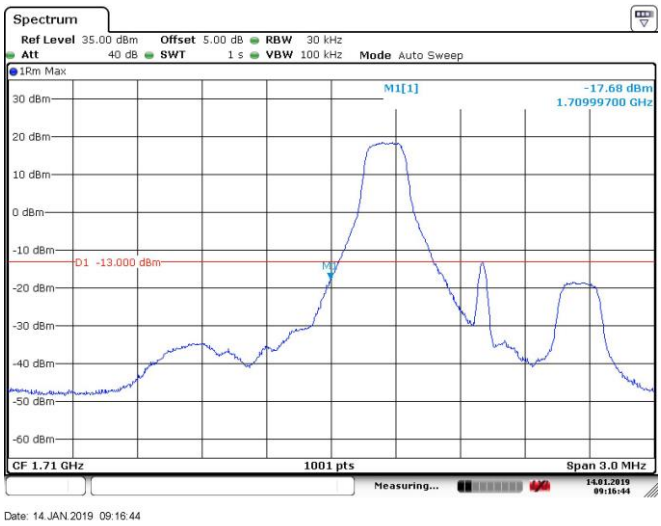
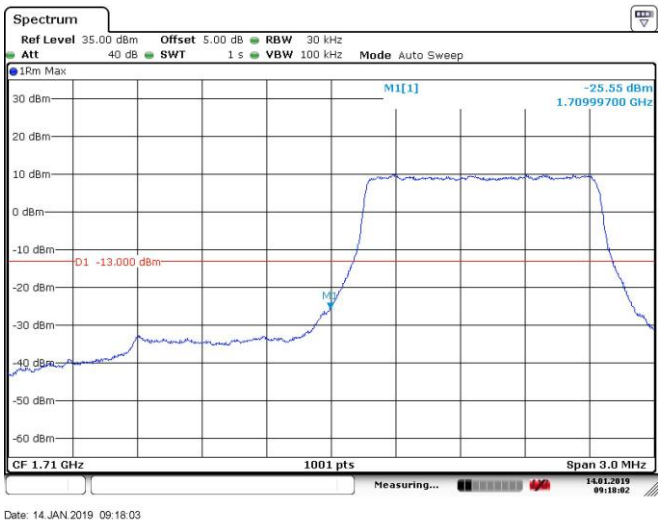
7. Band Edge Compliance

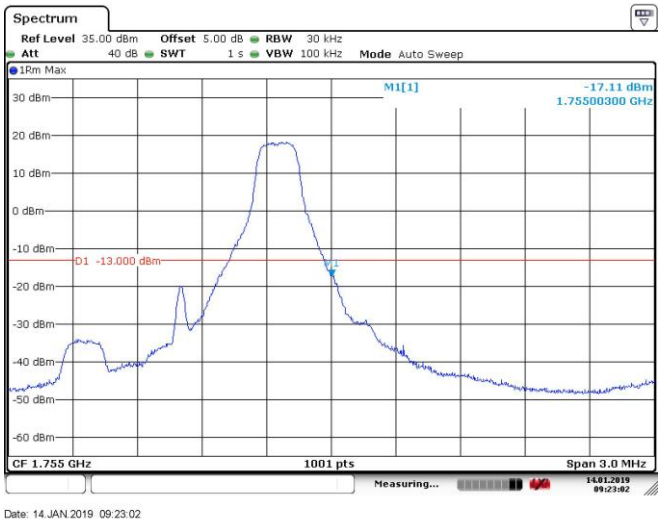
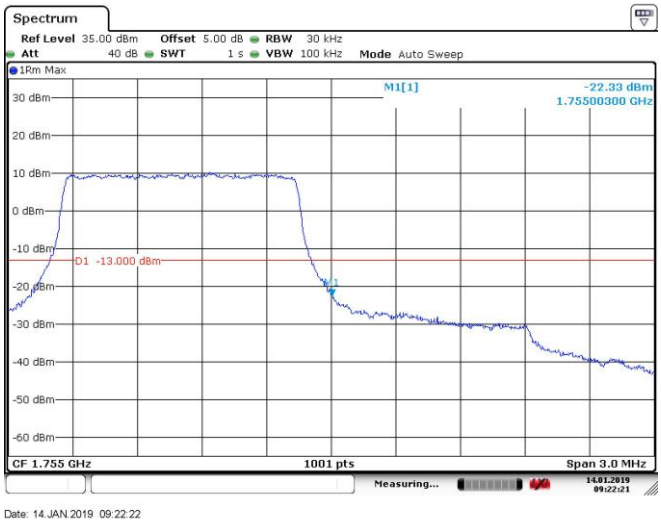
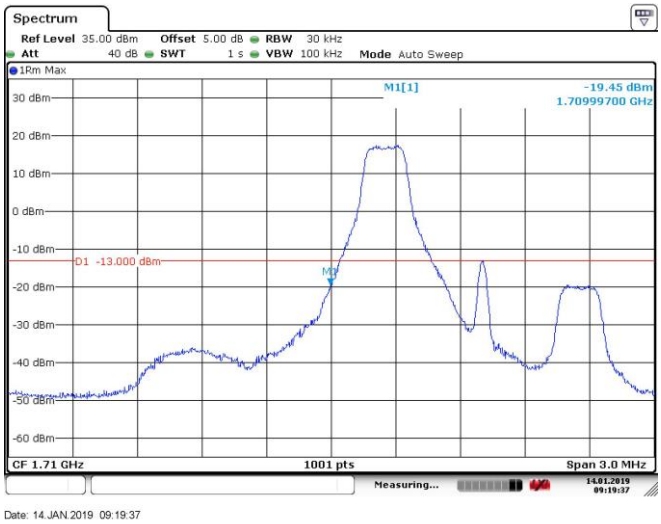
7.1. Test Plots

Band4_1.4MHz_QPSK_19957_1RB#0

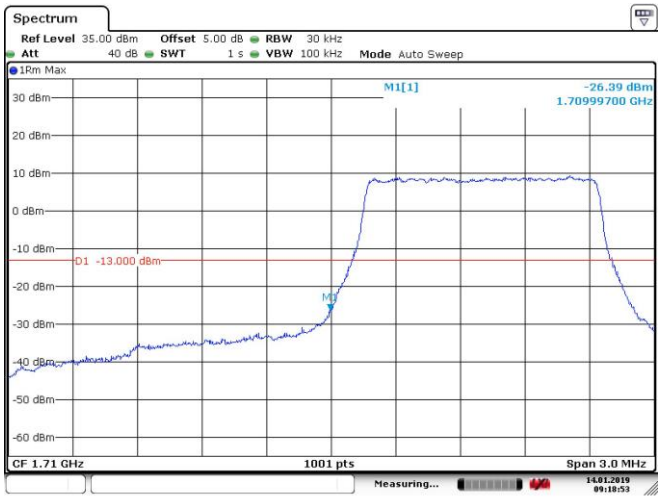


Band4_1.4MHz_QPSK_19957_6RB#0

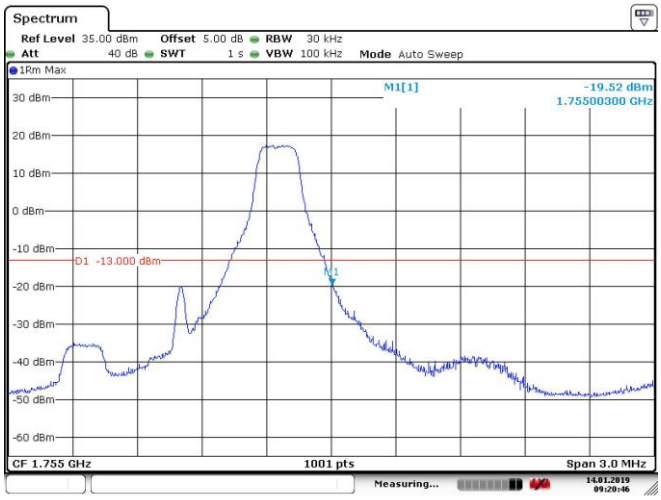


Band4_1.4MHz_QPSK_20393_1RB#5

Band4_1.4MHz_QPSK_20393_6RB#0

Band4_1.4MHz_16QAM_19957_1RB#0


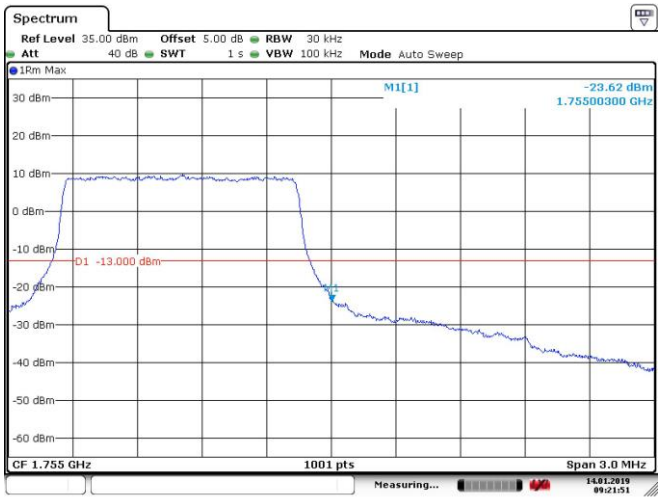
Band4_1.4MHz_16QAM_19957_6RB#0



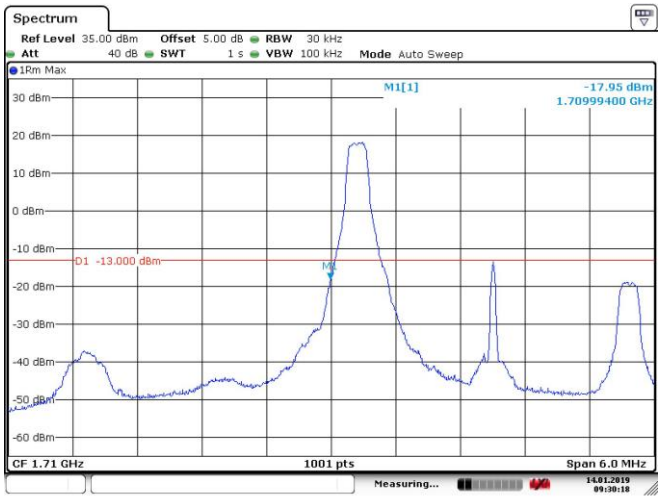
Band4_1.4MHz_16QAM_20393_1RB#5



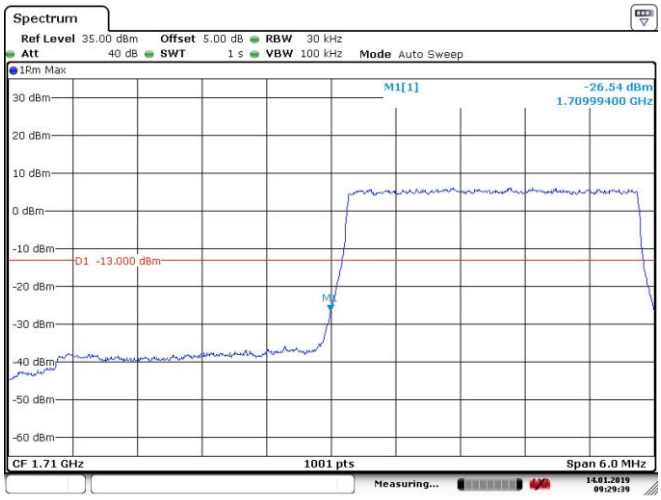
Band4_1.4MHz_16QAM_20393_6RB#0



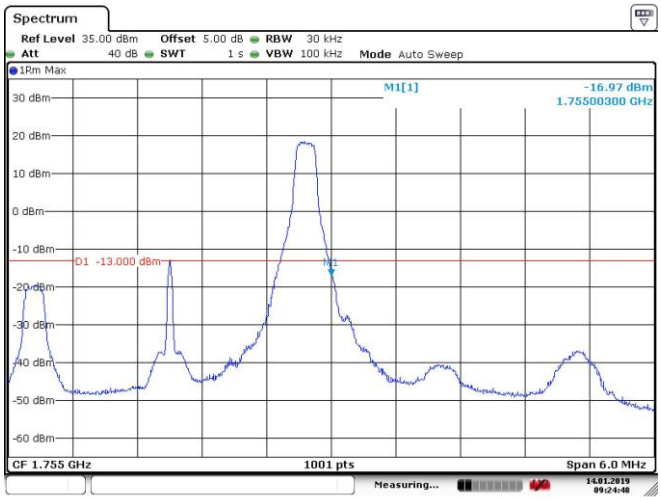
Band4_3MHz_QPSK_19965_1RB#0



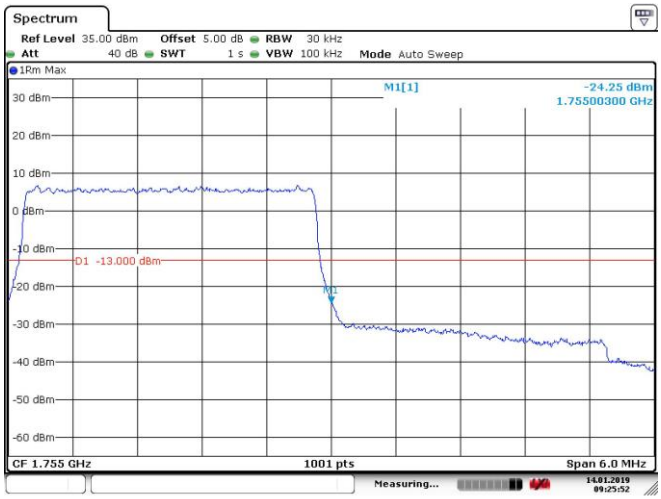
Band4_3MHz_QPSK_19965_15RB#0



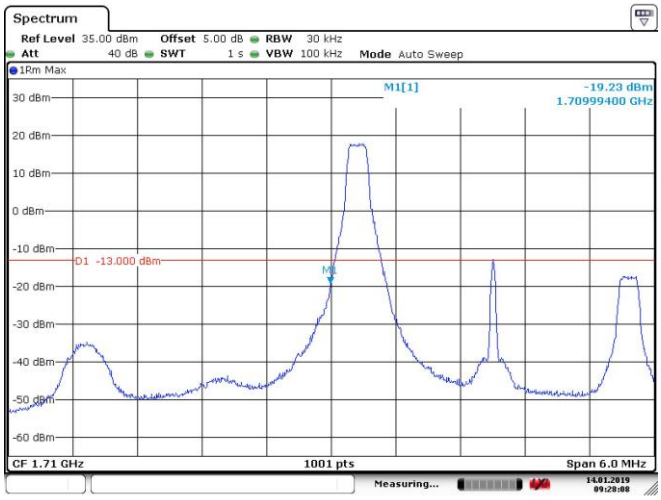
Band4_3MHz_QPSK_20385_1RB#14



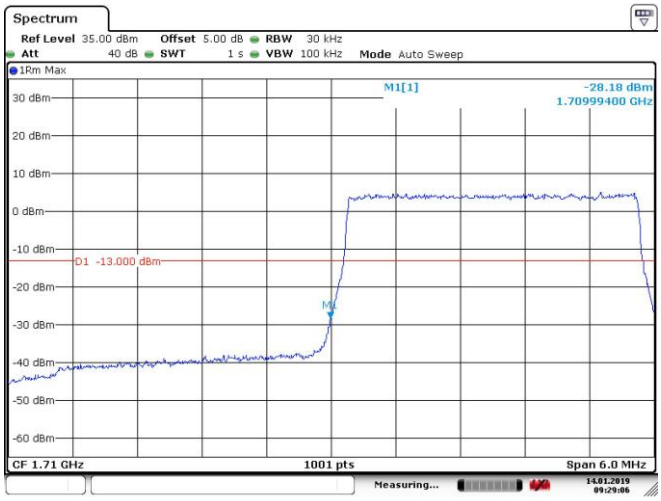
Band4_3MHz_QPSK_20385_15RB#0

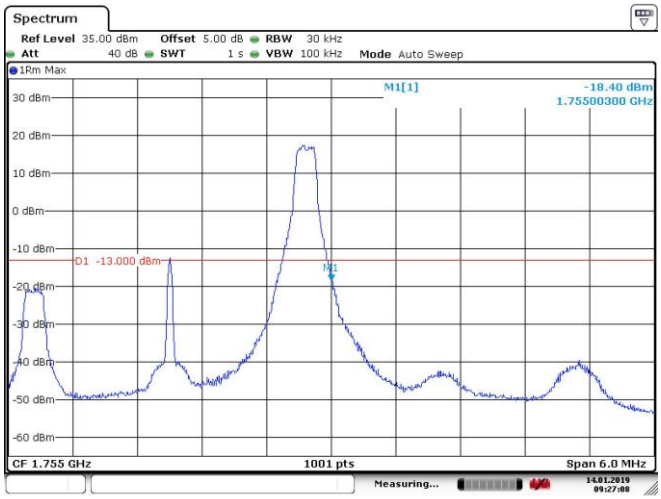
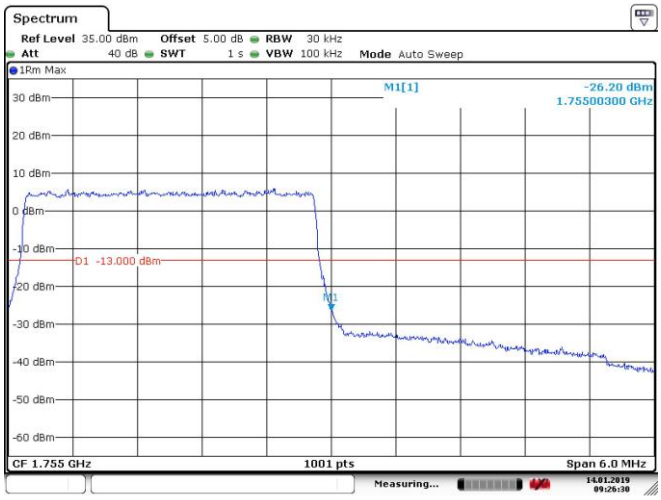
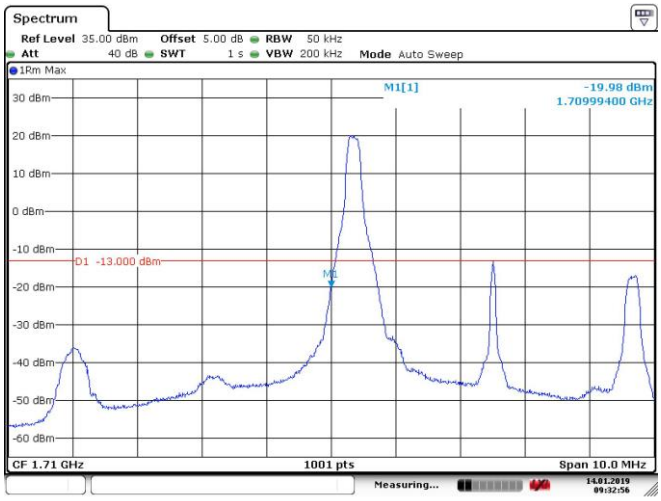


Band4_3MHz_16QAM_19965_1RB#0

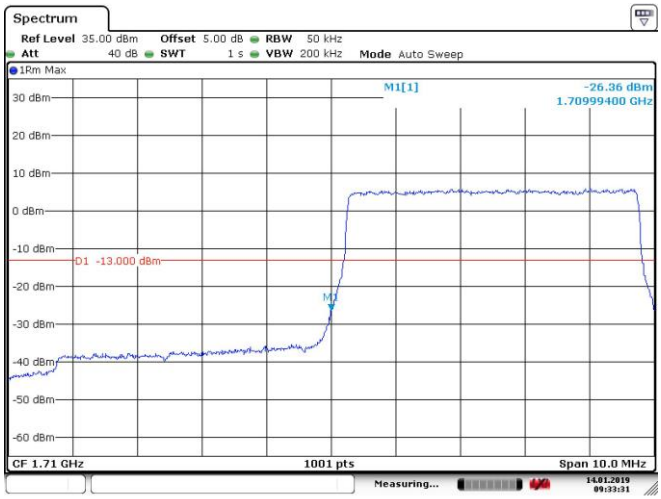


Band4_3MHz_16QAM_19965_15RB#0

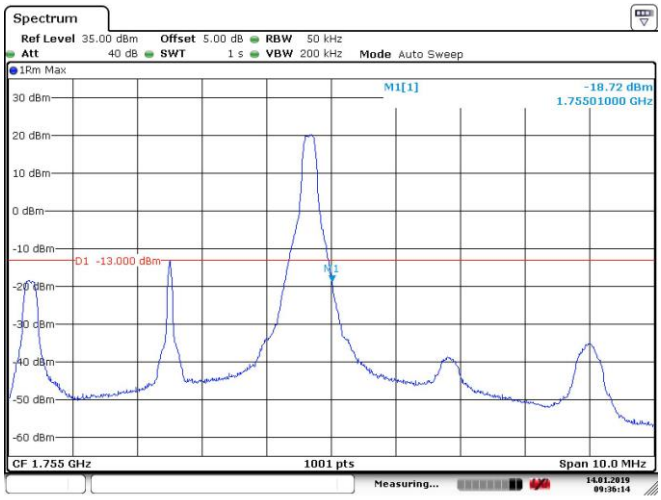


Band4_3MHz_16QAM_20385_1RB#14

Band4_3MHz_16QAM_20385_15RB#0

Band4_5MHz_QPSK_19975_1RB#0


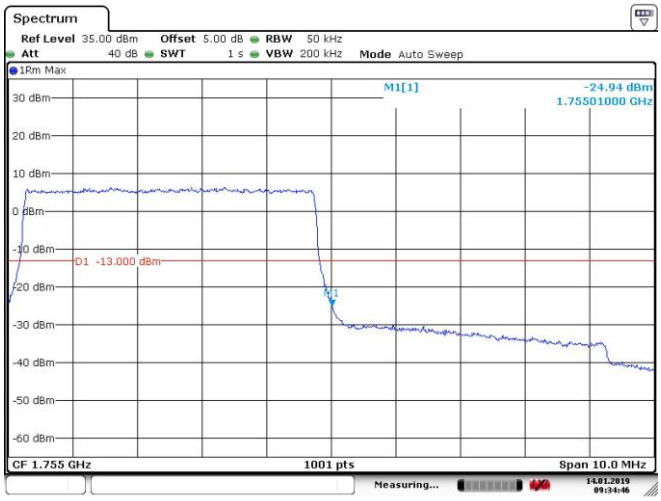
Band4_5MHz_QPSK_19975_25RB#0



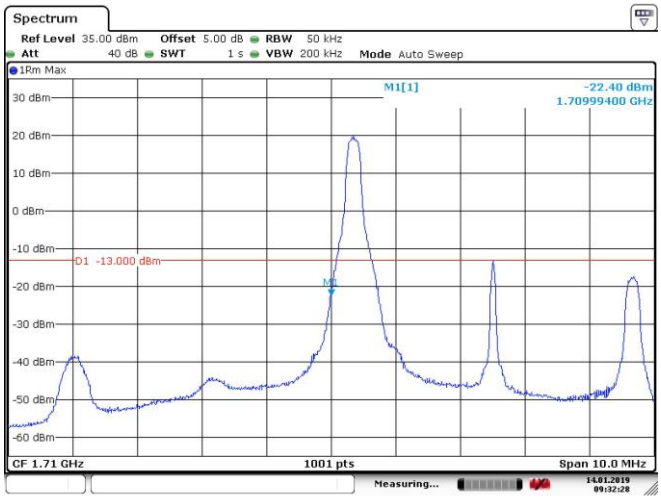
Band4_5MHz_QPSK_20375_1RB#24



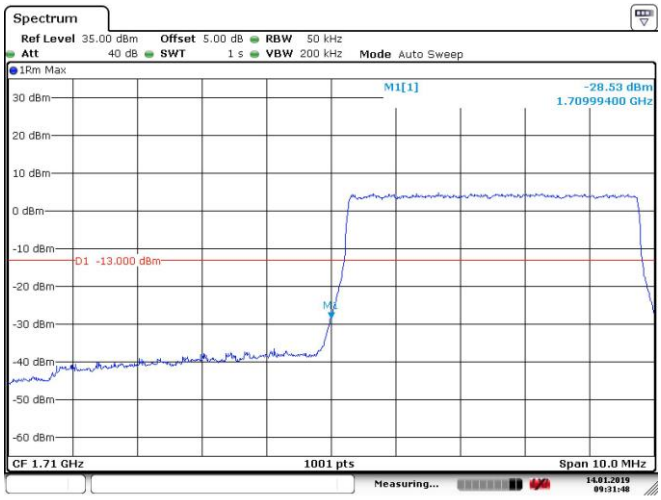
Band4_5MHz_QPSK_20375_25RB#0



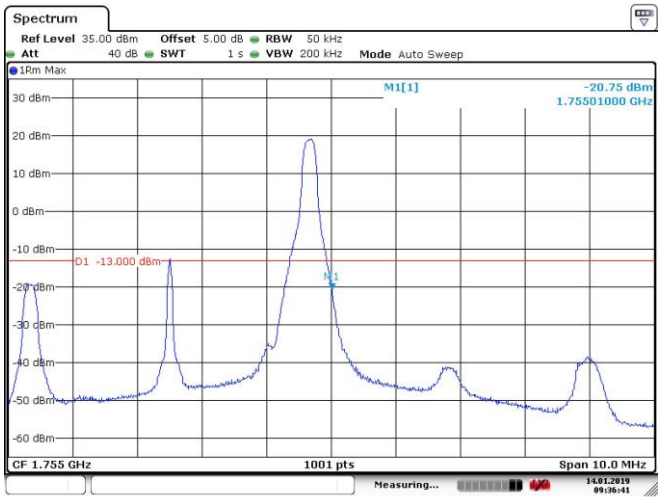
Band4_5MHz_16QAM_19975_1RB#0



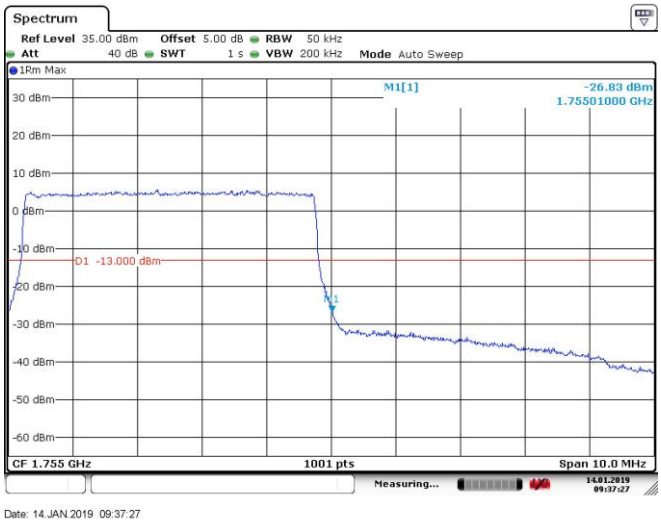
Band4_5MHz_16QAM_19975_25RB#0



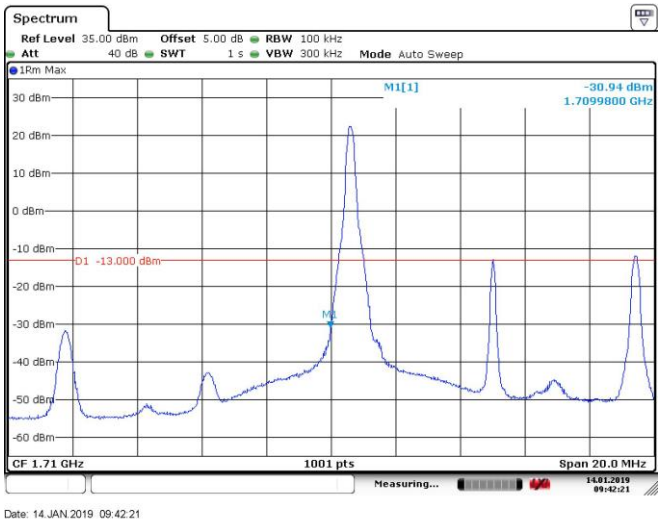
Band4_5MHz_16QAM_20375_1RB#24



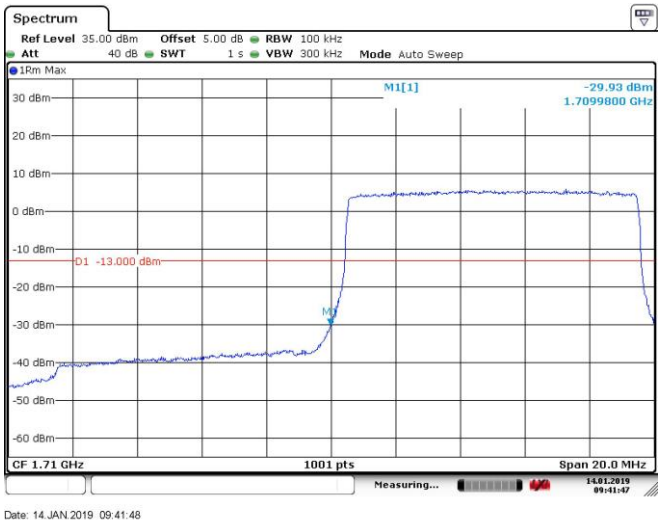
Band4_5MHz_16QAM_20375_25RB#0

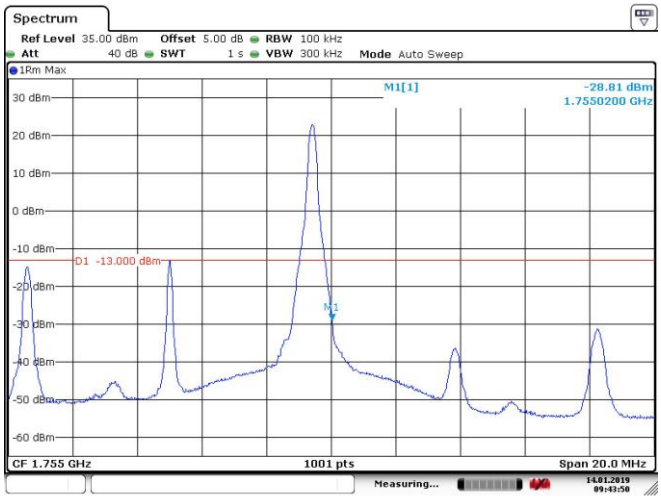


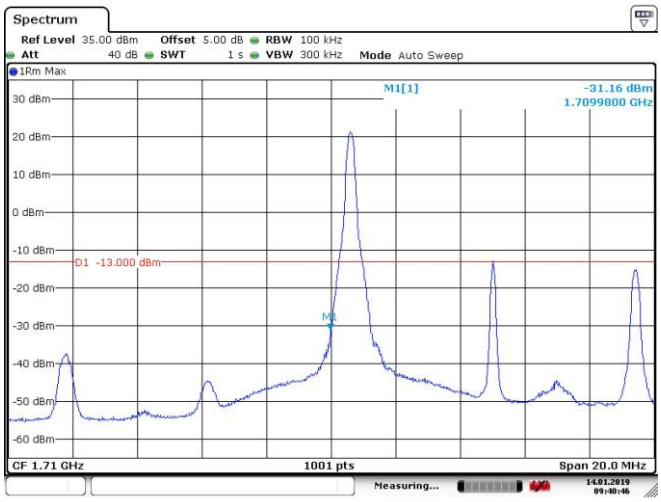
Band4_10MHz_QPSK_20000_1RB#0

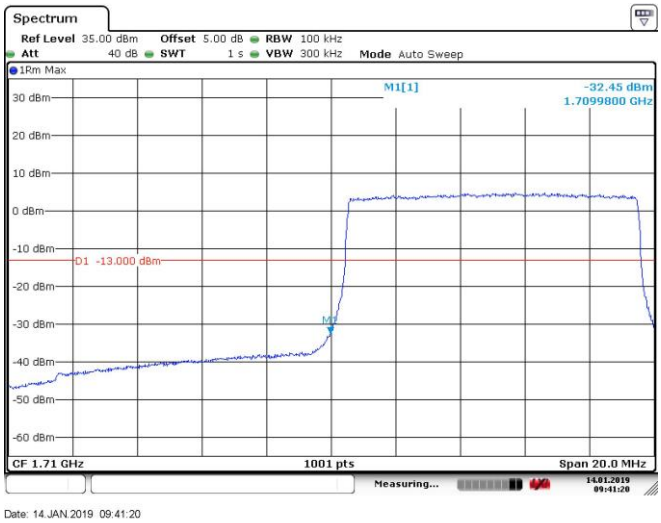
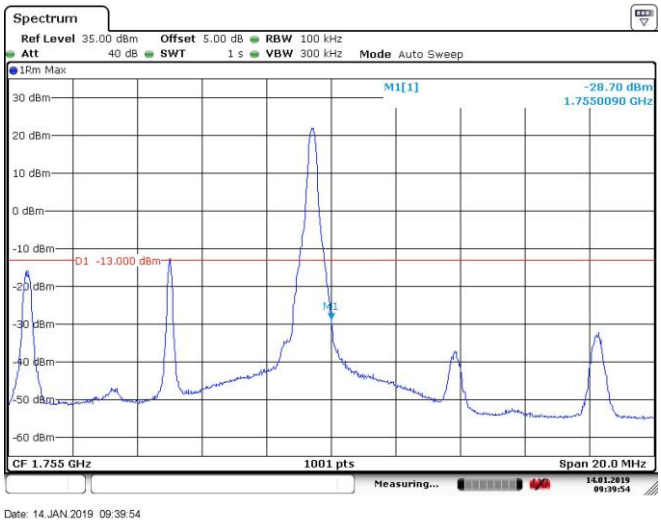
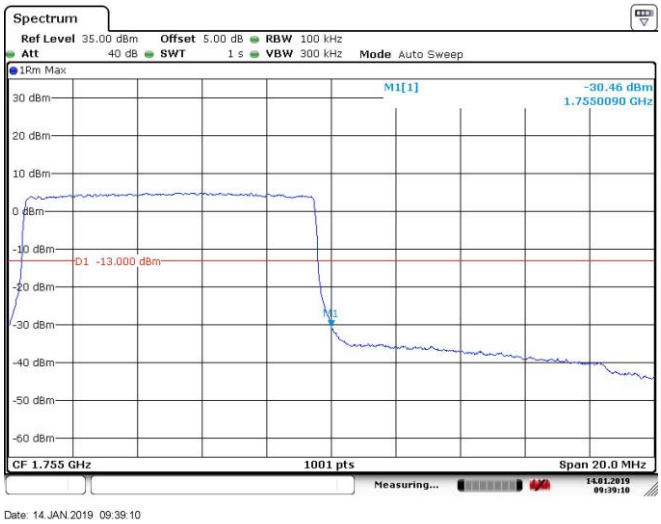


Band4_10MHz_QPSK_20000_50RB#0

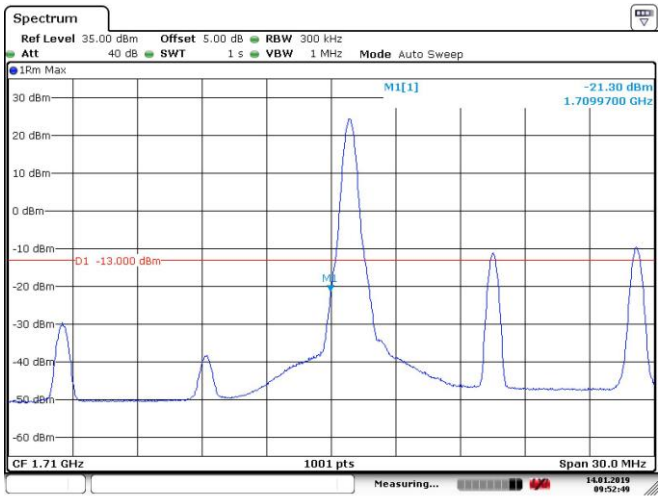


Band4_10MHz_QPSK_20350_1RB#49

Band4_10MHz_QPSK_20350_50RB#0

Band4_10MHz_16QAM_20000_1RB#0


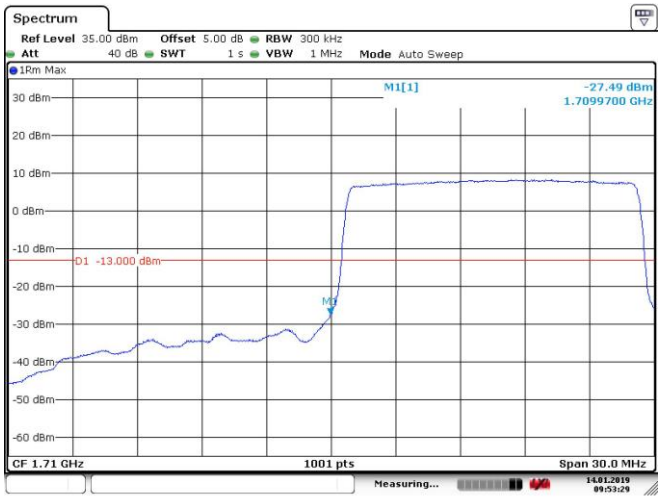
Band4_10MHz_16QAM_20000_50RB#0

Band4_10MHz_16QAM_20350_1RB#49

Band4_10MHz_16QAM_20350_50RB#0


Band4_15MHz_QPSK_20025_1RB#0



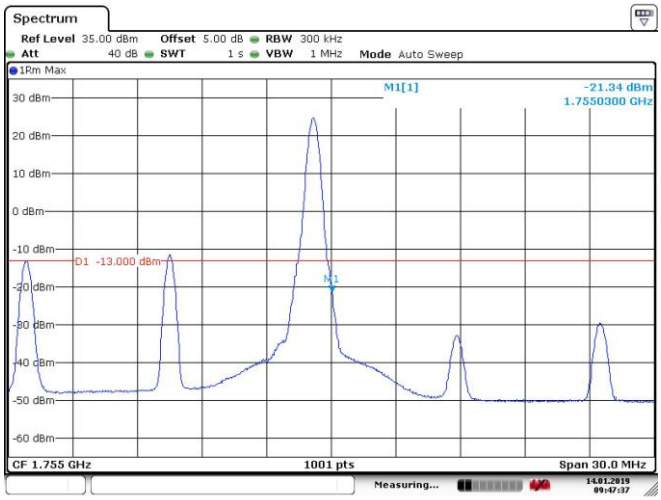
Date: 14.JAN.2019 09:52:50

Band4_15MHz_QPSK_20025_75RB#0



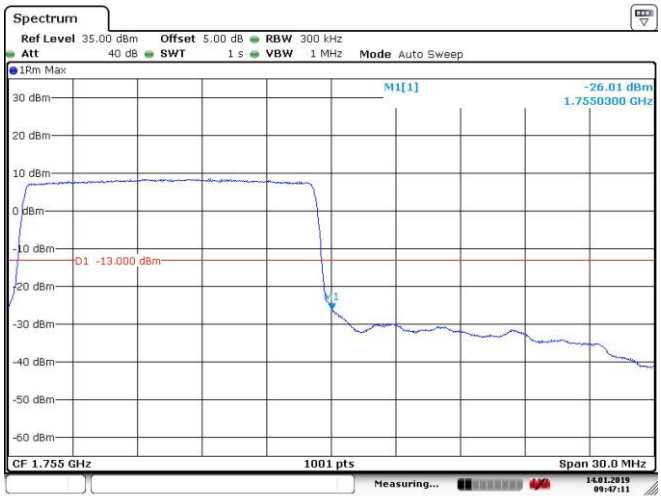
Date: 14.JAN.2019 09:53:29

Band4_15MHz_QPSK_20325_1RB#74

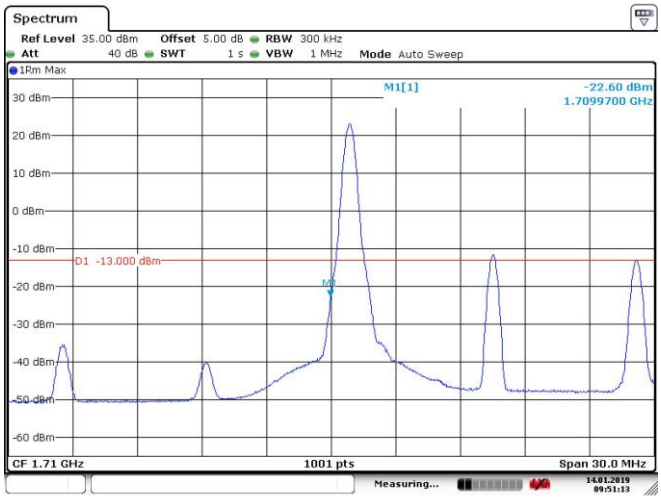


Date: 14.JAN.2019 09:47:37

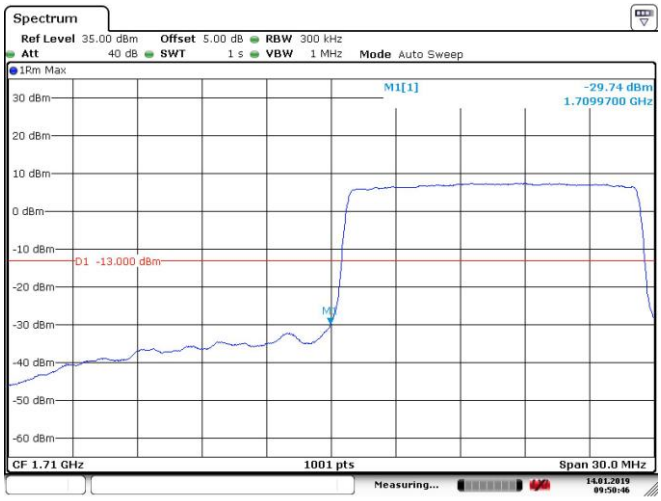
Band4_15MHz_QPSK_20325_75RB#0

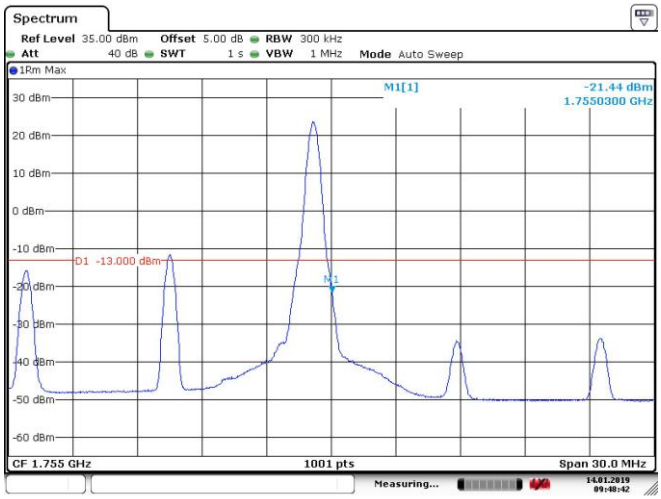
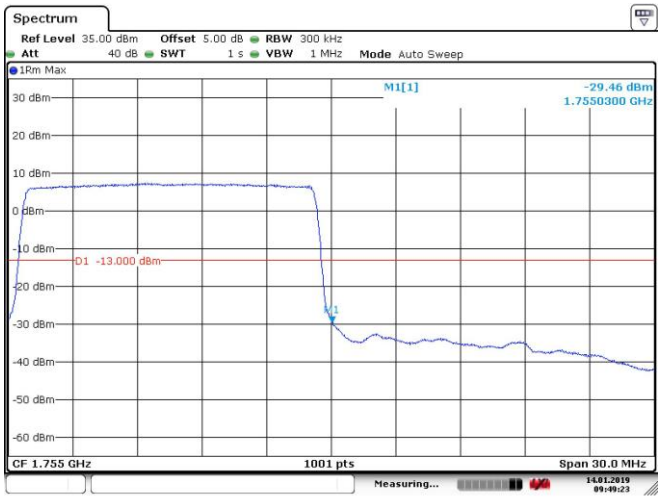
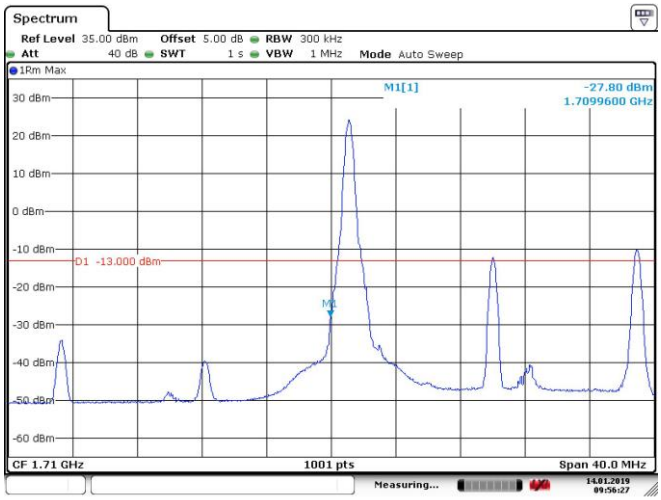


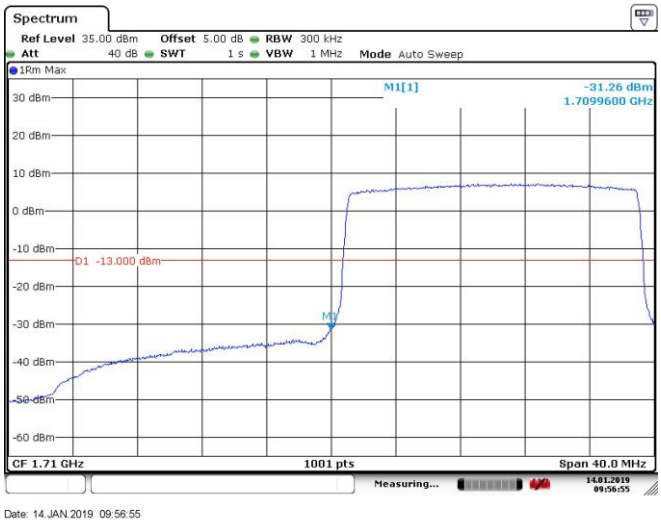
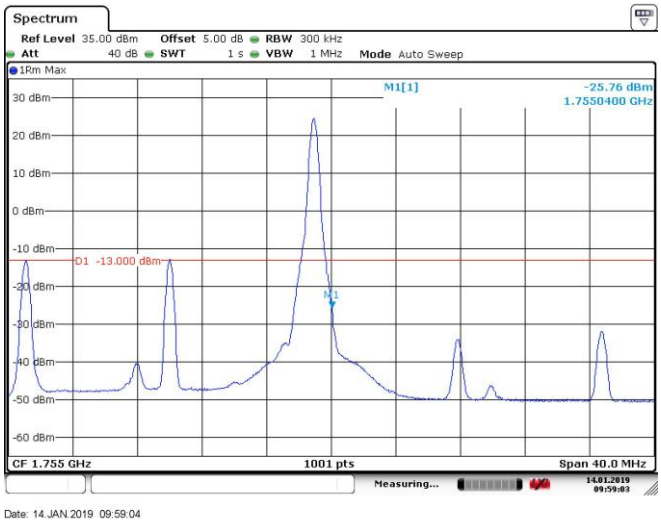
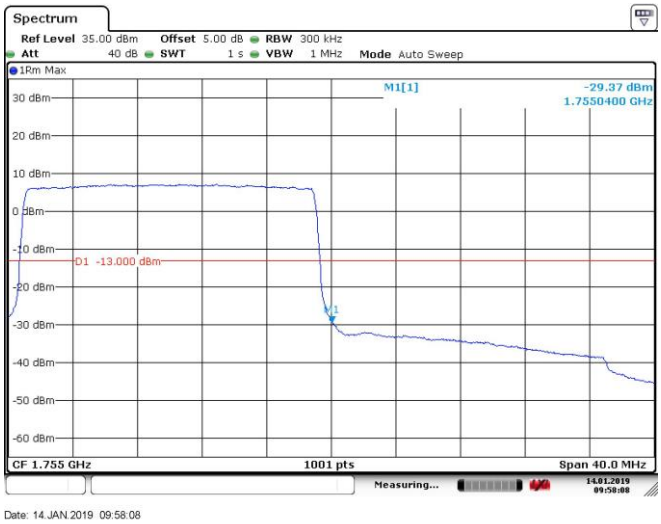
Band4_15MHz_16QAM_20025_1RB#0



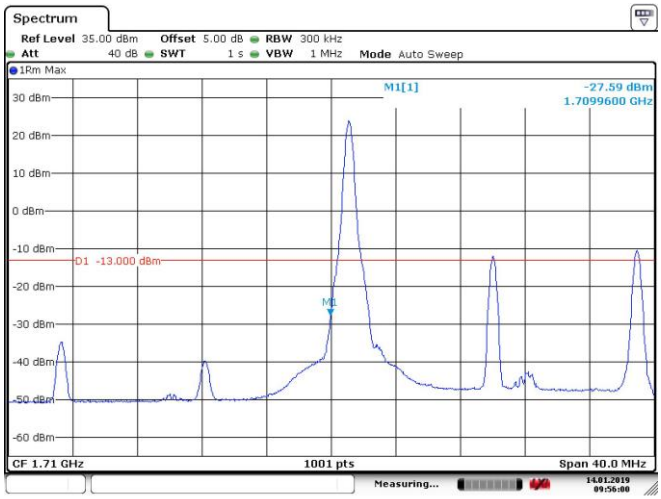
Band4_15MHz_16QAM_20025_75RB#0



Band4_15MHz_16QAM_20325_1RB#74

Band4_15MHz_16QAM_20325_75RB#0

Band4_20MHz_QPSK_20050_1RB#0


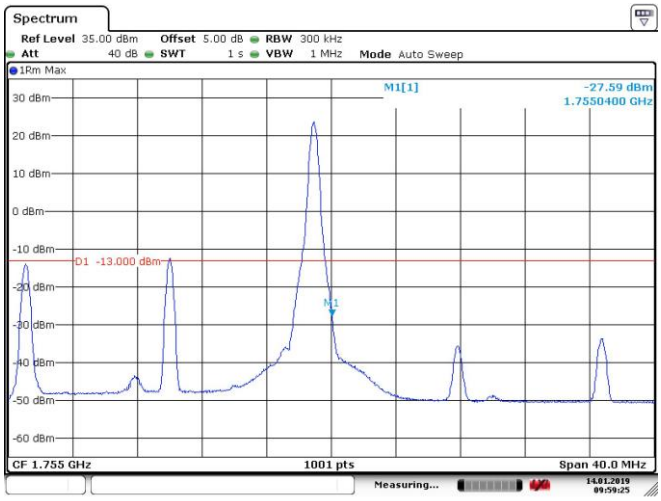
Band4_20MHz_QPSK_20050_100RB#0

Band4_20MHz_QPSK_20300_1RB#99

Band4_20MHz_QPSK_20300_100RB#0


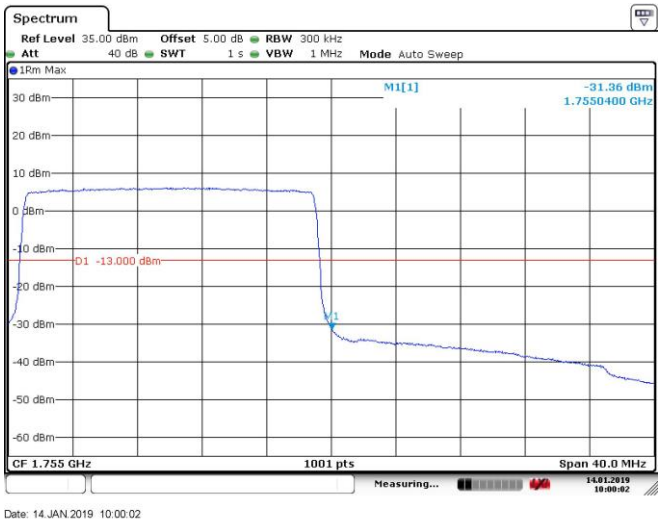
Band4_20MHz_16QAM_20050_1RB#0



Band4_20MHz_16QAM_20050_100RB#0

Band4_20MHz_16QAM_20300_1RB#99



Band4_20MHz_16QAM_20300_100RB#0


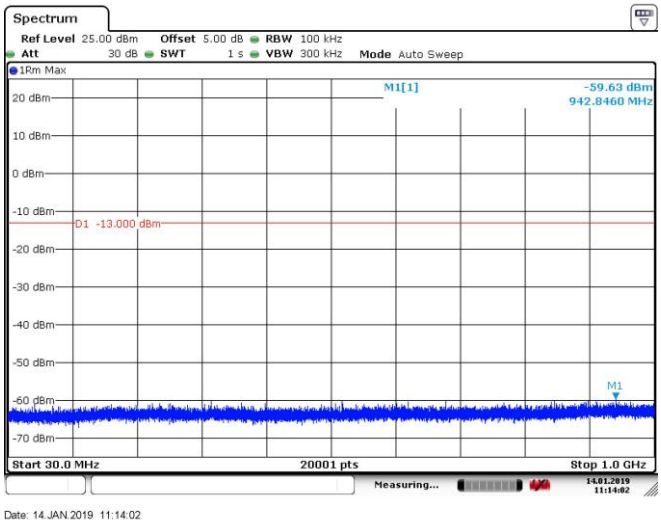
8. Spurious Emission at Antenna Terminal

Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of < RBW/2 so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = k * (Span / RBW)" with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

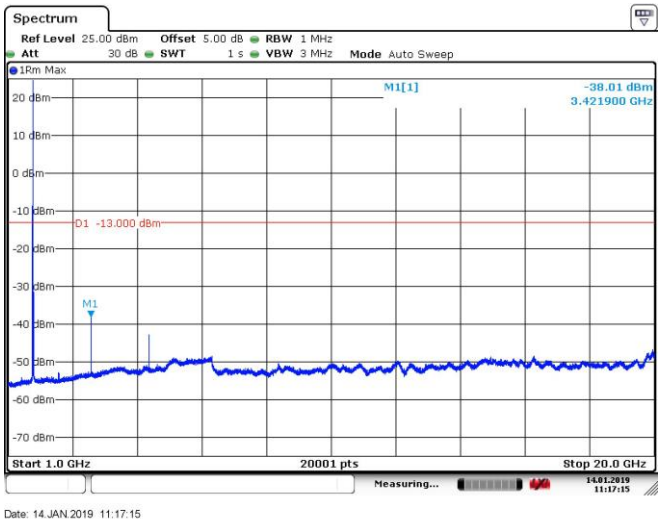
Remark2: only the worst case data displayed in this report.

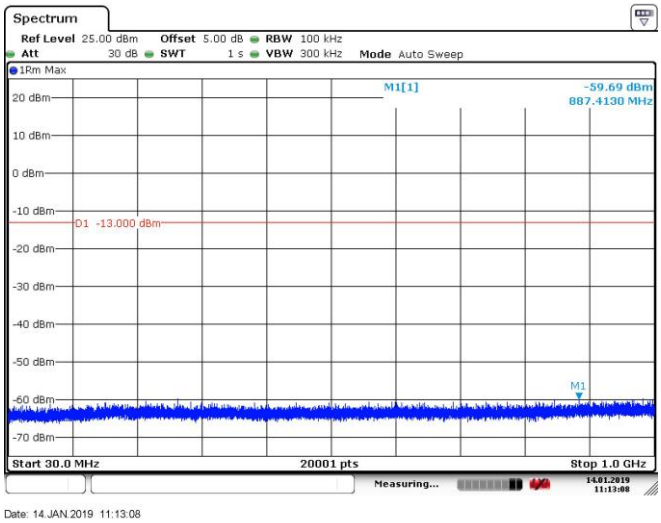
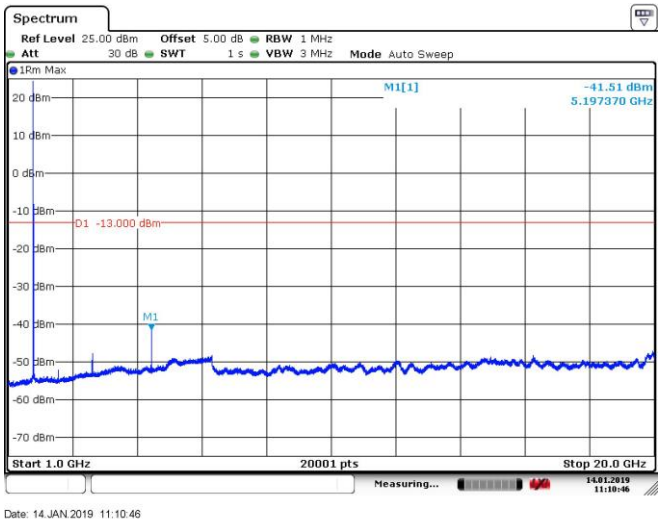
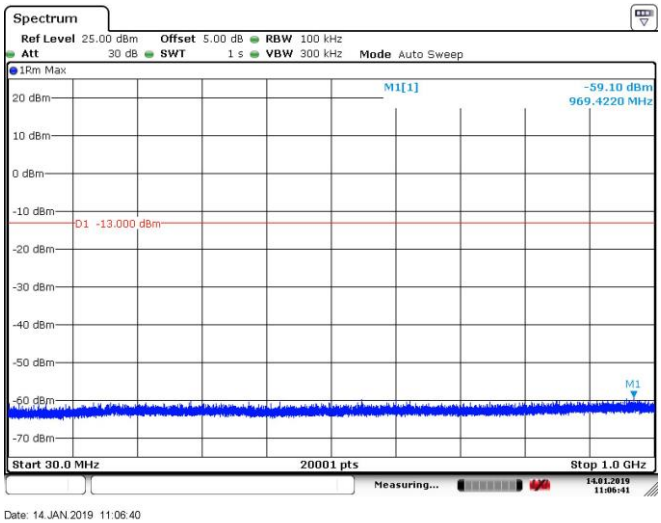
8.1. Test Plots

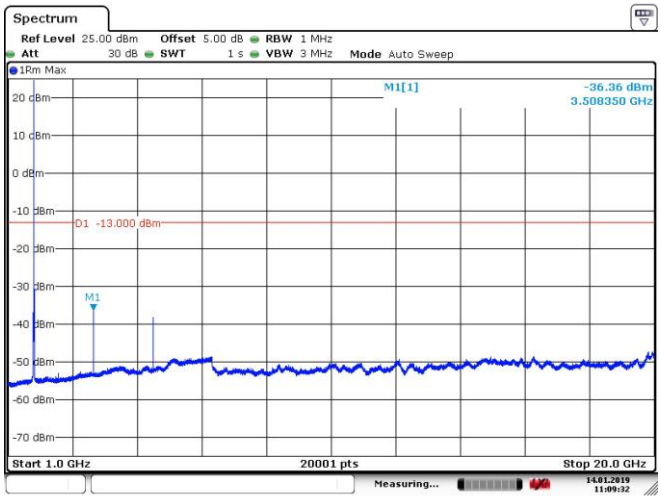
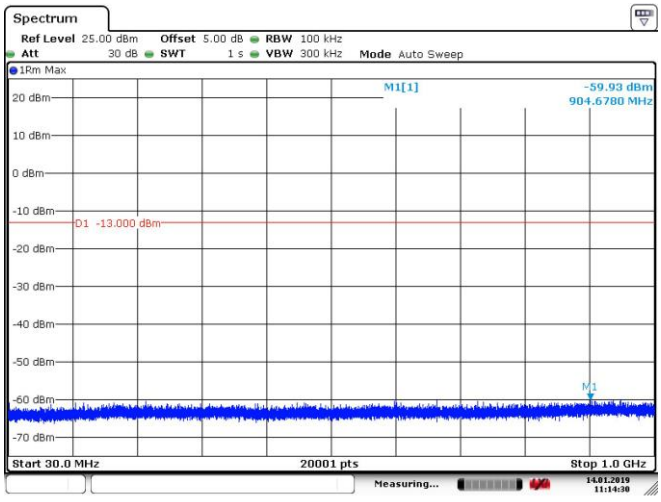
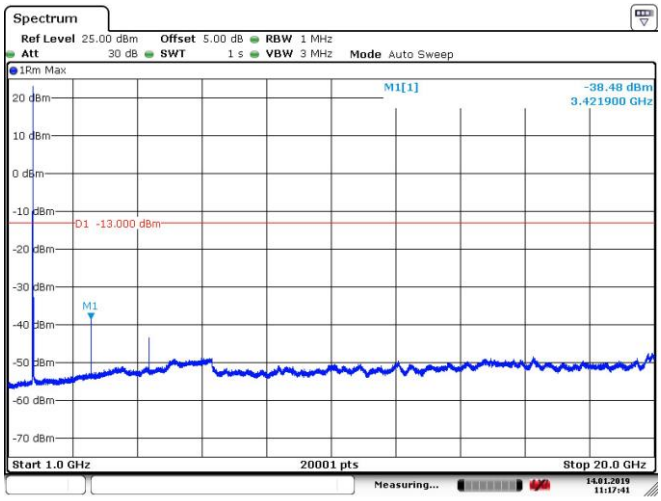
Band4_20MHz_QPSK_20050_1RB#0

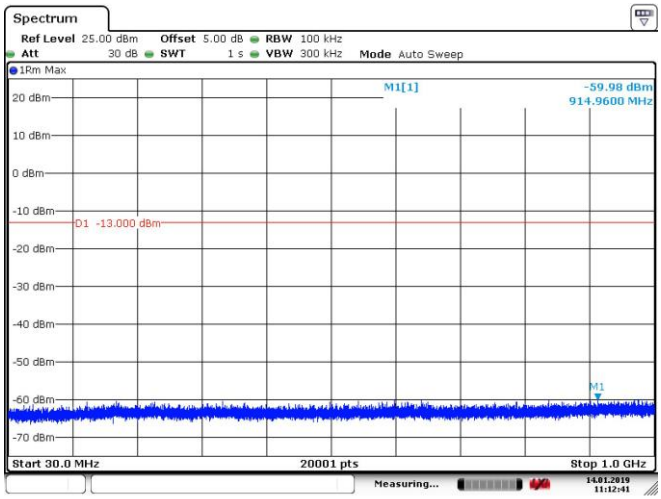
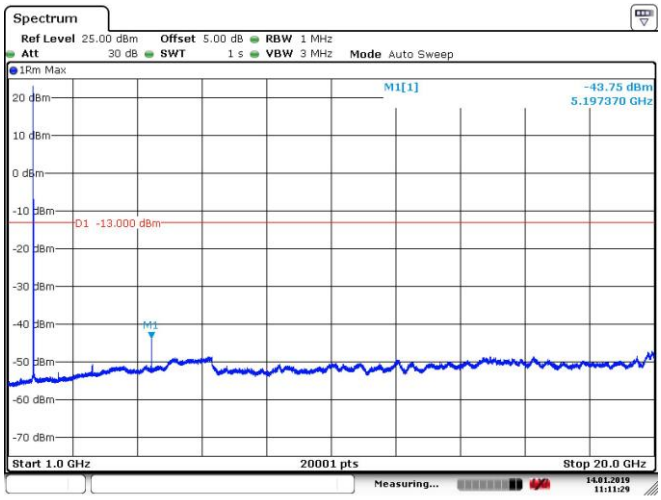
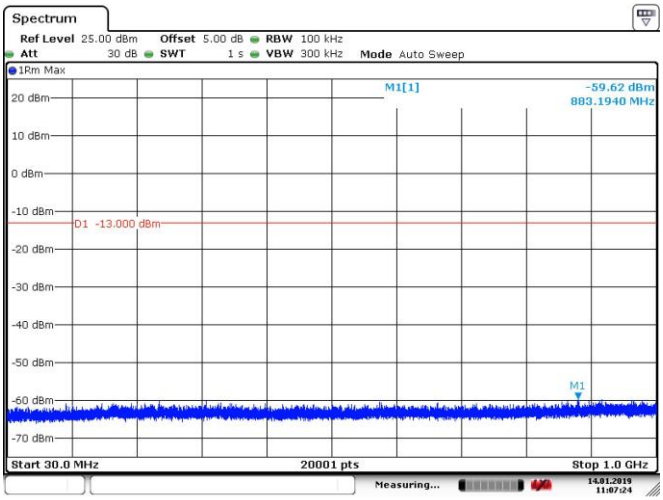


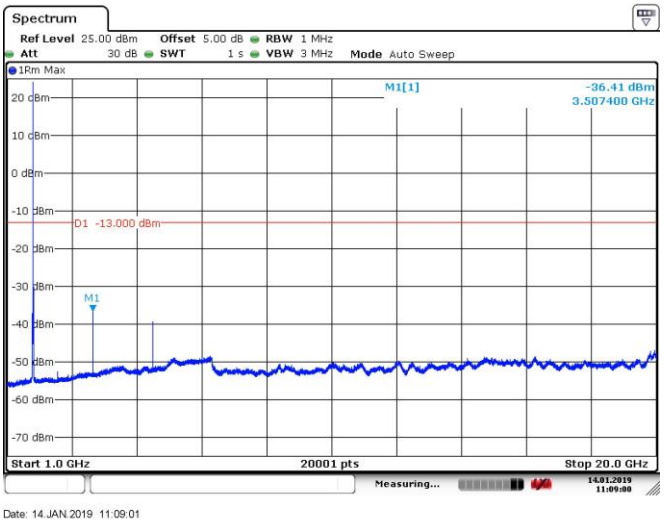
Band4_20MHz_QPSK_20050_1RB#0



Band4_20MHz_QPSK_20175_1RB#0

Band4_20MHz_QPSK_20175_1RB#0

Band4_20MHz_QPSK_20300_1RB#0


Band4_20MHz_QPSK_20300_1RB#0
 Date: 14.JAN.2019 11:09:32
Band4_20MHz_16QAM_20050_1RB#0
 Date: 14.JAN.2019 11:14:31
Band4_20MHz_16QAM_20050_1RB#0
 Date: 14.JAN.2019 11:17:41

Band4_20MHz_16QAM_20175_1RB#0
 Date: 14.JAN.2019 11:12:42
Band4_20MHz_16QAM_20175_1RB#0
 Date: 14.JAN.2019 11:11:29
Band4_20MHz_16QAM_20300_1RB#0
 Date: 14.JAN.2019 11:07:25

Band4_20MHz_16QAM_20300_1RB#0


9. Frequency Stability

9.1. Frequency Vs Voltage

Voltage										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	VL	NT	10.02	0.005827	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VN	NT	4.83	0.002806	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VH	NT	-3.65	-0.002122	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	-0.80	-0.000464	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	-12.19	-0.007035	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	-14.75	-0.008514	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VL	NT	9.91	0.005680	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VN	NT	-3.43	-0.001964	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VH	NT	10.07	0.005769	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VL	NT	13.92	0.008092	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VN	NT	-14.55	-0.008460	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	VH	NT	-2.18	-0.001268	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VL	NT	-14.80	-0.008542	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VN	NT	-2.86	-0.001654	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	VH	NT	8.19	0.004728	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VL	NT	6.16	0.003529	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VN	NT	-5.76	-0.003300	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	VH	NT	-4.90	-0.002807	±2.5	PASS

9.2. Frequency Vs Temperature

Temperature										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	NV	-30	-8.81	-0.005121	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-20	-5.52	-0.003212	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	0	-13.87	-0.008064	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	10	-1.39	-0.000809	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	20	6.37	0.003704	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	30	5.13	0.002982	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	40	-11.30	-0.006571	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	50	5.52	0.003210	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-30	-9.21	-0.005314	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	-9.61	-0.005549	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	4.33	0.002500	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	-1.11	-0.000643	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	-1.83	-0.001058	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	10.20	0.005886	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	6.30	0.003635	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	14.20	0.008198	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-30	14.26	0.008173	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-20	5.37	0.003076	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	0	6.57	0.003767	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	10	-7.76	-0.004447	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	20	-3.98	-0.002281	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	30	-1.75	-0.001005	±2.5	PASS

Band4	20MHz	QPSK	20300	100RB#0	NV	40	-1.13	-0.000647	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	50	-10.93	-0.006266	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-30	6.49	0.003772	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	-20	5.08	0.002952	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	0	0.03	0.000019	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	10	14.88	0.008653	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	20	0.38	0.000219	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	30	-7.09	-0.004123	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	40	9.34	0.005432	±2.5	PASS
Band4	20MHz	16QAM	20050	100RB#0	NV	50	-8.46	-0.004919	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-30	0.23	0.000133	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	-20	-9.18	-0.005301	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	0	3.69	0.002131	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	10	-10.48	-0.006048	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	20	-1.11	-0.000640	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	30	-14.05	-0.008112	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	40	11.84	0.006834	±2.5	PASS
Band4	20MHz	16QAM	20175	100RB#0	NV	50	12.76	0.007368	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-30	-14.34	-0.008215	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	-20	0.74	0.000424	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	0	3.22	0.001846	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	10	7.78	0.004460	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	20	1.66	0.000951	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	30	-13.95	-0.007994	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	40	5.47	0.003135	±2.5	PASS
Band4	20MHz	16QAM	20300	100RB#0	NV	50	6.74	0.003864	±2.5	PASS

The End