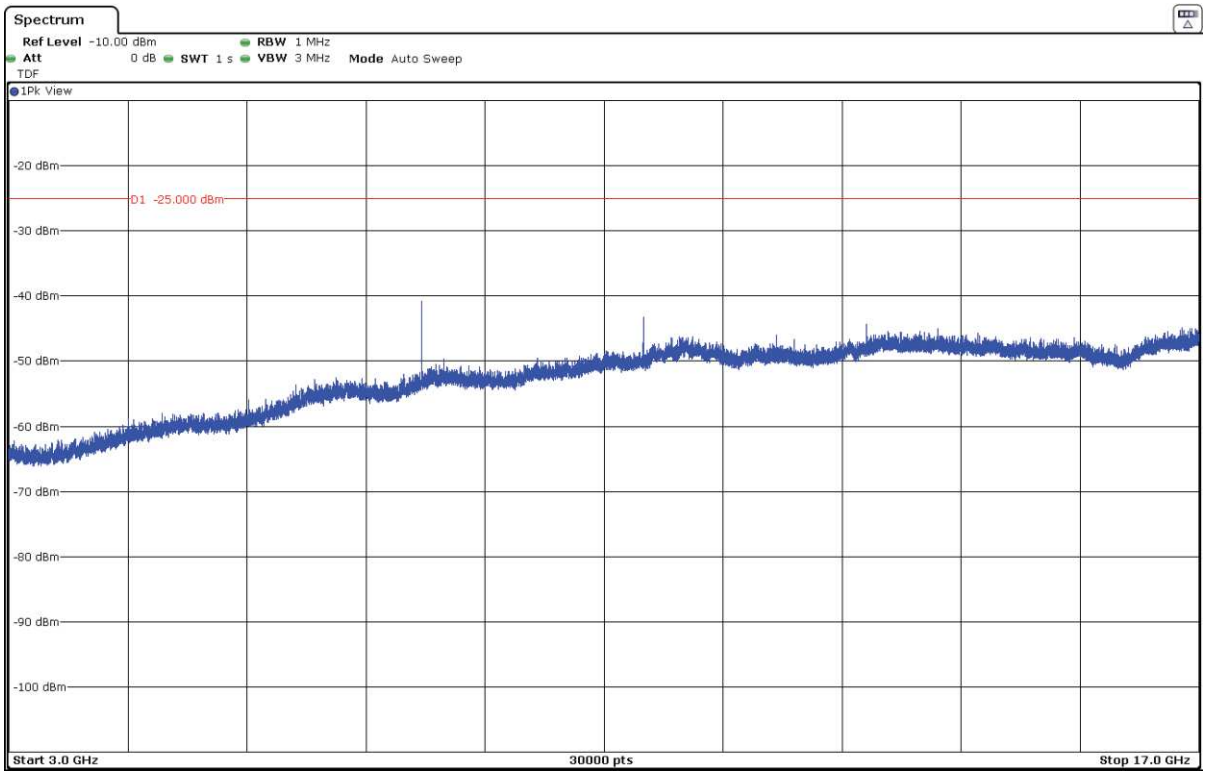
- Lowest Channel:



- Middle Channel:

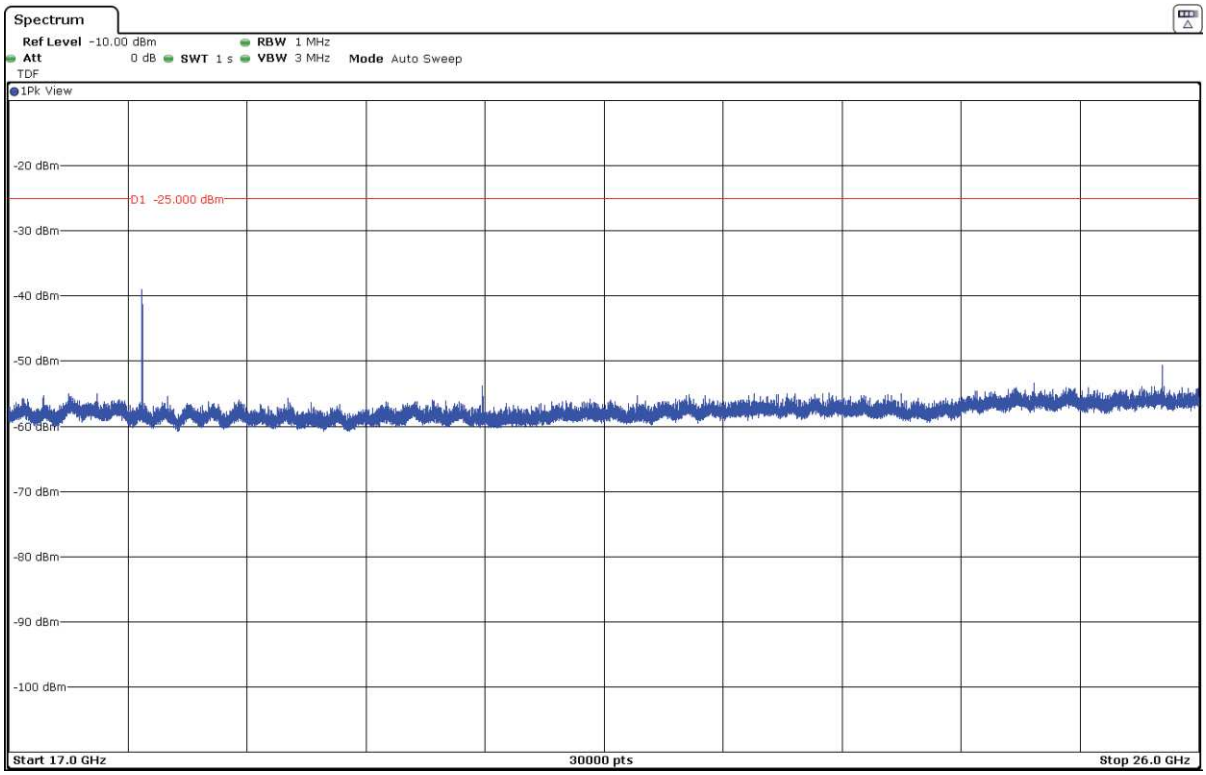


- Highest Channel:

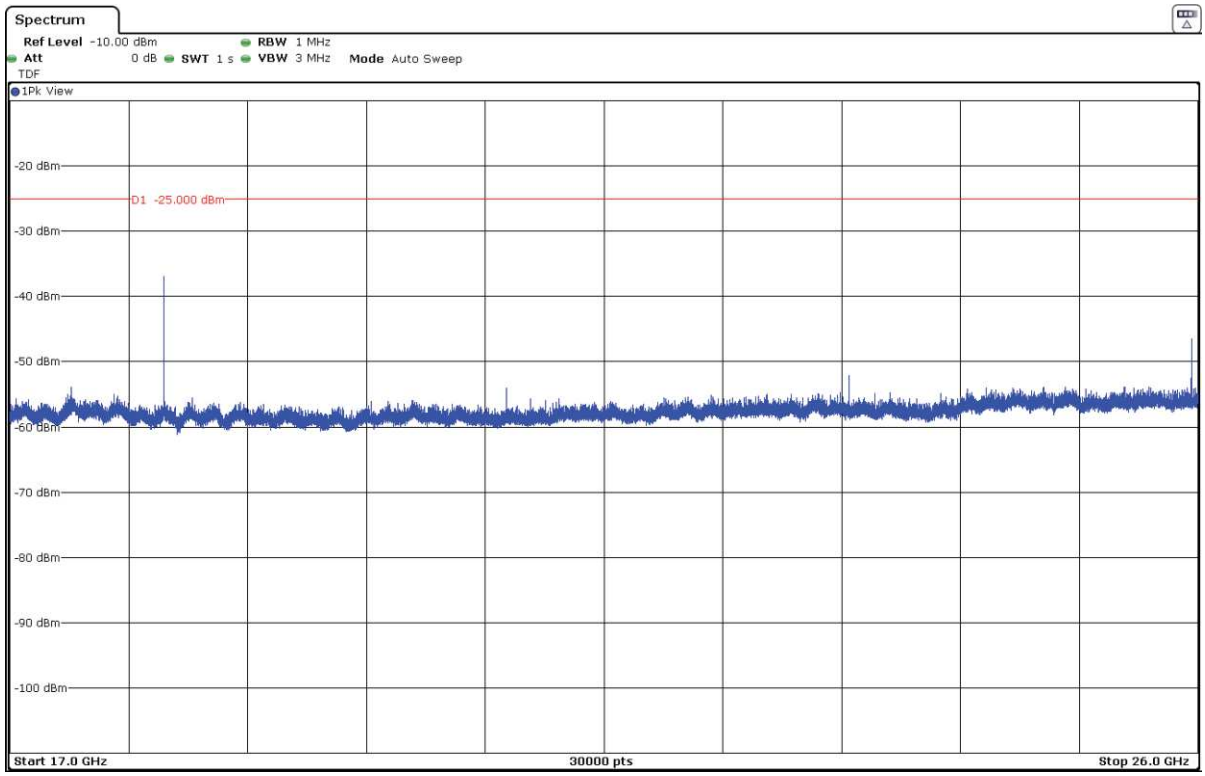


FREQUENCY RANGE 17 - 26 GHz

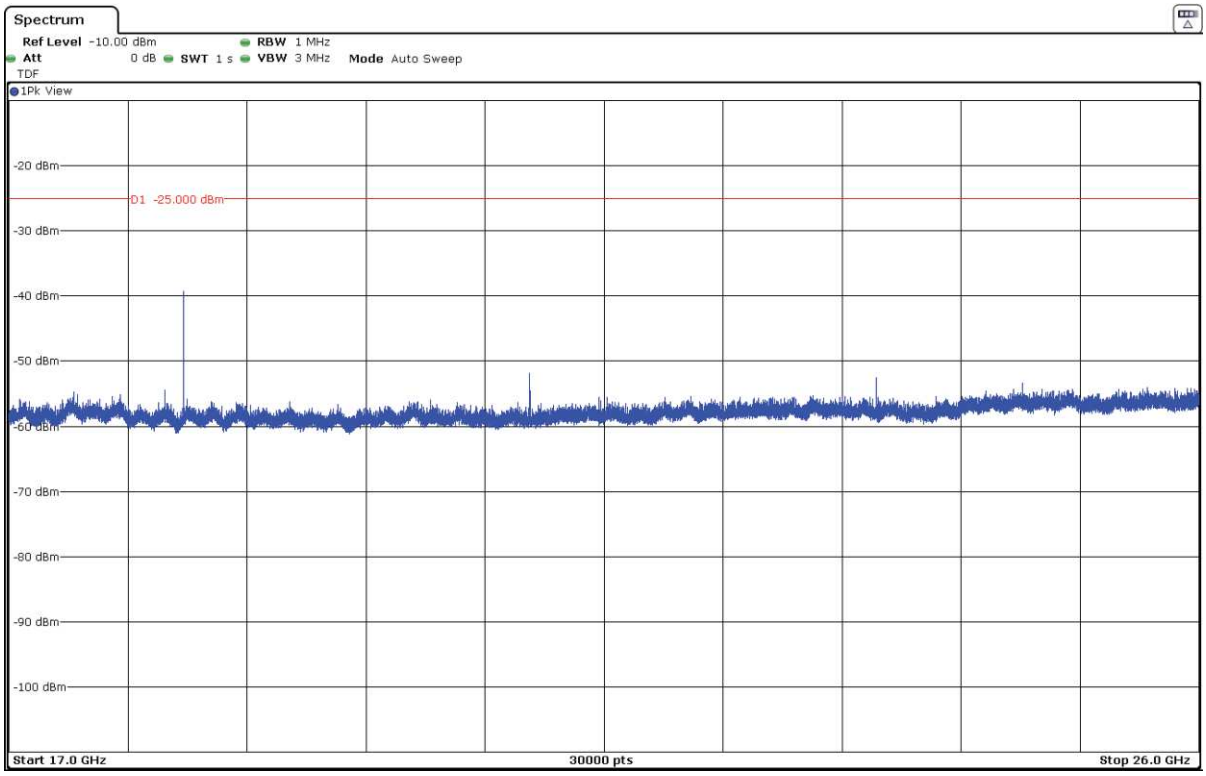
- Lowest Channel:



- Middle Channel:

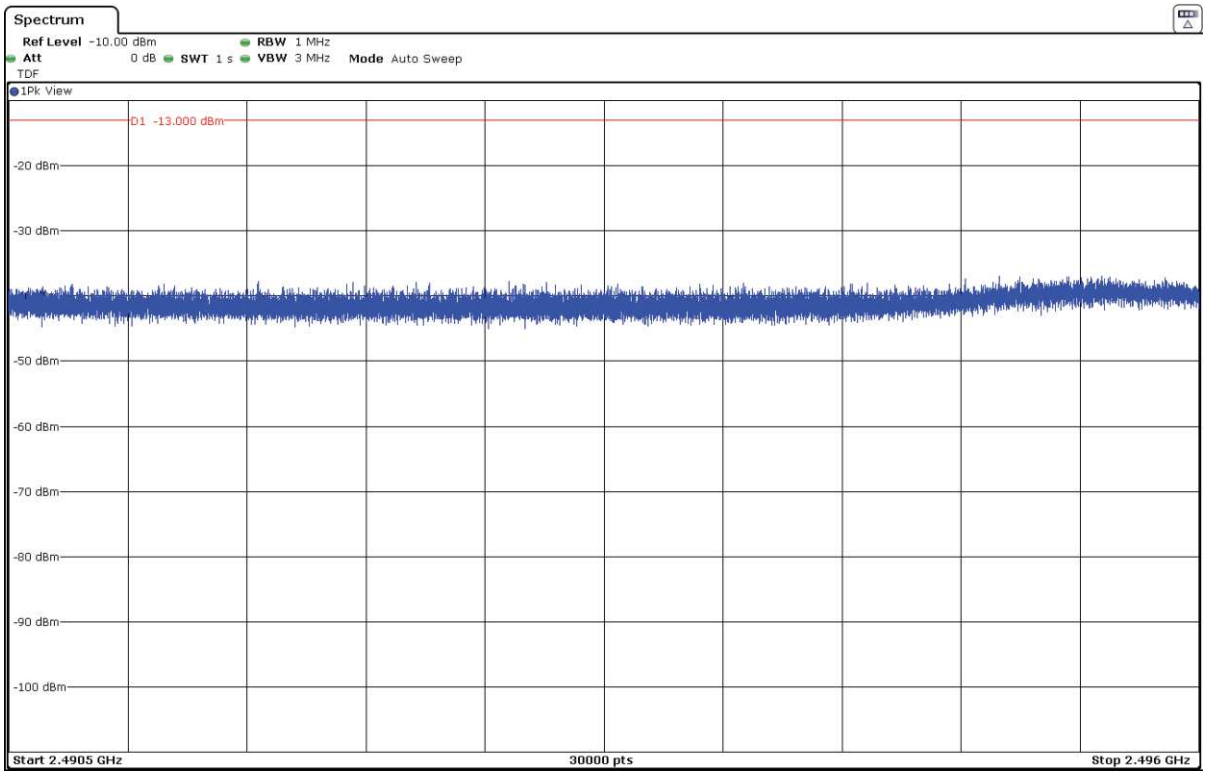


- Highest Channel:

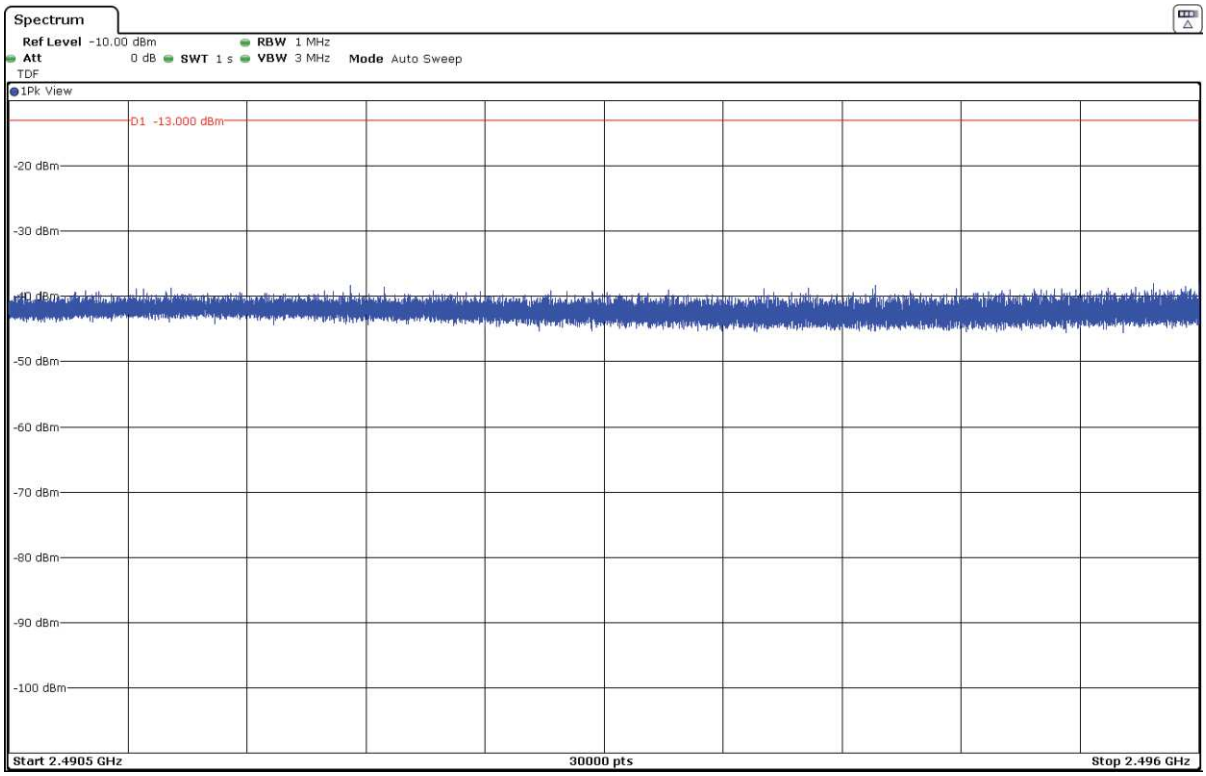


FREQUENCY RANGE 2490.5 - 2496 MHz

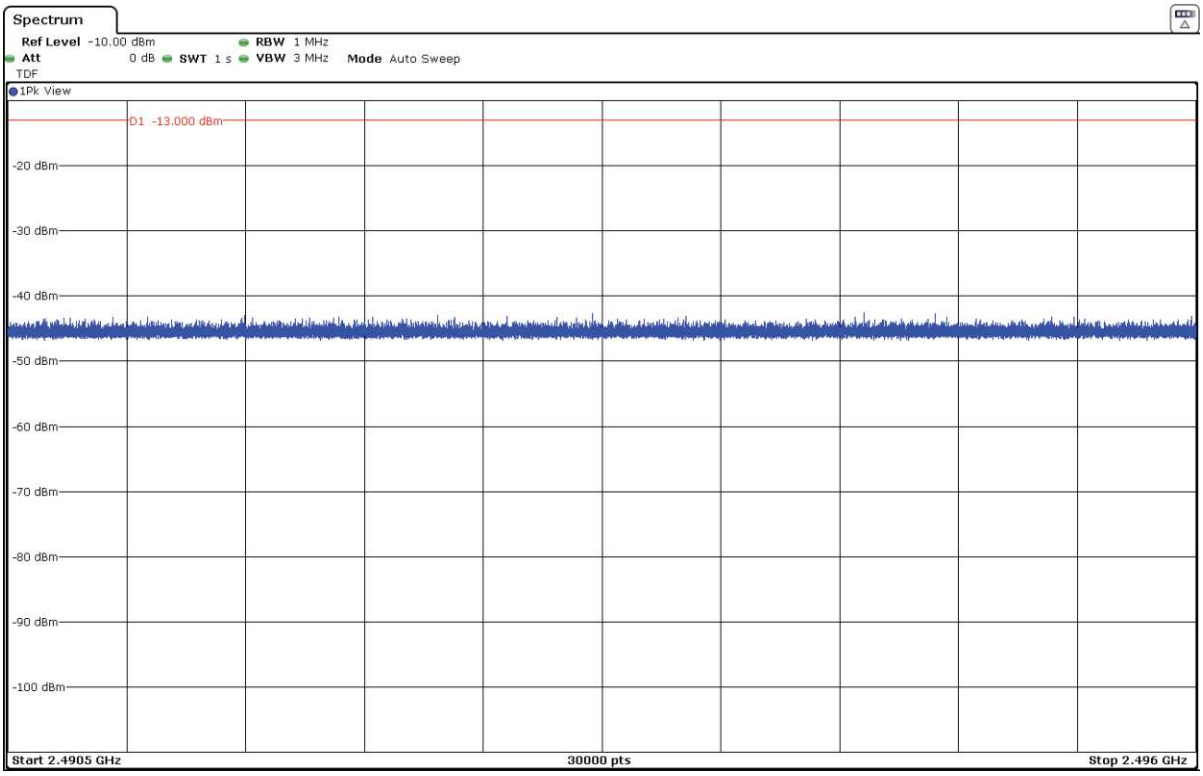
- Lowest Channel:



- Middle Channel:



- Highest Channel:



LTE Band 66:

QPSK and 16QAM Modulations:
A preliminary scan determined the 16QAM modulation, BW=20 MHz, RB=1, Offset=99 as the worst case.

- Lowest Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 18 GHz

Spurious frequencies at less than 20 dB below the limit:

Frequency (GHz)	Instrument reading (dBm)	Polarization	(1) Generator output (dBm)	(2) Cable loss (dB)	(3) Substitution antenna gain Gi (respect to isotropic radiator) (dB)	E.I.R.P. (dBm) = (1) – (2) + (3)
6.91575	-33.46	V	-39.72	1.88	10.09	-31.51
8.64425		V				-26.5

- Middle Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 18 GHz

Spurious frequencies at less than 20 dB below the limit:

Frequency (GHz)	Instrument reading (dBm)	Polarization	(1) Generator output (dBm)	(2) Cable loss (dB)	(3) Substitution antenna gain Gi (respect to isotropic radiator) (dB)	E.I.R.P. (dBm) = (1) – (2) + (3)
5.26175	-19.21	V	-32.81	1.63	12.23	-22.21
7.01575	-34.80	V	-40.50	1.90	9.92	-32.47
8.76975	-34.44	V	-37.92	2.14	11.11	-28.95

- Highest Channel:

Frequency range 30 MHz - 1 GHz

No spurious frequencies at less than 20 dB below the limit.

Frequency range 1 - 18 GHz

Spurious frequencies at less than 20 dB below the limit:

Frequency (GHz)	Instrument reading (dBm)	Polarization	(1) Generator output (dBm)	(2) Cable loss (dB)	(3) Substitution antenna gain Gi (respect to isotropic radiator) (dB)	E.I.R.P. (dBm) = (1) – (2) + (3)
7.11575	-28.51	V	1.91	10.06	-25.96	-25.96
8.89425	-34.97	V	2.16	11.16	-29.16	-29.16

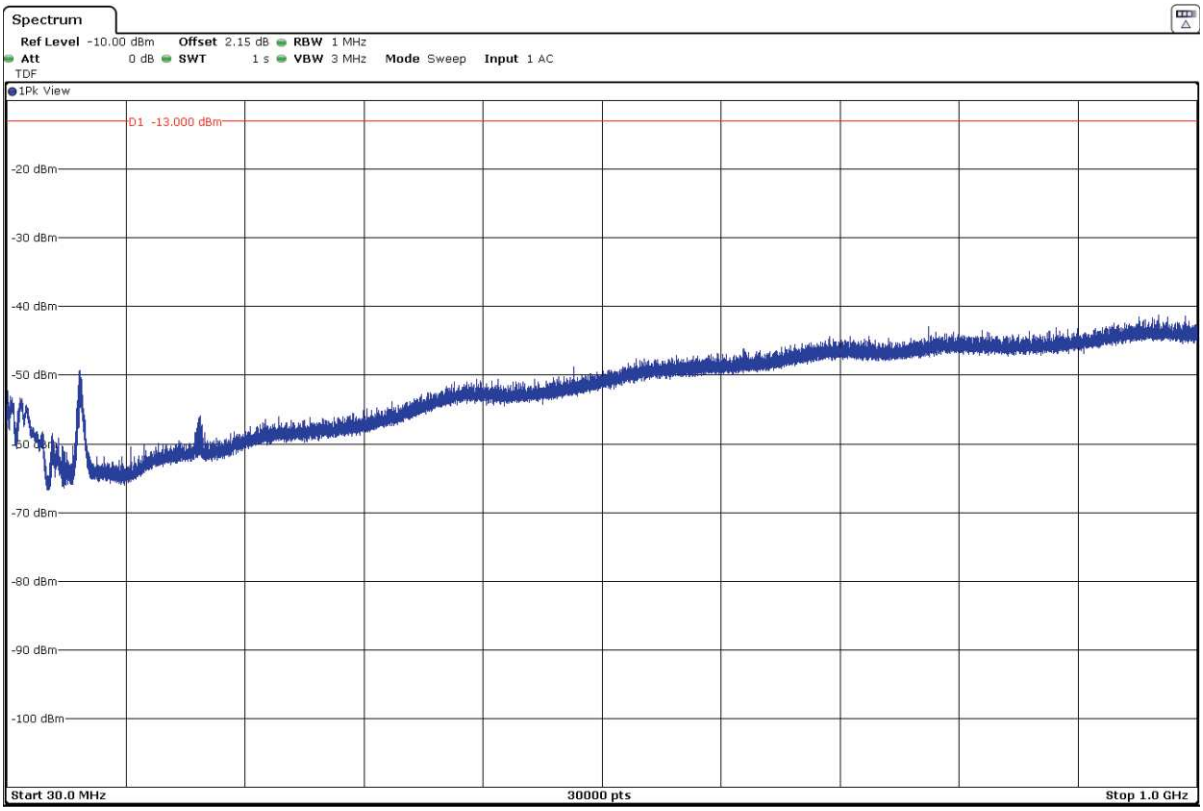
Measurement uncertainty (dB)	<±3.88 for f < 1GHz <±3.70 for f ≥ 1 GHz up to 18 GHz

Verdict: PASS

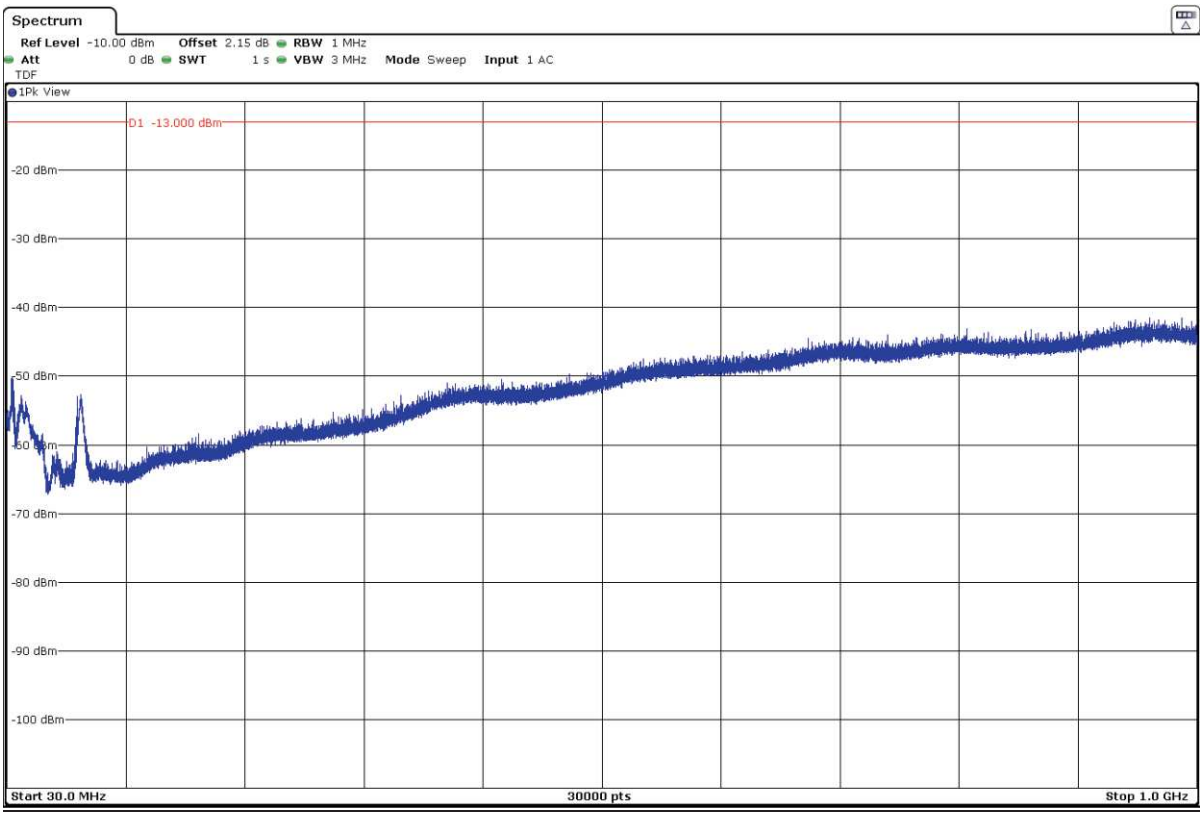
FREQUENCY RANGE 30 MHz - 1 GHz

16QAM MODULATION

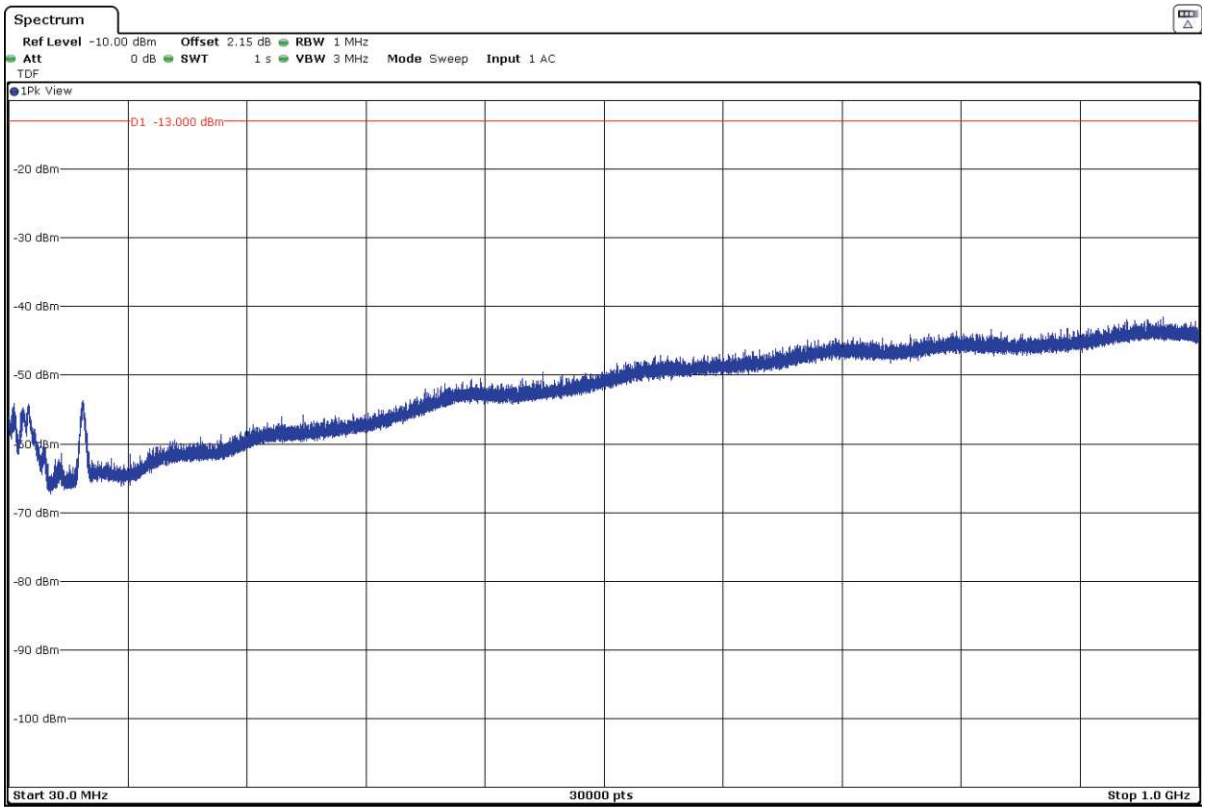
- Lowest Channel:



- Middle Channel:



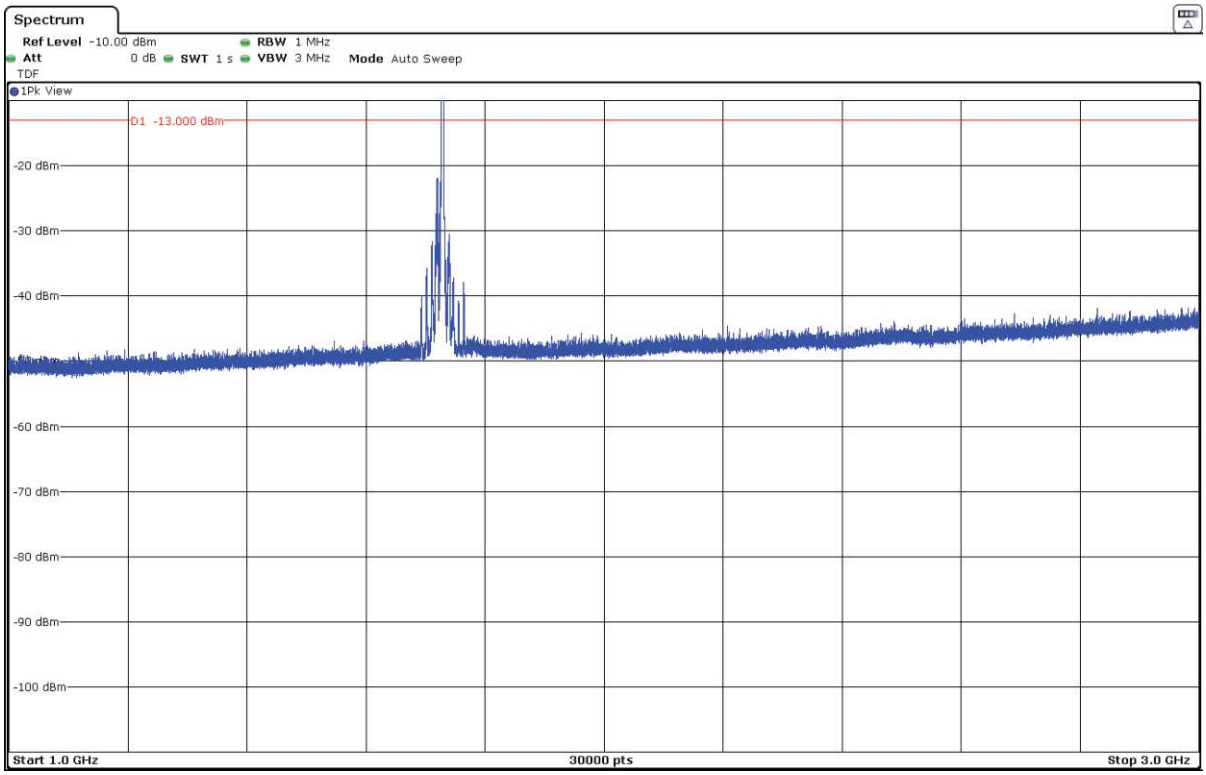
- Highest Channel:



FREQUENCY RANGE 1 - 3 GHz

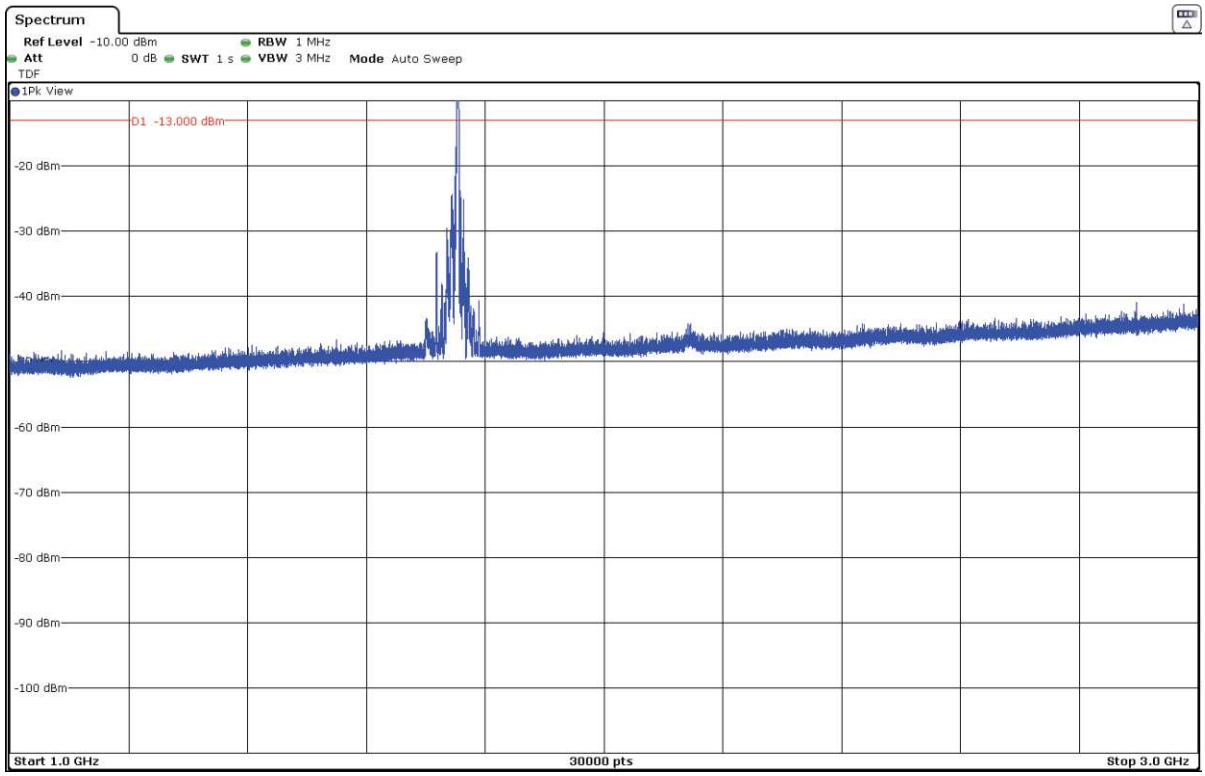
16QAM MODULATION

- Lowest Channel:



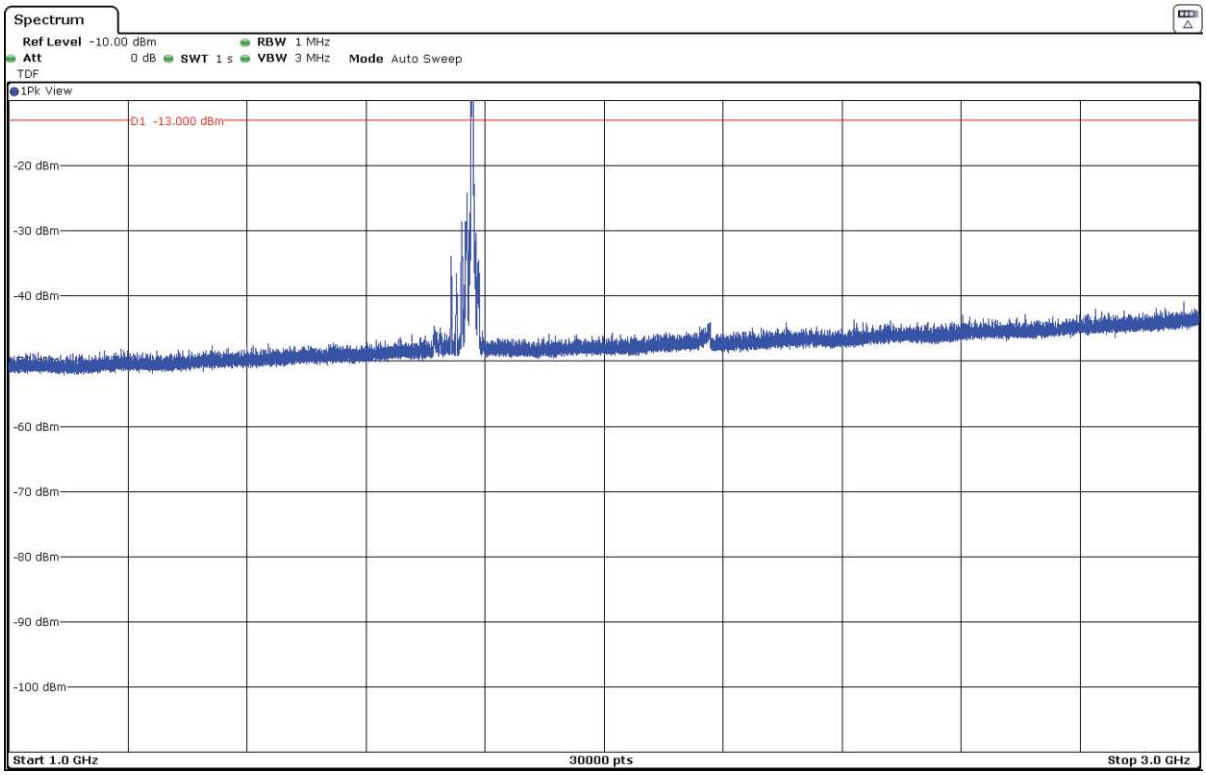
The peak above the limit is the carrier frequency:

- Middle Channel:



The peak above the limit is the carrier frequency:

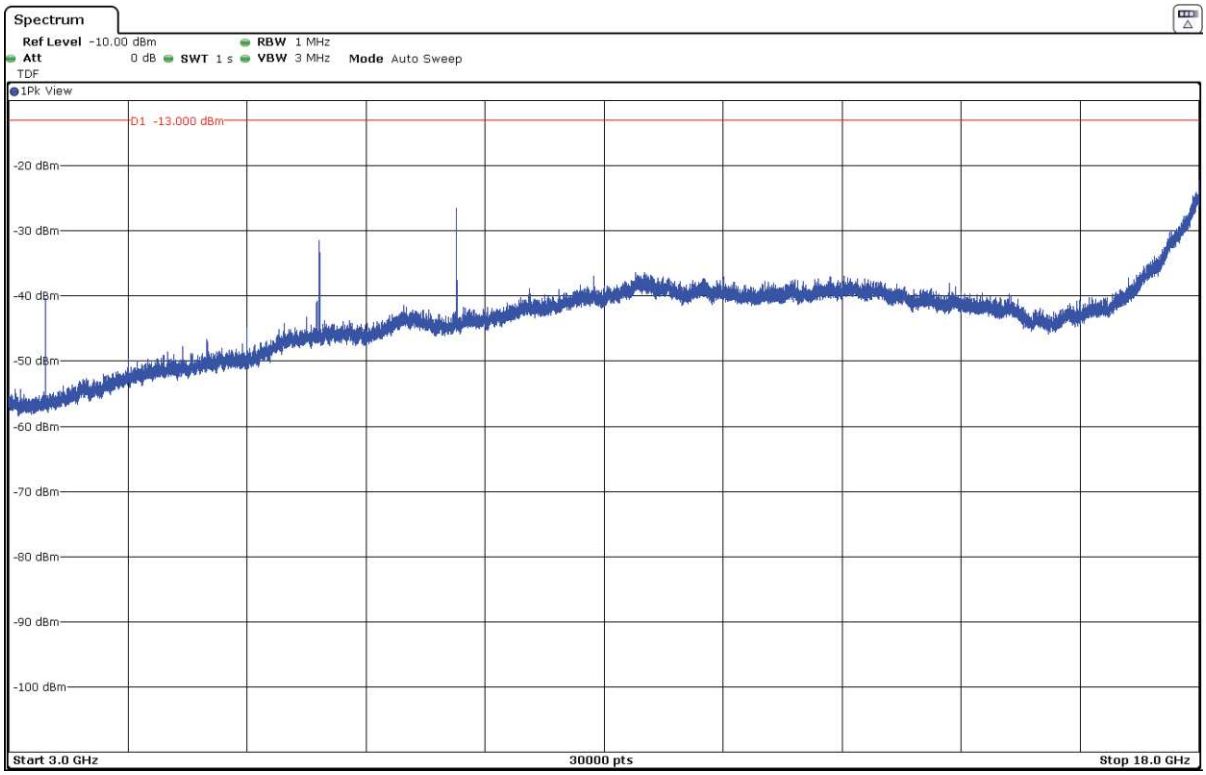
- Highest Channel:



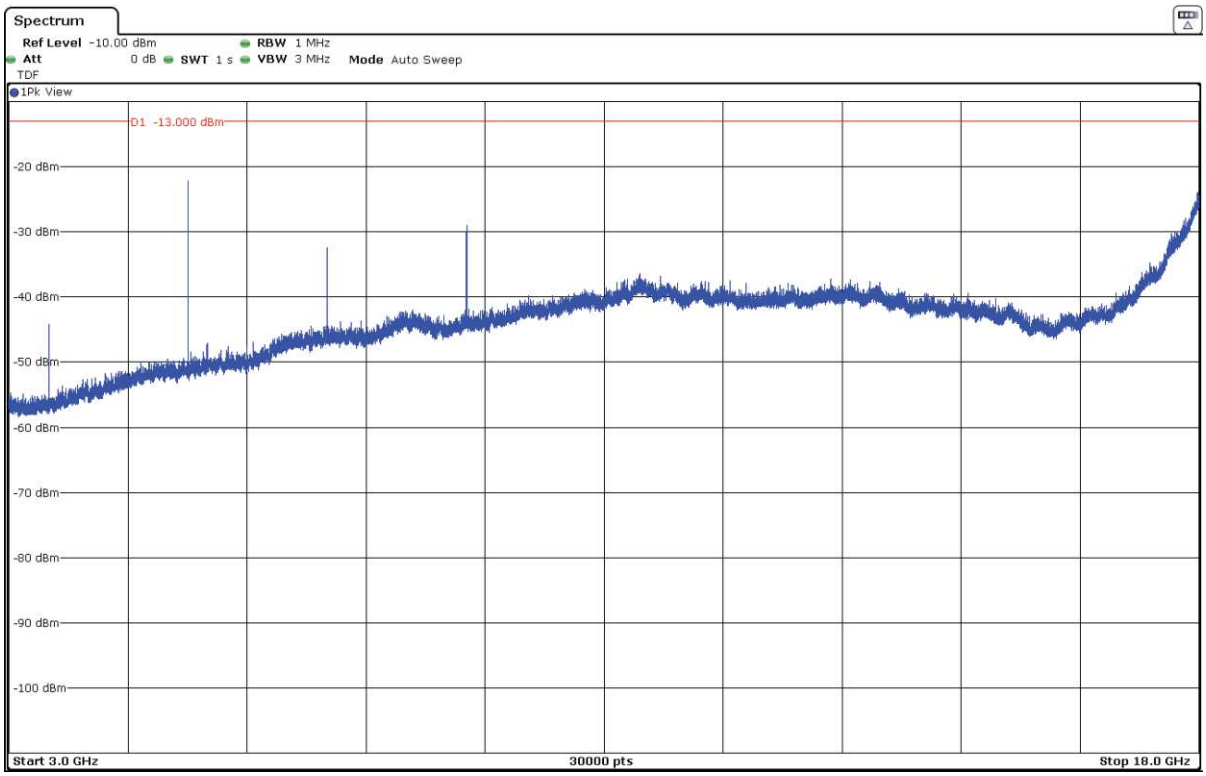
The peak above the limit is the carrier frequency:

FREQUENCY RANGE 3 – 18 GHz

- Lowest Channel:



- Middle Channel:



- Highest Channel: