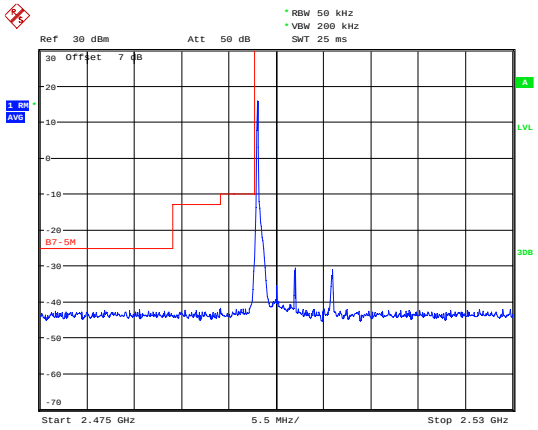
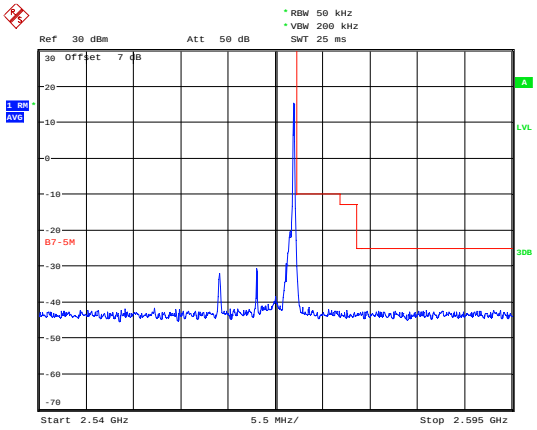
LTE Band 7 16QAM 5MHz CH-Low, 1 RB



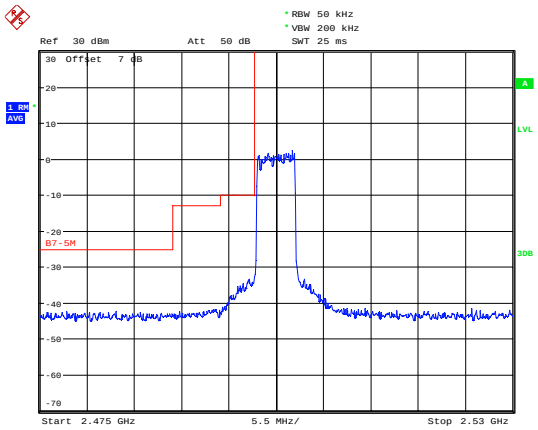
Date: 15.SEP.2020 20:27:48

LTE Band 7 16QAM 5MHz CH-High, 1 RB



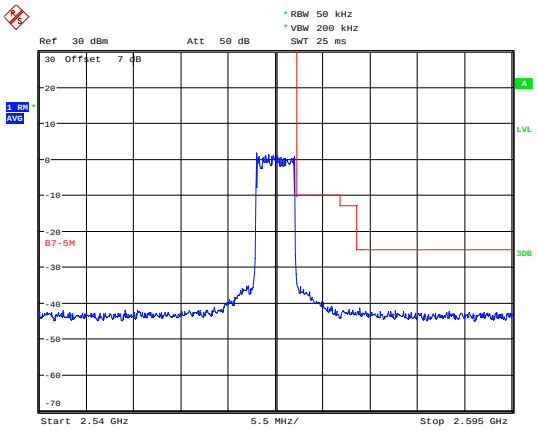
Date: 15.SEP.2020 20:16:20

LTE Band 7 16QAM 5MHz CH-Low, 100%RB



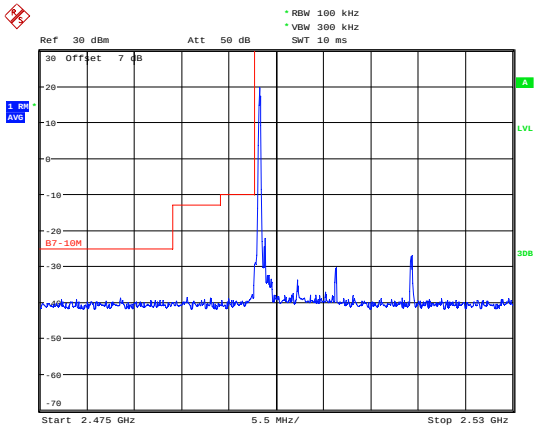
Date: 15.SEP.2020 20:27:59

LTE Band 7 16QAM 5MHz CH-High, 100%RB



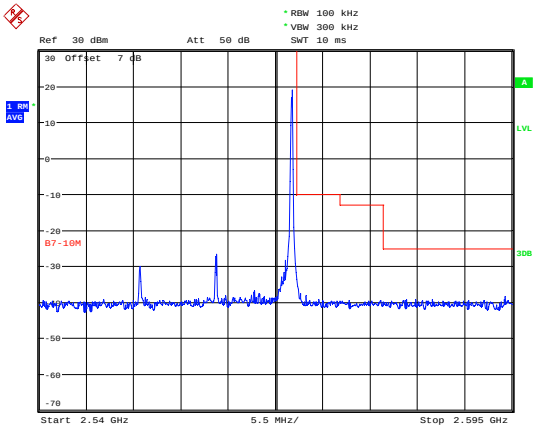
Date: 15.SEP.2020 20:16:31

LTE Band 7 16QAM 10MHz CH-Low, 1 RB



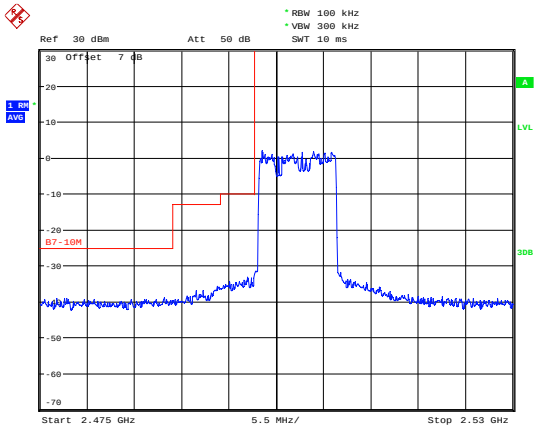
Date: 15.SEP.2020 20:29:29

LTE Band 7 16QAM 10MHz CH-High, 1 RB

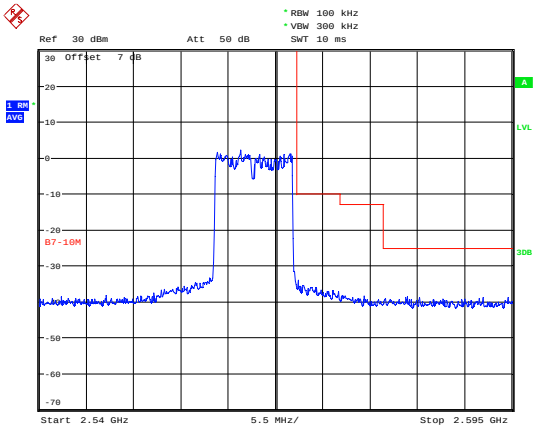


Date: 15.SEP.2020 20:18:16

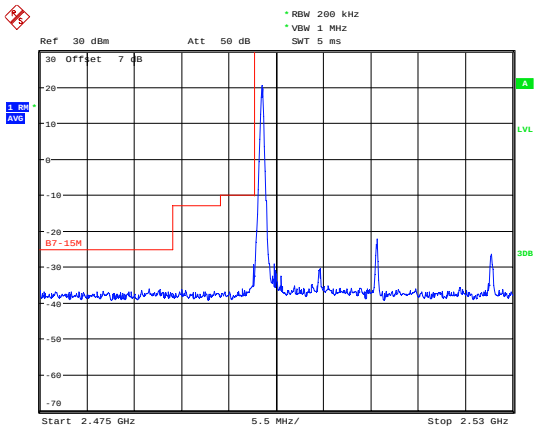
LTE Band 7 16QAM 10MHz CH-Low, 100%RB



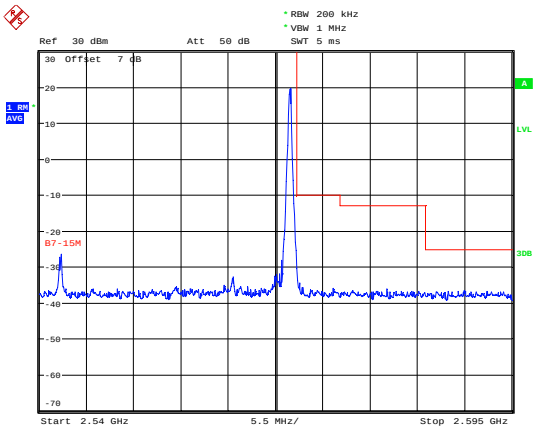
LTE Band 7 16QAM 10MHz CH-High, 100%RB



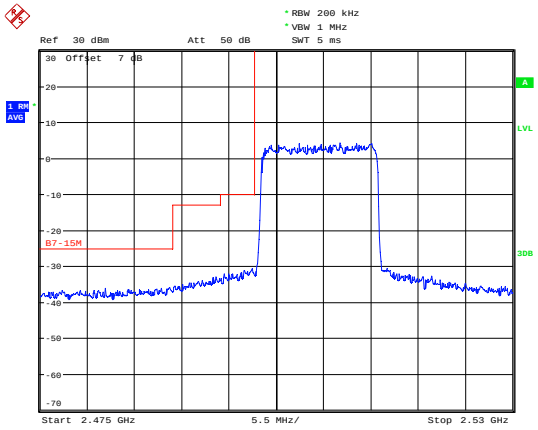
LTE Band 7 16QAM 15MHz CH-Low, 1 RB



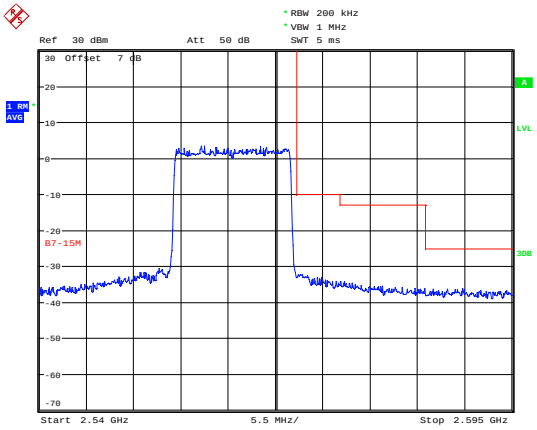
LTE Band 7 16QAM 15MHz CH-High, 1 RB



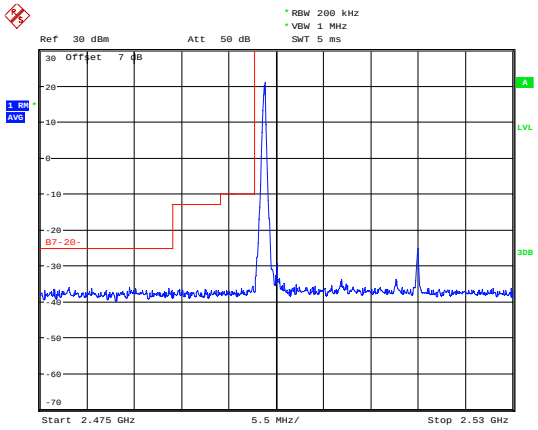
LTE Band 7 16QAM 15MHz CH-Low, 100%RB



LTE Band 7 16QAM 15MHz CH-High, 100%RB

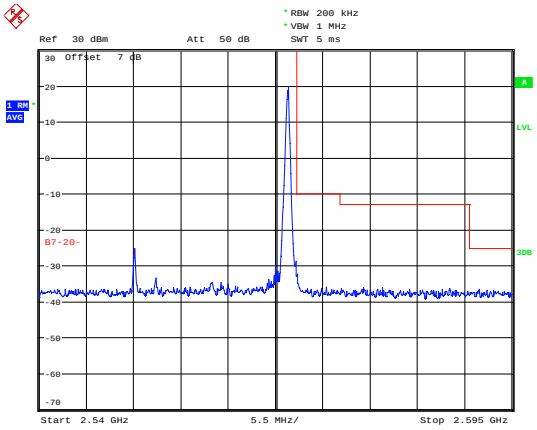


LTE Band 7 16QAM 20MHz CH-Low, 1 RB



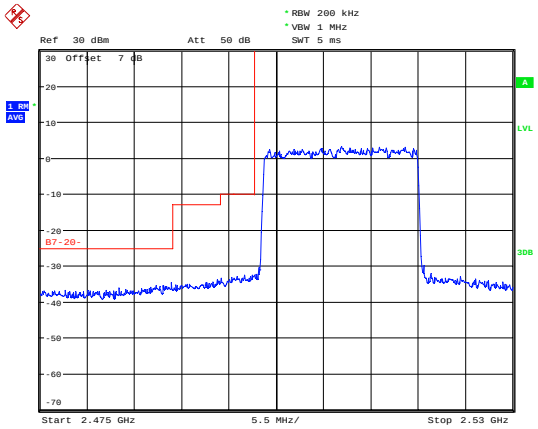
Date: 15.SEP.2020 20:36:19

LTE Band 7 16QAM 20MHz CH-High, 1 RB



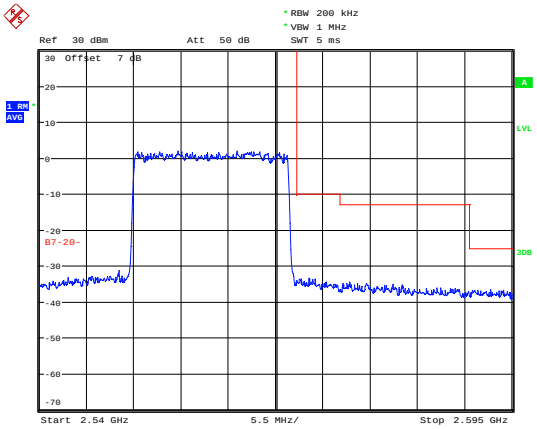
Date: 15.SEP.2020 20:25:18

LTE Band 7 16QAM 20MHz CH-Low, 100%RB



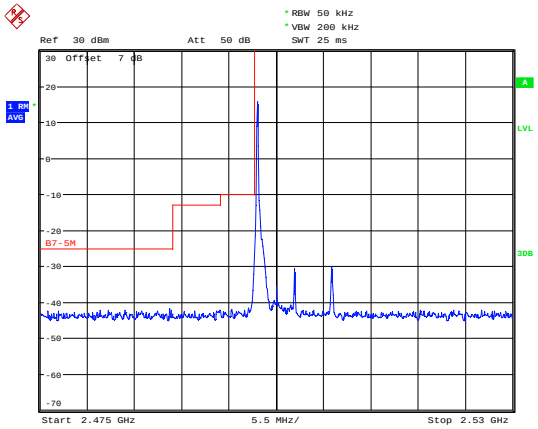
Date: 15.SEP.2020 20:36:30

LTE Band 7 16QAM 20MHz CH-High, 100%RB



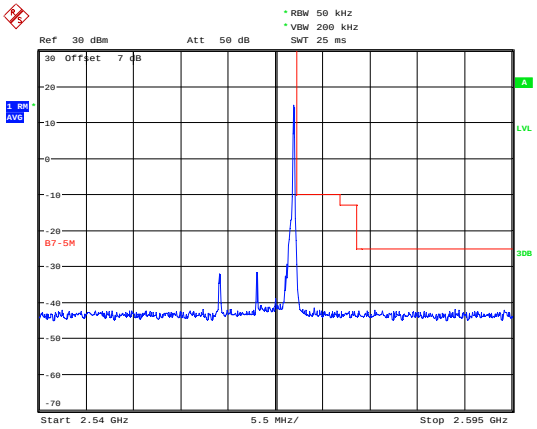
Date: 15.SEP.2020 20:25:28

LTE Band 7 64QAM 5MHz CH-Low, 1 RB



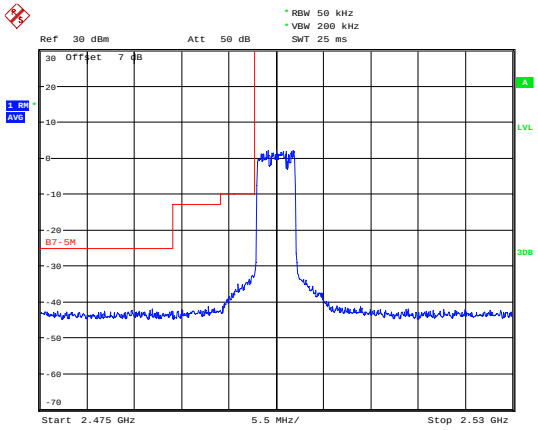
Date: 15.SEP.2020 20:28:09

LTE Band 7 64QAM 5MHz CH-High, 1 RB



Date: 15.SEP.2020 20:16:42

LTE Band 7 64QAM 5MHz CH-Low, 100%RB



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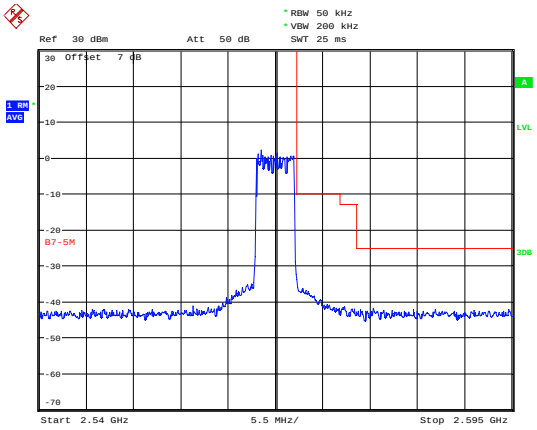
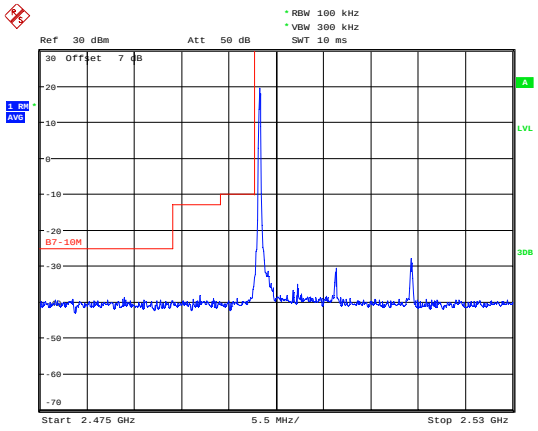
LTE Band 7 64QAM 5MHz CH-High, 100%RB



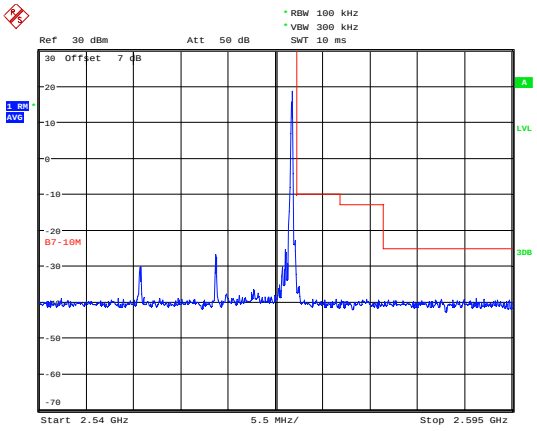
Date: 15.SEP.2020 20:16:54

LTE Band 7 64QAM 10MHz CH-Low, 1 RB



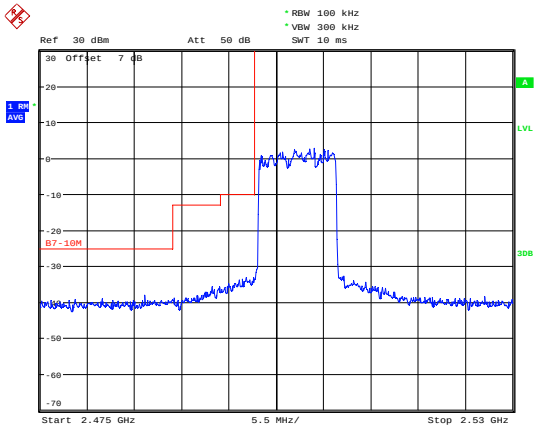
Date: 15.SEP.2020 20:29:49

LTE Band 7 64QAM 10MHz CH-High, 1 RB



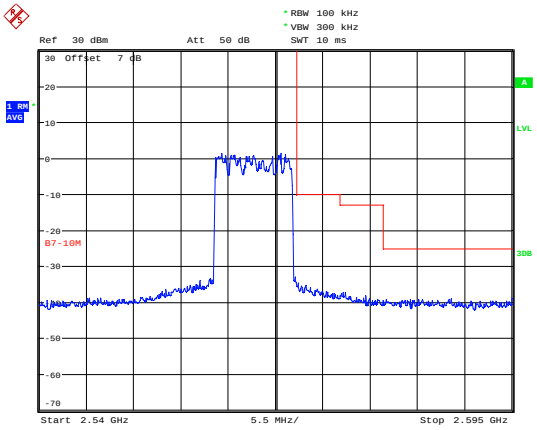
Date: 15.SEP.2020 20:18:38

LTE Band 7 64QAM 10MHz CH-Low, 100%RB



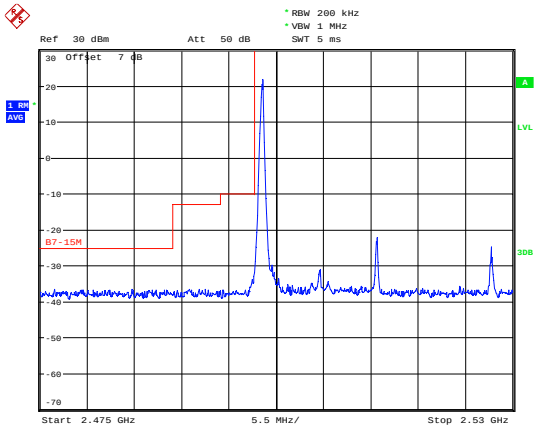
Date: 15.SEP.2020 20:29:59

LTE Band 7 64QAM 10MHz CH-High, 100%RB

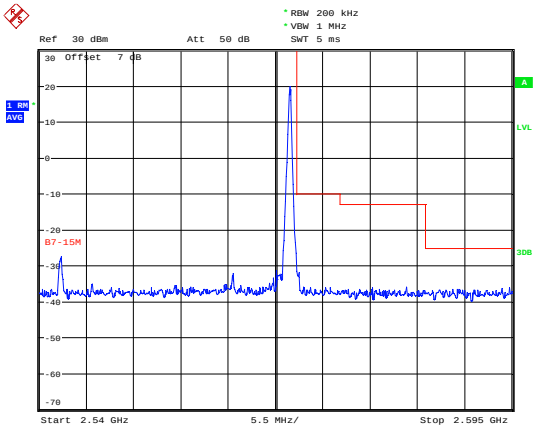


Date: 15.SEP.2020 20:18:48

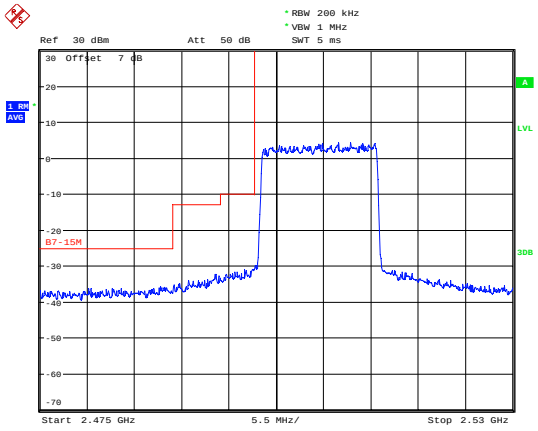
LTE Band 7 64QAM 15MHz CH-Low, 1 RB



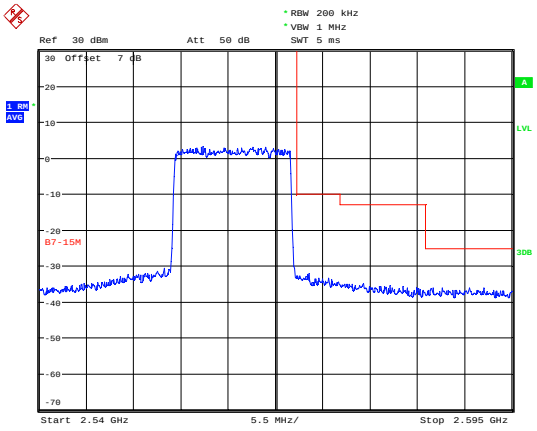
LTE Band 7 64QAM 15MHz CH-High, 1 RB



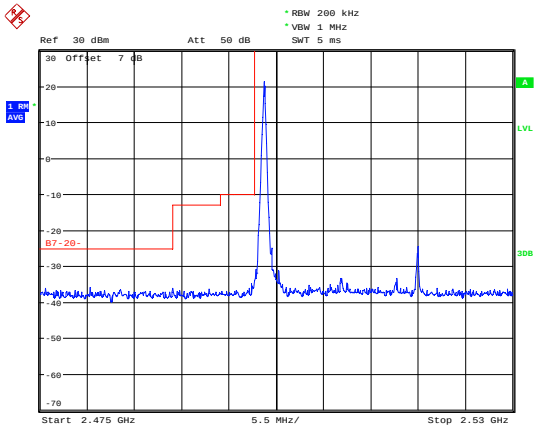
LTE Band 7 64QAM 15MHz CH-Low, 100%RB



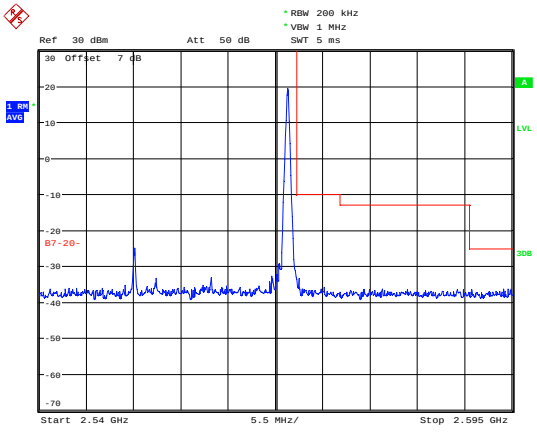
LTE Band 7 64QAM 15MHz CH-High, 100%RB



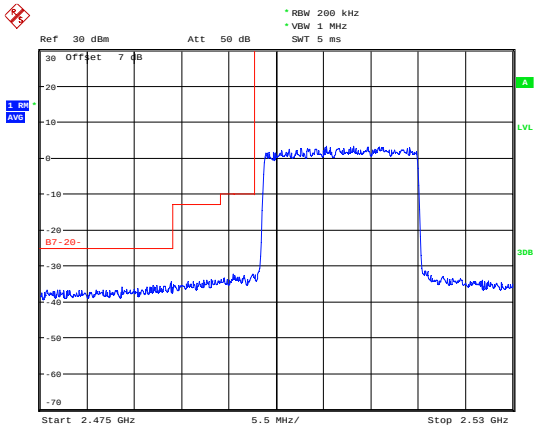
LTE Band 7 64QAM 20MHz CH-Low, 1 RB



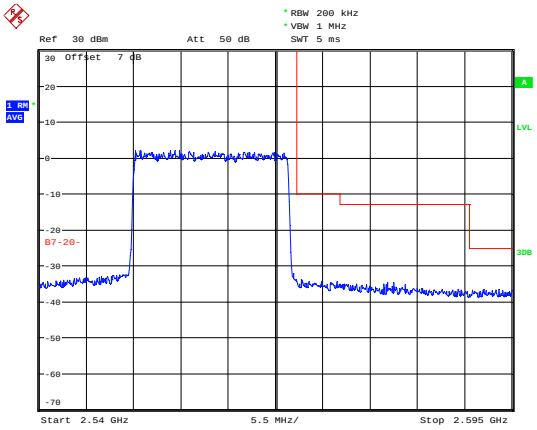
LTE Band 7 64QAM 20MHz CH-High, 1 RB



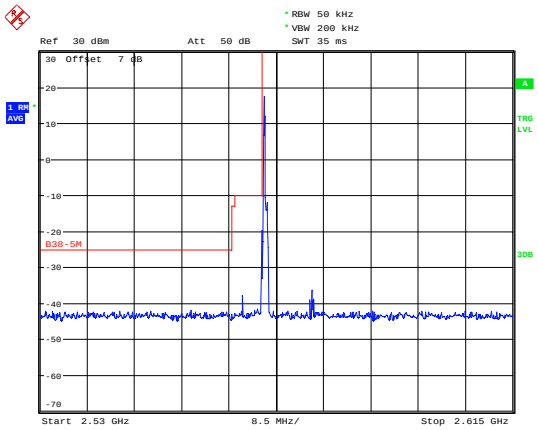
LTE Band 7 64QAM 20MHz CH-Low, 100%RB



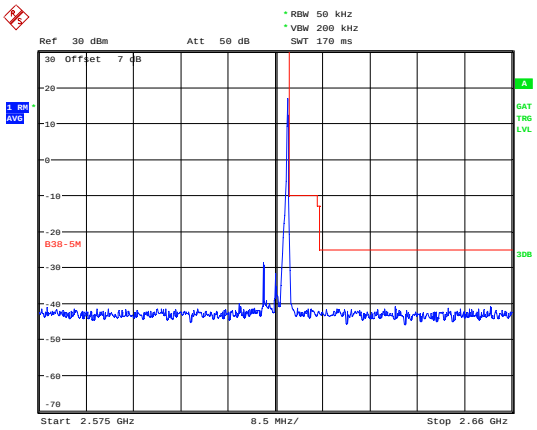
LTE Band 7 64QAM 20MHz CH-High, 100%RB



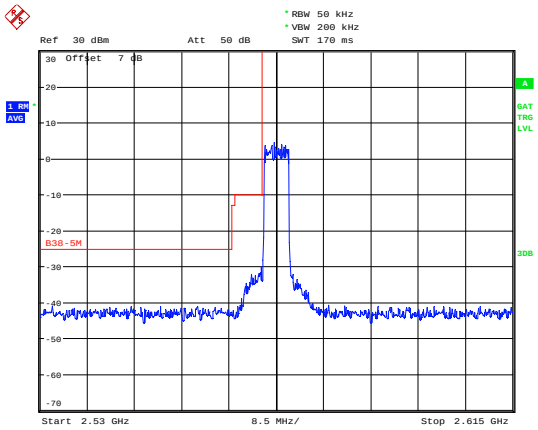
LTE Band 38 QPSK 5MHz CH-Low, 1 RB



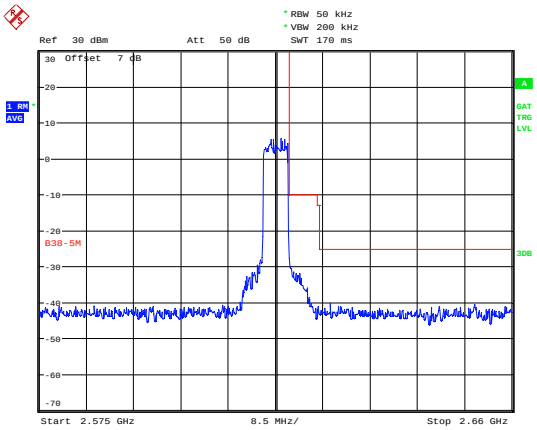
LTE Band 38 QPSK 5MHz CH-High, 1 RB



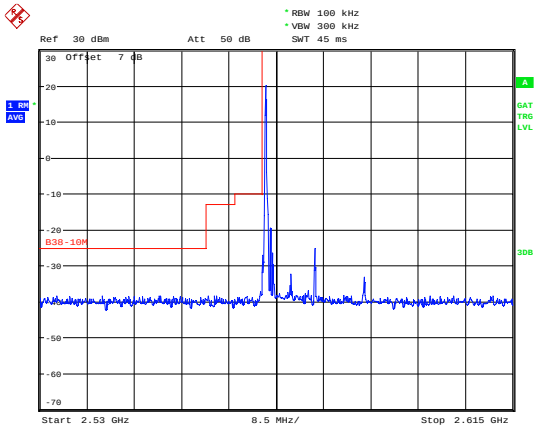
LTE Band 38 QPSK 5MHz CH-Low, 100%RB



LTE Band 38 QPSK 5MHz CH-High, 100%RB

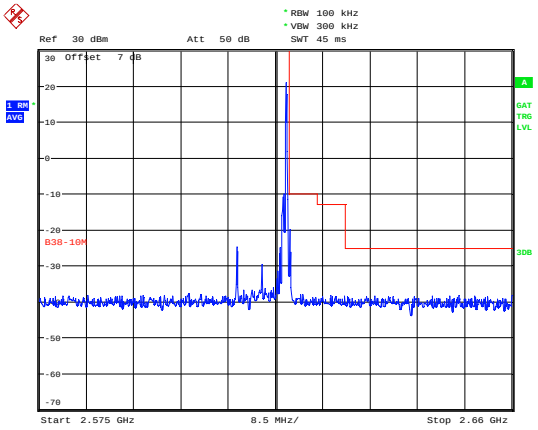


LTE Band 38 QPSK 10MHz CH-Low, 1 RB



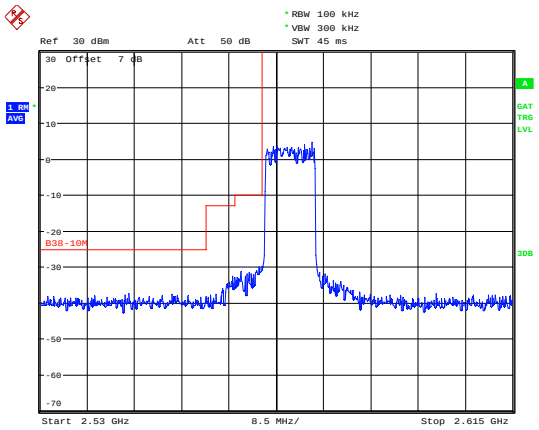
Date: 15.SEP.2020 20:41:49

LTE Band 38 QPSK 10MHz CH-High, 1 RB



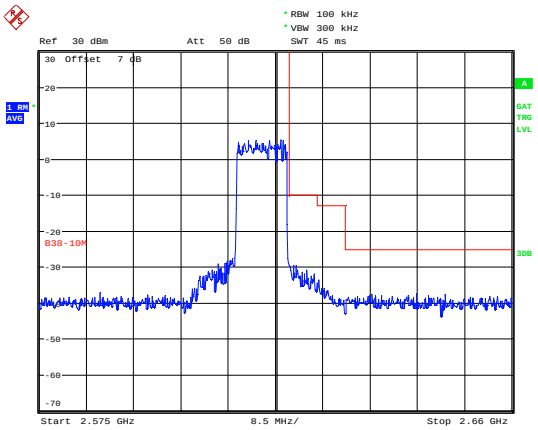
Date: 15.SEP.2020 20:51:51

LTE Band 38 QPSK 10MHz CH-Low, 100%RB



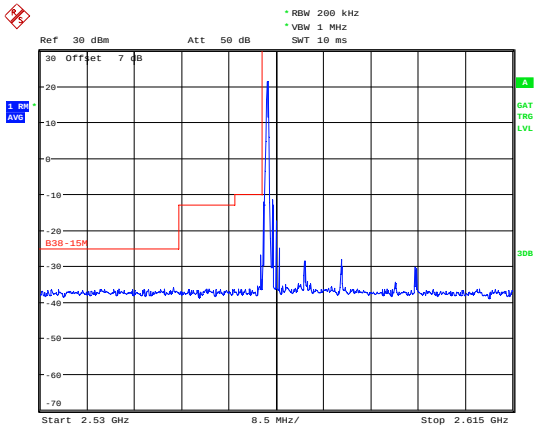
Date: 15.SEP.2020 20:42:03

LTE Band 38 QPSK 10MHz CH-High, 100%RB



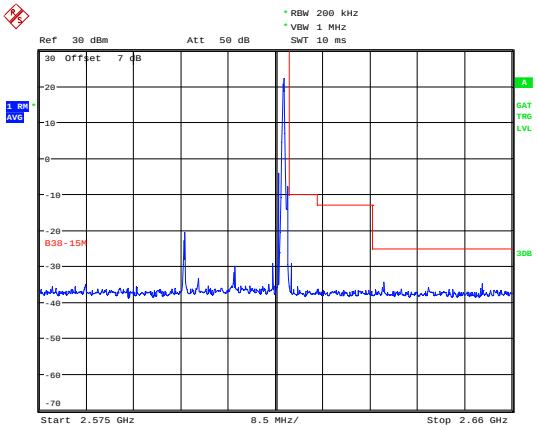
Date: 15.SEP.2020 20:52:06

LTE Band 38 QPSK 15MHz CH-Low, 1 RB



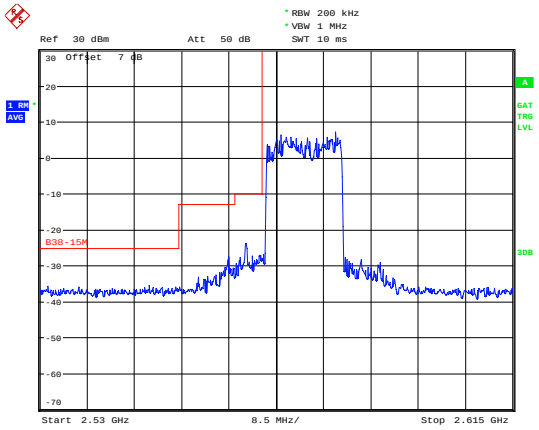
Date: 15.SEP.2020 20:43:45

LTE Band 38 QPSK 15MHz CH-High, 1 RB



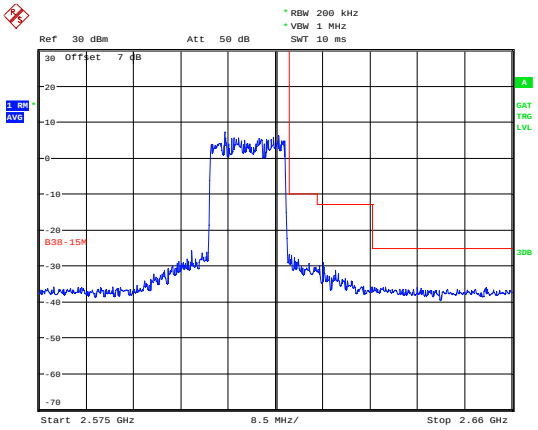
Date: 15.SEP.2020 21:00:38

LTE Band 38 QPSK 15MHz CH-Low, 100%RB



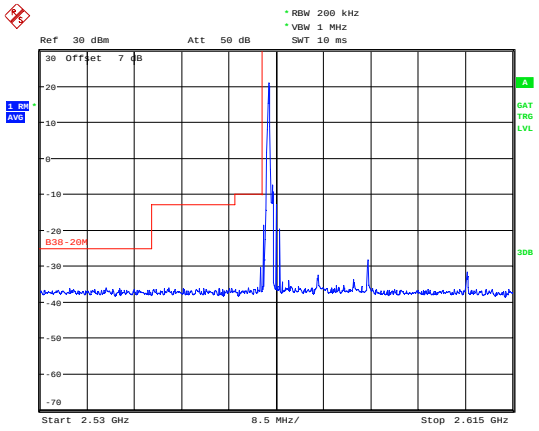
Date: 15.SEP.2020 20:43:59

LTE Band 38 QPSK 15MHz CH-High, 100%RB



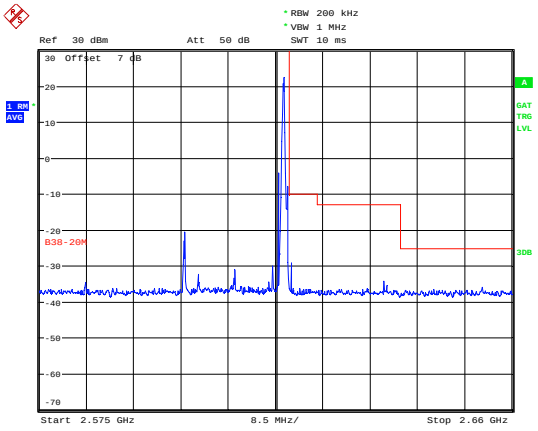
Date: 15.SEP.2020 21:01:13

LTE Band 38 QPSK 20MHz CH-Low, 1 RB



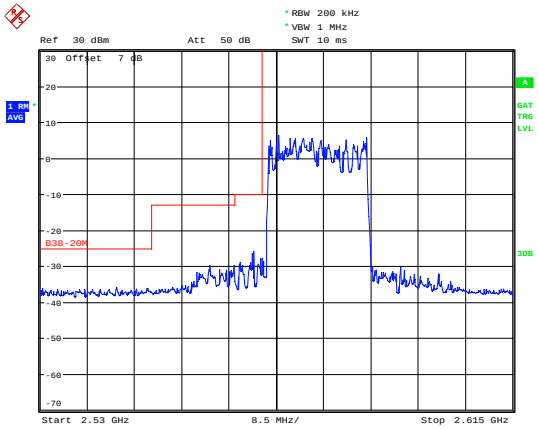
Date: 15.SEP.2020 20:46:46

LTE Band 38 QPSK 20MHz CH-High, 1 RB



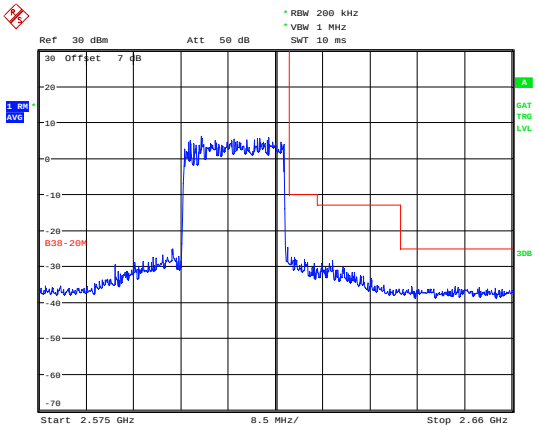
Date: 15.SEP.2020 21:02:46

LTE Band 38 QPSK 20MHz CH-Low, 100%RB



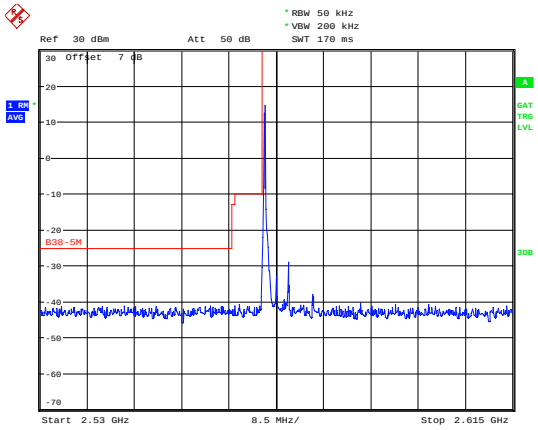
Date: 15.SEP.2020 20:47:02

LTE Band 38 QPSK 20MHz CH-High, 100%RB



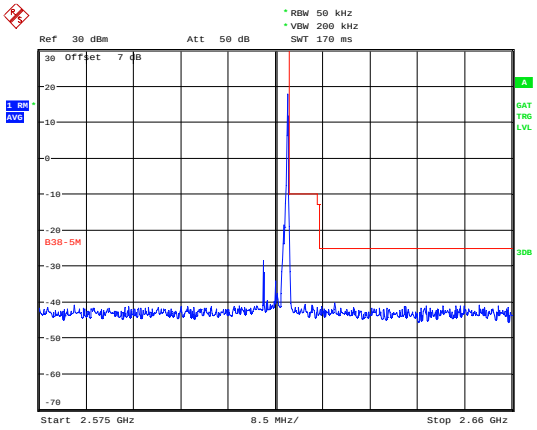
Date: 15.SEP.2020 21:03:00

LTE Band 38 16QAM 5MHz CH-Low, 1 RB



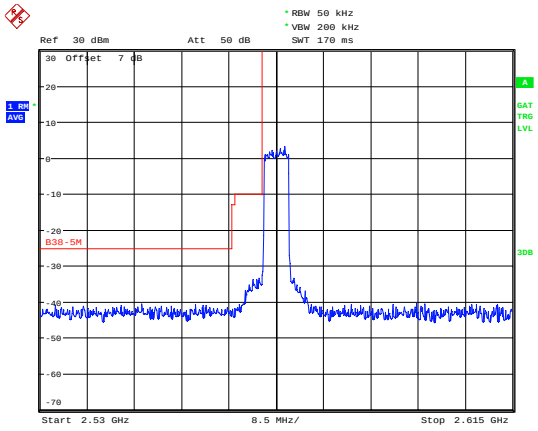
Date: 15.SEP.2020 20:40:17

LTE Band 38 16QAM 5MHz CH-High, 1 RB



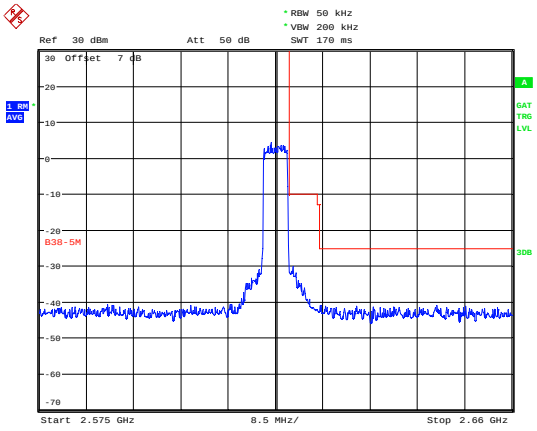
Date: 15.SEP.2020 20:50:08

LTE Band 38 16QAM 5MHz CH-Low, 100%RB



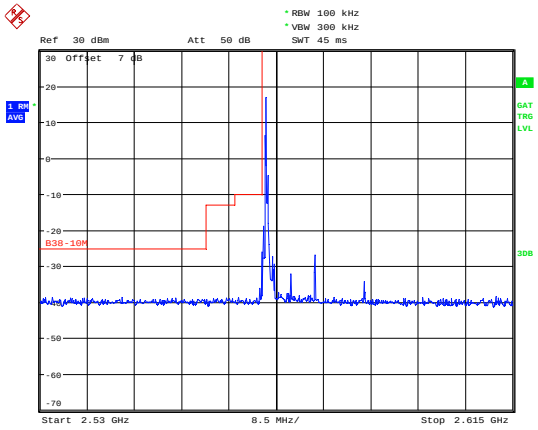
Date: 15.SEP.2020 20:40:32

LTE Band 38 16QAM 5MHz CH-High, 100%RB



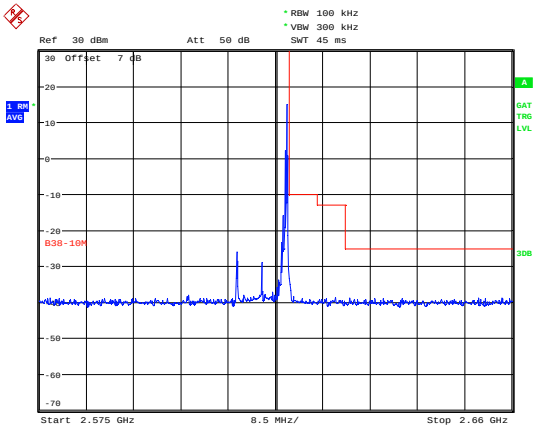
Date: 15.SEP.2020 20:50:28

LTE Band 38 16QAM 10MHz CH-Low, 1 RB



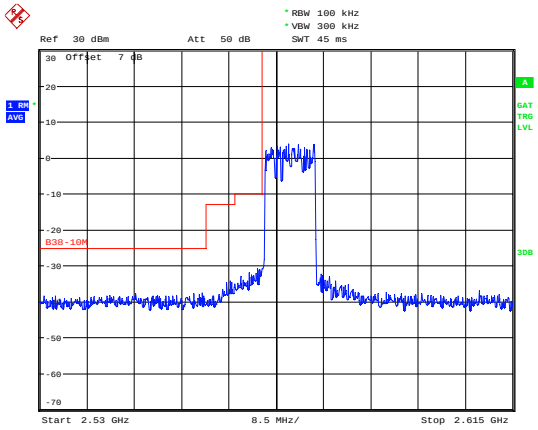
Date: 15.SEP.2020 20:42:20

LTE Band 38 16QAM 10MHz CH-High, 1 RB



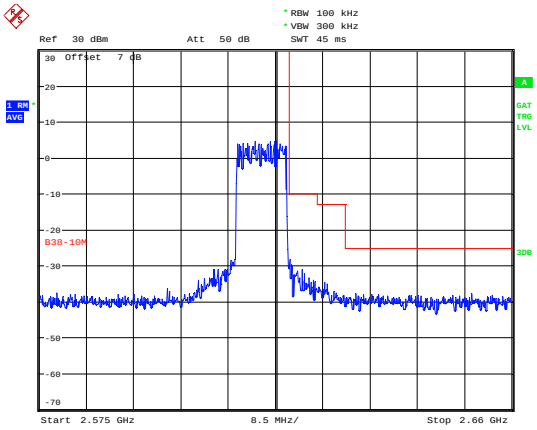
Date: 15.SEP.2020 20:56:51

LTE Band 38 16QAM 10MHz CH-Low, 100%RB



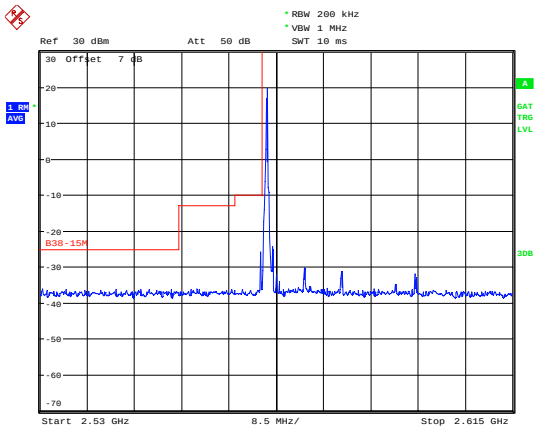
Date: 15.SEP.2020 20:42:34

LTE Band 38 16QAM 10MHz CH-High, 100%RB



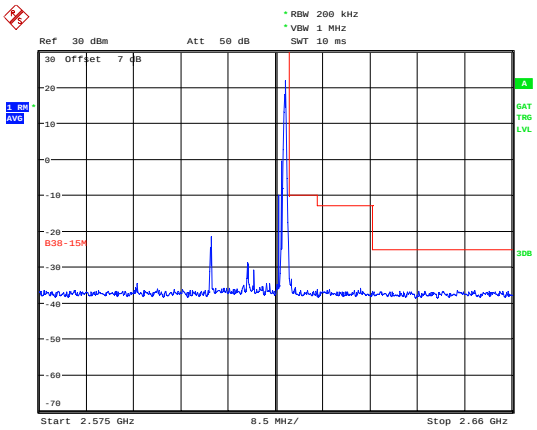
Date: 15.SEP.2020 20:57:05

LTE Band 38 16QAM 15MHz CH-Low, 1 RB



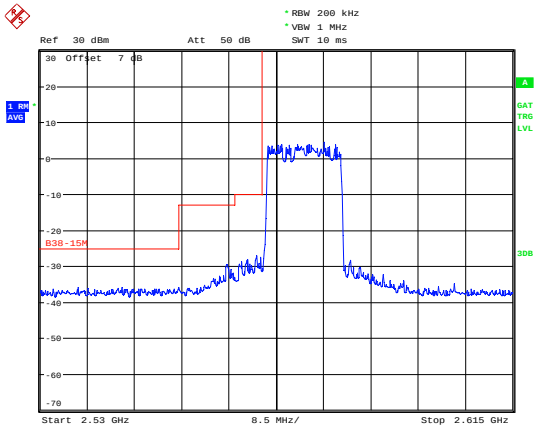
Date: 15.SEP.2020 20:45:23

LTE Band 38 16QAM 15MHz CH-High, 1 RB



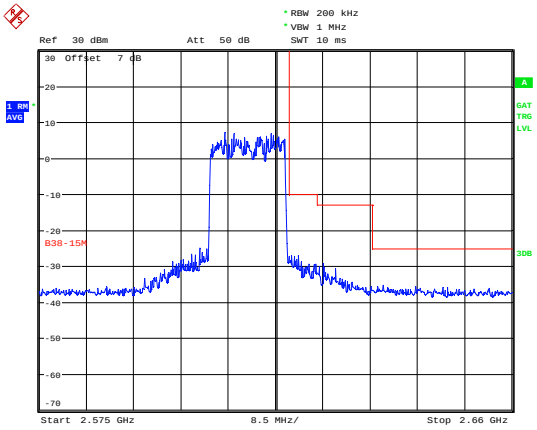
Date: 15.SEP.2020 21:01:29

LTE Band 38 16QAM 15MHz CH-Low, 100%RB



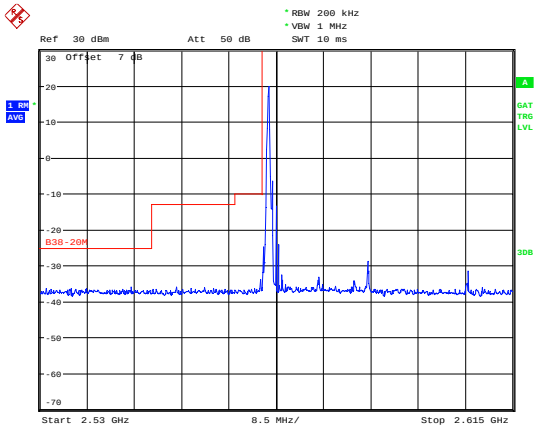
Date: 15.SEP.2020 20:45:39

LTE Band 38 16QAM 15MHz CH-High, 100%RB



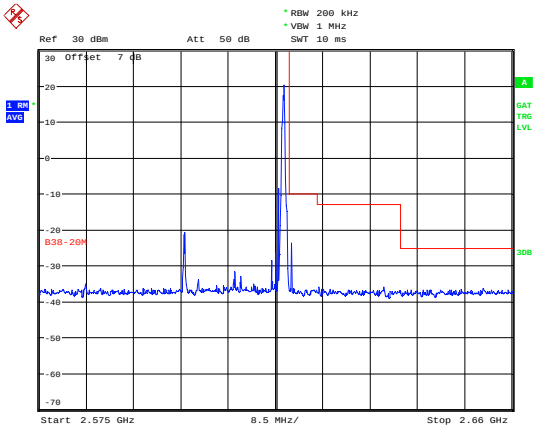
Date: 15.SEP.2020 21:01:43

LTE Band 38 16QAM 20MHz CH-Low, 1 RB



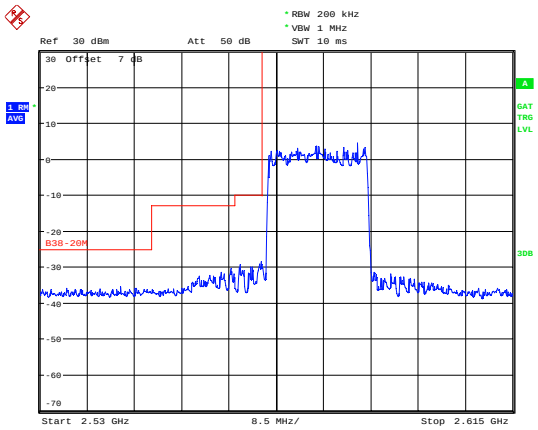
Date: 15.SEP.2020 20:47:17

LTE Band 38 16QAM 20MHz CH-High, 1 RB



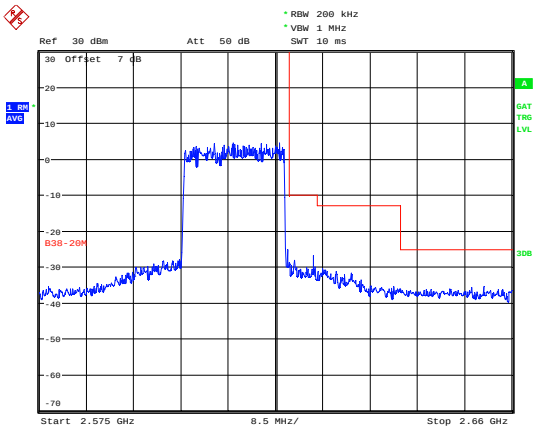
Date: 15.SEP.2020 21:03:15

LTE Band 38 16QAM 20MHz CH-Low, 100%RB



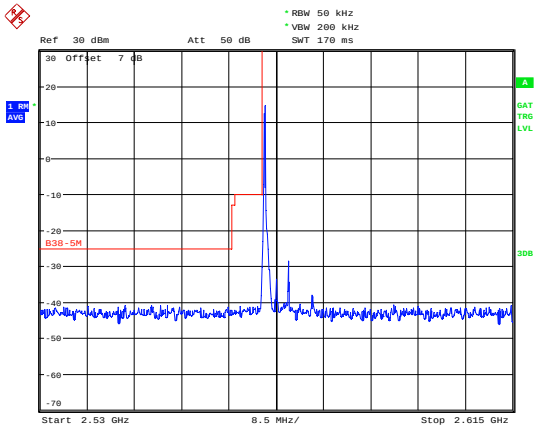
Date: 15.SEP.2020 20:47:31

LTE Band 38 16QAM 20MHz CH-High, 100%RB



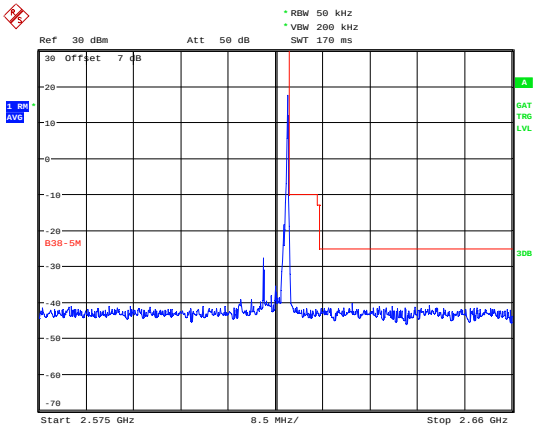
Date: 15.SEP.2020 21:03:30

LTE Band 38 64QAM 5MHz CH-Low, 1 RB



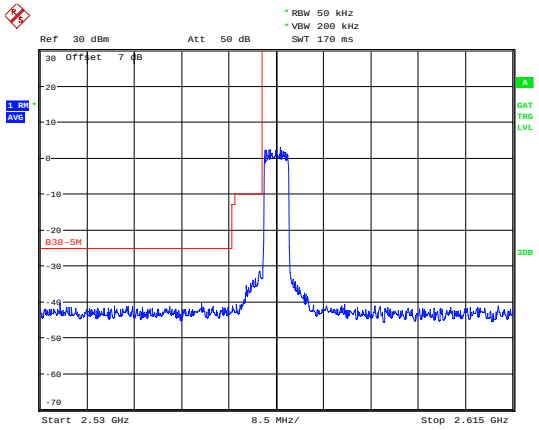
Date: 15.SEP.2020 20:40:46

LTE Band 38 64QAM 5MHz CH-High, 1 RB



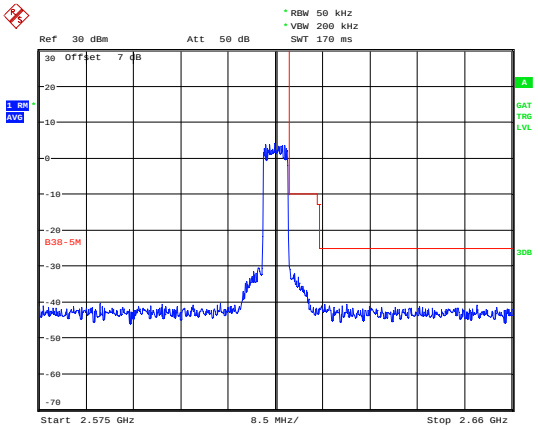
Date: 15.SEP.2020 20:50:44

LTE Band 38 64QAM 5MHz CH-Low, 100%RB



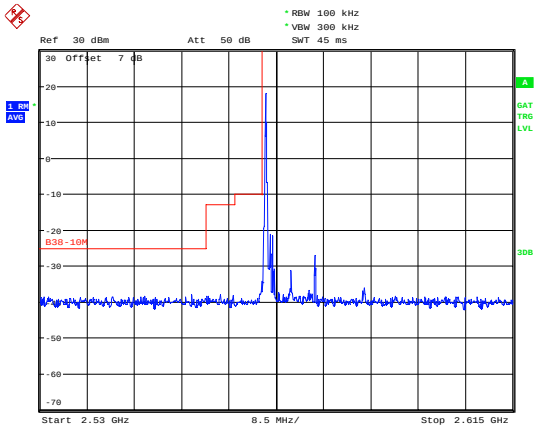
Date: 15.SEP.2020 20:41:01

LTE Band 38 64QAM 5MHz CH-High, 100%RB



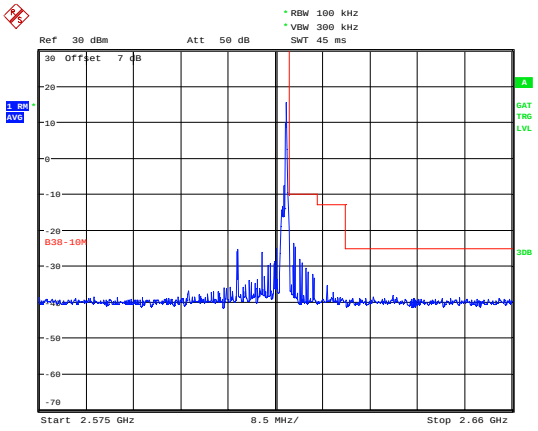
Date: 15.SEP.2020 20:51:03

LTE Band 38 64QAM 10MHz CH-Low, 1 RB



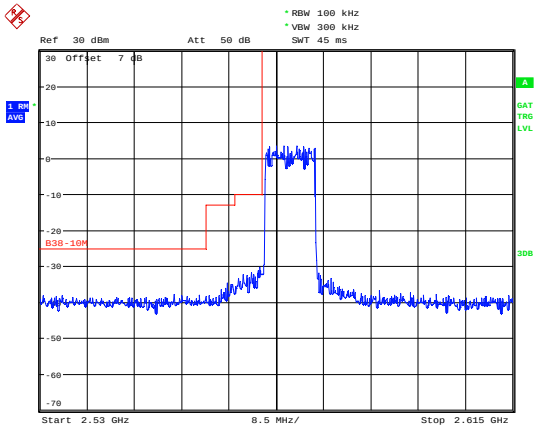
Date: 15.SEP.2020 20:42:53

LTE Band 38 64QAM 10MHz CH-High, 1 RB



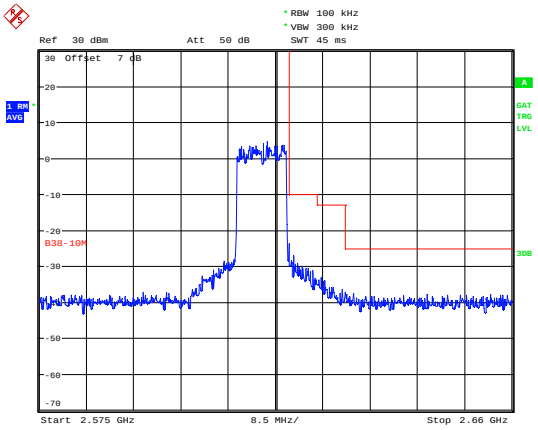
Date: 15.SEP.2020 20:57:31

LTE Band 38 64QAM 10MHz CH-Low, 100%RB



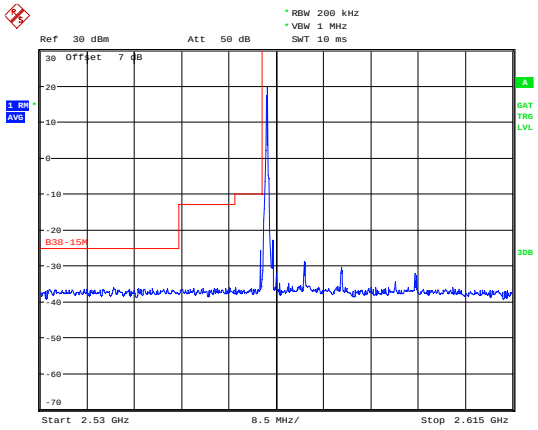
Date: 15.SEP.2020 20:43:07

LTE Band 38 64QAM 10MHz CH-High, 100%RB



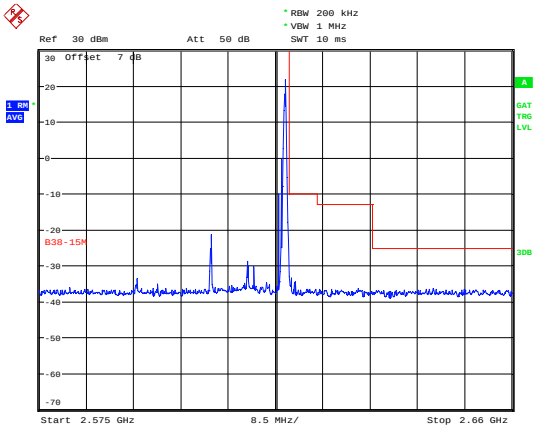
Date: 15.SEP.2020 20:57:44

LTE Band 38 64QAM 15MHz CH-Low, 1 RB



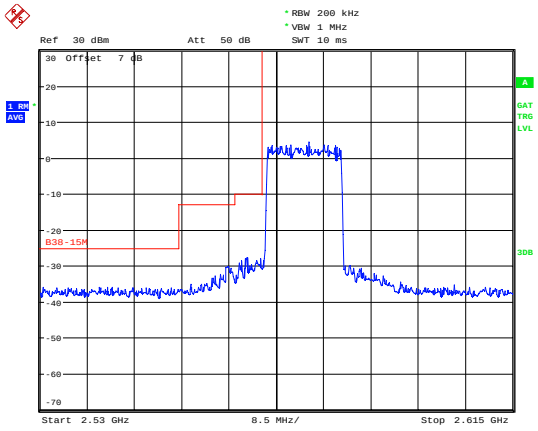
Date: 15.SEP.2020 20:45:54

LTE Band 38 64QAM 15MHz CH-High, 1 RB



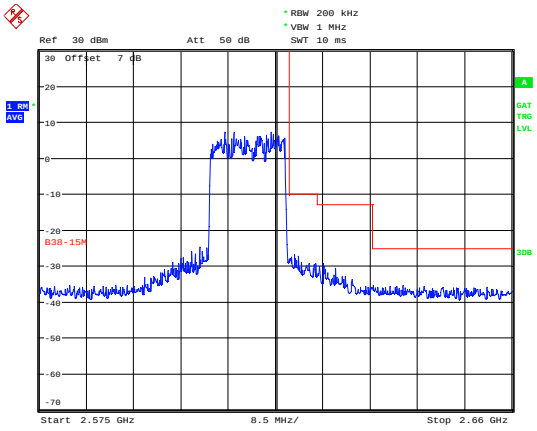
Date: 15.SEP.2020 21:02:02

LTE Band 38 64QAM 15MHz CH-Low, 100%RB



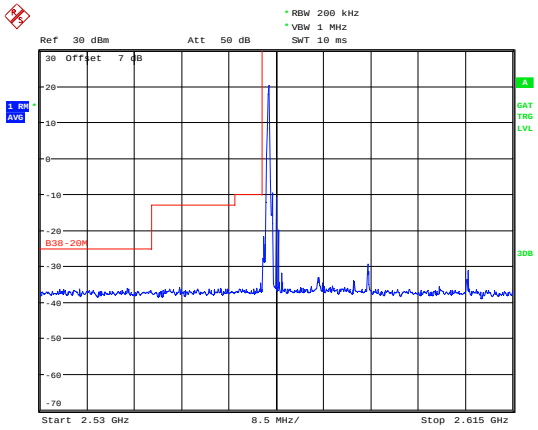
Date: 15.SEP.2020 20:46:07

LTE Band 38 64QAM 15MHz CH-High, 100%RB



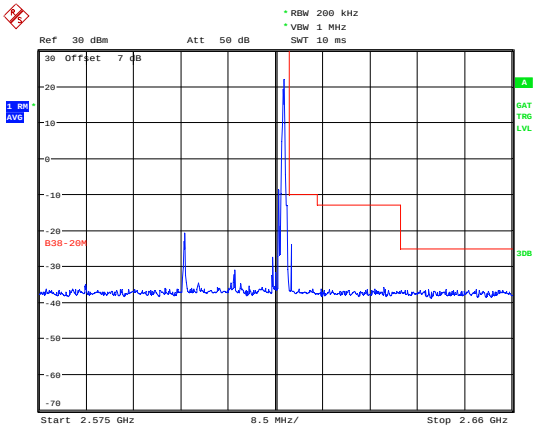
Date: 15.SEP.2020 21:02:14

LTE Band 38 64QAM 20MHz CH-Low, 1 RB



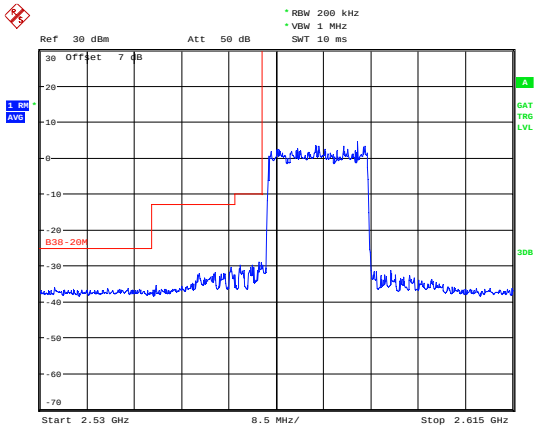
Date: 15.SEP.2020 20:47:45

LTE Band 38 64QAM 20MHz CH-High, 1 RB

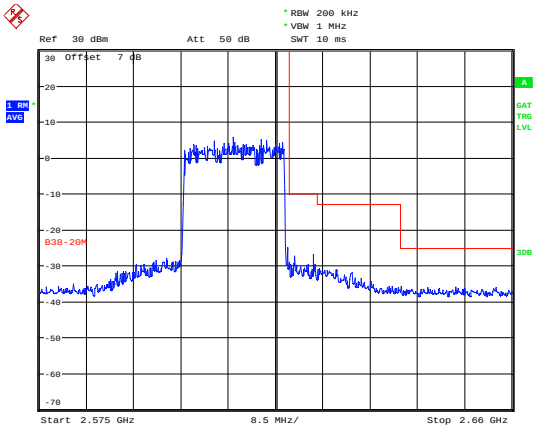


Date: 15.SEP.2020 21:03:43

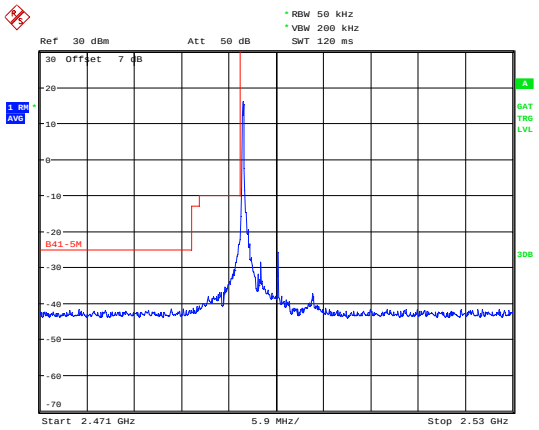
LTE Band 38 64QAM 20MHz CH-Low, 100%RB



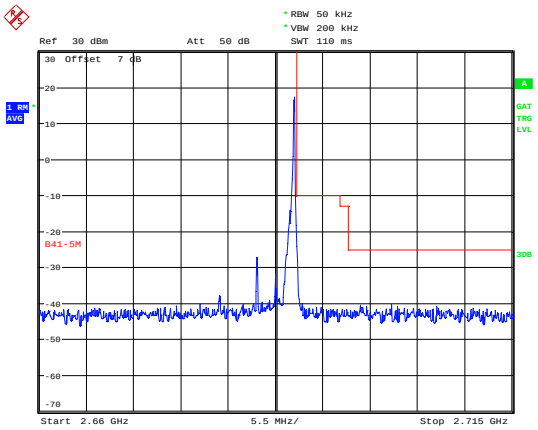
LTE Band 38 64QAM 20MHz CH-High, 100%RB



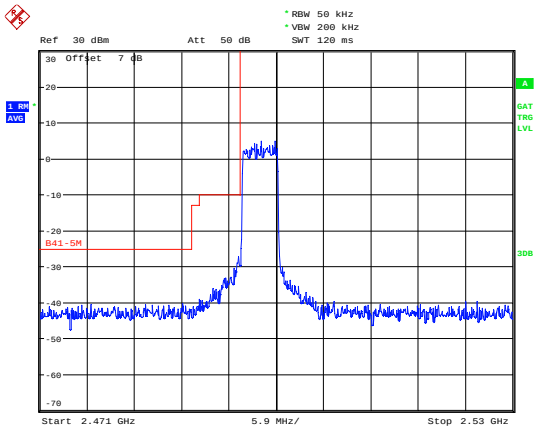
LTE Band 41 QPSK 5MHz CH-Low, 1 RB



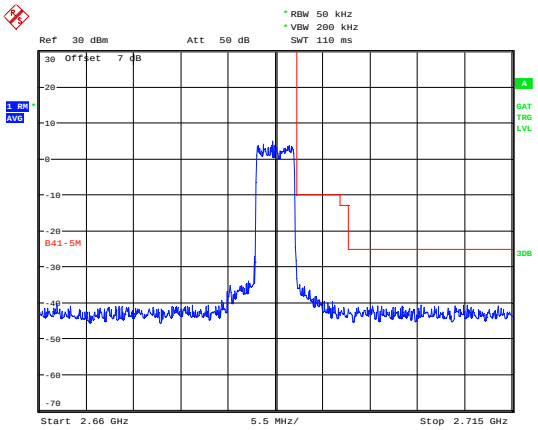
LTE Band 41 QPSK 5MHz CH-High, 1 RB



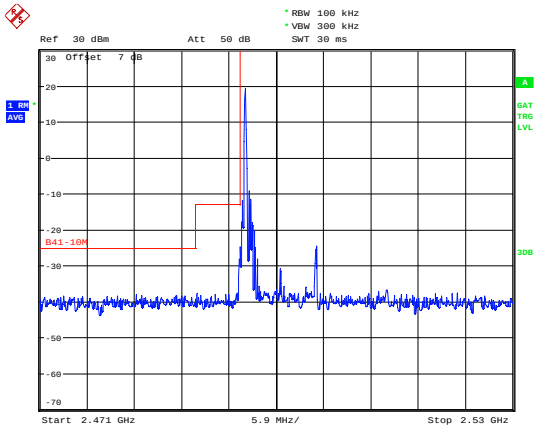
LTE Band 41 QPSK 5MHz CH-Low, 100%RB



LTE Band 41 QPSK 5MHz CH-High, 100%RB

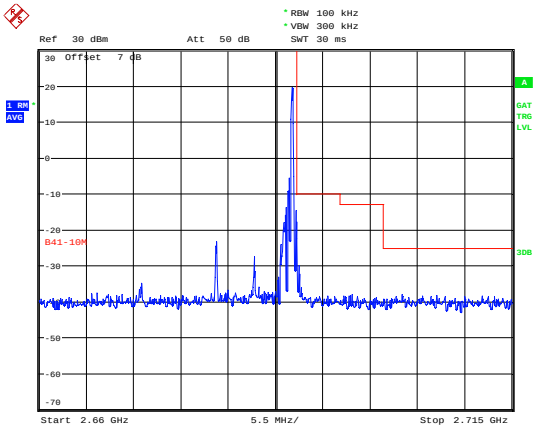


LTE Band 41 QPSK 10MHz CH-Low, 1 RB



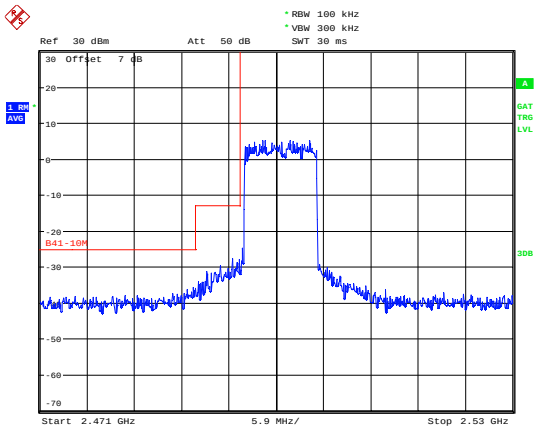
Date: 15.SEP.2020 21:09:45

LTE Band 41 QPSK 10MHz CH-High, 1 RB



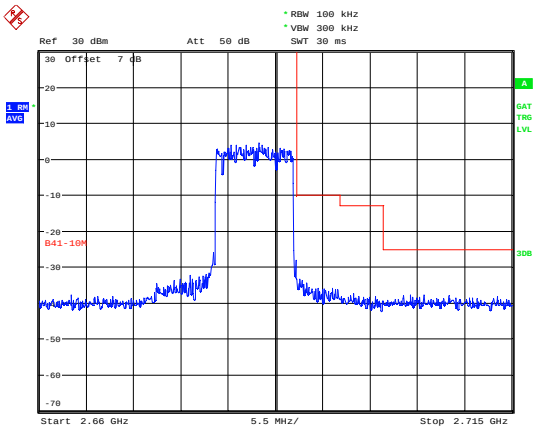
Date: 15.SEP.2020 21:22:58

LTE Band 41 QPSK 10MHz CH-Low, 100%RB



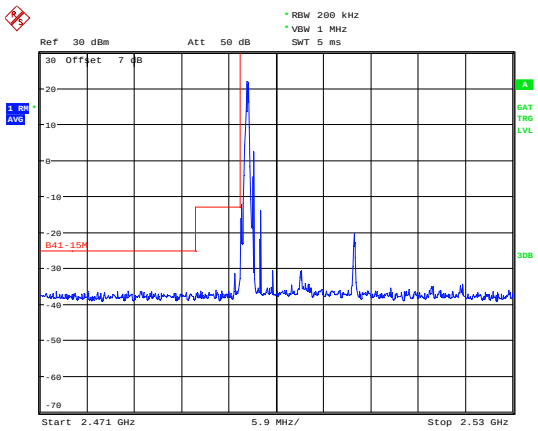
Date: 15.SEP.2020 21:09:59

LTE Band 41 QPSK 10MHz CH-High, 100%RB



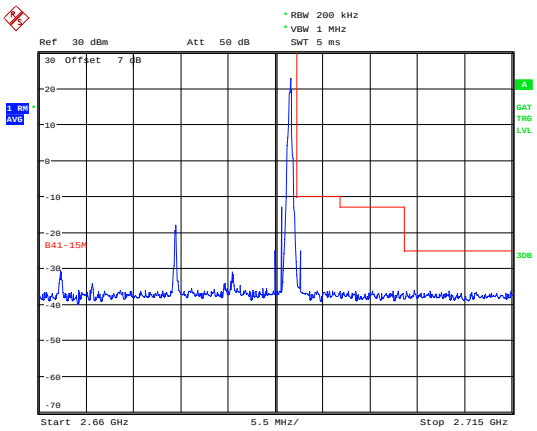
Date: 15.SEP.2020 21:23:14

LTE Band 41 QPSK 15MHz CH-Low, 1 RB



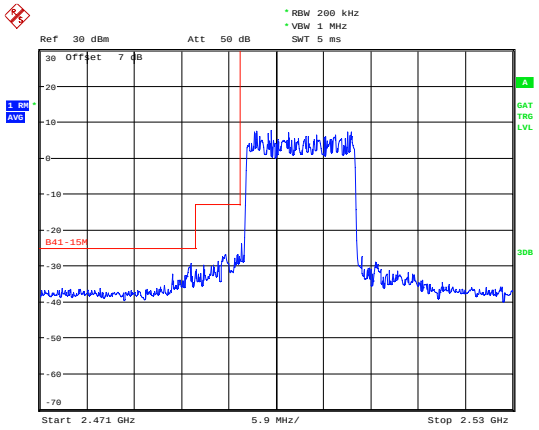
Date: 15.SEP.2020 21:12:39

LTE Band 41 QPSK 15MHz CH-High, 1 RB



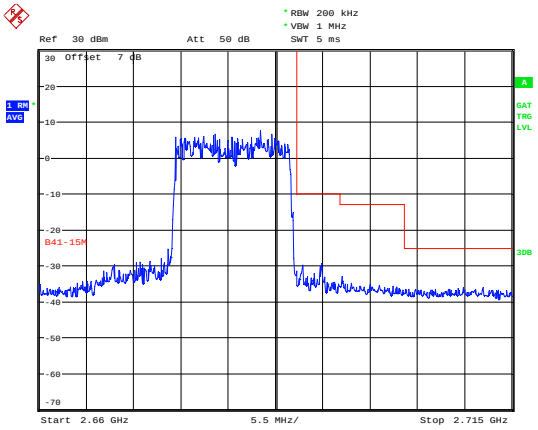
Date: 15.SEP.2020 21:25:26

LTE Band 41 QPSK 15MHz CH-Low, 100%RB



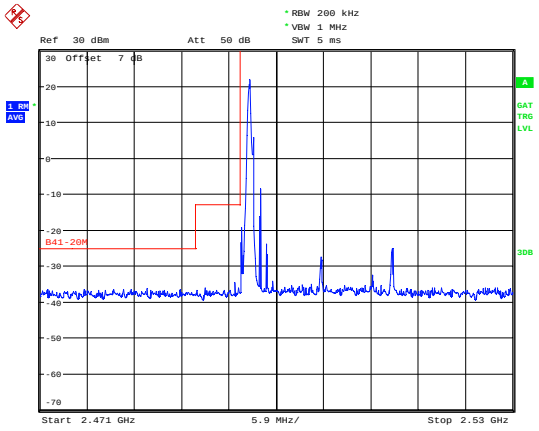
Date: 15.SEP.2020 21:12:55

LTE Band 41 QPSK 15MHz CH-High, 100%RB



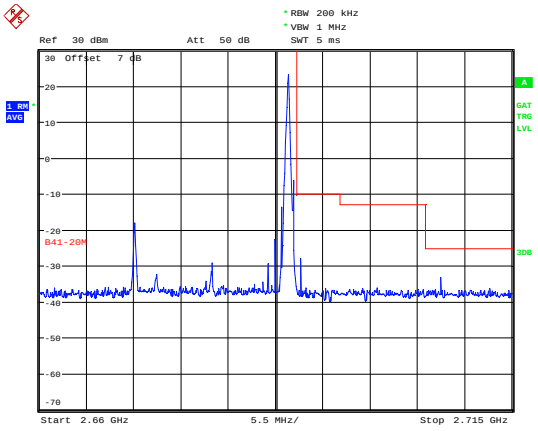
Date: 15.SEP.2020 21:25:45

LTE Band 41 QPSK 20MHz CH-Low, 1 RB



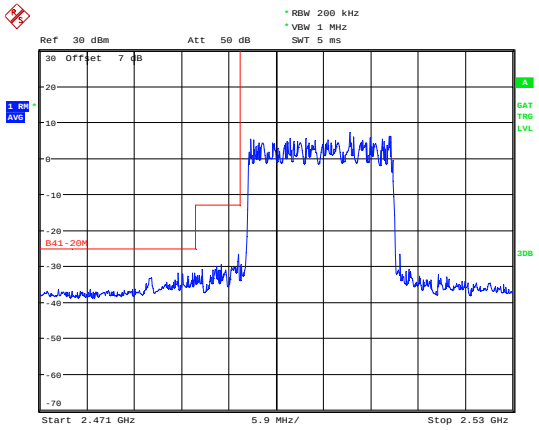
Date: 15.SEP.2020 21:15:58

LTE Band 41 QPSK 20MHz CH-High, 1 RB



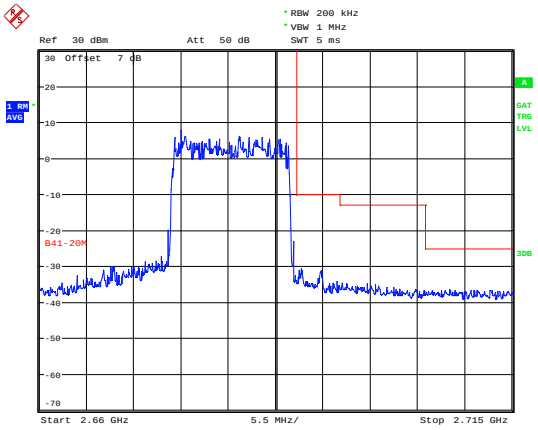
Date: 15.SEP.2020 21:27:17

LTE Band 41 QPSK 20MHz CH-Low, 100%RB



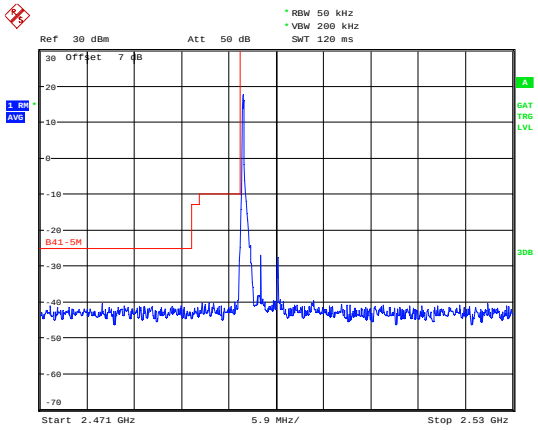
Date: 15.SEP.2020 21:16:12

LTE Band 41 QPSK 20MHz CH-High, 100%RB

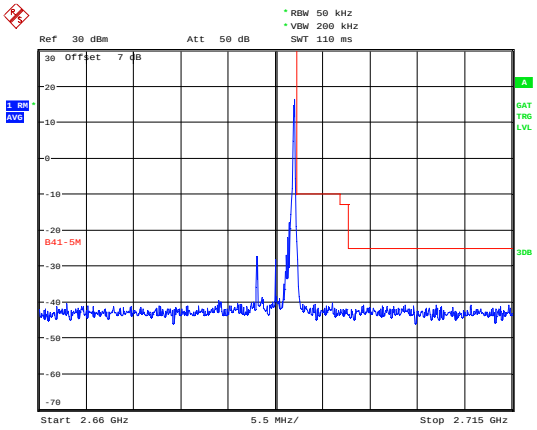


Date: 15.SEP.2020 21:27:32

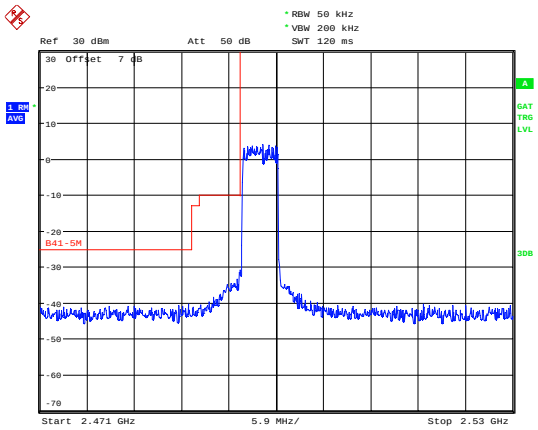
LTE Band 41 16QAM 5MHz CH-Low, 1 RB



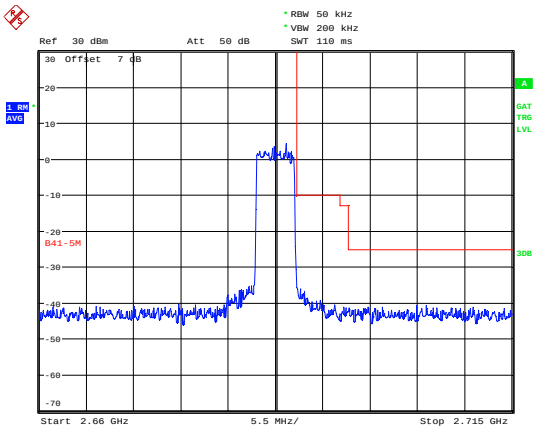
LTE Band 41 16QAM 5MHz CH-High, 1 RB



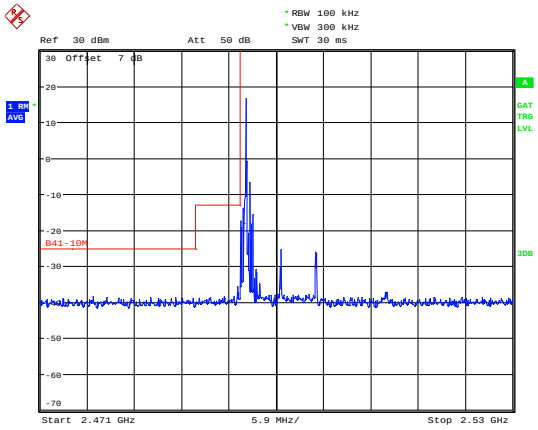
LTE Band 41 16QAM 5MHz CH-Low, 100%RB



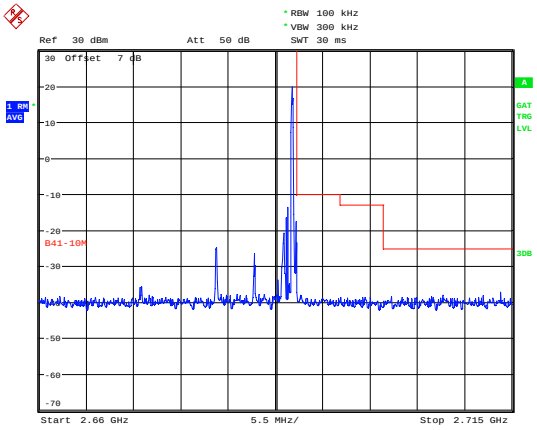
LTE Band 41 16QAM 5MHz CH-High, 100%RB



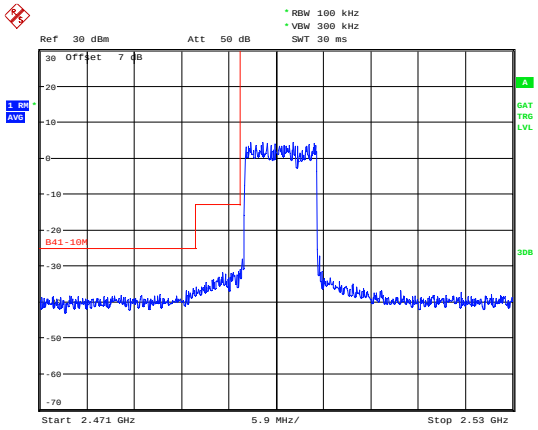
LTE Band 41 16QAM 10MHz CH-Low, 1 RB



LTE Band 41 16QAM 10MHz CH-High, 1 RB

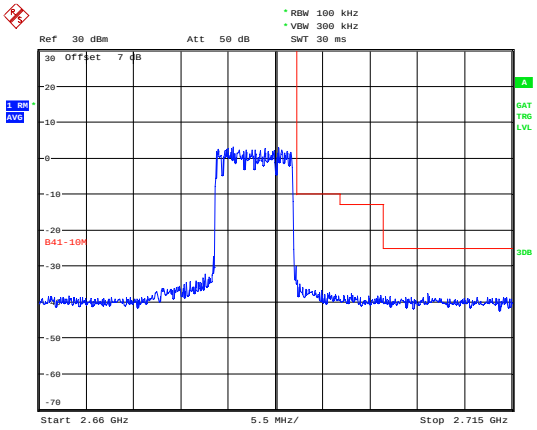


LTE Band 41 16QAM 10MHz CH-Low, 100%RB



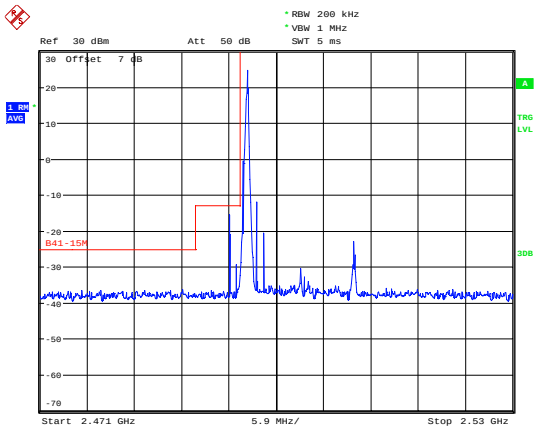
Date: 15.SEP.2020 21:11:15

LTE Band 41 16QAM 10MHz CH-High, 100%RB



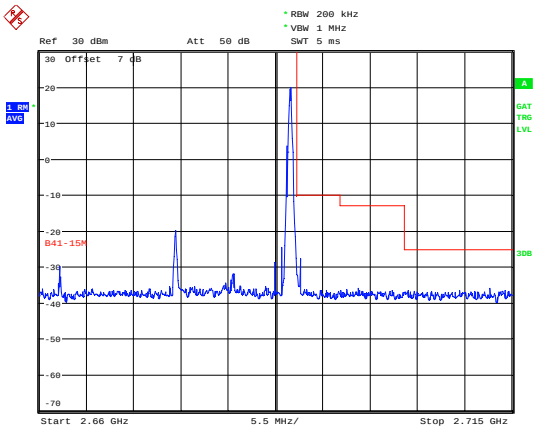
Date: 15.SEP.2020 21:23:47

LTE Band 41 16QAM 15MHz CH-Low, 1 RB



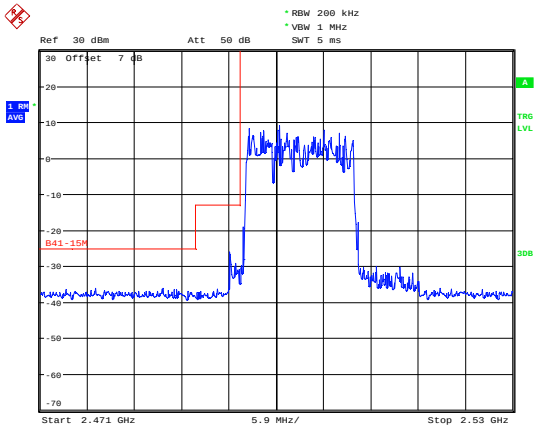
Date: 15.SEP.2020 21:14:13

LTE Band 41 16QAM 15MHz CH-High, 1 RB



Date: 15.SEP.2020 21:25:59

LTE Band 41 16QAM 15MHz CH-Low, 100%RB



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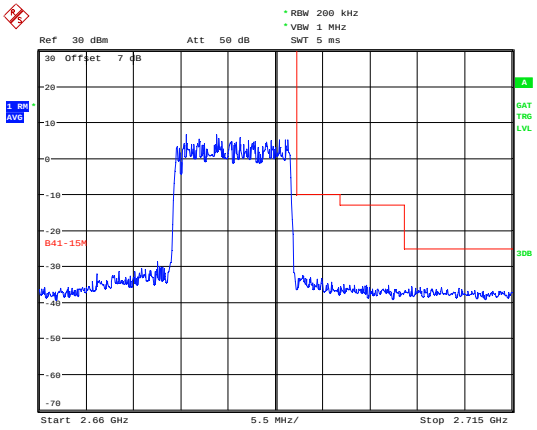
LTE Band 41 16QAM 15MHz CH-High, 100%RB



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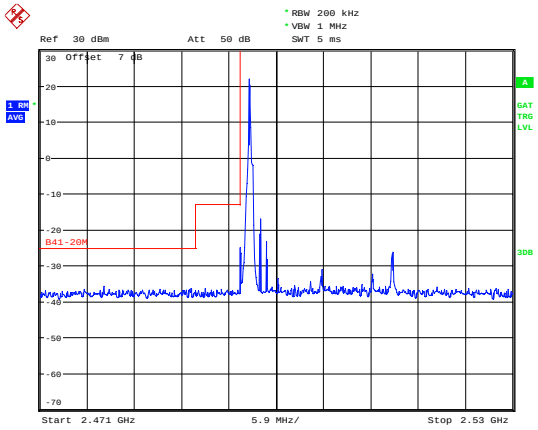
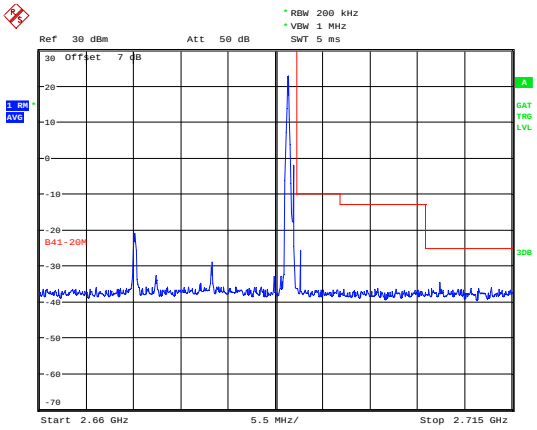
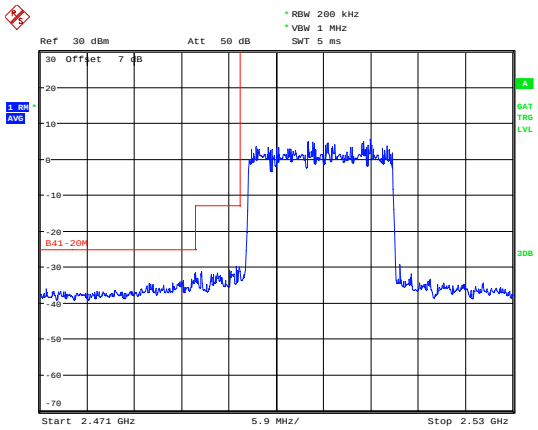
LTE Band 41 16QAM 20MHz CH-Low, RB 1



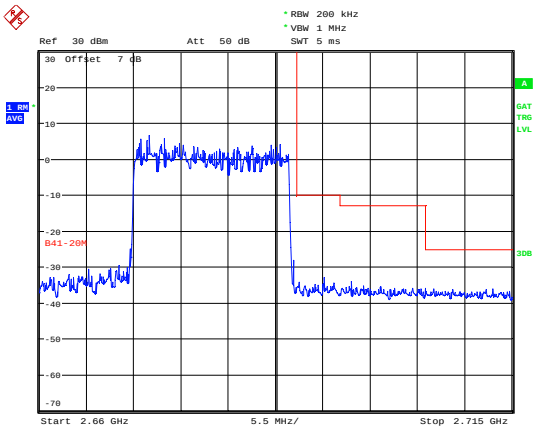
LTE Band 41 16QAM 20MHz CH-High, RB 1



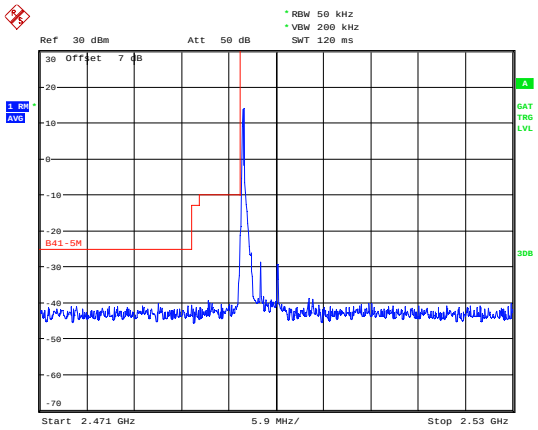
LTE Band 41 16QAM 20MHz CH-Low, 100%RB



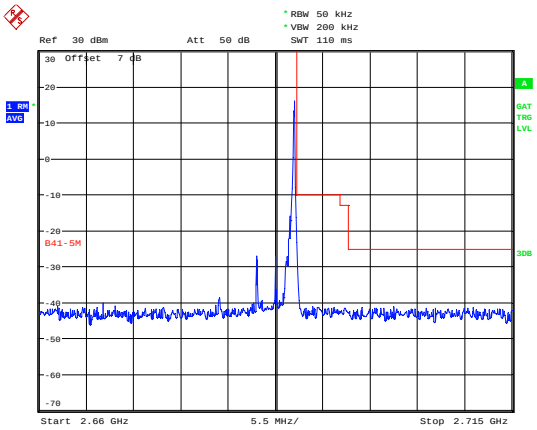
LTE Band 41 16QAM 20MHz CH-High, 100%RB



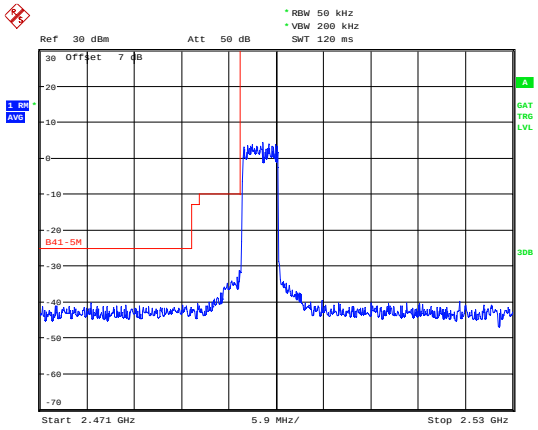
LTE Band 41 64QAM 5MHz CH-Low, 1 RB



LTE Band 41 64QAM 5MHz CH-High, 1 RB



LTE Band 41 64QAM 5MHz CH-Low, 100%RB



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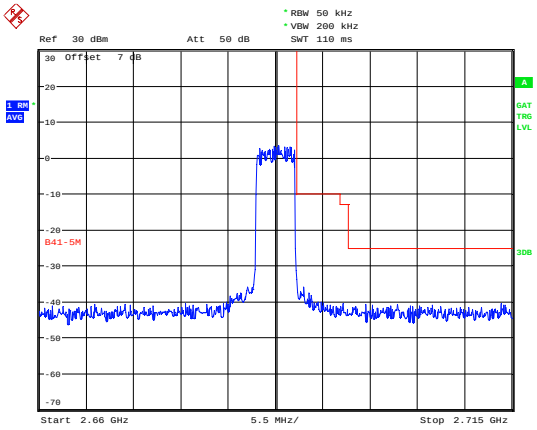
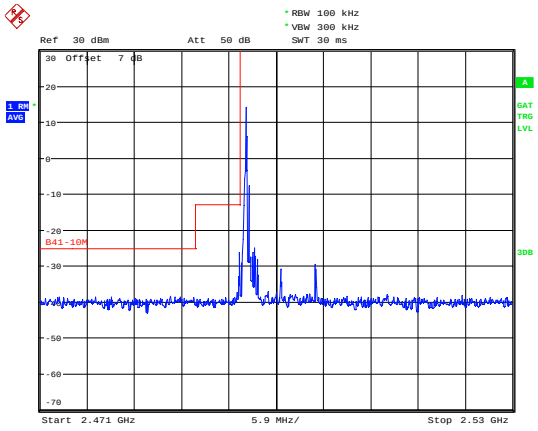
LTE Band 41 64QAM 5MHz CH-High, 100%RB



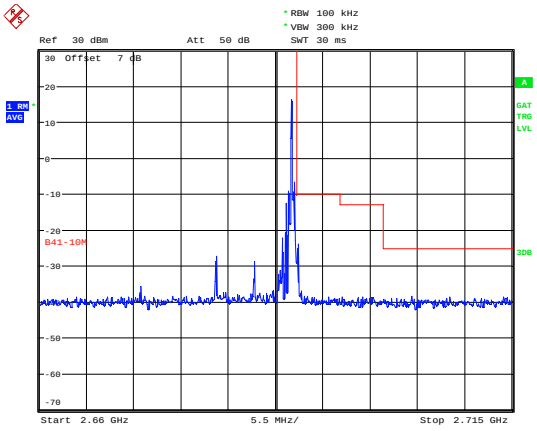
Date: 15.SEP.2020 21:22:18

LTE Band 41 64QAM 10MHz CH-Low, 1 RB



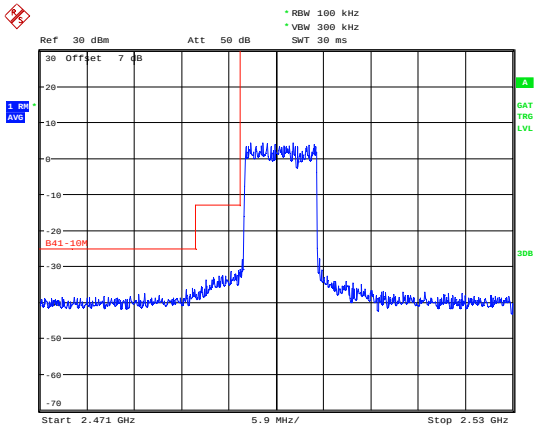
Date: 15.SEP.2020 21:11:30

LTE Band 41 64QAM 10MHz CH-High, 1 RB



Date: 15.SEP.2020 21:24:27

LTE Band 41 64QAM 10MHz CH-Low, 100%RB



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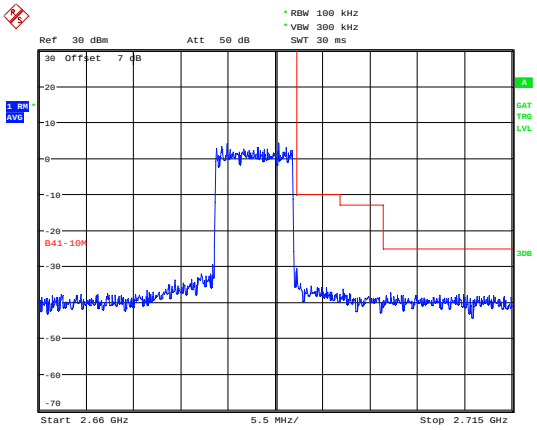
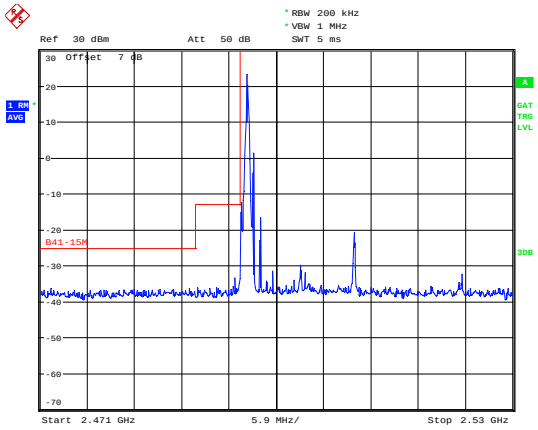
LTE Band 41 64QAM 10MHz CH-High, 100%RB

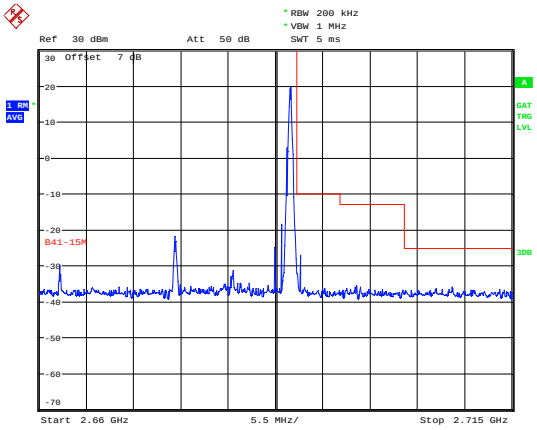


Date: 15.SEP.2020 21:24:40

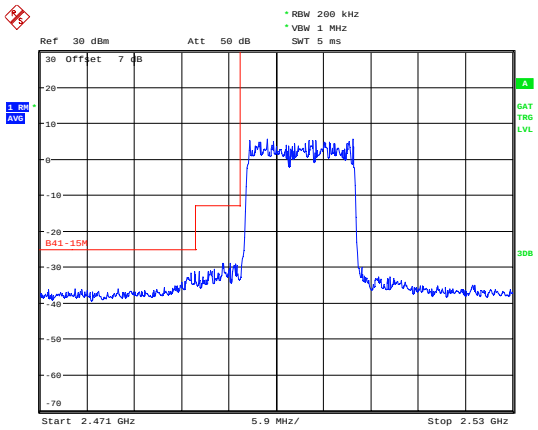
LTE Band 41 64QAM 15MHz CH-Low, 1 RB



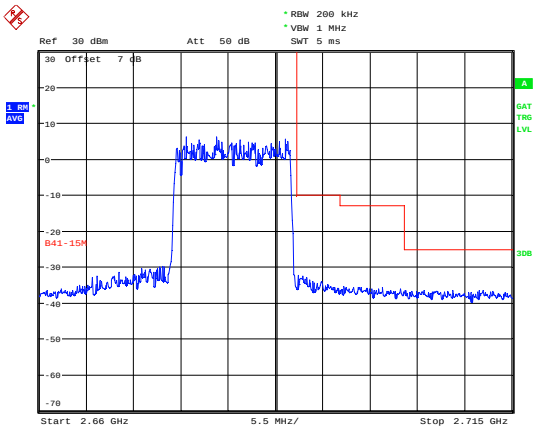
LTE Band 41 64QAM 15MHz CH-High, 1 RB



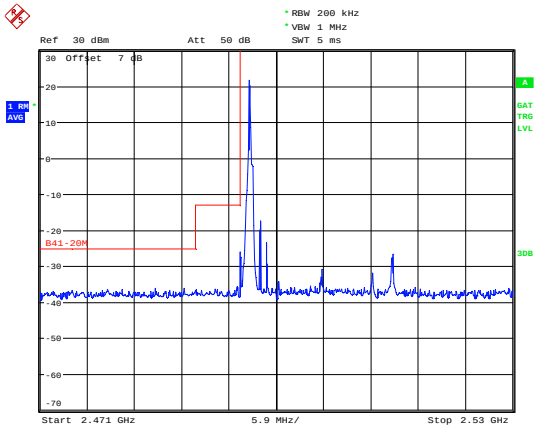
LTE Band 41 64QAM 15MHz CH-Low, 100%RB



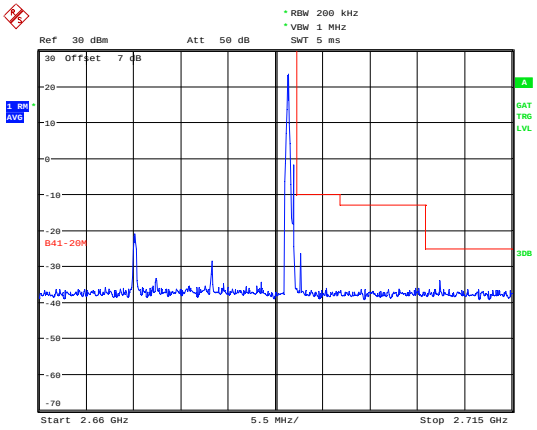
LTE Band 41 64QAM 15MHz CH-High, 100%RB



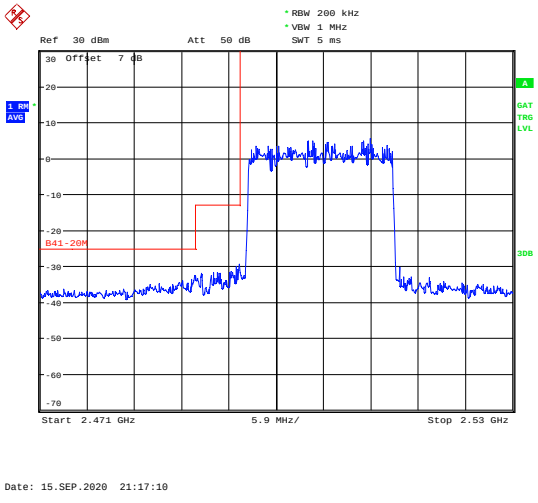
LTE Band 41 64QAM 20MHz CH-Low, RB 1



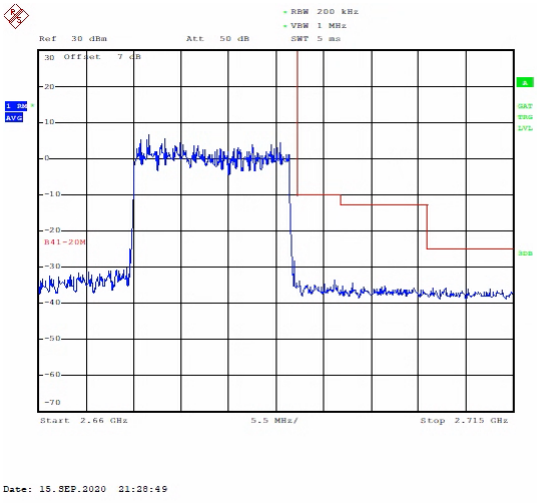
LTE Band 41 64QAM 20MHz CH-High, RB 1



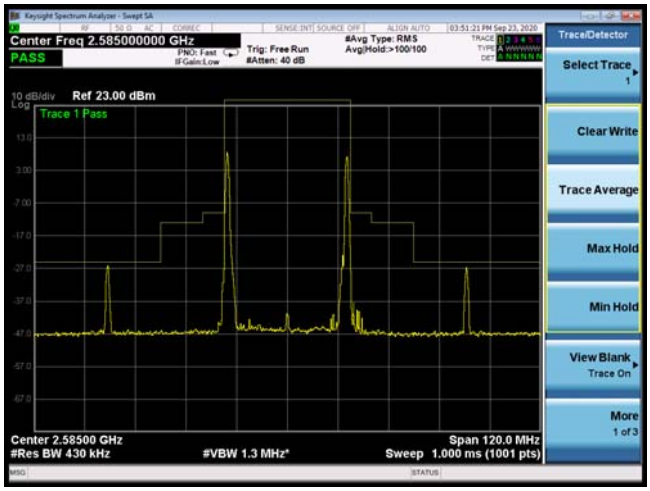
LTE Band 41 64QAM 20MHz CH-Low, 100%RB



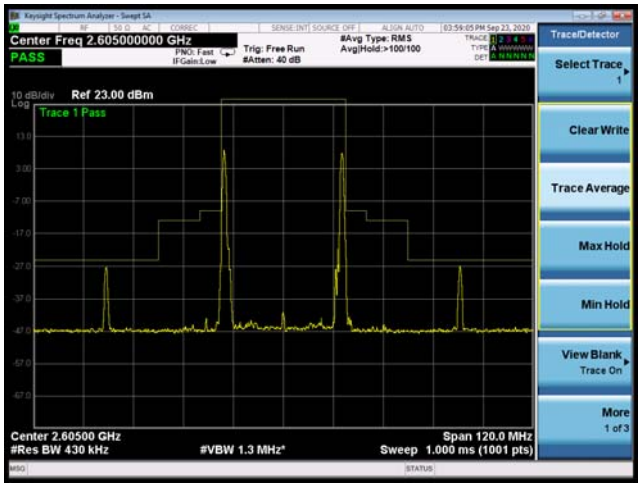
LTE Band 41 64QAM 20MHz CH-High, 100%RB



CA_38C QPSK 15MHz+15MHz CH-Low, 1 RB

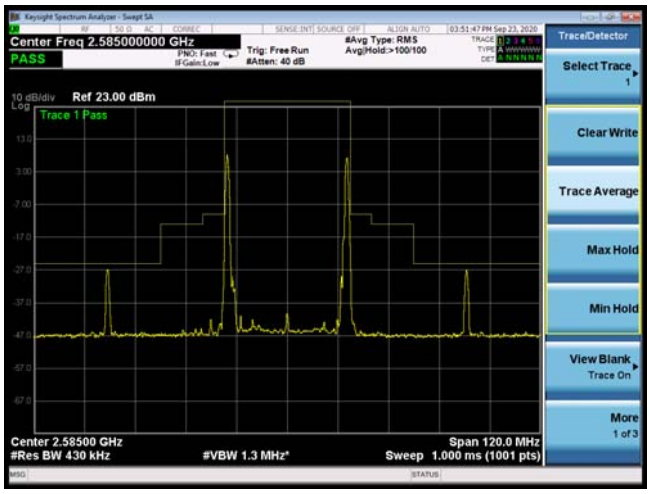
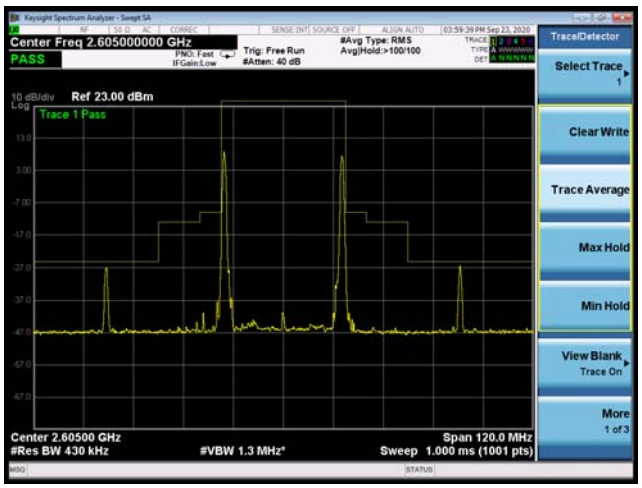


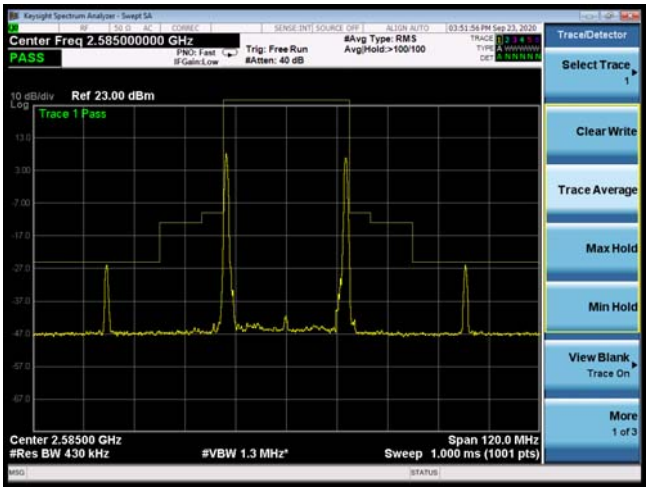
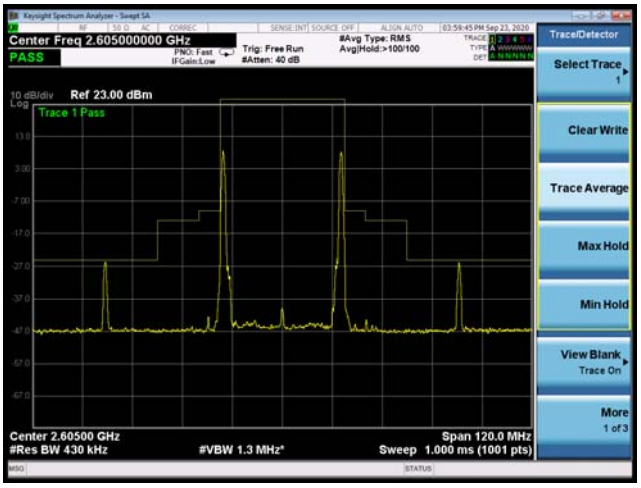
CA_38C QPSK 15MHz+15MHz CH-High, 1 RB



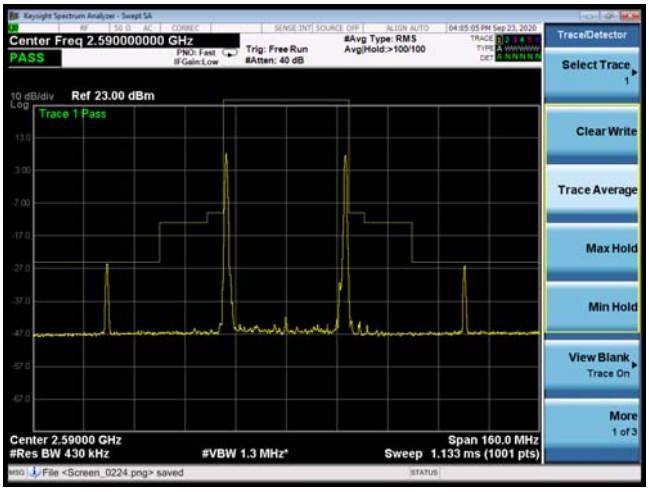
CA_38C QPSK 15MHz+15MHz CH-Low, 100%RB

CA_38C QPSK 15MHz+15MHz CH-High, 100%RB

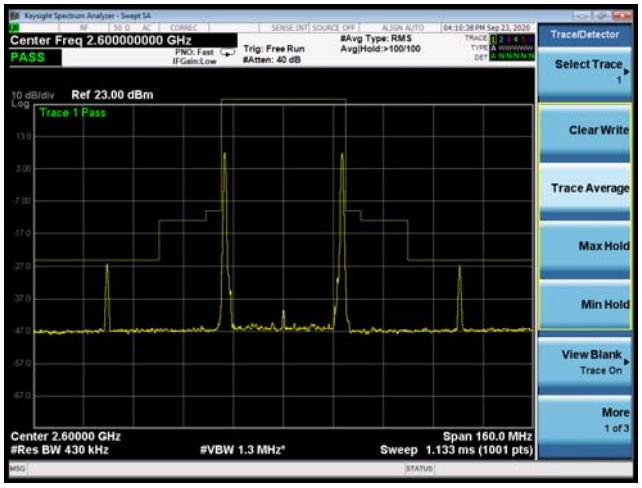
CA_38C 16QAM 15MHz+15MHz CH-Low, 1 RB	CA_38C 16QAM 15MHz+15MHz CH-High, 1 RB
	

CA_38C 16QAM 15MHz+15MHz CH-Low, 100%RB	CA_38C 16QAM 15MHz+15MHz CH-High, 100%RB
	
CA_38C 64QAM 15MHz+15MHz CH-Low, 1 RB	CA_38C 64QAM 15MHz+15MHz CH-High, 1 RB
	
CA_38C 64QAM 15MHz+15MHz CH-Low, 100%RB	CA_38C 64QAM 15MHz+15MHz CH-High, 100%RB
	

CA_38C QPSK 20MHz+20MHz CH-Low, 1 RB



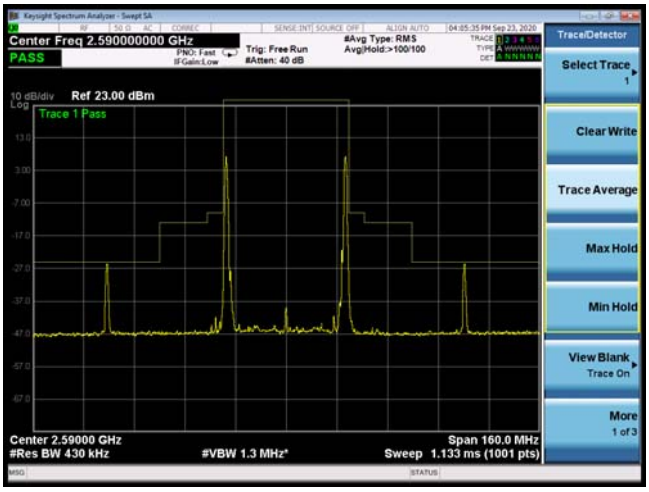
CA_38C QPSK 20MHz+20MHz CH-High, 1 RB



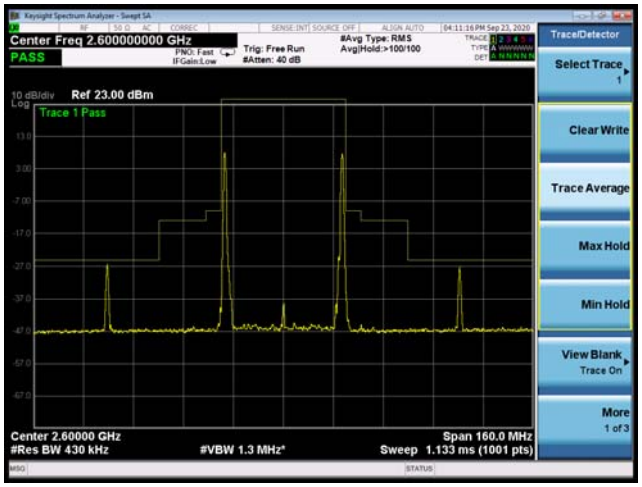
CA_38C QPSK 20MHz+20MHz CH-Low, 100%RB

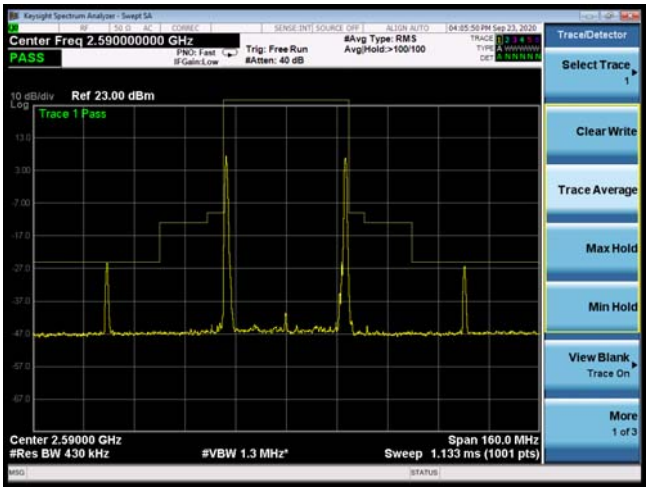
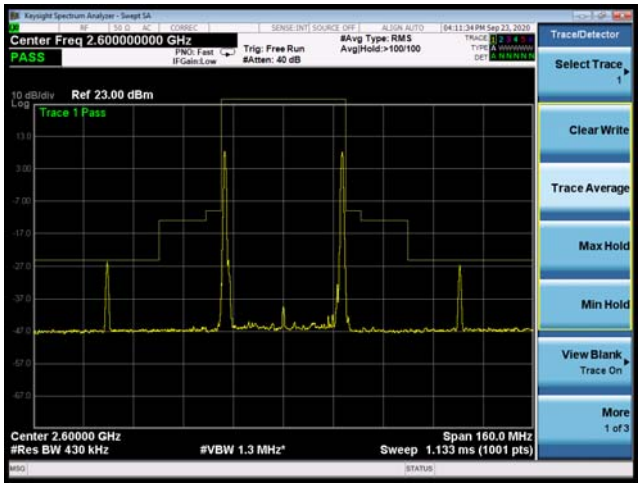
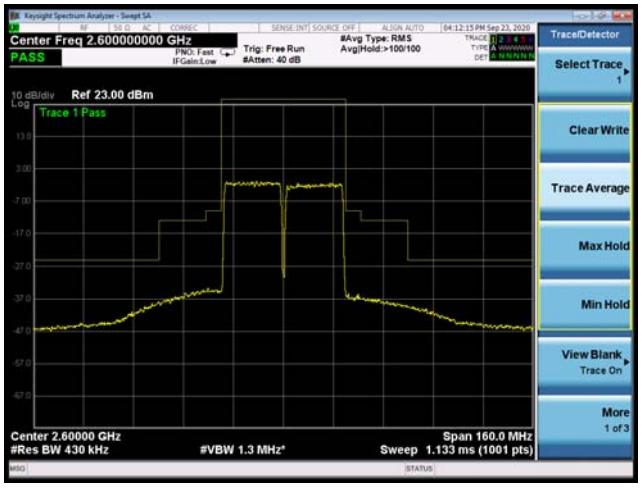
CA_38C QPSK 20MHz+20MHz CH-High, 100%RB

CA_38C 16QAM 20MHz+20MHz CH-Low, 1 RB

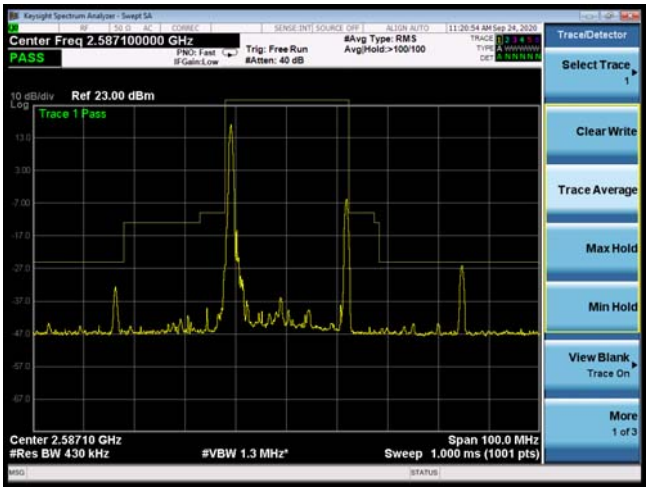


CA_38C 16QAM 20MHz+20MHz CH-High, 1 RB

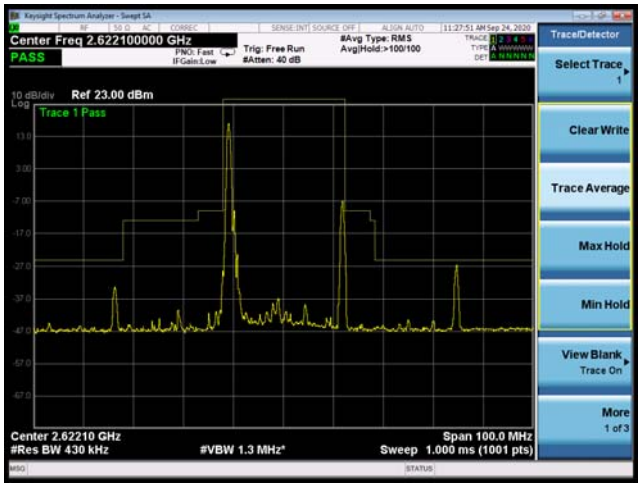


CA_38C 16QAM 20MHz+20MHz CH-Low, 100%RB	CA_38C 16QAM 20MHz+20MHz CH-High, 100%RB
	
CA_38C 64QAM 20MHz+20MHz CH-Low, 1 RB	CA_38C 64QAM 20MHz+20MHz CH-High, 1 RB
	
CA_38C 64QAM 20MHz+20MHz CH-Low, 100%RB	CA_38C 64QAM 20MHz+20MHz CH-High, 100%RB
	

CA_41C QPSK 20MHz+5MHz CH-Low, 1 RB



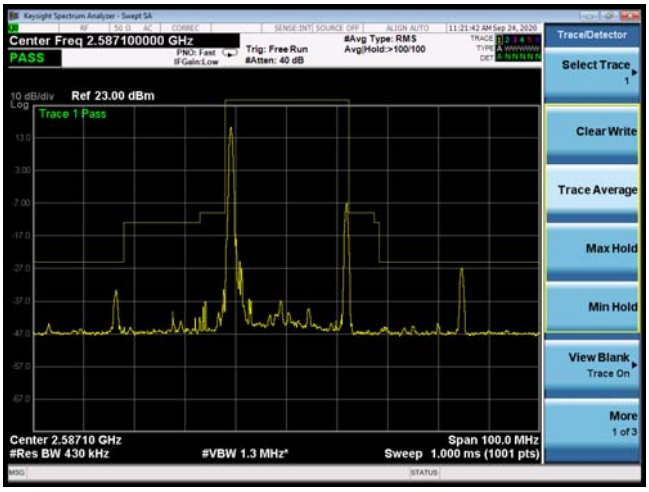
CA_41C QPSK 20MHz+5MHz CH-High, 1 RB



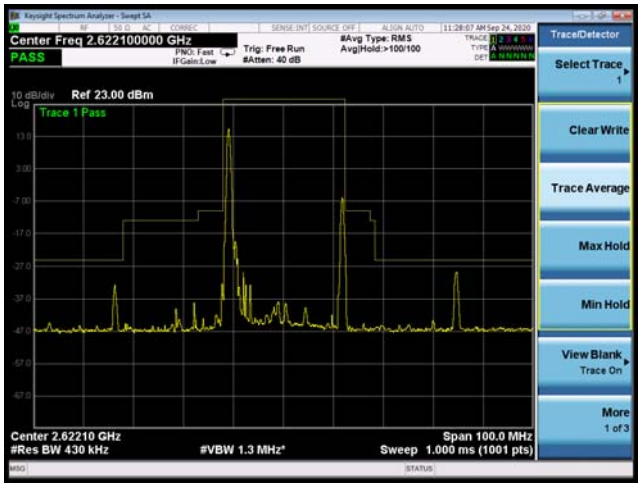
CA_41C QPSK 20MHz+5MHz CH-Low, 100%RB

CA_41C QPSK 20MHz+5MHz CH-High, 100%RB

CA_41C 16QAM 20MHz+5MHz CH-Low, 1 RB



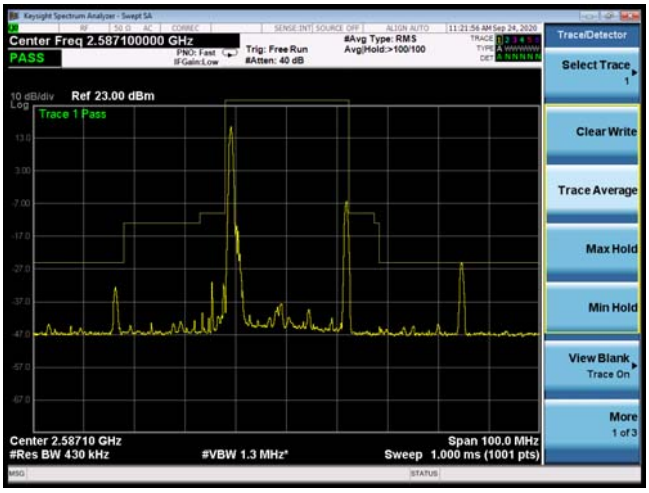
CA_41C 16QAM 20MHz+5MHz CH-High, 1 RB



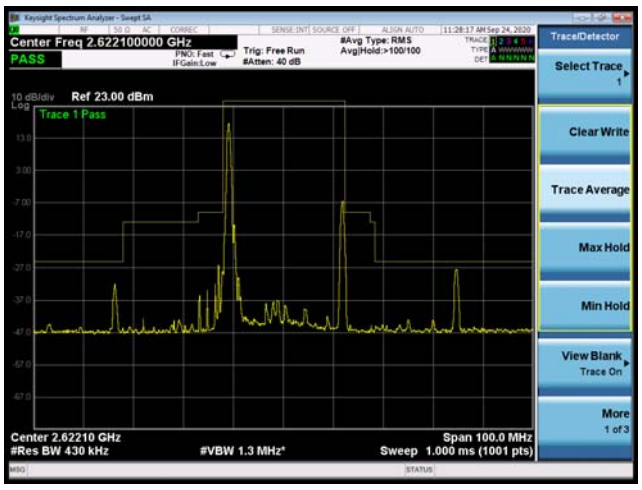
CA_41C 16QAM 20MHz+5MHz CH-Low, 100%RB

CA_41C 16QAM 20MHz+5MHz CH-High, 100%RB

CA_41C 64QAM 20MHz+5MHz CH-Low, 1 RB

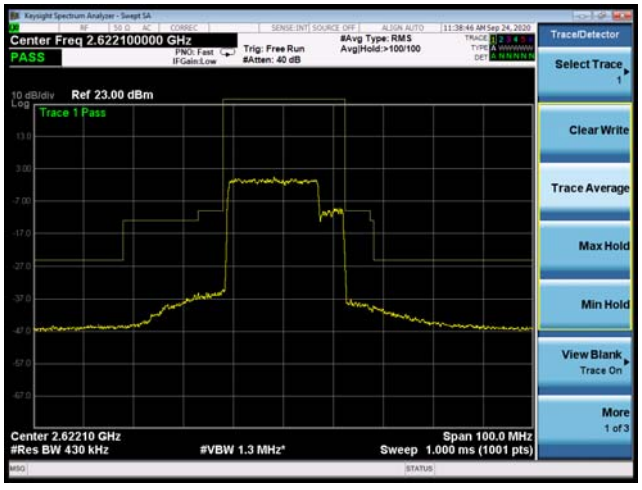


CA_41C 64QAM 20MHz+5MHz CH-High, 1 RB

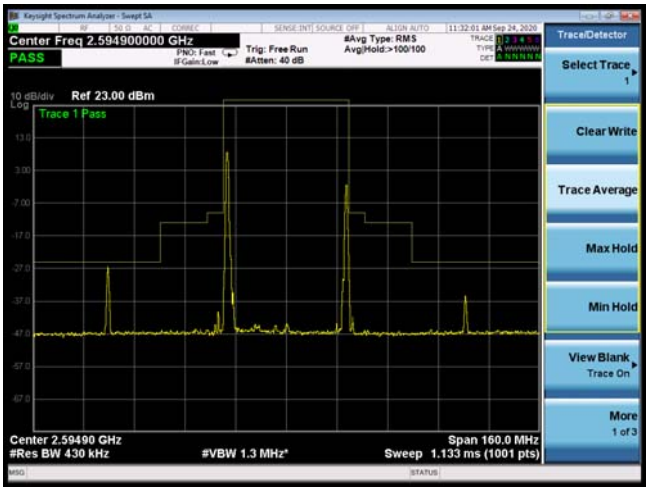


CA_41C 64QAM 20MHz+5MHz CH-Low, 100%RB

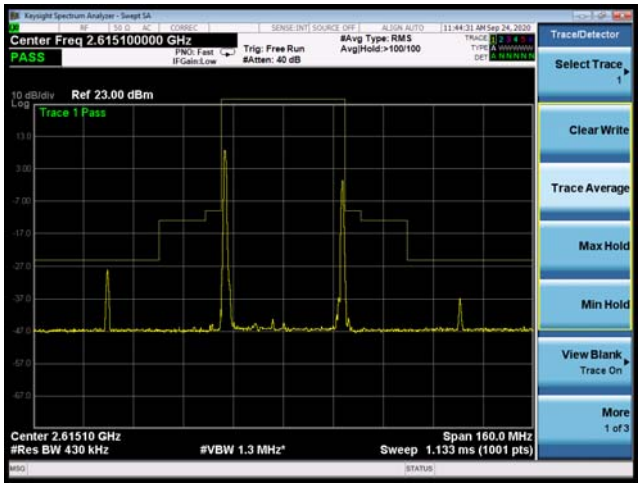
CA_41C 64QAM 20MHz+5MHz CH-High, 100%RB



CA_41C QPSK 20MHz+20MHz CH-Low, 1 RB



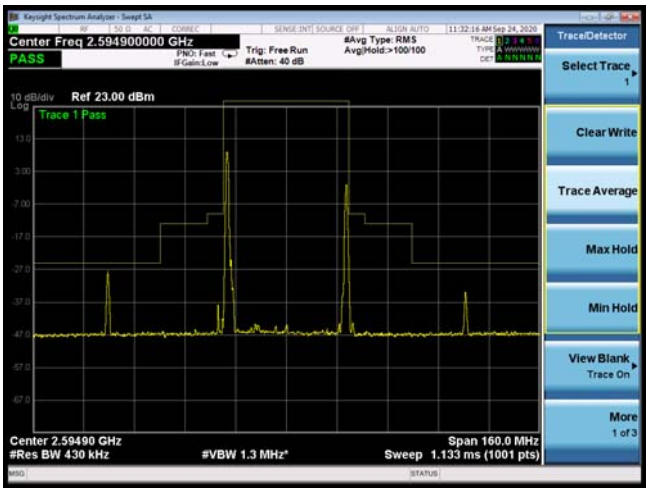
CA_41C QPSK 20MHz+20MHz CH-High, 1 RB



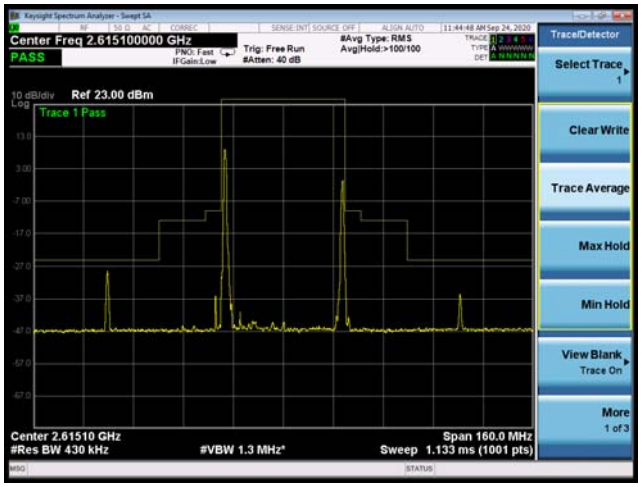
CA_41C QPSK 20MHz+20MHz CH-Low, 100%RB

CA_41C QPSK 20MHz+20MHz CH-High, 100%RB

CA_41C 16QAM 20MHz+20MHz CH-Low, 1 RB



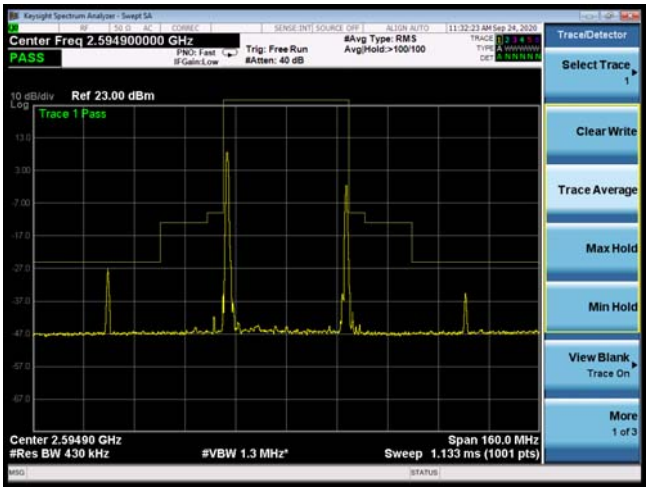
CA_41C 16QAM 20MHz+20MHz CH-High, 1 RB



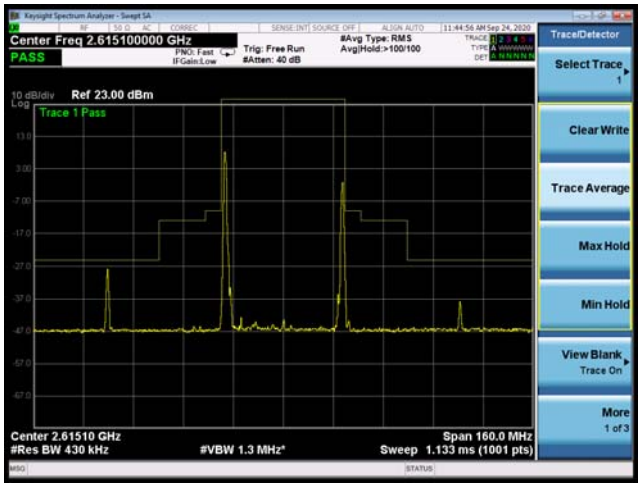
CA_41C 16QAM 20MHz+20MHz CH-Low, 100%RB

CA_41C 16QAM 20MHz+20MHz CH-High, 100%RB

CA_41C 64QAM 20MHz+20MHz CH-Low, 1 RB



CA_41C 64QAM 20MHz+20MHz CH-High, 1 RB



CA_41C 64QAM 20MHz+20MHz CH-Low, 100%RB

CA_41C 64QAM 20MHz+20MHz CH-High, 100%RB

5.4 Peak-to-Average Power Ratio (PAPR)

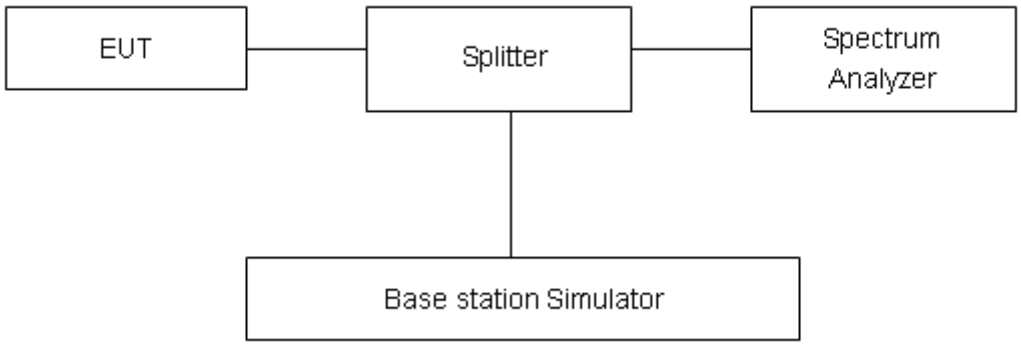
Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

Measure the total peak power and record as PPk. And measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (*e.g.*, dBm). Determine the PAPR from:
PAPR (dB) = PPk (dBm) - PAvg (dBm).

Test Setup



Limits

Rule Part 27.50(d)(5) Equipment employed must be authorized in accordance with the provisions of 24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for thenormal distribution is with the coverage factor k = 2, U= 0.4 dB.

Test Results

WCDMA Band IV	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
RMC	1312	1712.4	25.30	22.12	3.18	≤13	PASS
	1413	1732.6	25.31	22.17	3.14	≤13	PASS
	1513	1752.6	25.36	22.22	3.14	≤13	PASS

LTE Band 4								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	19957	1710.7	27.67	22.70	4.97	≤13	PASS
		20175	1732.5	27.70	22.66	5.04	≤13	PASS
		20393	1754.3	27.68	22.70	4.98	≤13	PASS
	3	19965	1711.5	27.60	22.63	4.97	≤13	PASS
		20175	1732.5	27.62	22.58	5.04	≤13	PASS
		20385	1753.5	27.72	22.64	5.08	≤13	PASS
	5	19975	1712.5	27.69	22.60	5.09	≤13	PASS
		20175	1732.5	27.86	22.61	5.25	≤13	PASS
		20375	1752.5	27.77	22.64	5.13	≤13	PASS
	10	20000	1715	27.76	22.68	5.08	≤13	PASS
		20175	1732.5	27.79	22.65	5.14	≤13	PASS
		20350	1750	27.76	22.65	5.11	≤13	PASS
	15	20025	1717.5	28.08	22.58	5.50	≤13	PASS
		20175	1732.5	28.21	22.70	5.51	≤13	PASS
		20325	1747.5	28.17	22.70	5.47	≤13	PASS
	20	20050	1720	27.98	22.68	5.30	≤13	PASS
		20175	1732.5	27.98	22.63	5.35	≤13	PASS
		20300	1745	27.93	22.59	5.34	≤13	PASS
16QAM	1.4	19957	1710.7	27.43	21.63	5.80	≤13	PASS
		20175	1732.5	27.44	21.62	5.82	≤13	PASS
		20393	1754.3	27.60	21.72	5.88	≤13	PASS
	3	19965	1711.5	27.41	21.59	5.82	≤13	PASS
		20175	1732.5	27.44	21.57	5.87	≤13	PASS
		20385	1753.5	27.49	21.60	5.89	≤13	PASS
	5	19975	1712.5	27.44	21.59	5.85	≤13	PASS
		20175	1732.5	27.49	21.59	5.90	≤13	PASS
		20375	1752.5	27.51	21.63	5.88	≤13	PASS
	10	20000	1715	27.53	21.66	5.87	≤13	PASS
		20175	1732.5	27.58	21.63	5.95	≤13	PASS
		20350	1750	27.50	21.64	5.86	≤13	PASS

	15	20025	1717.5	27.70	21.69	6.01	≤13	PASS
		20175	1732.5	27.74	21.66	6.08	≤13	PASS
		20325	1747.5	27.68	21.66	6.02	≤13	PASS
	20	20050	1720	27.68	21.65	6.03	≤13	PASS
		20175	1732.5	27.68	21.60	6.08	≤13	PASS
		20300	1745	27.65	21.59	6.06	≤13	PASS
64QAM	1.4	19957	1710.7	27.42	21.63	5.79	≤13	PASS
		20175	1732.5	27.43	21.64	5.79	≤13	PASS
		20393	1754.3	27.58	21.72	5.86	≤13	PASS
	3	19965	1711.5	27.42	21.57	5.85	≤13	PASS
		20175	1732.5	27.46	21.58	5.88	≤13	PASS
		20385	1753.5	27.54	21.60	5.94	≤13	PASS
	5	19975	1712.5	27.45	21.60	5.85	≤13	PASS
		20175	1732.5	27.48	21.59	5.89	≤13	PASS
		20375	1752.5	27.52	21.65	5.87	≤13	PASS
	10	20000	1715	27.54	21.64	5.90	≤13	PASS
		20175	1732.5	27.59	21.65	5.94	≤13	PASS
		20350	1750	27.50	21.64	5.86	≤13	PASS
	15	20025	1717.5	27.72	21.71	6.01	≤13	PASS
		20175	1732.5	27.73	21.66	6.07	≤13	PASS
		20325	1747.5	27.69	21.66	6.03	≤13	PASS
	20	20050	1720	27.67	21.63	6.04	≤13	PASS
		20175	1732.5	27.67	21.61	6.06	≤13	PASS
		20300	1745	27.64	21.58	6.06	≤13	PASS

LTE Band 7								
Modulation	**Bandwidth (MHz)**	**Channel**	**Frequency (MHz)**	**Peak (dBm)**	**Avg (dBm)**	**PAPR (dB)**	**Limit (dB)**	**Conclusion**
QPSK	5	20775	2502.5	27.63	22.77	4.86	≤13	PASS
		21100	2535	27.58	22.56	5.02	≤13	PASS
		21425	2567.5	27.48	22.58	4.90	≤13	PASS
	10	20800	2505	27.59	22.72	4.87	≤13	PASS
		21100	2535	27.56	22.52	5.04	≤13	PASS
		21400	2565	27.54	22.58	4.96	≤13	PASS
	15	20825	2507.5	28.08	22.79	5.29	≤13	PASS
		21100	2535	28.00	22.60	5.40	≤13	PASS
		21375	2562.5	27.99	22.67	5.32	≤13	PASS

	20	20850	2510	27.79	22.66	5.13	≤13	PASS
		21100	2535	27.83	22.55	5.28	≤13	PASS
		21350	2560	27.77	22.57	5.20	≤13	PASS
16QAM	5	20775	2502.5	27.34	21.77	5.57	≤13	PASS
		21100	2535	27.29	21.55	5.74	≤13	PASS
		21425	2567.5	27.22	21.60	5.62	≤13	PASS
	10	20800	2505	27.38	21.70	5.68	≤13	PASS
		21100	2535	27.35	21.55	5.80	≤13	PASS
		21400	2565	27.27	21.59	5.68	≤13	PASS
	15	20825	2507.5	27.60	21.77	5.83	≤13	PASS
		21100	2535	27.54	21.62	5.92	≤13	PASS
		21375	2562.5	27.54	21.65	5.89	≤13	PASS
	20	20850	2510	27.53	21.65	5.88	≤13	PASS
		21100	2535	27.49	21.54	5.95	≤13	PASS
		21350	2560	27.49	21.57	5.92	≤13	PASS
64QAM	5	20775	2502.5	27.32	21.74	5.58	≤13	PASS
		21100	2535	27.31	21.55	5.76	≤13	PASS
		21425	2567.5	27.21	21.59	5.62	≤13	PASS
	10	20800	2505	27.39	21.71	5.68	≤13	PASS
		21100	2535	27.35	21.55	5.80	≤13	PASS
		21400	2565	27.26	21.56	5.70	≤13	PASS
	15	20825	2507.5	27.59	21.76	5.83	≤13	PASS
		21100	2535	27.57	21.63	5.94	≤13	PASS
		21375	2562.5	27.54	21.64	5.90	≤13	PASS
	20	20850	2510	27.51	21.63	5.88	≤13	PASS
		21100	2535	27.51	21.56	5.95	≤13	PASS
		21350	2560	27.52	21.59	5.93	≤13	PASS

LTE Band 38								
Modulation	**Bandwidth (MHz)**	**Channel**	**Frequency (MHz)**	**Peak (dBm)**	**Avg (dBm)**	**PAPR (dB)**	**Limit (dB)**	**Conclusion**
QPSK	5	37775	2572.5	27.13	18.36	8.77	≤13	PASS
		38000	2595	27.24	18.20	9.04	≤13	PASS
		38225	2617.5	27.11	17.62	9.49	≤13	PASS
	10	37800	2575	27.19	18.25	8.94	≤13	PASS

		38000	2595	27.33	19.49	7.84	≤13	PASS
		38200	2615	27.19	18.34	8.85	≤13	PASS
	15	37825	2577.5	27.61	17.90	9.71	≤13	PASS
		38000	2595	27.64	18.25	9.39	≤13	PASS
		38175	2612.5	27.59	18.29	9.30	≤13	PASS
	20	37850	2580	27.29	18.10	9.19	≤13	PASS
		38000	2595	27.26	17.85	9.41	≤13	PASS
		38150	2610	27.27	18.47	8.80	≤13	PASS
16QAM	5	37775	2572.5	26.54	15.90	10.64	≤13	PASS
		38000	2595	26.77	17.47	9.30	≤13	PASS
		38225	2617.5	26.81	17.38	9.43	≤13	PASS
	10	37800	2575	26.93	18.03	8.90	≤13	PASS
		38000	2595	26.68	15.65	11.03	≤13	PASS
		38200	2615	26.85	17.61	9.24	≤13	PASS
	15	37825	2577.5	27.10	17.74	9.36	≤13	PASS
		38000	2595	27.12	17.92	9.20	≤13	PASS
		38175	2612.5	26.86	15.70	11.16	≤13	PASS
	20	37850	2580	27.02	18.56	8.46	≤13	PASS
		38000	2595	27.06	18.32	8.74	≤13	PASS
		38150	2610	26.81	16.62	10.19	≤13	PASS
64QAM	5	37775	2572.5	26.63	16.65	9.98	≤13	PASS
		38000	2595	26.80	17.79	9.01	≤13	PASS
		38225	2617.5	26.78	17.49	9.29	≤13	PASS
	10	37800	2575	26.70	16.54	10.16	≤13	PASS
		38000	2595	26.87	17.58	9.29	≤13	PASS
		38200	2615	26.64	16.30	10.34	≤13	PASS
	15	37825	2577.5	26.98	16.37	10.61	≤13	PASS
		38000	2595	27.00	16.90	10.10	≤13	PASS
		38175	2612.5	27.15	17.92	9.23	≤13	PASS
	20	37850	2580	26.81	16.64	10.17	≤13	PASS
		38000	2595	27.00	17.81	9.19	≤13	PASS
		38150	2610	26.82	16.74	10.08	≤13	PASS

LTE Band 41								
Modulation	Bandwidth ((MHz))	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	39675	2498.5	27.26	18.35	8.91	≤13	PASS
		40620	2593	27.25	17.98	9.27	≤13	PASS
		41565	2687.5	27.38	19.34	8.04	≤13	PASS
	10	39700	2501	27.31	19.88	7.43	≤13	PASS
		40620	2593	27.06	17.82	9.24	≤13	PASS
		41540	2685	27.05	18.02	9.03	≤13	PASS
	15	39725	2503.5	27.57	17.82	9.75	≤13	PASS
		40620	2593	27.60	18.48	9.12	≤13	PASS
		41515	2682.5	27.57	18.04	9.53	≤13	PASS
	20	39750	2506	27.38	18.65	8.73	≤13	PASS
		40620	2593	27.46	20.06	7.40	≤13	PASS
		41490	2680	27.26	18.46	8.80	≤13	PASS
16QAM	5	39675	2498.5	26.74	16.53	10.21	≤13	PASS
		40620	2593	26.73	16.36	10.37	≤13	PASS
		41565	2687.5	26.92	17.55	9.37	≤13	PASS
	10	39700	2501	26.80	17.91	8.89	≤13	PASS
		40620	2593	26.66	16.45	10.21	≤13	PASS
		41540	2685	26.82	17.47	9.35	≤13	PASS
	15	39725	2503.5	27.04	17.45	9.59	≤13	PASS
		40620	2593	27.05	17.65	9.40	≤13	PASS
		41515	2682.5	27.11	17.68	9.43	≤13	PASS
	20	39750	2506	26.85	16.93	9.92	≤13	PASS
		40620	2593	26.93	17.79	9.14	≤13	PASS
		41490	2680	27.01	18.23	8.78	≤13	PASS
64QAM	5	39675	2498.5	26.94	18.01	8.93	≤13	PASS
		40620	2593	26.63	15.98	10.65	≤13	PASS
		41565	2687.5	26.93	17.66	9.27	≤13	PASS
	10	39700	2501	26.86	18.10	8.76	≤13	PASS
		40620	2593	26.80	17.39	9.41	≤13	PASS
		41540	2685	26.83	17.57	9.26	≤13	PASS
	15	39725	2503.5	27.04	17.72	9.32	≤13	PASS

		40620	2593	27.06	17.73	9.33	≤13	PASS
		41515	2682.5	27.07	17.41	9.66	≤13	PASS
	20	39750	2506	26.90	16.91	9.99	≤13	PASS
		40620	2593	26.70	16.40	10.30	≤13	PASS
		41490	2680	27.20	19.71	7.49	≤13	PASS

CA_38C								
Bandwidth	PCC		SCC1		Modulation	Peak-to-Average Power Ratio (PAPR)		
	Channel	Frequency (MHz)	Channel	Frequency (MHz)		Peak (dBm)	Avg (dBm)	PAPR (dB)
CA_38C_15MHz+15MHz_QPSK	37925	2587.5	38075	2602.5	QPSK	25.14	16.03	9.11
CA_38C_15MHz+15MHz_16QAM	37925	2587.5	38075	2602.5	16QAM	24.64	14.72	9.92
CA_38C_15MHz+15MHz_64QAM	37925	2587.5	38075	2602.5	64QAM	24.18	15.11	9.07
CA_38C_20MHz+20MHz_QPSK	37901	2585.1	38099	2604.9	QPSK	24.20	14.83	9.37
CA_38C_20MHz+20MHz_16QAM	37901	2585.1	38099	2604.9	16QAM	23.59	13.14	10.45
CA_38C_20MHz+20MHz_64QAM	37901	2585.1	38099	2604.9	64QAM	23.15	13.54	9.61

CA_41C								
Bandwidth	PCC		SCC1		Modulation	Peak-to-Average Power Ratio (PAPR)		
	Channel	Frequency (MHz)	Channel	Frequency (MHz)		Peak (dBm)	Avg (dBm)	PAPR (dB)
CA_41C_5MHz+20MHz_QPSK	40648	2595.8	40765	2607.5	QPSK	25.57	15.95	9.62
CA_41C_5MHz+20MHz_16QAM	40648	2595.8	40765	2607.5	16QAM	25.05	15.41	9.64
CA_41C_5MHz+20MHz_64QAM	40648	2595.8	40765	2607.5	64QAM	24.62	14.98	9.64
CA_41C_20MHz+5MHz_QPSK	40715	2602.5	40832	2614.2	QPSK	25.38	16.41	8.97
CA_41C_20MHz+5MHz_16QAM	40715	2602.5	40832	2614.2	16QAM	24.91	15.23	9.68
CA_41C_20MHz+5MHz_64QAM	40715	2602.5	40832	2614.2	64QAM	25.18	16.10	9.08
CA_41C_10MHz+20MHz_QPSK	40646	2595.6	40790	2610	QPSK	24.62	15.32	9.30
CA_41C_10MHz+20MHz_16QAM	40646	2595.6	40790	2610	16QAM	24.42	14.58	9.84
CA_41C_10MHz+20MHz_64QAM	40646	2595.6	40790	2610	64QAM	23.74	14.78	8.96
CA_41C_20MHz+10MHz_QPSK	40691	2600.1	40835	2614.5	QPSK	25.07	16.11	8.96
CA_41C_20MHz+10MHz_16QAM	40691	2600.1	40835	2614.5	16QAM	24.70	14.88	9.82
CA_41C_20MHz+10MHz_64QAM	40691	2600.1	40835	2614.5	64QAM	24.12	15.16	8.96
CA_41C_15MHz+15MHz_QPSK	40665	2597.5	40815	2612.5	QPSK	25.11	15.72	9.39
CA_41C_15MHz+15MHz_16QAM	40665	2597.5	40815	2612.5	16QAM	24.56	14.40	10.16
CA_41C_15MHz+15MHz_64QAM	40665	2597.5	40815	2612.5	64QAM	24.11	14.79	9.32
CA_41C_15MHz+20MHz_QPSK	40643	2595.3	40814	2612.4	QPSK	24.23	14.56	9.67
CA_41C_15MHz+20MHz_16QAM	40643	2595.3	40814	2612.4	16QAM	23.88	13.78	10.10
CA_41C_15MHz+20MHz_64QAM	40643	2595.3	40814	2612.4	64QAM	23.27	14.10	9.17

CA_41C_20MHz+15MHz_QPSK	40686	2597.6	40837	2614.7	QPSK	24.41	15.04	9.37
CA_41C_20MHz+15MHz_16QAM	40686	2597.6	40837	2614.7	16QAM	24.16	13.94	10.22
CA_41C_20MHz+15MHz_64QAM	40686	2597.6	40837	2614.7	64QAM	23.39	13.64	9.75
CA_41C_20MHz+20MHz_QPSK	40641	2595.1	40839	2614.9	QPSK	24.09	14.66	9.43
CA_41C_20MHz+20MHz_16QAM	40641	2595.1	40839	2614.9	16QAM	23.58	13.40	10.18
CA_41C_20MHz+20MHz_64QAM	40641	2595.1	40839	2614.9	64QAM	23.17	13.81	9.36

5.5 Frequency Stability

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size.

(1)With all power removed, the temperature was decreased to -10°C and permitted to stabilize for three hours.

(2)Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

(3) Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

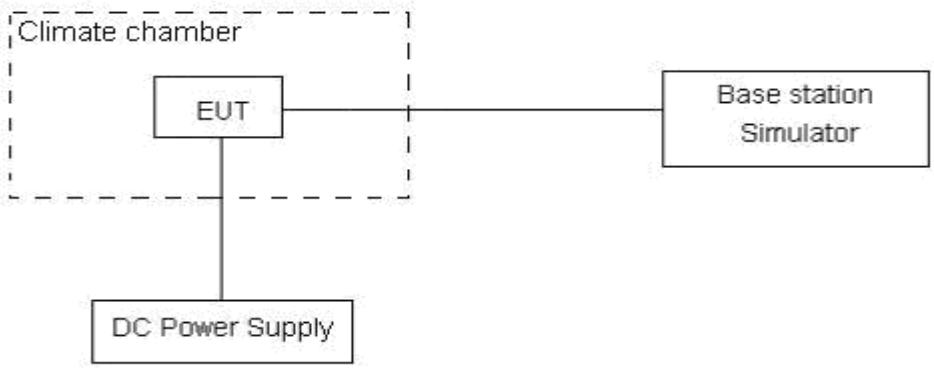
Frequency Stability (Voltage Variation)

The frequency stability shall be measured with variation of primary supply voltage as follows:

Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

This transceiver is specified to operate with an input voltage of between 3.23 V and 4.37 V, with a nominal voltage of 3.8V.

Test setup



Limits

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75％ confidence level for the normal distribution is with the coverage factor k = 3,U=0.01ppm.

Test Result

WCDMA Band IV						
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
Temperature	Voltage	BPSK	QPSK	BPSK	QPSK	
Normal（25℃）	Normal	4.86	15.72	0.00259	0.00836	PASS
Extreme（50℃）		14.07	11.54	0.00748	0.00614	PASS
Extreme（40℃）		7.91	6.53	0.00421	0.00347	PASS
Extreme（30℃）		4.86	12.79	0.00259	0.00680	PASS
Extreme（20℃）		8.10	10.15	0.00431	0.00540	PASS
Extreme（10℃）		5.06	15.41	0.00269	0.00819	PASS
Extreme（0℃）		8.61	15.02	0.00458	0.00799	PASS
Extreme（-10℃）		10.89	13.10	0.00579	0.00697	PASS
Extreme（-20℃）		6.51	9.03	0.00346	0.00480	PASS
Extreme（-30℃）		16.67	10.51	0.00887	0.00559	PASS
25℃	LV	11.00	16.36	0.00585	0.00870	PASS
	HV	14.23	7.60	0.00757	0.00404	PASS

LTE Band4								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	1.4MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	8.42	5.62	2.49	0.00448	0.00299	0.00132	PASS
Extreme（50℃）		9.18	3.29	9.93	0.00488	0.00175	0.00528	PASS
Extreme（40℃）		4.49	1.47	9.65	0.00239	0.00078	0.00513	PASS
Extreme（30℃）		2.07	4.70	1.09	0.00110	0.00250	0.00058	PASS
Extreme（20℃）		17.47	16.77	7.88	0.00929	0.00892	0.00419	PASS
Extreme（10℃）		1.40	9.46	9.99	0.00075	0.00503	0.00531	PASS
Extreme（0℃）		12.29	5.43	13.61	0.00654	0.00289	0.00724	PASS
Extreme（-10℃）		3.60	1.29	13.63	0.00191	0.00069	0.00725	PASS
Extreme（-20℃）		13.27	11.58	10.86	0.00706	0.00616	0.00578	PASS
Extreme（-30℃）		6.66	3.48	1.66	0.00354	0.00185	0.00088	PASS
25℃	LV	7.88	17.63	17.17	0.00419	0.00938	0.00914	PASS
	HV	3.89	5.88	12.49	0.00207	0.00313	0.00664	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	3MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	

Normal（25℃）	Normal	2.28	12.05	13.07	0.00121	0.00641	0.00695	PASS
Extreme（50℃）		1.54	17.44	5.48	0.00082	0.00928	0.00291	PASS
Extreme（40℃）		15.20	6.52	3.51	0.00808	0.00347	0.00187	PASS
Extreme（30℃）		9.14	16.88	11.72	0.00486	0.00898	0.00623	PASS
Extreme（20℃）		8.73	2.03	17.84	0.00465	0.00108	0.00949	PASS
Extreme（10℃）		4.90	7.80	7.92	0.00260	0.00415	0.00421	PASS
Extreme（0℃）		3.11	5.57	12.79	0.00165	0.00296	0.00680	PASS
Extreme（-10℃）		5.45	10.41	8.10	0.00290	0.00554	0.00431	PASS
Extreme（-20℃）		17.88	15.83	5.80	0.00951	0.00842	0.00309	PASS
Extreme（-30℃）		11.96	10.00	2.58	0.00636	0.00532	0.00137	PASS
25℃	LV	5.57	9.92	1.41	0.00296	0.00527	0.00075	PASS
	HV	15.36	2.92	4.01	0.00817	0.00155	0.00213	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	10.36	16.17	2.39	0.00551	0.00860	0.00127	PASS
Extreme（50℃）		3.75	8.37	16.00	0.00199	0.00445	0.00851	PASS
Extreme（40℃）		4.61	9.22	17.65	0.00245	0.00490	0.00939	PASS
Extreme（30℃）		10.70	6.86	5.18	0.00569	0.00365	0.00275	PASS
Extreme（20℃）		11.65	15.41	9.66	0.00620	0.00820	0.00514	PASS
Extreme（10℃）		10.52	11.94	6.49	0.00560	0.00635	0.00345	PASS
Extreme（0℃）		17.39	7.12	6.64	0.00925	0.00379	0.00353	PASS
Extreme（-10℃）		16.71	1.52	10.72	0.00889	0.00081	0.00570	PASS
Extreme（-20℃）		9.14	10.78	8.16	0.00486	0.00573	0.00434	PASS
Extreme（-30℃）		11.77	1.81	16.60	0.00626	0.00096	0.00883	PASS
25℃	LV	9.43	10.03	2.63	0.00501	0.00533	0.00140	PASS
	HV	1.79	10.32	6.50	0.00095	0.00549	0.00346	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	16.45	17.78	16.19	0.00875	0.00946	0.00861	PASS
Extreme（50℃）		15.65	1.70	16.59	0.00832	0.00091	0.00883	PASS
Extreme（40℃）		5.07	7.49	5.82	0.00270	0.00399	0.00309	PASS
Extreme（30℃）		17.85	8.48	8.58	0.00950	0.00451	0.00456	PASS
Extreme（20℃）		5.33	16.29	17.02	0.00283	0.00866	0.00905	PASS
Extreme（10℃）		11.27	16.30	1.29	0.00600	0.00867	0.00069	PASS
Extreme（0℃）		8.58	6.54	15.34	0.00456	0.00348	0.00816	PASS
Extreme（-10℃）		4.83	11.61	12.74	0.00257	0.00617	0.00677	PASS
Extreme（-20℃）		4.18	10.65	16.16	0.00222	0.00566	0.00860	PASS
Extreme（-30℃）		9.37	10.53	4.93	0.00499	0.00560	0.00262	PASS
25℃	LV	7.60	3.44	11.64	0.00404	0.00183	0.00619	PASS

	HV	11.36	7.13	9.28	0.00604	0.00379	0.00493	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	4.45	2.53	7.54	0.00237	0.00135	0.00401	PASS
Extreme（50℃）		11.78	3.12	8.75	0.00627	0.00166	0.00466	PASS
Extreme（40℃）		7.83	8.59	17.75	0.00416	0.00457	0.00944	PASS
Extreme（30℃）		13.86	15.26	15.65	0.00737	0.00812	0.00832	PASS
Extreme（20℃）		2.60	15.40	6.02	0.00138	0.00819	0.00320	PASS
Extreme（10℃）		15.85	8.40	9.63	0.00843	0.00447	0.00512	PASS
Extreme（0℃）		1.91	17.71	2.26	0.00102	0.00942	0.00120	PASS
Extreme（-10℃）		13.94	7.31	14.85	0.00742	0.00389	0.00790	PASS
Extreme（-20℃）		10.27	10.45	15.09	0.00546	0.00556	0.00803	PASS
Extreme（-30℃）		7.95	17.95	17.05	0.00423	0.00955	0.00907	PASS
25℃	LV	12.91	11.57	3.16	0.00687	0.00615	0.00168	PASS
	HV	7.37	14.94	9.52	0.00392	0.00795	0.00506	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	1.39	11.98	12.16	0.00074	0.00637	0.00647	PASS
Extreme（50℃）		10.87	4.83	8.41	0.00578	0.00257	0.00448	PASS
Extreme（40℃）		1.34	15.82	7.76	0.00071	0.00841	0.00413	PASS
Extreme（30℃）		16.93	17.40	15.23	0.00901	0.00925	0.00810	PASS
Extreme（20℃）		15.49	17.62	5.24	0.00824	0.00937	0.00279	PASS
Extreme（10℃）		16.49	11.17	5.53	0.00877	0.00594	0.00294	PASS
Extreme（0℃）		8.87	3.43	13.08	0.00472	0.00183	0.00696	PASS
Extreme（-10℃）		14.79	13.60	7.50	0.00787	0.00723	0.00399	PASS
Extreme（-20℃）		16.55	10.55	13.40	0.00881	0.00561	0.00713	PASS
Extreme（-30℃）		5.70	11.52	3.87	0.00303	0.00613	0.00206	PASS
25℃	LV	12.51	13.06	15.96	0.00665	0.00695	0.00849	PASS
	HV	15.03	3.32	8.82	0.00799	0.00176	0.00469	PASS

LTE Band7								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	14.26	3.79	16.63	0.00759	0.00202	0.00885	PASS
Extreme（50℃）		6.04	2.99	16.86	0.00322	0.00159	0.00897	PASS
Extreme（40℃）		14.68	13.02	9.01	0.00781	0.00693	0.00479	PASS

Extreme（30℃）		4.72	14.80	1.38	0.00251	0.00787	0.00073	PASS
Extreme（20℃）		7.73	11.14	15.44	0.00411	0.00593	0.00822	PASS
Extreme（10℃）		13.81	4.39	6.57	0.00734	0.00234	0.00349	PASS
Extreme（0℃）		2.93	12.81	16.95	0.00156	0.00682	0.00902	PASS
Extreme（-10℃）		14.22	8.31	2.47	0.00756	0.00442	0.00131	PASS
Extreme（-20℃）		10.87	17.21	3.57	0.00578	0.00916	0.00190	PASS
Extreme（-30℃）		5.75	3.89	2.72	0.00306	0.00207	0.00144	PASS
25℃	LV	16.57	3.12	15.43	0.00881	0.00166	0.00821	PASS
	HV	6.55	9.22	17.66	0.00348	0.00490	0.00939	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	16.52	17.23	4.00	0.00879	0.00916	0.00213	PASS
Extreme（50℃）		3.28	2.05	14.81	0.00175	0.00109	0.00788	PASS
Extreme（40℃）		11.29	2.91	5.60	0.00600	0.00155	0.00298	PASS
Extreme（30℃）		8.81	2.00	7.14	0.00469	0.00106	0.00380	PASS
Extreme（20℃）		5.12	4.68	9.16	0.00273	0.00249	0.00487	PASS
Extreme（10℃）		6.25	5.69	5.95	0.00332	0.00303	0.00316	PASS
Extreme（0℃）		10.14	5.61	2.97	0.00539	0.00298	0.00158	PASS
Extreme（-10℃）		9.26	13.27	15.47	0.00493	0.00706	0.00823	PASS
Extreme（-20℃）		3.39	10.49	2.32	0.00180	0.00558	0.00123	PASS
Extreme（-30℃）		12.94	15.75	17.63	0.00688	0.00838	0.00938	PASS
25℃	LV	16.73	12.82	16.82	0.00890	0.00682	0.00895	PASS
	HV	16.06	7.40	13.60	0.00854	0.00394	0.00723	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	3.09	12.81	9.37	0.00164	0.00681	0.00498	PASS
Extreme（50℃）		8.54	11.75	8.76	0.00455	0.00625	0.00466	PASS
Extreme（40℃）		13.69	10.87	12.61	0.00728	0.00578	0.00671	PASS
Extreme（30℃）		16.63	9.30	17.98	0.00885	0.00495	0.00957	PASS
Extreme（20℃）		7.58	14.28	17.52	0.00403	0.00760	0.00932	PASS
Extreme（10℃）		16.24	3.09	16.65	0.00864	0.00165	0.00885	PASS
Extreme（0℃）		9.85	15.61	11.52	0.00524	0.00830	0.00613	PASS
Extreme（-10℃）		2.23	12.34	17.42	0.00119	0.00656	0.00926	PASS
Extreme（-20℃）		7.85	13.32	13.95	0.00417	0.00708	0.00742	PASS
Extreme（-30℃）		6.53	9.93	9.78	0.00347	0.00528	0.00520	PASS
25℃	LV	2.64	7.55	16.54	0.00141	0.00401	0.00880	PASS
	HV	11.58	17.16	9.13	0.00616	0.00913	0.00486	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability	Frequency Stability	Frequency Stability	Verdict

BANDWIDTH	20MHz				（ppm）	（ppm）	（ppm）	
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	14.07	14.96	13.00	0.00748	0.00796	0.00692	PASS
Extreme（50℃）		16.08	13.35	6.24	0.00855	0.00710	0.00332	PASS
Extreme（40℃）		10.59	7.65	3.75	0.00563	0.00407	0.00200	PASS
Extreme（30℃）		7.52	11.56	6.27	0.00400	0.00615	0.00334	PASS
Extreme（20℃）		11.23	2.31	10.49	0.00598	0.00123	0.00558	PASS
Extreme（10℃）		10.72	1.56	12.30	0.00570	0.00083	0.00654	PASS
Extreme（0℃）		7.94	3.59	1.23	0.00422	0.00191	0.00065	PASS
Extreme（-10℃）		14.99	4.14	10.25	0.00797	0.00220	0.00545	PASS
Extreme（-20℃）		13.78	9.34	12.33	0.00733	0.00497	0.00656	PASS
Extreme（-30℃）		5.97	17.35	5.68	0.00318	0.00923	0.00302	PASS
25℃	LV	3.86	4.06	3.31	0.00205	0.00216	0.00176	PASS
	HV	15.35	4.84	13.06	0.00816	0.00257	0.00695	PASS

LTE Band38								
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	5MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	10.07	5.51	15.09	0.00536	0.00293	0.00803	PASS
Extreme（50℃）		1.36	13.20	1.68	0.00072	0.00702	0.00089	PASS
Extreme（40℃）		12.90	4.54	5.30	0.00686	0.00241	0.00282	PASS
Extreme（30℃）		1.92	1.64	3.53	0.00102	0.00087	0.00188	PASS
Extreme（20℃）		10.96	7.54	5.41	0.00583	0.00401	0.00288	PASS
Extreme（10℃）		5.86	2.93	6.26	0.00311	0.00156	0.00333	PASS
Extreme（0℃）		16.39	15.37	3.66	0.00872	0.00817	0.00195	PASS
Extreme（-10℃）		11.27	16.24	1.22	0.00600	0.00864	0.00065	PASS
Extreme（-20℃）		2.90	10.49	10.96	0.00154	0.00558	0.00583	PASS
Extreme（-30℃）		10.89	9.33	9.15	0.00579	0.00496	0.00487	PASS
25℃	LV	14.26	17.05	10.48	0.00758	0.00907	0.00557	PASS
	HV	16.66	13.55	9.73	0.00886	0.00721	0.00518	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	10.05	10.14	9.78	0.00535	0.00539	0.00520	PASS
Extreme（50℃）		1.61	12.95	15.50	0.00085	0.00689	0.00825	PASS
Extreme（40℃）		3.85	17.26	17.33	0.00205	0.00918	0.00922	PASS
Extreme（30℃）		15.06	16.14	16.56	0.00801	0.00859	0.00881	PASS
Extreme（20℃）		2.67	2.10	10.96	0.00142	0.00112	0.00583	PASS
Extreme（10℃）		2.05	4.22	2.97	0.00109	0.00225	0.00158	PASS

Extreme（0℃）		6.21	5.28	11.28	0.00330	0.00281	0.00600	PASS
Extreme（-10℃）		10.20	7.71	7.41	0.00543	0.00410	0.00394	PASS
Extreme（-20℃）		16.90	15.91	4.27	0.00899	0.00846	0.00227	PASS
Extreme（-30℃）		17.98	10.18	7.79	0.00956	0.00541	0.00415	PASS
25℃	LV	1.39	7.74	8.19	0.00074	0.00412	0.00436	PASS
	HV	9.79	5.68	1.61	0.00521	0.00302	0.00086	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability（ppm）	Frequency Stability（ppm）	Frequency Stability（ppm）	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	12.81	7.45	1.64	0.00681	0.00396	0.00087	PASS
Extreme（50℃）		6.18	2.78	17.17	0.00329	0.00148	0.00913	PASS
Extreme（40℃）		4.32	4.12	15.71	0.00230	0.00219	0.00836	PASS
Extreme（30℃）		17.38	1.87	11.84	0.00924	0.00099	0.00630	PASS
Extreme（20℃）		9.05	11.93	1.73	0.00481	0.00634	0.00092	PASS
Extreme（10℃）		9.99	4.12	14.89	0.00531	0.00219	0.00792	PASS
Extreme（0℃）		14.61	12.50	11.44	0.00777	0.00665	0.00609	PASS
Extreme（-10℃）		4.86	10.49	2.95	0.00259	0.00558	0.00157	PASS
Extreme（-20℃）		11.41	5.02	4.12	0.00607	0.00267	0.00219	PASS
Extreme（-30℃）		16.42	11.51	10.50	0.00874	0.00612	0.00558	PASS
25℃	LV	9.01	10.60	2.55	0.00479	0.00564	0.00136	PASS
	HV	1.37	2.82	7.44	0.00073	0.00150	0.00396	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability（ppm）	Frequency Stability（ppm）	Frequency Stability（ppm）	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	16.44	15.61	10.42	0.00875	0.00830	0.00554	PASS
Extreme（50℃）		9.93	4.10	7.45	0.00528	0.00218	0.00396	PASS
Extreme（40℃）		11.71	15.82	2.92	0.00623	0.00841	0.00156	PASS
Extreme（30℃）		7.53	17.18	6.41	0.00401	0.00914	0.00341	PASS
Extreme（20℃）		1.43	12.00	16.00	0.00076	0.00638	0.00851	PASS
Extreme（10℃）		17.81	11.78	16.38	0.00948	0.00626	0.00871	PASS
Extreme（0℃）		2.64	11.84	9.21	0.00140	0.00630	0.00490	PASS
Extreme（-10℃）		1.59	4.75	13.92	0.00084	0.00253	0.00740	PASS
Extreme（-20℃）		10.37	15.40	3.26	0.00552	0.00819	0.00174	PASS
Extreme（-30℃）		7.45	17.21	17.34	0.00396	0.00915	0.00922	PASS
25℃	LV	17.13	1.62	12.70	0.00911	0.00086	0.00675	PASS
	HV	14.03	8.04	13.44	0.00746	0.00428	0.00715	PASS

LTE Band41							
Condition	Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability	Frequency Stability	Frequency Stability	Verdict

BANDWIDTH	5MHz				（ppm）	（ppm）	（ppm）	
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	6.89	2.68	8.05	0.00367	0.00142	0.00428	PASS
Extreme（50℃）		9.49	6.21	10.41	0.00505	0.00330	0.00554	PASS
Extreme（40℃）		12.49	2.08	9.05	0.00664	0.00110	0.00481	PASS
Extreme（30℃）		10.52	16.73	16.15	0.00560	0.00890	0.00859	PASS
Extreme（20℃）		9.80	17.57	2.43	0.00521	0.00935	0.00129	PASS
Extreme（10℃）		9.80	6.73	12.69	0.00521	0.00358	0.00675	PASS
Extreme（0℃）		15.16	10.68	12.82	0.00806	0.00568	0.00682	PASS
Extreme（-10℃）		12.09	3.71	7.89	0.00643	0.00197	0.00420	PASS
Extreme（-20℃）		15.32	16.48	7.58	0.00815	0.00877	0.00403	PASS
Extreme（-30℃）		12.71	12.81	10.84	0.00676	0.00681	0.00577	PASS
25℃	LV	14.21	4.37	4.67	0.00756	0.00232	0.00249	PASS
	HV	4.99	12.65	2.64	0.00265	0.00673	0.00140	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	10MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	13.15	7.07	14.87	0.00699	0.00376	0.00791	PASS
Extreme（50℃）		17.51	12.98	3.67	0.00931	0.00690	0.00195	PASS
Extreme（40℃）		7.92	12.41	4.01	0.00421	0.00660	0.00213	PASS
Extreme（30℃）		12.68	10.30	9.00	0.00675	0.00548	0.00478	PASS
Extreme（20℃）		15.97	2.98	7.12	0.00849	0.00158	0.00379	PASS
Extreme（10℃）		10.88	15.69	3.62	0.00579	0.00835	0.00193	PASS
Extreme（0℃）		13.35	12.32	3.23	0.00710	0.00655	0.00172	PASS
Extreme（-10℃）		14.02	8.41	5.60	0.00746	0.00447	0.00298	PASS
Extreme（-20℃）		2.08	14.14	15.07	0.00111	0.00752	0.00801	PASS
Extreme（-30℃）		1.02	4.11	7.77	0.00054	0.00219	0.00413	PASS
25℃	LV	9.40	8.51	12.17	0.00500	0.00453	0.00647	PASS
	HV	15.93	7.55	3.09	0.00847	0.00402	0.00164	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability （ppm）	Frequency Stability （ppm）	Frequency Stability （ppm）	Verdict
BANDWIDTH	15MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	14.16	7.24	11.52	0.00753	0.00385	0.00613	PASS
Extreme（50℃）		12.91	17.53	16.76	0.00687	0.00933	0.00891	PASS
Extreme（40℃）		9.92	6.23	14.28	0.00528	0.00331	0.00759	PASS
Extreme（30℃）		5.29	4.19	12.36	0.00281	0.00223	0.00657	PASS
Extreme（20℃）		3.60	11.25	7.42	0.00192	0.00598	0.00395	PASS
Extreme（10℃）		7.43	5.01	14.60	0.00395	0.00267	0.00777	PASS
Extreme（0℃）		9.41	17.04	7.29	0.00501	0.00906	0.00388	PASS
Extreme（-10℃）		2.75	1.36	7.04	0.00146	0.00072	0.00374	PASS
Extreme（-20℃）		17.59	12.43	11.95	0.00936	0.00661	0.00636	PASS

Extreme（-30℃）		7.24	12.24	2.67	0.00385	0.00651	0.00142	PASS
25℃	LV	9.41	17.94	13.16	0.00501	0.00954	0.00700	PASS
	HV	8.37	2.74	4.96	0.00445	0.00146	0.00264	PASS
Condition		Freq.Error (Hz)	Freq.Error (Hz)	Freq.Error (Hz)	Frequency Stability（ppm）	Frequency Stability（ppm）	Frequency Stability（ppm）	Verdict
BANDWIDTH	20MHz							
Temperature	Voltage	64QAM	16QAM	QPSK	64QAM	16QAM	QPSK	
Normal（25℃）	Normal	9.85	13.43	12.90	0.00524	0.00714	0.00686	PASS
Extreme（50℃）		15.21	13.88	15.27	0.00809	0.00738	0.00812	PASS
Extreme（40℃）		15.66	17.03	5.52	0.00833	0.00906	0.00294	PASS
Extreme（30℃）		4.90	8.05	6.85	0.00260	0.00428	0.00365	PASS
Extreme（20℃）		16.32	1.17	13.98	0.00868	0.00062	0.00743	PASS
Extreme（10℃）		15.89	16.03	7.57	0.00845	0.00853	0.00403	PASS
Extreme（0℃）		10.65	9.34	14.96	0.00566	0.00497	0.00796	PASS
Extreme（-10℃）		12.57	3.06	2.80	0.00668	0.00163	0.00149	PASS
Extreme（-20℃）		8.85	5.22	17.23	0.00471	0.00278	0.00917	PASS
Extreme（-30℃）		12.52	10.89	10.58	0.00666	0.00579	0.00563	PASS
25℃	LV	9.45	15.27	12.12	0.00503	0.00812	0.00645	PASS
	HV	12.56	16.48	10.31	0.00668	0.00876	0.00549	PASS

CA_38C_QPSK		15MHz+15MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	10.38	0.00552	1.71	0.00091	PASS
Extreme（50℃）		4.62	0.00246	3.74	0.00199	PASS
Extreme（40℃）		1.52	0.00081	8.01	0.00426	PASS
Extreme（30℃）		2.25	0.00120	13.57	0.00722	PASS
Extreme（20℃）		8.92	0.00474	5.90	0.00314	PASS
Extreme（10℃）		1.72	0.00091	14.42	0.00767	PASS
Extreme（0℃）		7.58	0.00403	15.32	0.00815	PASS
Extreme（-10℃）		11.70	0.00622	1.03	0.00055	PASS
Extreme（-20℃）		5.85	0.00311	17.36	0.00923	PASS
Extreme（-30℃）		17.77	0.00945	4.29	0.00228	PASS
25℃	LV	4.93	0.00262	12.31	0.00655	PASS
	HV	5.71	0.00304	10.11	0.00538	PASS
CA_38C_16QAM		15MHz+15MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability	Delta (Hz)	Frequency Stability	
Temperature	Voltage					

			(ppm)		(ppm)	
Normal（25℃）	Normal	6.58	0.00350	1.63	0.00087	PASS
Extreme（50℃）		4.71	0.00250	5.81	0.00309	PASS
Extreme（40℃）		10.12	0.00539	7.27	0.00387	PASS
Extreme（30℃）		17.61	0.00937	1.68	0.00089	PASS
Extreme（20℃）		10.08	0.00536	7.72	0.00411	PASS
Extreme（10℃）		10.27	0.00546	5.85	0.00311	PASS
Extreme（0℃）		16.95	0.00902	10.04	0.00534	PASS
Extreme（-10℃）		5.90	0.00314	6.31	0.00336	PASS
Extreme（-20℃）		3.50	0.00186	12.08	0.00643	PASS
Extreme（-30℃）		4.13	0.00220	5.80	0.00309	PASS
25℃	LV	15.72	0.00836	16.68	0.00887	PASS
	HV	16.47	0.00876	5.32	0.00283	PASS
CA_38C_64QAM		15MHz+15MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	16.91	0.00899	13.75	0.00731	PASS
Extreme（50℃）		13.01	0.00692	7.98	0.00425	PASS
Extreme（40℃）		11.02	0.00586	12.16	0.00647	PASS
Extreme（30℃）		10.64	0.00566	3.49	0.00186	PASS
Extreme（20℃）		7.49	0.00398	8.81	0.00469	PASS
Extreme（10℃）		8.49	0.00452	14.74	0.00784	PASS
Extreme（0℃）		12.26	0.00652	10.71	0.00570	PASS
Extreme（-10℃）		8.19	0.00436	5.97	0.00318	PASS
Extreme（-20℃）		14.29	0.00760	12.01	0.00639	PASS
Extreme（-30℃）		5.93	0.00316	10.64	0.00566	PASS
25℃	LV	8.46	0.00450	17.30	0.00920	PASS
	HV	13.45	0.00715	3.66	0.00195	PASS

CA_41C_QPSK		20MHz+10MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	15.09	0.00802	17.75	0.00944	PASS
Extreme（50℃）		2.83	0.00150	10.56	0.00562	PASS
Extreme（40℃）		8.54	0.00454	16.42	0.00873	PASS
Extreme（30℃）		1.18	0.00063	2.37	0.00126	PASS
Extreme（20℃）		1.63	0.00086	9.17	0.00488	PASS

Extreme（10℃）		13.43	0.00714	2.72	0.00144	PASS
Extreme（0℃）		9.81	0.00522	11.18	0.00595	PASS
Extreme（-10℃）		1.86	0.00099	15.94	0.00848	PASS
Extreme（-20℃）		6.37	0.00339	5.62	0.00299	PASS
Extreme（-30℃）		8.57	0.00456	3.18	0.00169	PASS
25℃	LV	3.92	0.00209	13.92	0.00741	PASS
	HV	9.70	0.00516	1.82	0.00097	PASS
CA_41C_16QAM		20MHz+10MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	13.01	0.00692	8.22	0.00437	PASS
Extreme（50℃）		12.99	0.00691	9.28	0.00494	PASS
Extreme（40℃）		9.57	0.00509	11.11	0.00591	PASS
Extreme（30℃）		7.71	0.00410	5.24	0.00279	PASS
Extreme（20℃）		4.50	0.00239	12.47	0.00663	PASS
Extreme（10℃）		1.14	0.00061	4.46	0.00237	PASS
Extreme（0℃）		6.77	0.00360	10.03	0.00533	PASS
Extreme（-10℃）		9.52	0.00507	7.13	0.00379	PASS
Extreme（-20℃）		14.00	0.00744	11.12	0.00591	PASS
Extreme（-30℃）		7.52	0.00400	9.35	0.00497	PASS
25℃	LV	4.06	0.00216	9.14	0.00486	PASS
	HV	5.90	0.00314	16.31	0.00868	PASS
CA_41C_64QAM		20MHz+10MHz (Bandwidth)		20MHz+20MHz (Bandwidth)		Verdict
Condition		Delta (Hz)	Frequency Stability (ppm)	Delta (Hz)	Frequency Stability (ppm)	
Temperature	Voltage					
Normal（25℃）	Normal	13.22	0.00703	17.42	0.00927	PASS
Extreme（50℃）		6.71	0.00357	5.17	0.00275	PASS
Extreme（40℃）		8.05	0.00428	14.28	0.00760	PASS
Extreme（30℃）		11.94	0.00635	15.45	0.00822	PASS
Extreme（20℃）		7.54	0.00401	6.22	0.00331	PASS
Extreme（10℃）		4.83	0.00257	16.77	0.00892	PASS
Extreme（0℃）		14.95	0.00795	16.99	0.00904	PASS
Extreme（-10℃）		3.82	0.00203	9.78	0.00520	PASS
Extreme（-20℃）		13.28	0.00706	3.78	0.00201	PASS
Extreme（-30℃）		9.42	0.00501	11.81	0.00628	PASS
25℃	LV	14.72	0.00783	7.83	0.00416	PASS
	HV	2.85	0.00152	8.70	0.00463	PASS

5.6 Spurious Emissions at Antenna Terminals

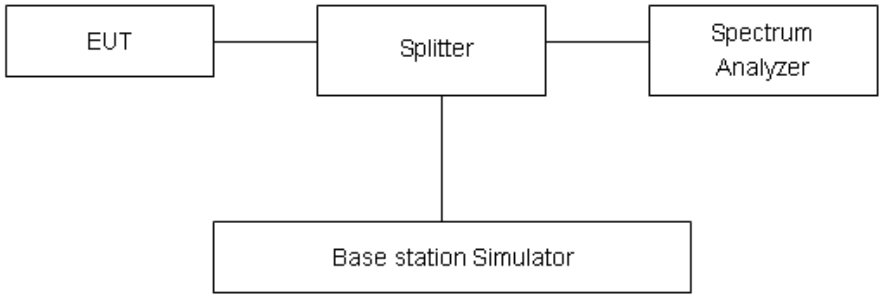
Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The measurement is carried out using a spectrum analyzer. The spectrum analyzer scans from 9kHz to the 10th harmonic of the carrier. The peak detector is used.
RBW is set to 1 kHz (0.009 MHz~0.15 MHz),
RBW is set to 10 kHz (0.15 MHz~30 MHz)
RBW is set to 100 kHz (30 MHz~1000 MHz)
RBW is set to 1000 kHz (above 1000 MHz)
Sweep is set to ATUO.
Of those disturbances below (limit – 20 dB), the mark is not required for the EUT.
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup



Limits

Rule Part 27.53(h) specifies that “for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB..”

Rule Part 27.53(m) 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section.

Part 27.53 (h) Limit	-13 dBm
Part 27.53(m) Limit	-25 dBm

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor *k* = 1.96.

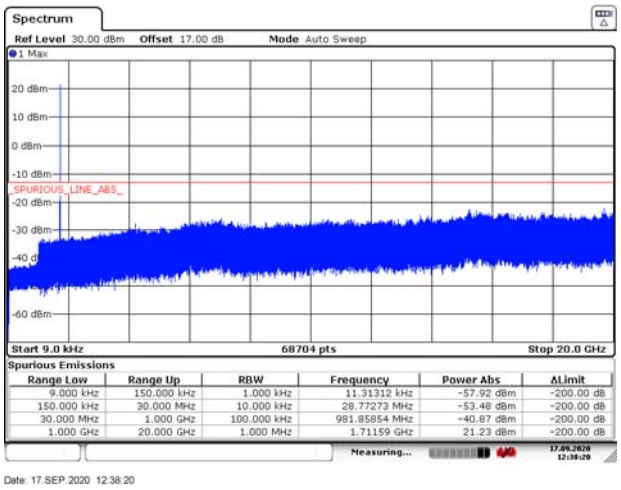
Frequency	Uncertainty
9kHz-1GHz	0.684 dB
1GHz-27GHz	1.407 dB

Test Result

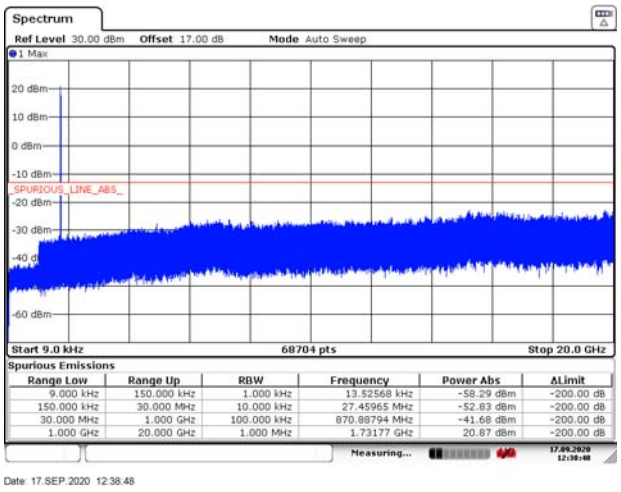
Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions more than 20 dB below the limit are not reported.

The signal beyond the limit is carrier.

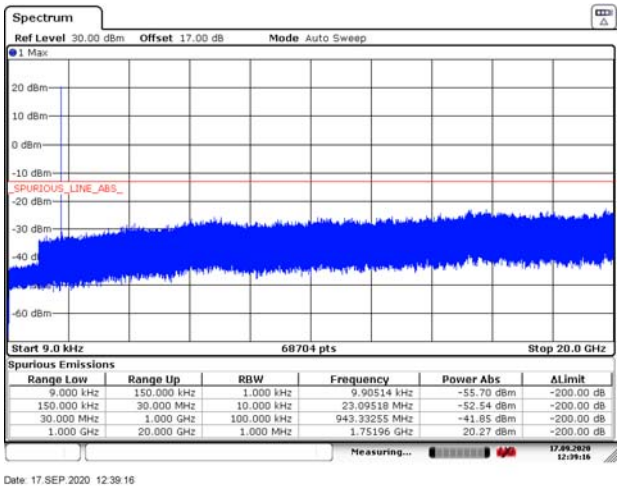
WCDMA Band IV CH-Low 9kHz~20GHz



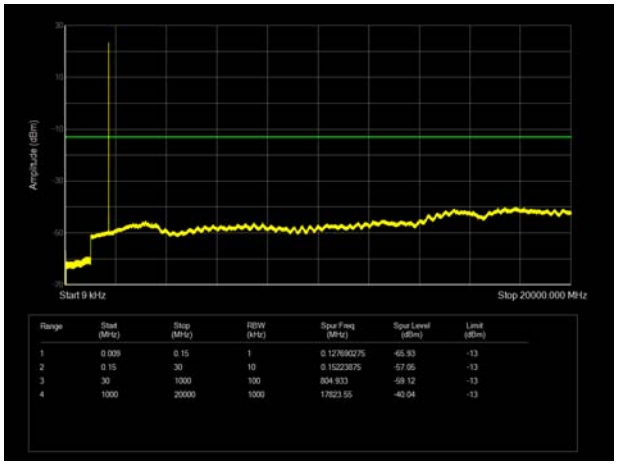
WCDMA Band IV CH-Middle 9kHz~20GHz



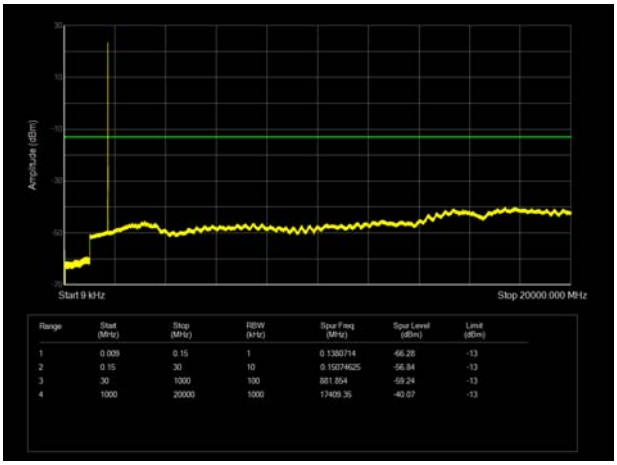
WCDMA Band IV CH-High 9kHz~20GHz



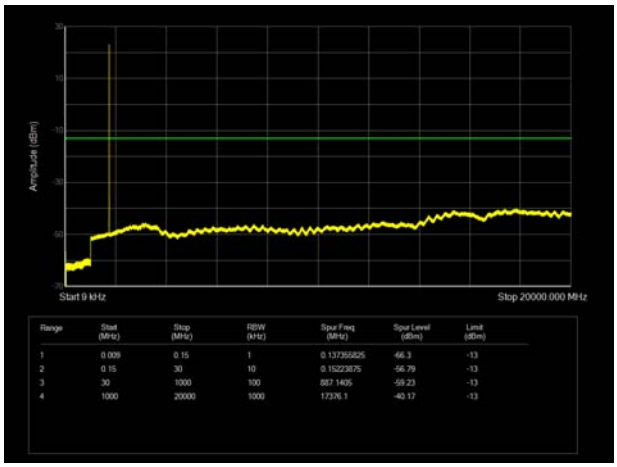
LTE Band 4 1.4MHz CH-Low 9kHz~20GHz



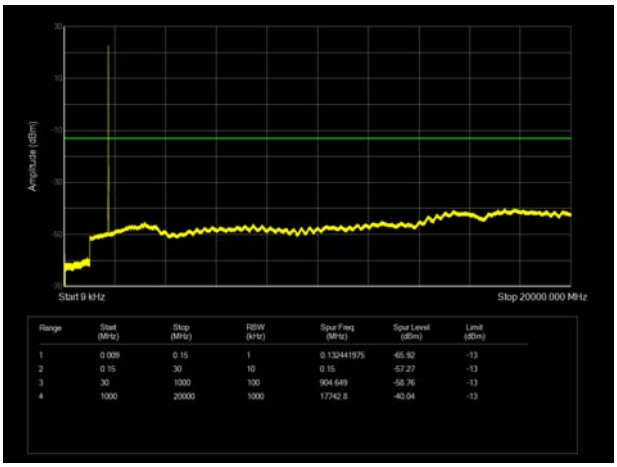
LTE Band 4 3MHz CH- Low 9kHz~20GHz



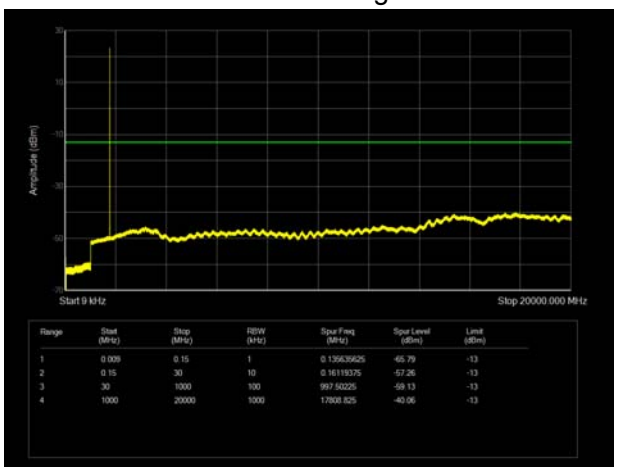
LTE Band 4 1.4MHz CH- Middle 9kHz~20GHz



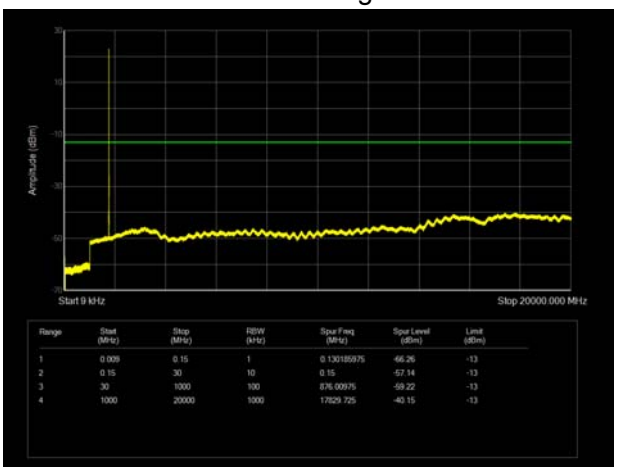
LTE Band 4 3MHz CH- Middle 9kHz~20GHz



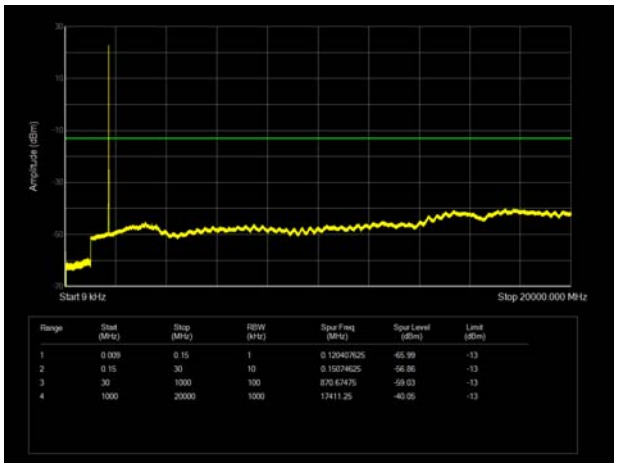
LTE Band 4 1.4MHz CH- High 9kHz~20GHz



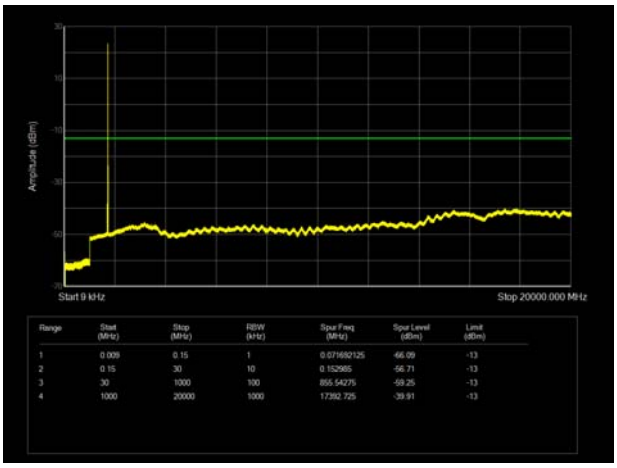
LTE Band 4 3MHz CH-High 9kHz~20GHz



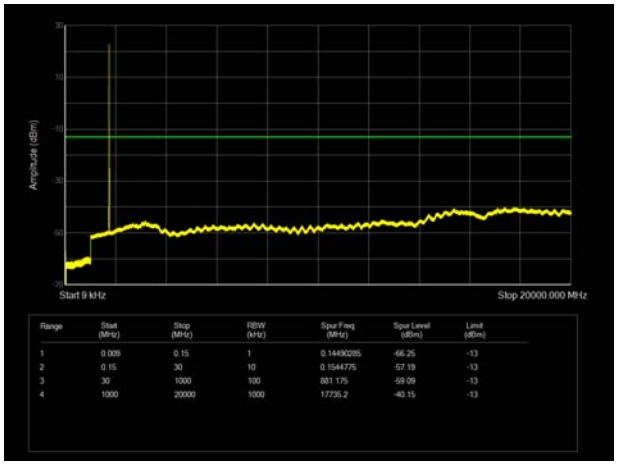
LTE Band 4 5MHz CH- Low 9kHz~20GHz



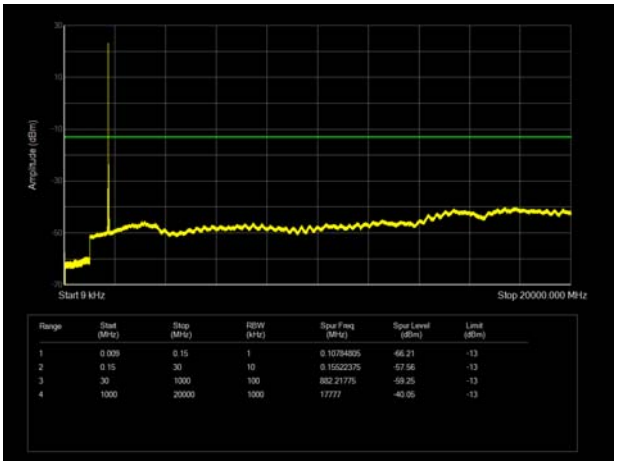
LTE Band 4 10MHz CH-Low 9kHz~20GHz



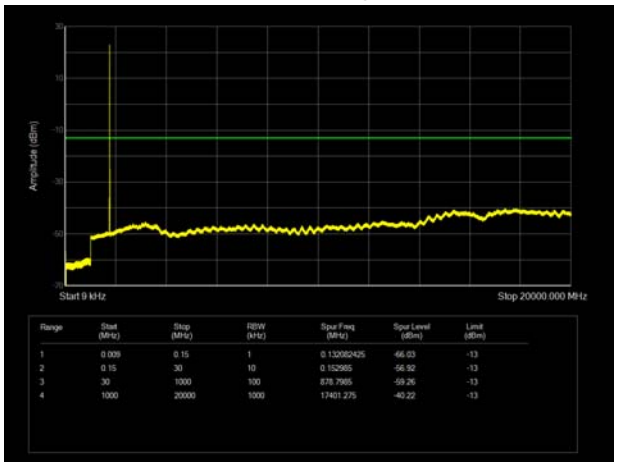
LTE Band 4 5MHz CH- Middle 9kHz~20GHz



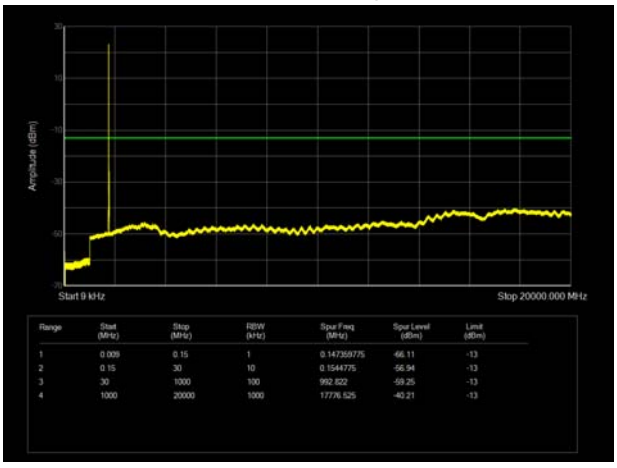
LTE Band 4 10MHz CH- Middle 9kHz~20GHz



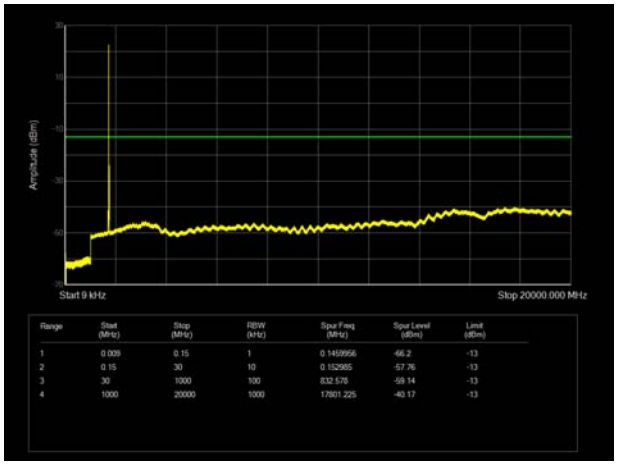
LTE Band 4 5MHz CH-High 9kHz~20GHz



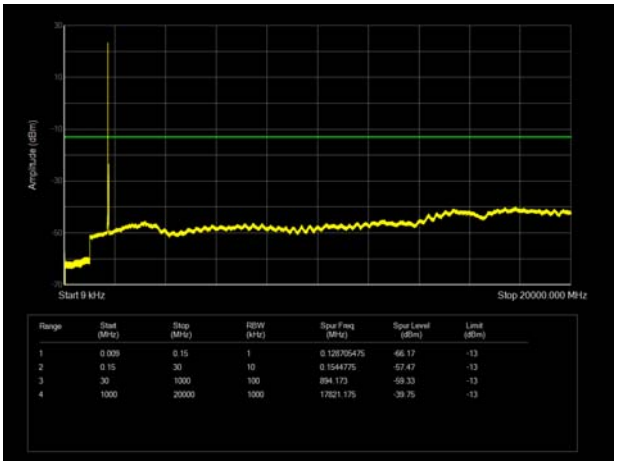
LTE Band 4 10MHz CH- High 9kHz~20GHz



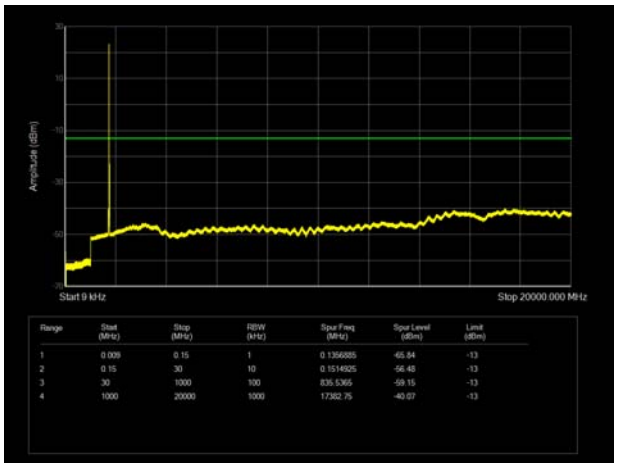
LTE Band 4 15MHz CH- Low 9kHz~20GHz



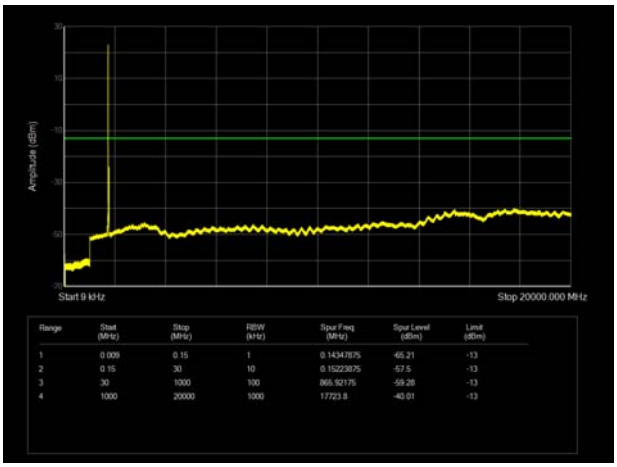
LTE Band 4 20MHz CH-Low 9kHz~20GHz



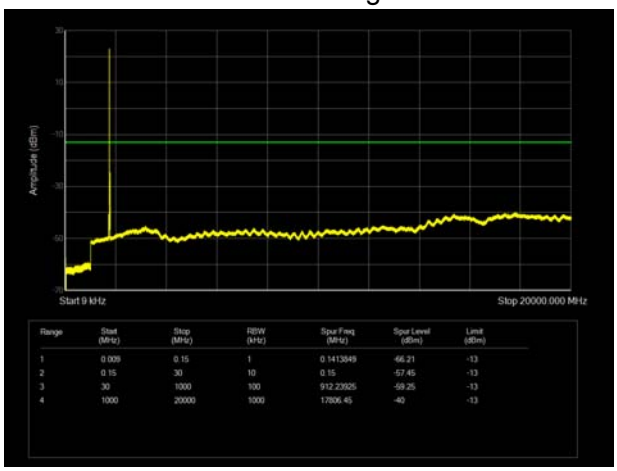
LTE Band 4 15MHz CH- Middle 9kHz~20GHz



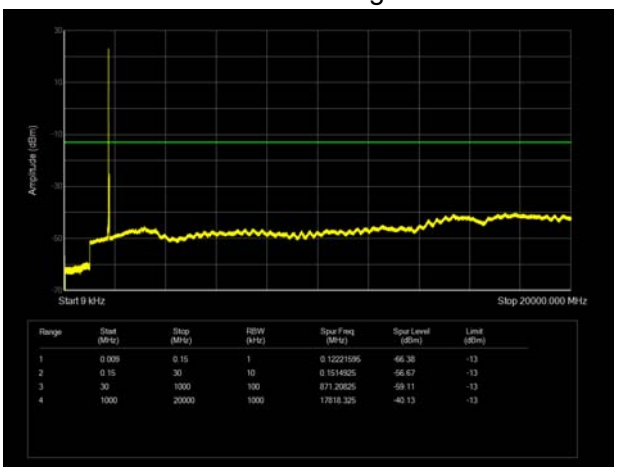
LTE Band 4 20MHz CH- Middle 9kHz~20GHz



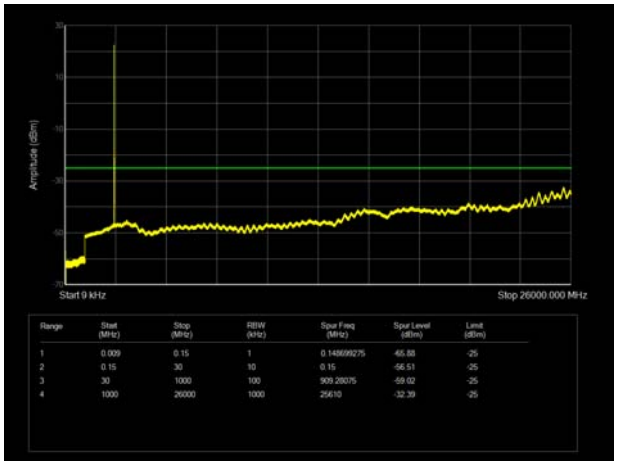
LTE Band 4 15MHz CH-High 9kHz~20GHz



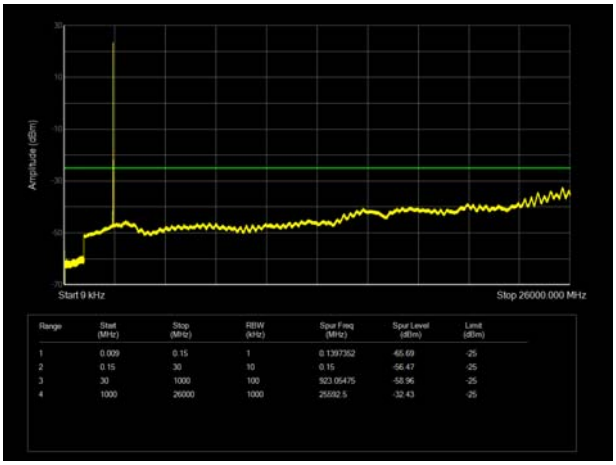
LTE Band 4 20MHz CH- High 9kHz~20GHz



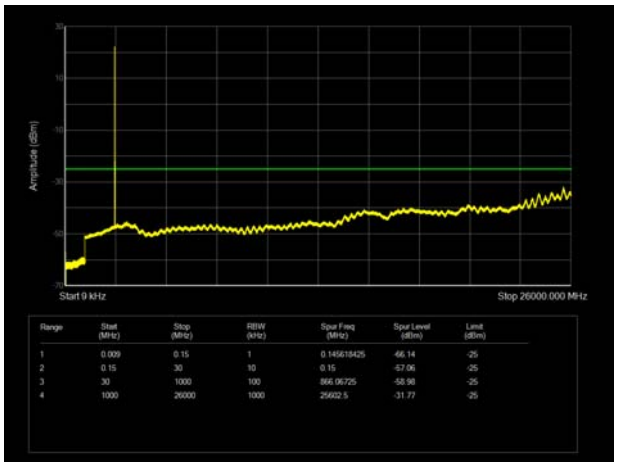
LTE Band 7 5MHz CH- Low 9kHz~26GHz



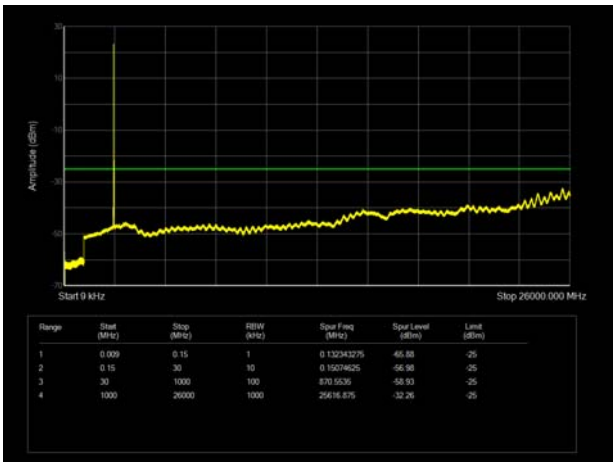
LTE Band 7 10MHz CH-Low 9kHz~26GHz



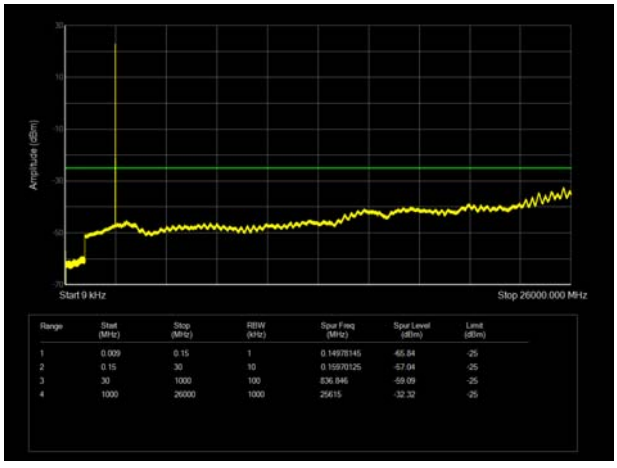
LTE Band 7 5MHz CH- Middle 9kHz~26GHz



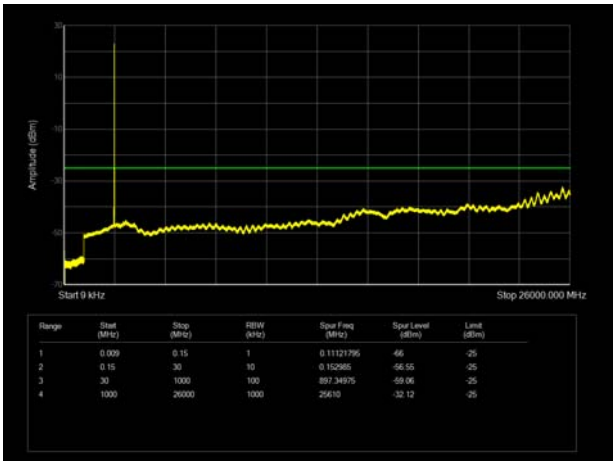
LTE Band 7 10MHz CH- Middle 9kHz~26GHz



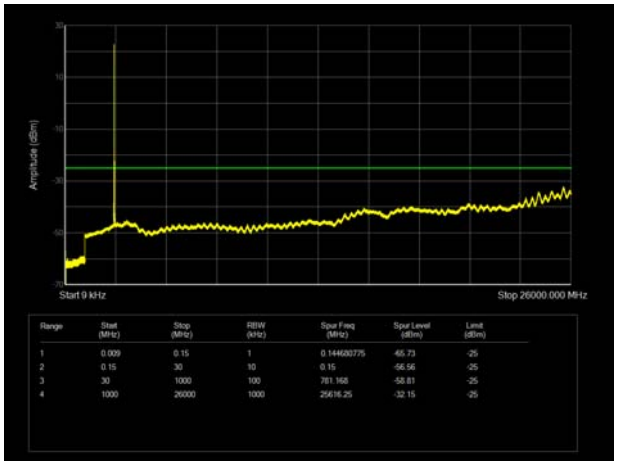
LTE Band 7 5MHz CH-High 9kHz~26GHz



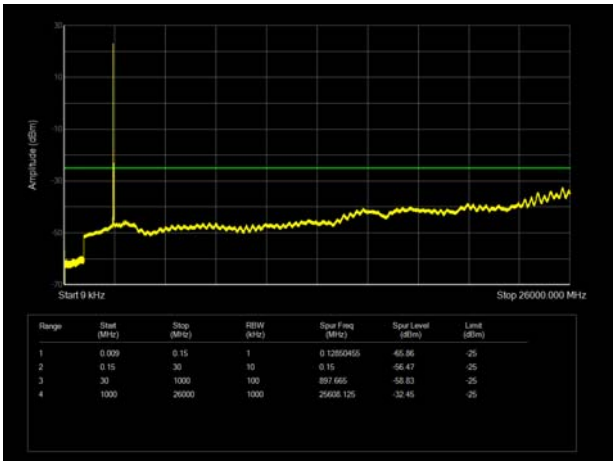
LTE Band 7 10MHz CH- High 9kHz~26GHz



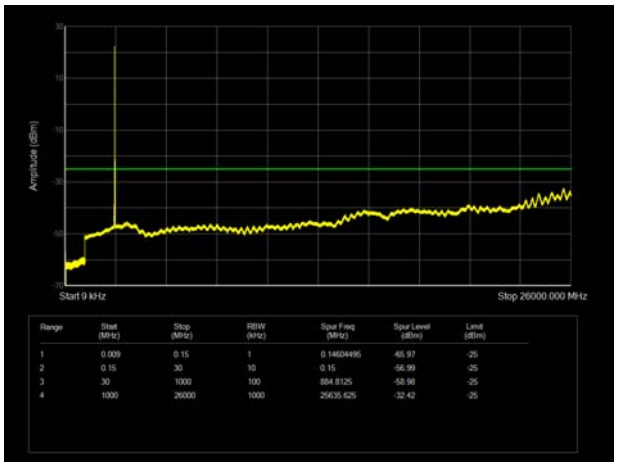
LTE Band 7 15MHz CH- Low 9kHz~26GHz



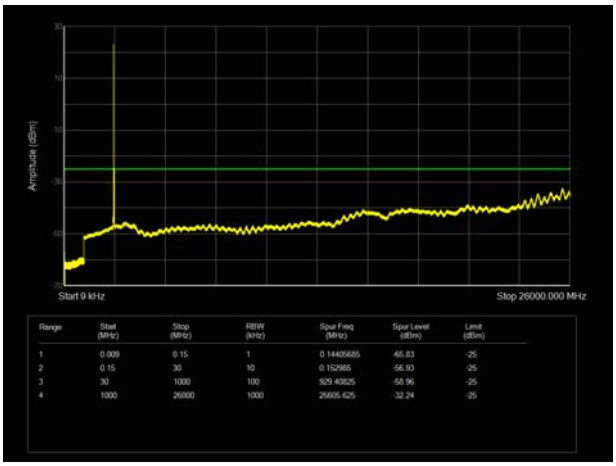
LTE Band 7 20MHz CH-Low 9kHz~26GHz



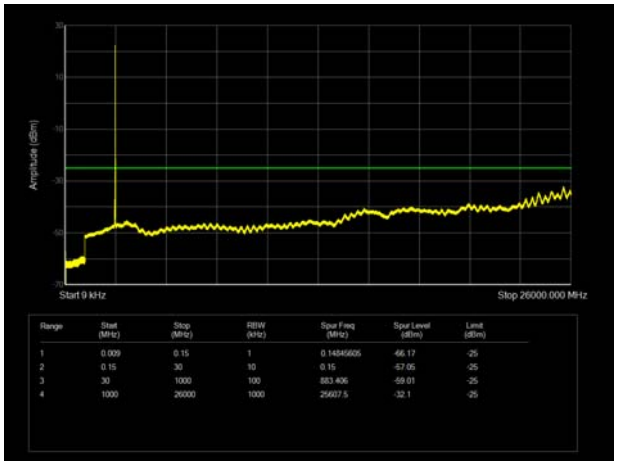
LTE Band 7 15MHz CH- Middle 9kHz~26GHz



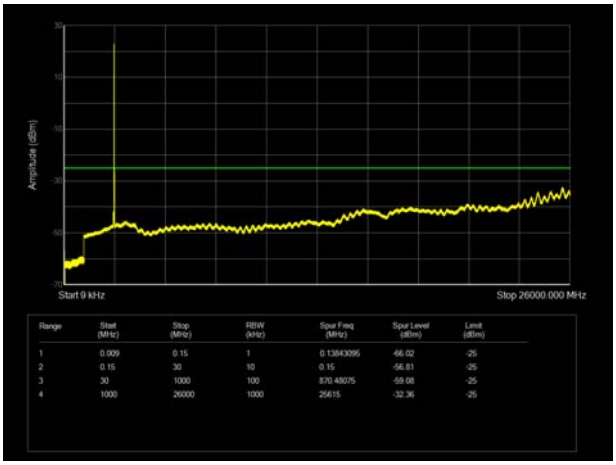
LTE Band 7 20MHz CH- Middle 9kHz~26GHz



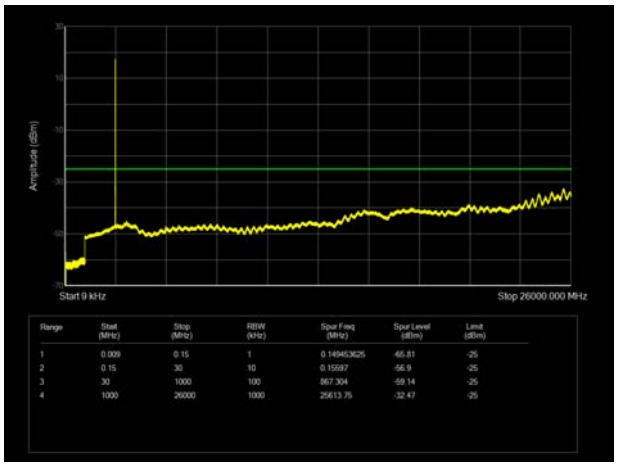
LTE Band 7 15MHz CH-High 9kHz~26GHz



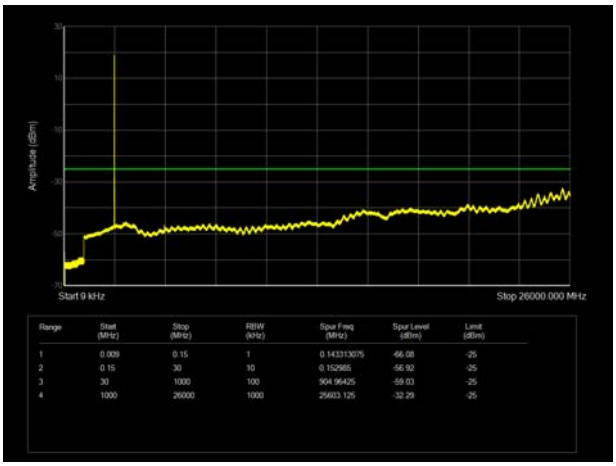
LTE Band 7 20MHz CH- High 9kHz~26GHz



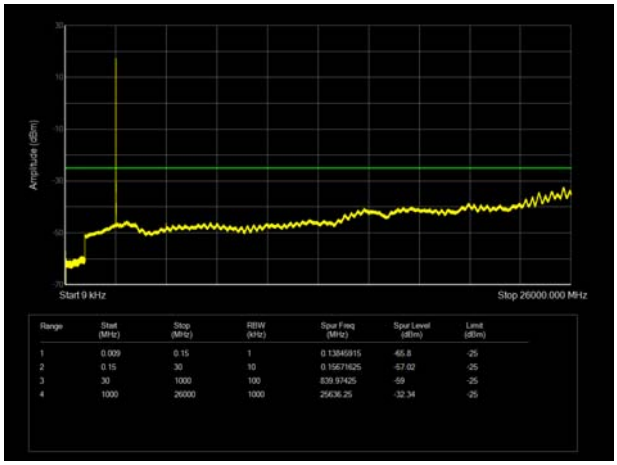
LTE Band 38 5MHz CH- Low 9kHz~26GHz



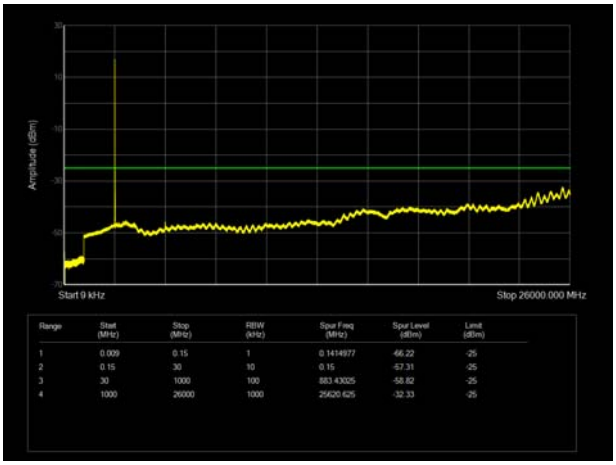
LTE Band 38 10MHz CH-Low 9kHz~26GHz



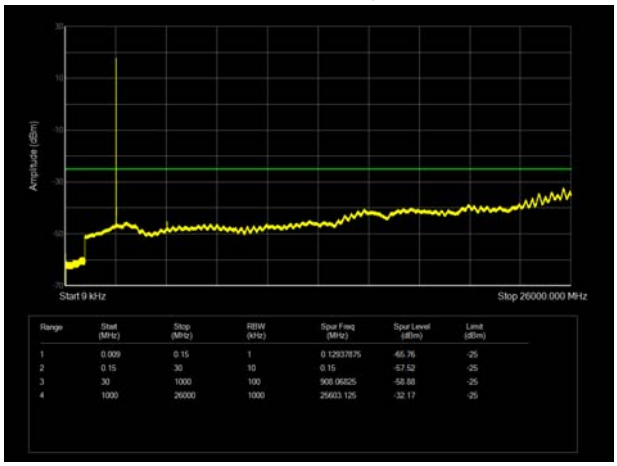
LTE Band 38 5MHz CH- Middle 9kHz~26GHz



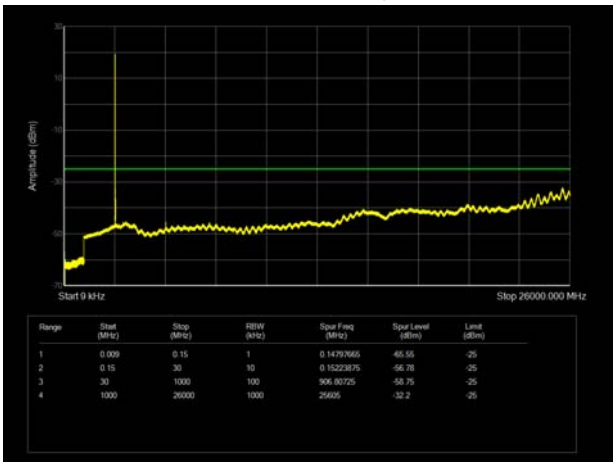
LTE Band 38 10MHz CH- Middle 9kHz~26GHz



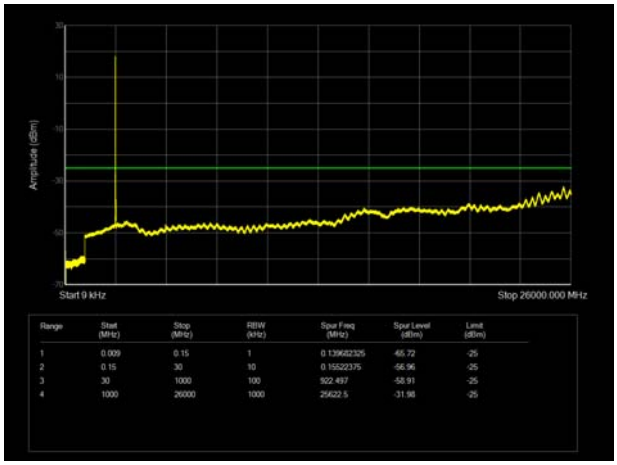
LTE Band 38 5MHz CH-High 9kHz~26GHz



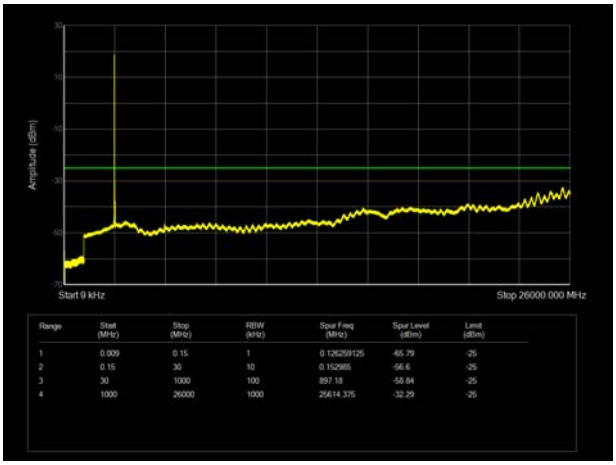
LTE Band 38 10MHz CH- High 9kHz~26GHz



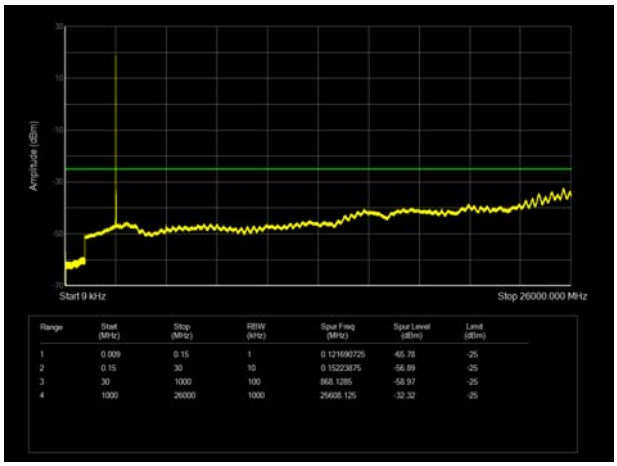
LTE Band 38 15MHz CH- Low 9kHz~26GHz



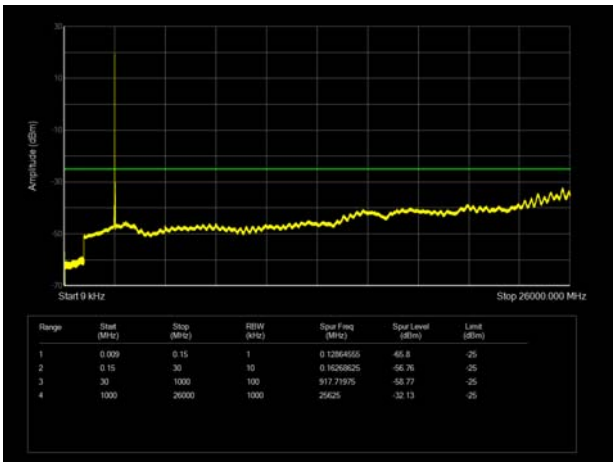
LTE Band 38 20MHz CH-Low 9kHz~26GHz



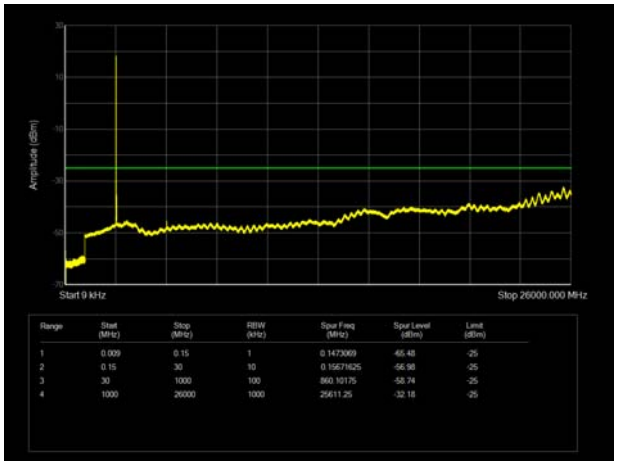
LTE Band 3815MHz CH- Middle 9kHz~26GHz



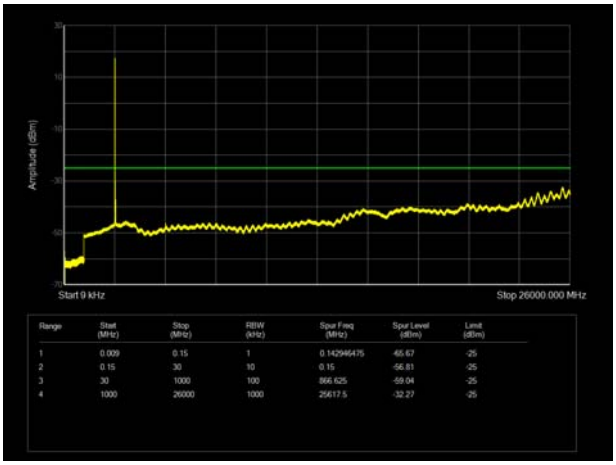
LTE Band 38 20MHz CH- Middle 9kHz~26GHz



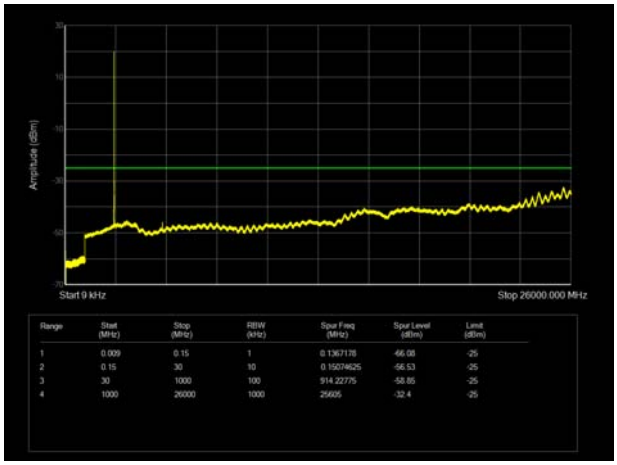
LTE Band 38 15MHz CH-High 9kHz~26GHz



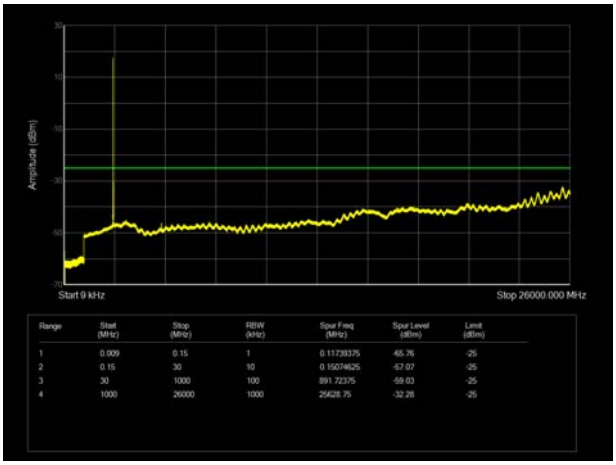
LTE Band 38 20MHz CH- High 9kHz~26GHz



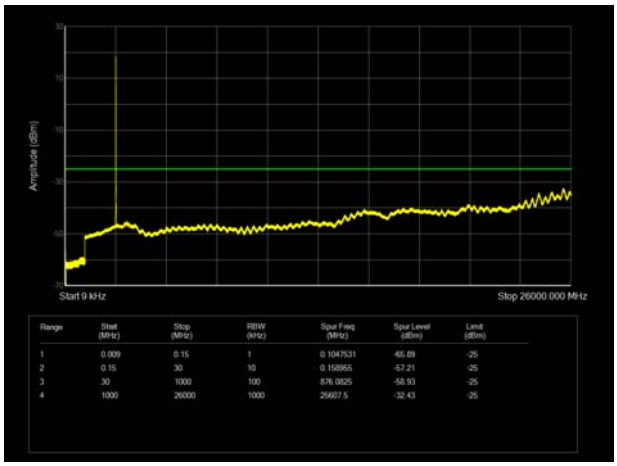
LTE Band 41 5MHz CH- Low 9kHz~26GHz



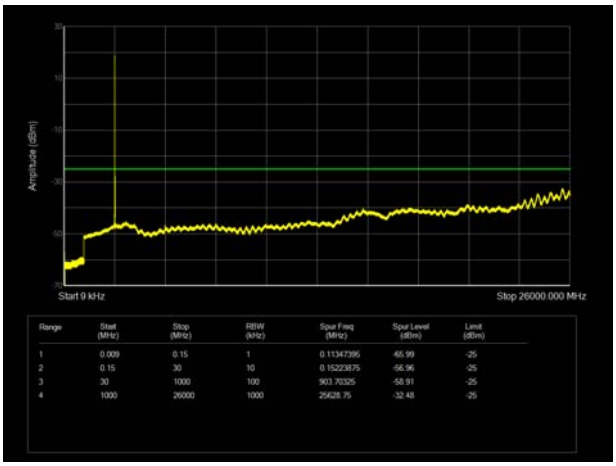
LTE Band 41 10MHz CH-Low 9kHz~26GHz



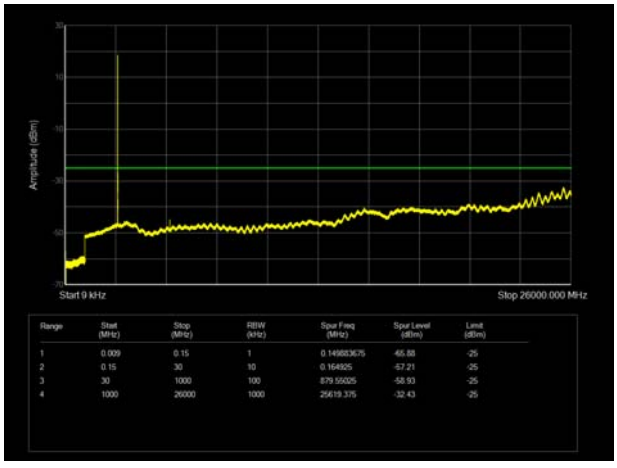
LTE Band 41 5MHz CH- Middle 9kHz~26GHz



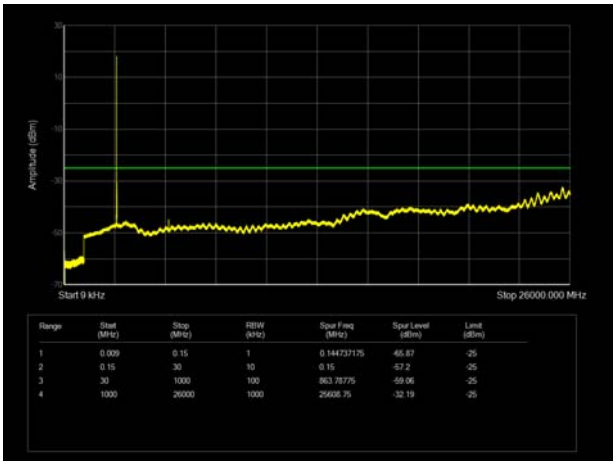
LTE Band 41 10MHz CH- Middle 9kHz~26GHz



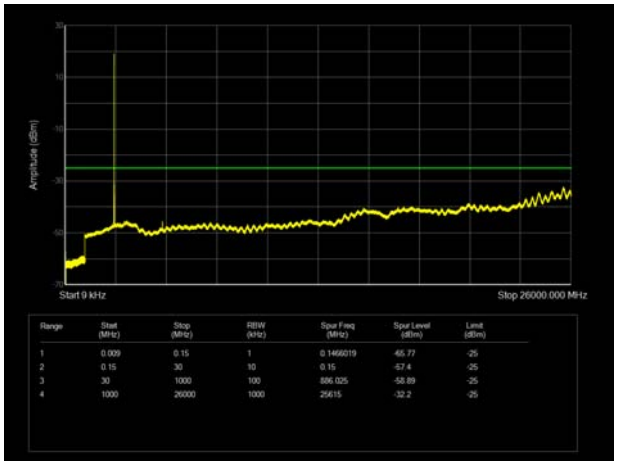
LTE Band 41 5MHz CH-High 9kHz~26GHz



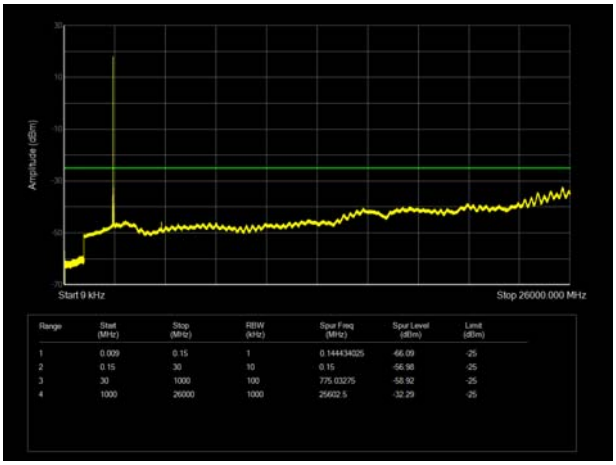
LTE Band 41 10MHz CH- High 9kHz~26GHz



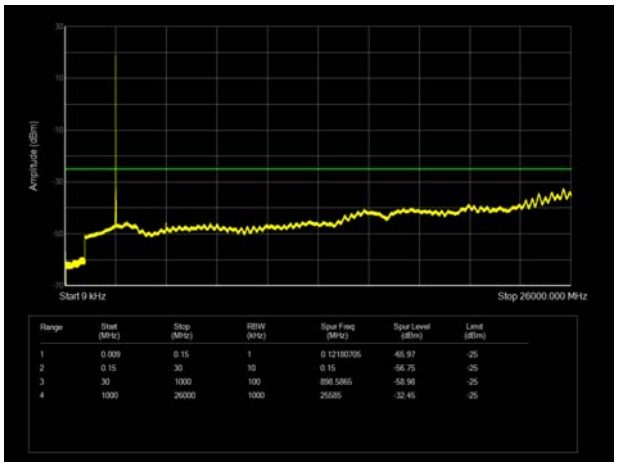
LTE Band 41 15MHz CH- Low 9kHz~26GHz



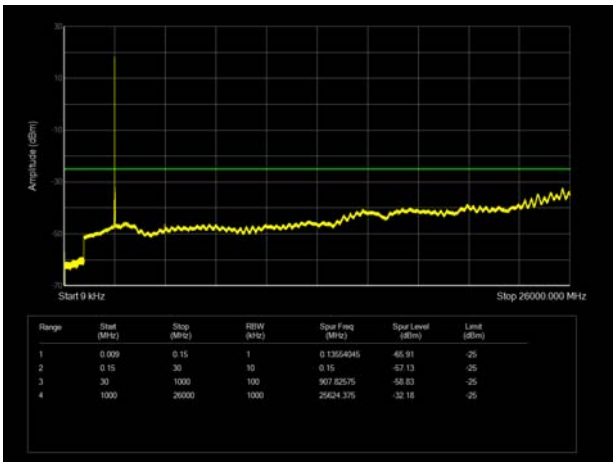
LTE Band 41 20MHz CH-Low 9kHz~26GHz



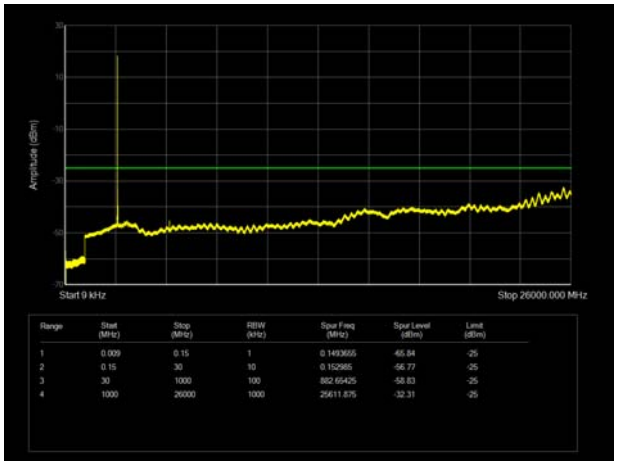
LTE Band 4115MHz CH- Middle 9kHz~26GHz



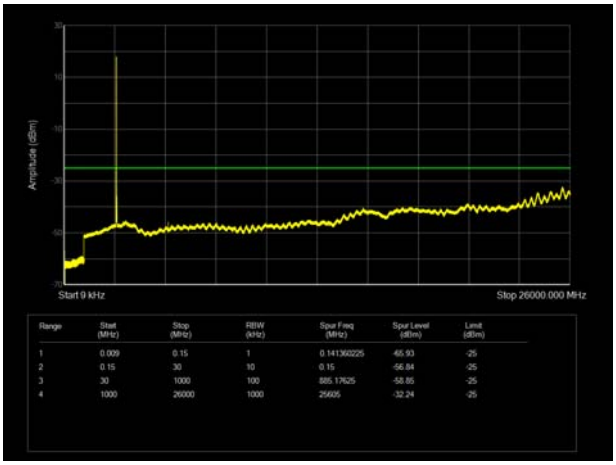
LTE Band 41 20MHz CH- Middle 9kHz~26GHz



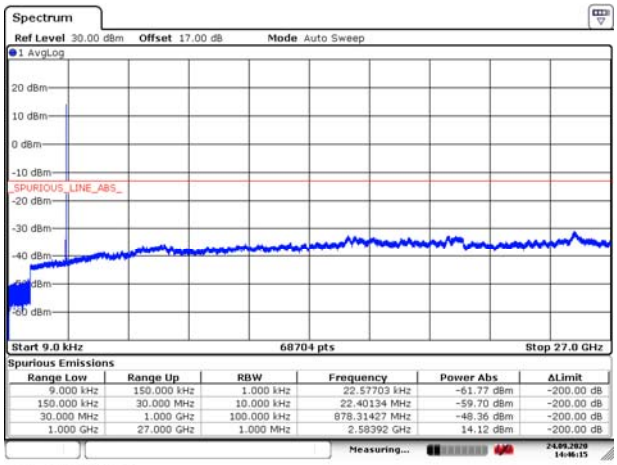
LTE Band 41 15MHz CH-High 9kHz~26GHz



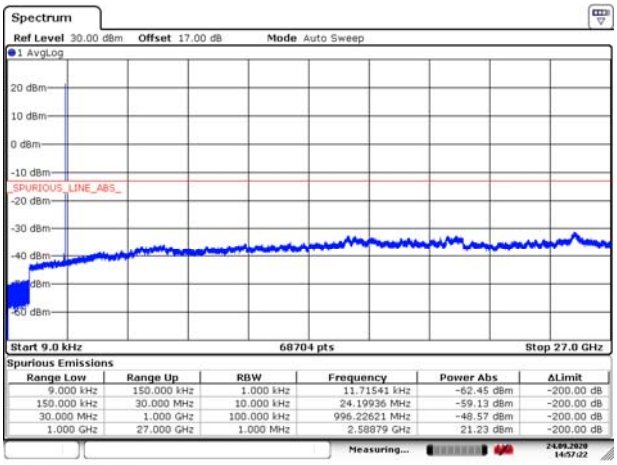
LTE Band 41 20MHz CH- High 9kHz~26GHz



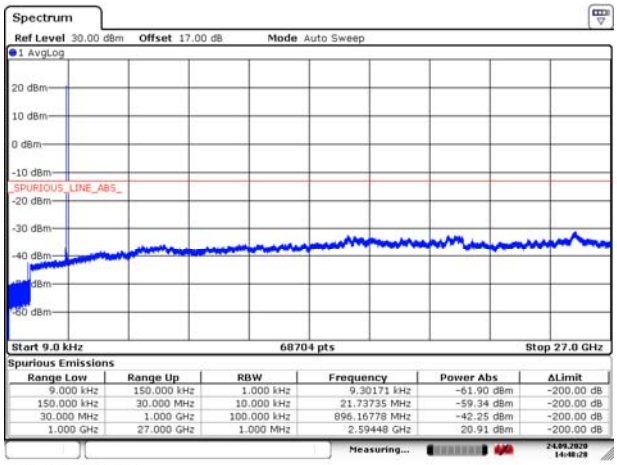
CA_38C QPSK 15MHz+15MHz CH- Low
9kHz~27GHz



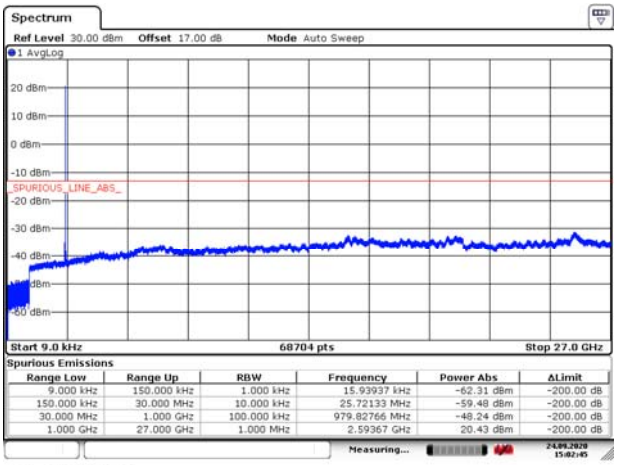
CA_38C QPSK 20MHz+20MHz CH- Low
9kHz~27GHz



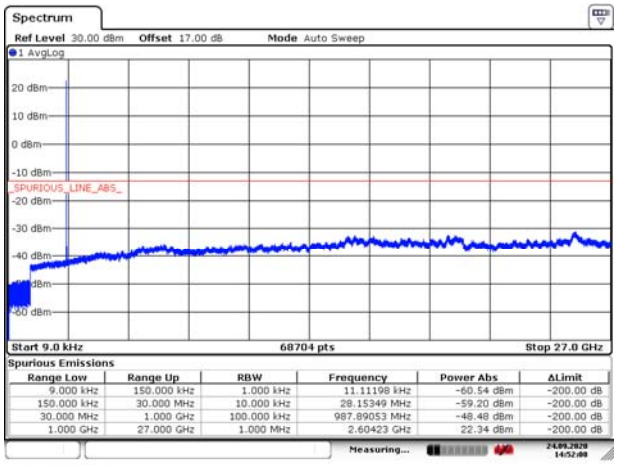
CA_38C QPSK 15MHz+15MHz CH- Middle
9kHz~27GHz



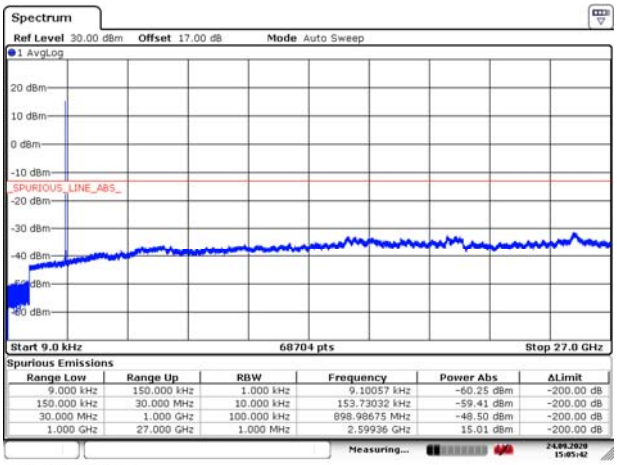
CA_38C QPSK 20MHz+20MHz CH- Middle
9kHz~27GHz



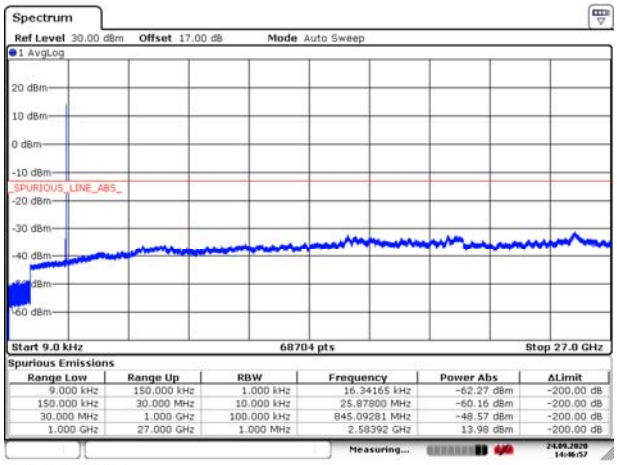
CA_38C QPSK 15MHz+15MHz CH-High
9kHz~27GHz



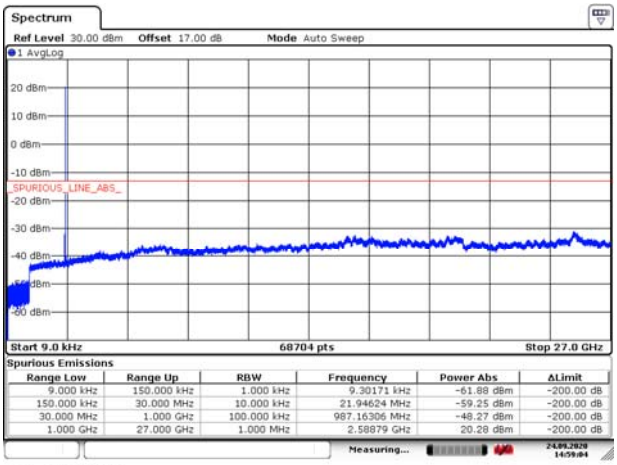
CA_38C QPSK 20MHz+20MHz CH-High
9kHz~27GHz



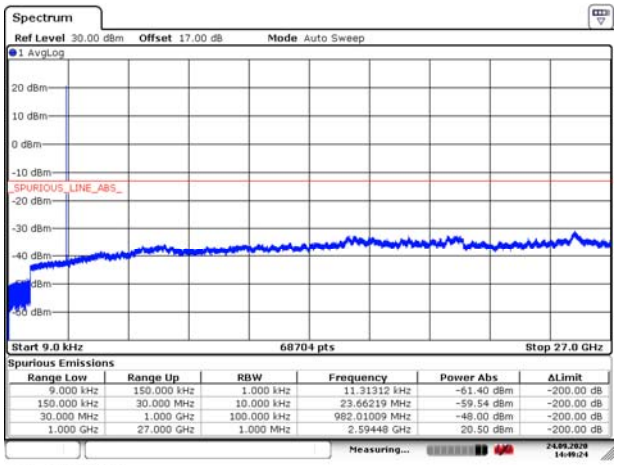
CA_38C 16QAM 15MHz+15MHz CH- Low
9kHz~27GHz



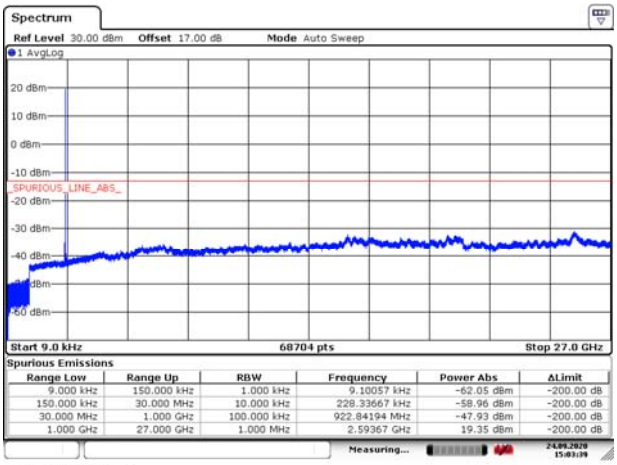
CA_38C 16QAM 20MHz+20MHz CH- Low
9kHz~27GHz



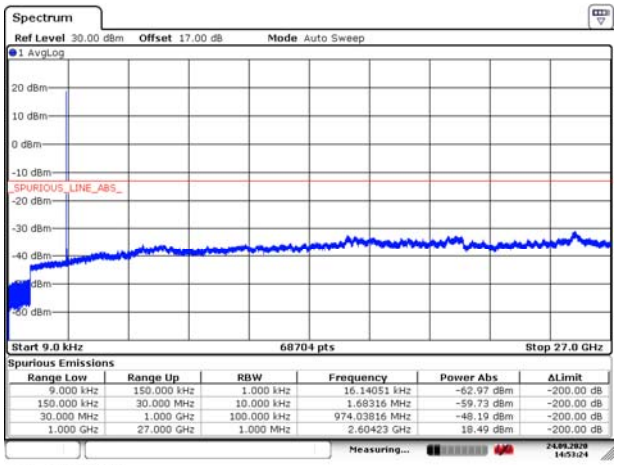
CA_38C 16QAM 15MHz+15MHz CH- Middle
9kHz~27GHz



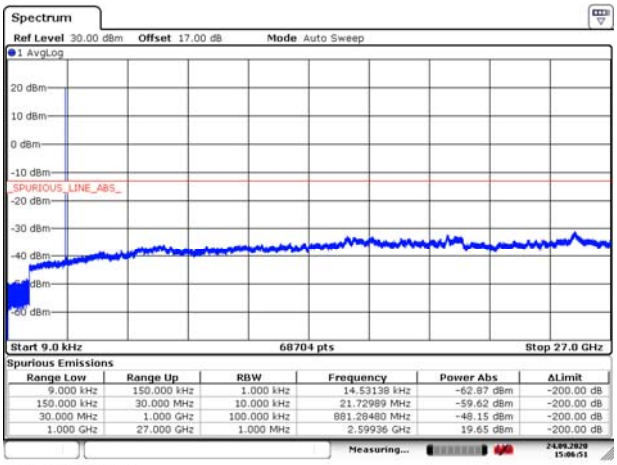
CA_38C 16QAM 20MHz+20MHz CH- Middle
9kHz~27GHz



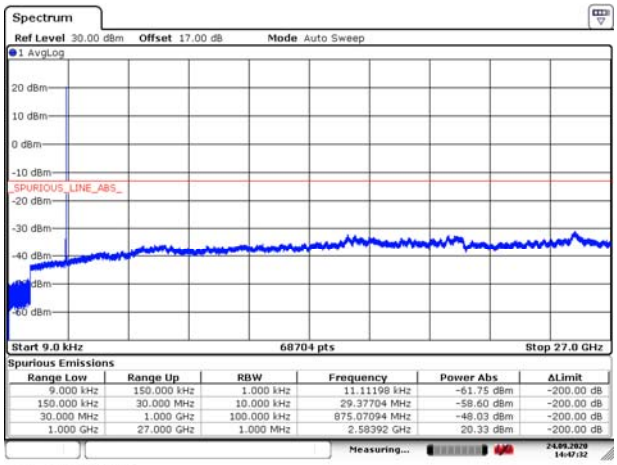
CA_38C 16QAM 15MHz+15MHz CH-High
9kHz~27GHz



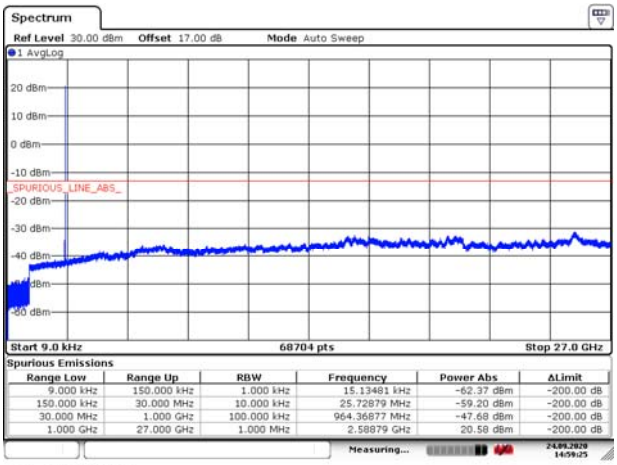
CA_38C 16QAM 20MHz+20MHz CH-High
9kHz~27GHz



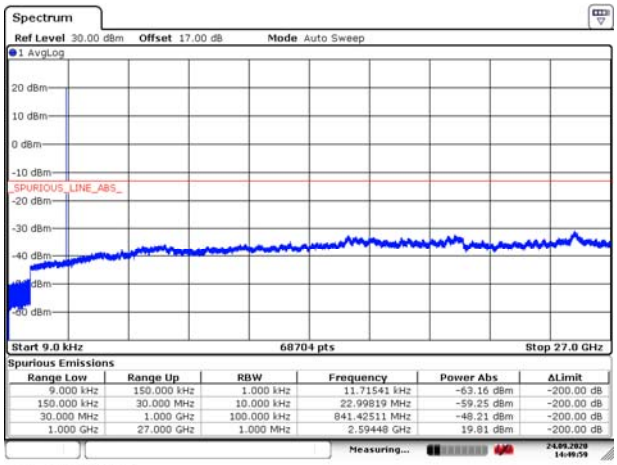
CA_38C 64QAM 15MHz+15MHz CH- Low
9kHz~27GHz



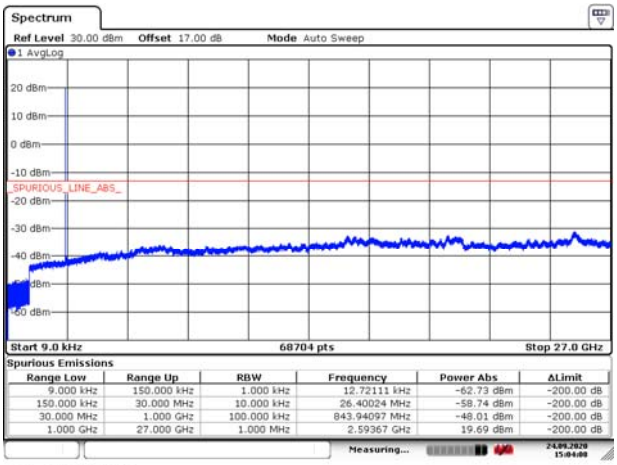
CA_38C 64QAM 20MHz+20MHz CH- Low
9kHz~27GHz



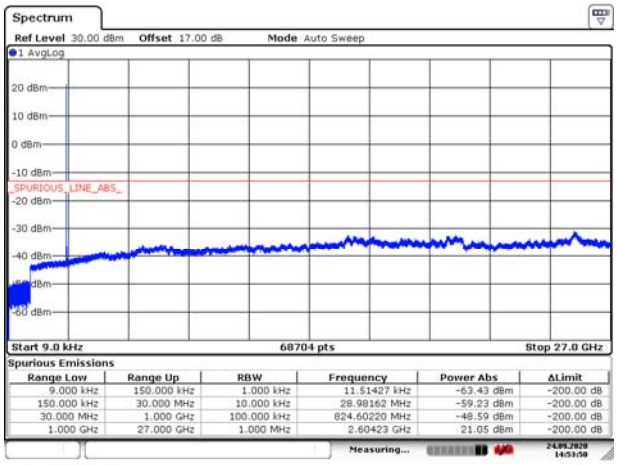
CA_38C 64QAM 15MHz+15MHz CH- Middle
9kHz~27GHz



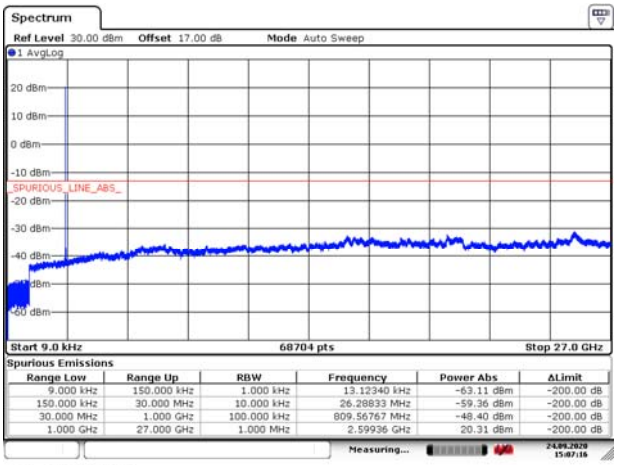
CA_38C 64QAM 20MHz+20MHz CH- Middle
9kHz~27GHz



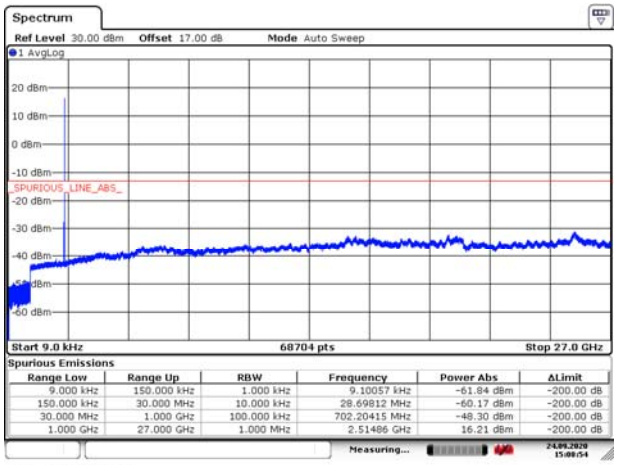
CA_38C 64QAM 15MHz+15MHz CH-High
9kHz~27GHz



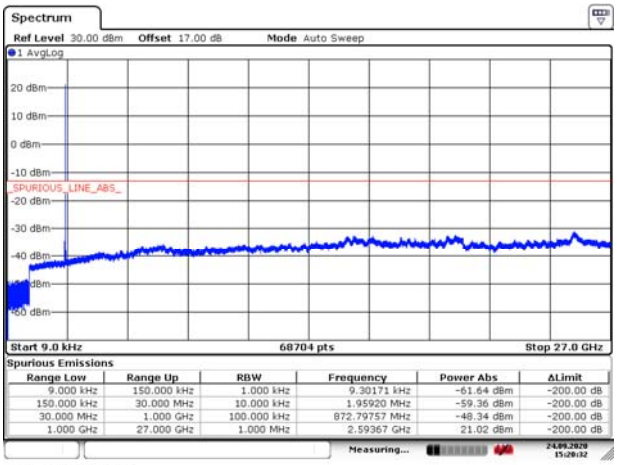
CA_38C 64QAM 20MHz+20MHz CH-High
9kHz~27GHz



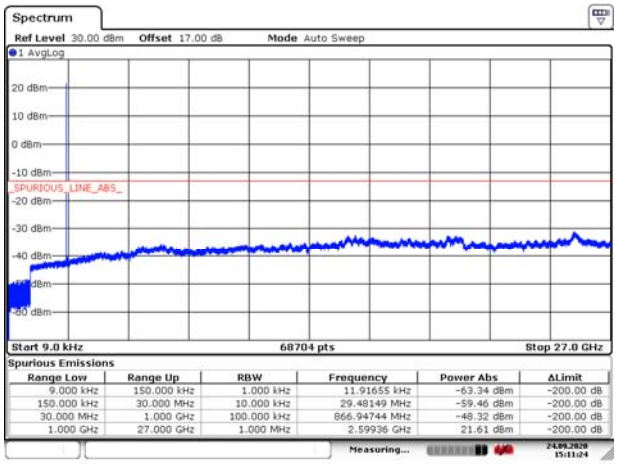
CA_41C QPSK 20MHz+5MHz CH- Low
9kHz~27GHz



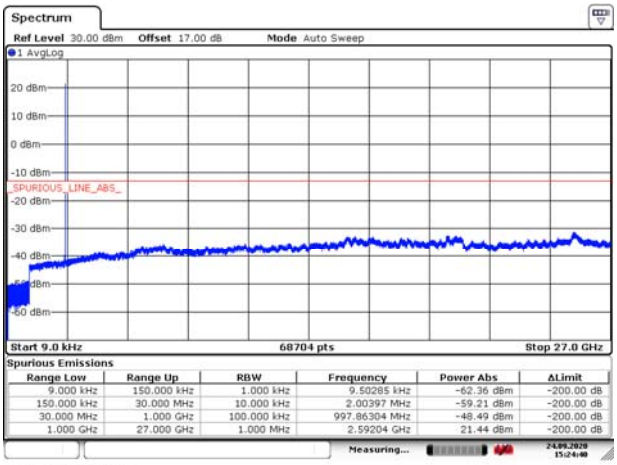
CA_41C QPSK 20MHz+20MHz CH- Low
9kHz~27GHz



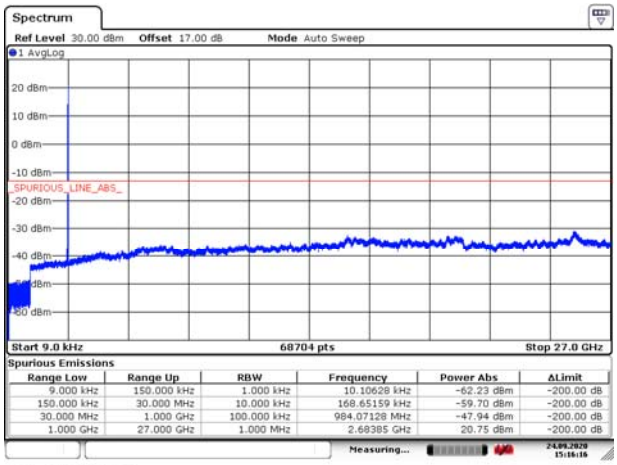
CA_41C QPSK 20MHz+5MHz CH- Middle
9kHz~27GHz



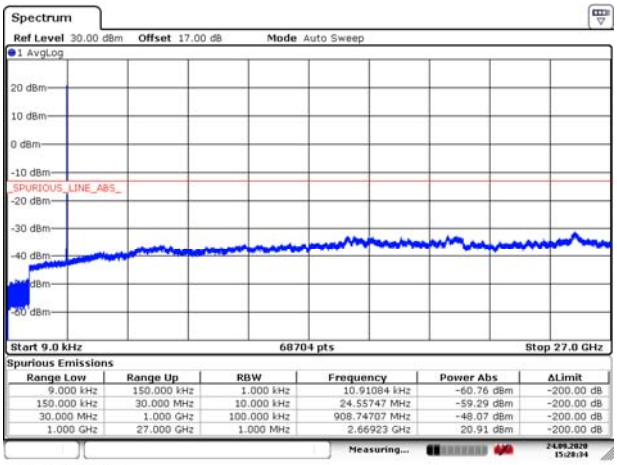
CA_41C QPSK 20MHz+20MHz CH- Middle
9kHz~27GHz



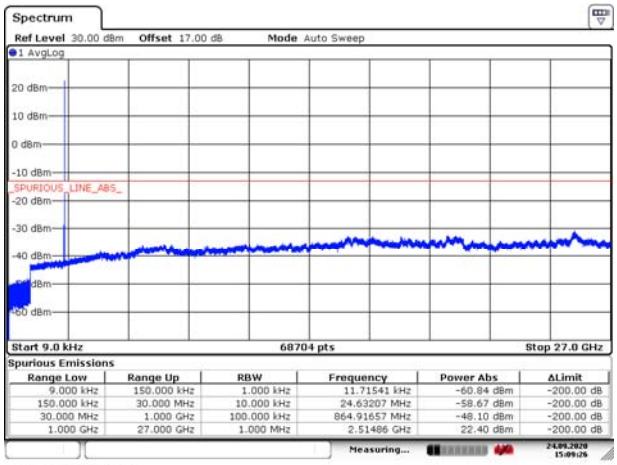
CA_41C QPSK 20MHz+5MHz CH-High
9kHz~27GHz



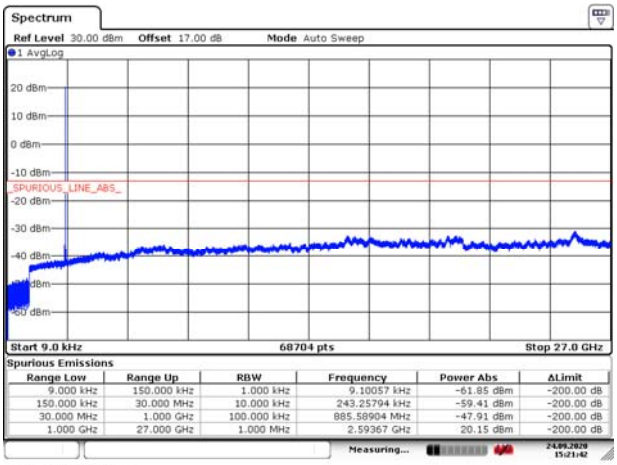
CA_41C QPSK 20MHz+20MHz CH-High
9kHz~27GHz



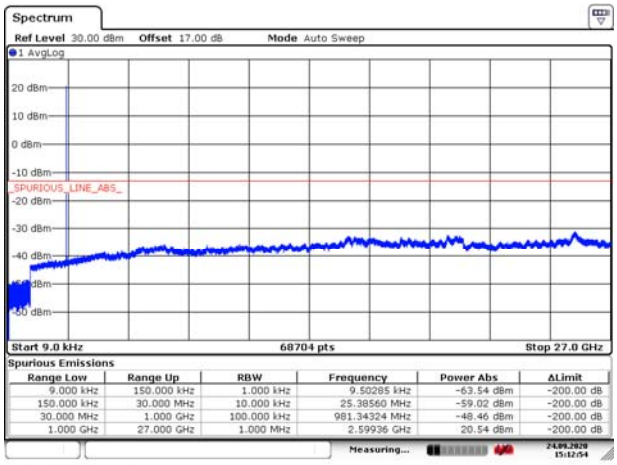
CA_41C 16QAM 20MHz+5MHz CH- Low
9kHz~27GHz



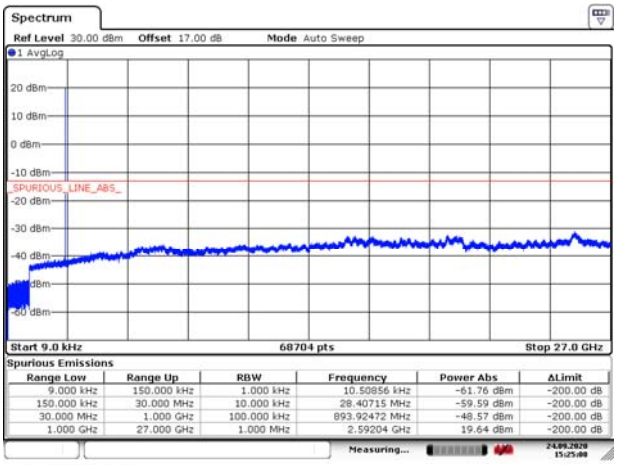
CA_41C 16QAM 20MHz+20MHz CH- Low
9kHz~27GHz



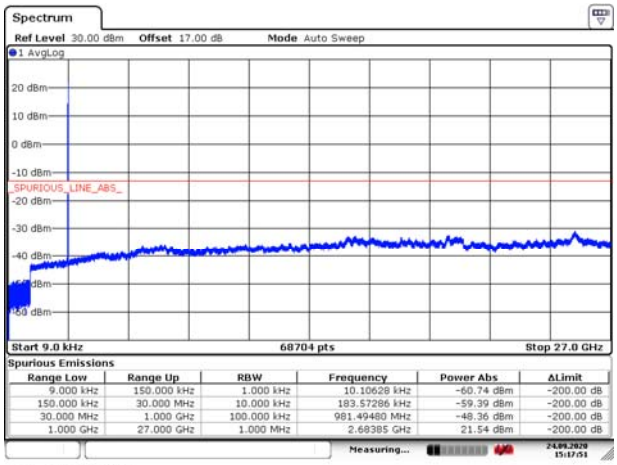
CA_41C 16QAM 20MHz+5MHz CH- Middle
9kHz~27GHz



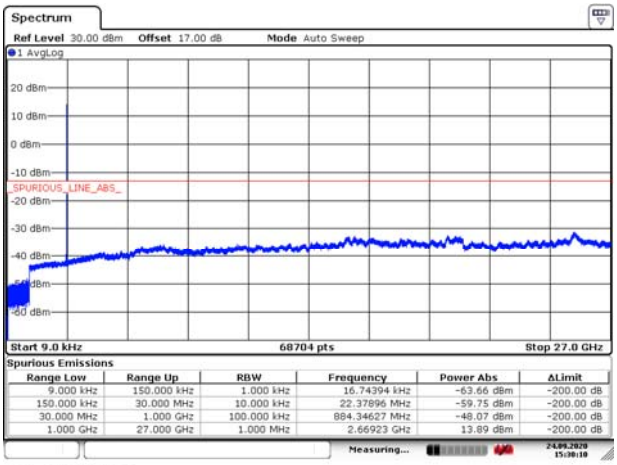
CA_41C 16QAM 20MHz+20MHz CH- Middle
9kHz~27GHz



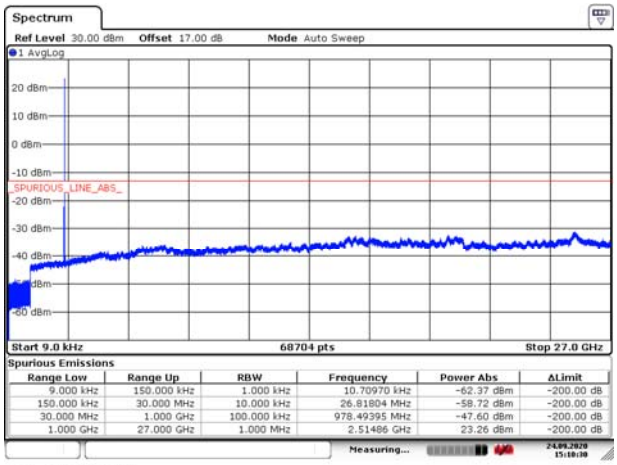
CA_41C 16QAM 20MHz+5MHz CH-High
9kHz~27GHz



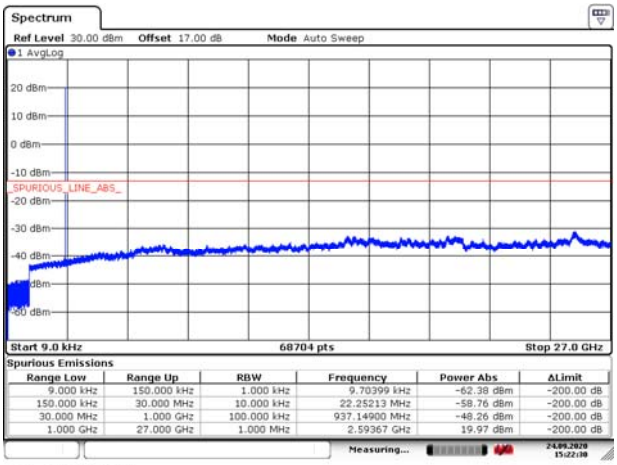
CA_41C 16QAM 20MHz+20MHz CH-High
9kHz~27GHz



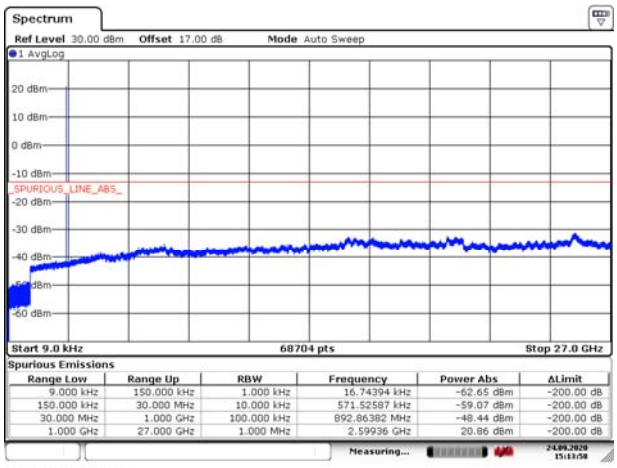
CA_41C 64QAM 20MHz+5MHz CH- Low
9kHz~27GHz



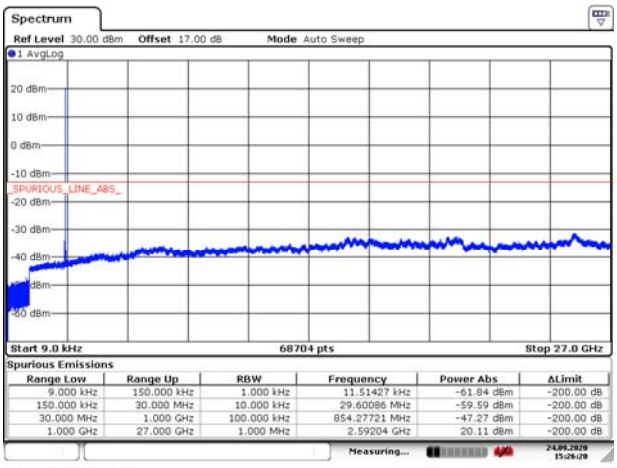
CA_41C 64QAM 20MHz+20MHz CH- Low
9kHz~27GHz



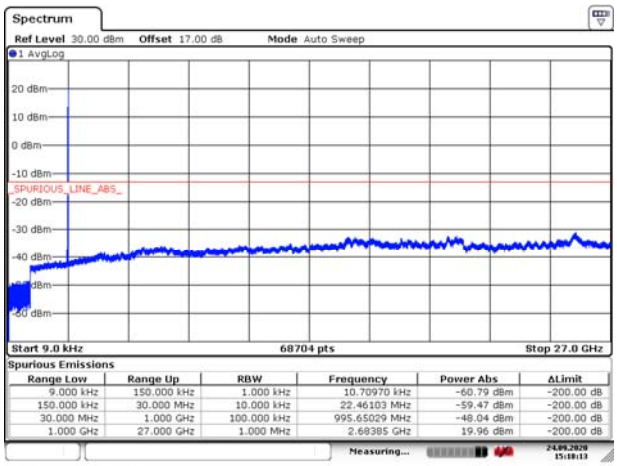
CA_41C 64QAM 20MHz+5MHz CH- Middle



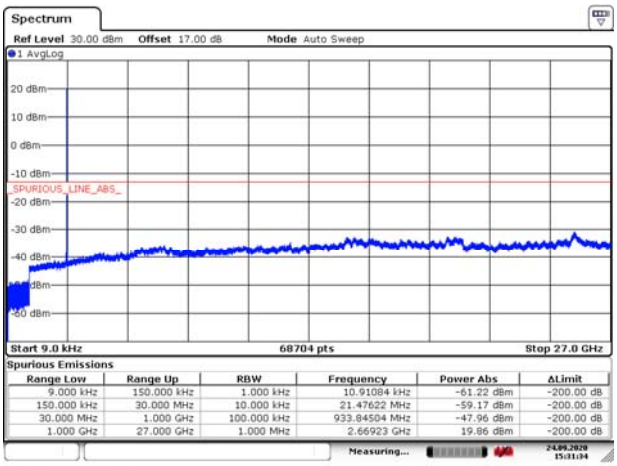
CA_41C 64QAM 20MHz+20MHz CH- Middle



CA_41C 64QAM 20MHz+5MHz CH-High
9kHz~27GHz



CA_41C 64QAM 20MHz+20MHz CH-High
9kHz~27GHz



5.7 Radiates Spurious Emission

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

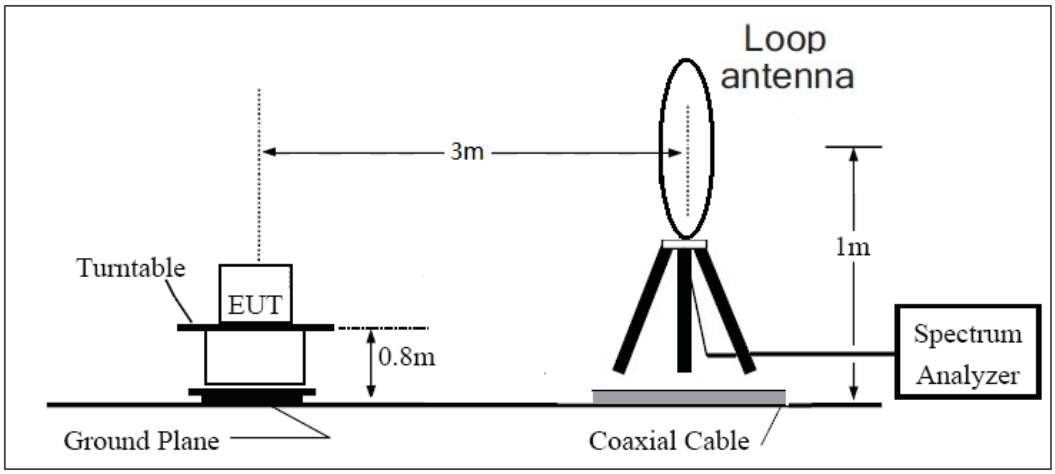
1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).
2. Below 1GHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
3. A loop antenna, A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
4. The EUT is then put into continuously transmitting mode at its maximum power level during the test. Set Test Receiver or Spectrum RBW=200Hz,VBW=600Hz for 9kHz-150kHz , RBW=10kHz, VBW=30kHz 150kHz-30MHz ,RBW=100kHz,VBW=300kHz for 30MHz to 1GHz and RBW=1MHz, VBW=3MHz for above 1GHz And the maximum value of the receiver should be recorded as (Pr).
5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
7. The measurement results are obtained as described below:
Power(EIRP)=PMea- PAg - Pcl + Ga
The measurement results are amend as described below:
Power(EIRP)=PMea- Pcl + Ga
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP

= EIRP-2.15dBi.

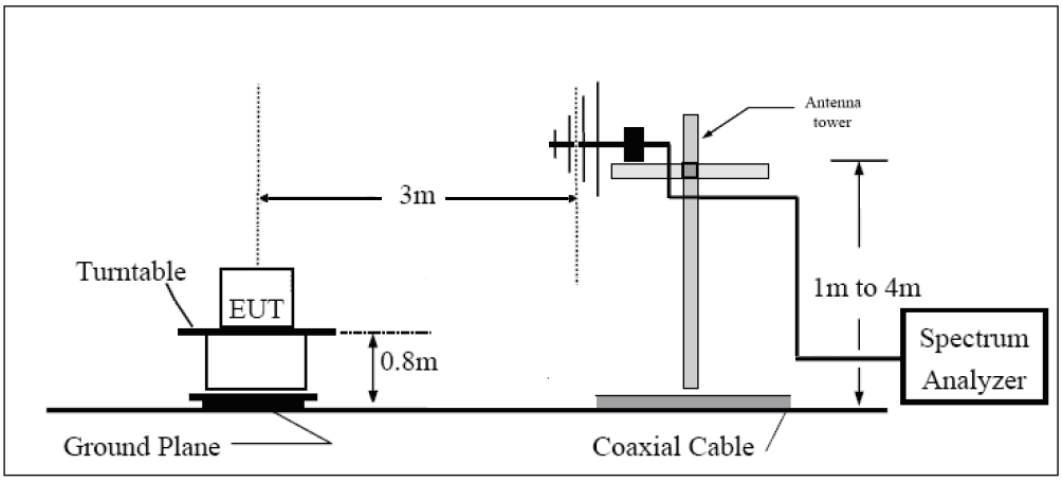
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

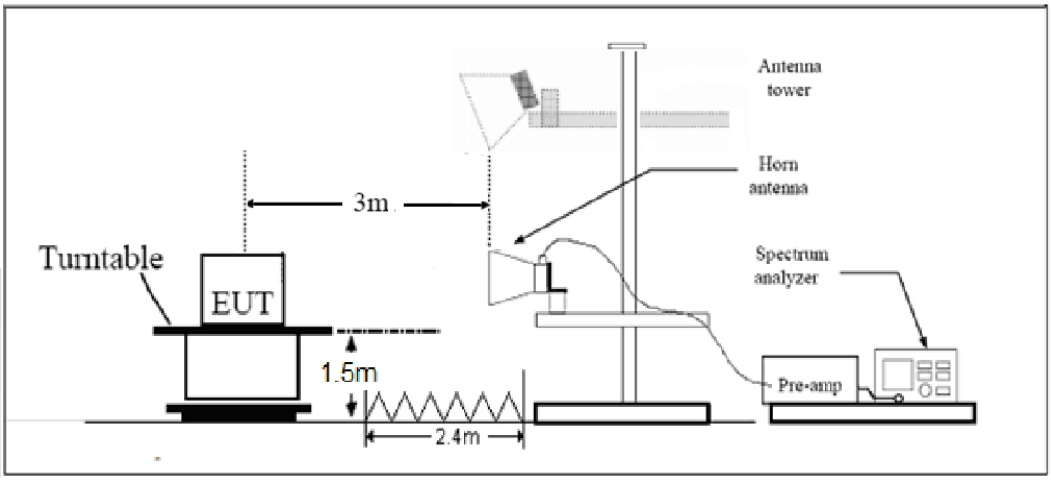
9KHz ~ 30MHz



30MHz ~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

Limits

Rule Part 27.53(h) specifies that “for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.”

Rule Part 27.53(m) 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(4) of this section.

Part 27.53 (h) Limit	-13 dBm
Part 27.53(m) Limit	-25 dBm

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95％ confidence level for the normal distribution is with the coverage factor k = ±1.96, U= ±3.55 dB.

Test Result

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

Main Antenna

WCDMA Band IV CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3465.2	-62.89	2.6	10.75	Horizontal	-54.74	-13.00	41.74	225
3	5197.8	-59.43	2.4	11.05	Horizontal	-50.78	-13.00	37.78	0
4	6930.4	-60.83	4.5	11.15	Horizontal	-54.18	-13.00	41.18	180
5	8663.0	-55.42	5.1	11.35	Horizontal	-49.17	-13.00	36.17	0
6	10395.6	-51.07	5.3	11.95	Horizontal	-44.42	-13.00	31.42	90
7	12128.2	-51.60	5.5	13.55	Horizontal	-43.55	-13.00	30.55	225
8	13860.8	-51.51	6.3	13.75	Horizontal	-44.06	-13.00	31.06	315
9	15593.4	-49.70	6.7	13.85	Horizontal	-42.55	-13.00	29.55	45
10	17326.0	-48.00	6.8	14.25	Horizontal	-40.55	-13.00	27.55	225

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

LTE Band 4 QPSK 1.4MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3464.3	-61.29	2.6	10.75	Horizontal	-53.14	-13.00	40.14	180
3	5197.5	-59.51	2.4	11.05	Horizontal	-50.86	-13.00	37.86	45
4	6930.0	-59.97	4.5	11.15	Horizontal	-53.32	-13.00	40.32	270
5	8662.5	-54.63	5.1	11.35	Horizontal	-48.38	-13.00	35.38	45
6	10395.0	-51.99	5.3	11.95	Horizontal	-45.34	-13.00	32.34	90
7	12127.5	-50.92	5.5	13.55	Horizontal	-42.87	-13.00	29.87	0
8	13860.0	-48.84	6.3	13.75	Horizontal	-41.39	-13.00	28.39	270
9	15592.5	-50.09	6.7	13.85	Horizontal	-42.94	-13.00	29.94	315
10	17325.0	-47.41	6.8	14.25	Horizontal	-39.96	-13.00	26.96	45

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.
2. The worst emission was found in the antenna is Horizontal position.

LTE Band 4 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3460.5	-60.82	2.6	10.75	Horizontal	-52.67	-13.00	39.67	270
3	5191.5	-60.11	2.4	11.05	Horizontal	-51.46	-13.00	38.46	180
4	6930.0	-60.26	4.5	11.15	Horizontal	-53.61	-13.00	40.61	90
5	8662.5	-56.02	5.1	11.35	Horizontal	-49.77	-13.00	36.77	315
6	10395.0	-50.79	5.3	11.95	Horizontal	-44.14	-13.00	31.14	45
7	12127.5	-51.50	5.5	13.55	Horizontal	-43.45	-13.00	30.45	90
8	13860.0	-50.19	6.3	13.75	Horizontal	-42.74	-13.00	29.74	315
9	15592.5	-49.43	6.7	13.85	Horizontal	-42.28	-13.00	29.28	180
10	17325.0	-47.15	6.8	14.25	Horizontal	-39.70	-13.00	26.70	45
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 4 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3465.0	-61.15	2.6	10.75	Horizontal	-53.00	-13.00	40.00	225
3	5170.9	-59.42	2.4	11.05	Horizontal	-50.77	-13.00	37.77	270
4	6930.0	-59.71	4.5	11.15	Horizontal	-53.06	-13.00	40.06	315
5	8662.5	-55.14	5.1	11.35	Horizontal	-48.89	-13.00	35.89	180
6	10395.0	-50.70	5.3	11.95	Horizontal	-44.05	-13.00	31.05	45
7	12127.5	-52.29	5.5	13.55	Horizontal	-44.24	-13.00	31.24	90
8	13860.0	-50.28	6.3	13.75	Horizontal	-42.83	-13.00	29.83	315
9	15592.5	-49.88	6.7	13.85	Horizontal	-42.73	-13.00	29.73	45
10	17325.0	-46.77	6.8	14.25	Horizontal	-39.32	-13.00	26.32	135
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 7 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5065.8	-56.82	2.00	9.15	Horizontal	-49.67	-25.00	24.67	270
3	7598.6	-57.26	2.50	11.35	Horizontal	-48.41	-25.00	23.41	90
4	10130.6	-52.12	4.20	12.05	Horizontal	-44.27	-25.00	19.27	135
5	12675.0	-50.55	5.20	12.85	Horizontal	-42.90	-25.00	17.90	90
6	15210.0	-51.39	5.50	14.23	Horizontal	-42.66	-25.00	17.66	315
7	17745.0	-47.70	5.70	14.15	Horizontal	-39.25	-25.00	14.25	90
8	20280.0	--	--	--	--	--	--	--	--
9	22815.0	--	--	--	--	--	--	--	--
10	25350.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 7 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5052.4	-58.62	2.00	10.15	Horizontal	-50.47	-25.00	25.47	270
3	7605.0	-57.51	2.50	11.35	Horizontal	-48.66	-25.00	23.66	90
4	10140.0	-52.72	4.20	12.05	Horizontal	-44.87	-25.00	19.87	90
5	12675.0	-52.88	5.20	14.85	Horizontal	-43.23	-25.00	18.23	315
6	15210.0	-48.33	5.50	13.23	Horizontal	-40.60	-25.00	15.60	135
7	17745.0	-45.94	5.70	12.15	Horizontal	-39.49	-25.00	14.49	90
8	20280.0	--	--	--	--	--	--	--	--
9	22815.0	--	--	--	--	--	--	--	--
10	25350.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 38 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5185.9	-50.65	2.00	9.15	Horizontal	-43.50	-25.00	18.50	45
3	7495.5	-58.04	2.50	11.35	Horizontal	-49.19	-25.00	24.19	315
4	9994.0	-52.13	4.20	12.05	Horizontal	-44.28	-25.00	19.28	315
5	12492.5	-52.75	5.20	12.85	Horizontal	-45.10	-25.00	20.10	270
6	14991.0	-50.64	5.50	14.23	Horizontal	-41.91	-25.00	16.91	135
7	17489.5	-48.03	5.70	14.15	Horizontal	-39.58	-25.00	14.58	90
8	19988.0	--	--	--	--	--	--	--	--
9	22486.5	--	--	--	--	--	--	--	--
10	24985.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 38 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-58.12	2.00	10.15	Horizontal	-49.97	-25.00	24.97	135
3	7779.0	-58.05	2.50	11.35	Horizontal	-49.20	-25.00	24.20	270
4	10372.0	-51.19	4.20	12.05	Horizontal	-43.34	-25.00	18.34	45
5	12965.0	-51.06	5.20	14.85	Horizontal	-41.41	-25.00	16.41	315
6	15558.0	-48.36	5.50	13.23	Horizontal	-40.63	-25.00	15.63	90
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 41 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5182.1	-53.25	2.00	9.15	Horizontal	-46.10	-25.00	21.10	45
3	7495.5	-56.83	2.50	11.35	Horizontal	-47.98	-25.00	22.98	225
4	9994.0	-52.32	4.20	12.05	Horizontal	-44.47	-25.00	19.47	135
5	12492.5	-50.00	5.20	12.85	Horizontal	-42.35	-25.00	17.35	270
6	14991.0	-50.88	5.50	14.23	Horizontal	-42.15	-25.00	17.15	45
7	17489.5	-47.19	5.70	14.15	Horizontal	-38.74	-25.00	13.74	315
8	19988.0	--	--	--	--	--	--	--	--
9	22486.5	--	--	--	--	--	--	--	--
10	24985.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 41 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-56.12	2.00	10.15	Horizontal	-47.97	-25.00	22.97	90
3	7779.0	-56.19	2.50	11.35	Horizontal	-47.34	-25.00	22.34	180
4	10372.0	-51.35	4.20	12.05	Horizontal	-43.50	-25.00	18.50	315
5	12965.0	-52.01	5.20	14.85	Horizontal	-42.36	-25.00	17.36	45
6	15558.0	-48.40	5.50	13.23	Horizontal	-40.67	-25.00	15.67	135
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-38C QPSK 15MHz+15MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-58.37	2.00	9.15	Horizontal	-51.22	-25.00	26.22	180
3	7779.0	-58.08	2.50	11.35	Horizontal	-49.23	-25.00	24.23	225
4	10372.0	-51.59	4.20	12.05	Horizontal	-43.74	-25.00	18.74	0
5	12965.0	-49.62	5.20	12.85	Horizontal	-41.97	-25.00	16.97	45
6	15558.0	-50.27	5.50	14.23	Horizontal	-41.54	-25.00	16.54	315
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-38C QPSK 20MHz+20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-59.29	2.00	10.15	Horizontal	-51.14	-25.00	26.14	270
3	7779.0	-59.65	2.50	11.35	Horizontal	-50.80	-25.00	25.80	225
4	10372.0	-51.74	4.20	12.05	Horizontal	-43.89	-25.00	18.89	0
5	12965.0	-53.61	5.20	14.85	Horizontal	-43.96	-25.00	18.96	45
6	15558.0	-50.62	5.50	13.23	Horizontal	-42.89	-25.00	17.89	315
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-41C QPSK 5MHz+20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5168.0	-57.50	2.00	9.15	Horizontal	-50.35	-25.00	25.35	45
3	7779.0	-59.40	2.50	11.35	Horizontal	-50.55	-25.00	25.55	225
4	10372.0	-52.51	4.20	12.05	Horizontal	-44.66	-25.00	19.66	0
5	12965.0	-51.19	5.20	12.85	Horizontal	-43.54	-25.00	18.54	45
6	15558.0	-50.61	5.50	14.23	Horizontal	-41.88	-25.00	16.88	315
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-41C QPSK 20MHz+5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-58.70	2.00	10.15	Horizontal	-50.55	-25.00	25.55	45
3	7779.0	-58.57	2.50	11.35	Horizontal	-49.72	-25.00	24.72	315
4	10372.0	-51.64	4.20	12.05	Horizontal	-43.79	-25.00	18.79	225
5	12965.0	-52.23	5.20	14.85	Horizontal	-42.58	-25.00	17.58	90
6	15558.0	-49.69	5.50	13.23	Horizontal	-41.96	-25.00	16.96	45
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-41C QPSK 10MHz+20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-58.16	2.00	9.15	Horizontal	-51.01	-25.00	26.01	0
3	7779.0	-59.11	2.50	11.35	Horizontal	-50.26	-25.00	25.26	90
4	10372.0	-49.80	4.20	12.05	Horizontal	-41.95	-25.00	16.95	225
5	12965.0	-51.47	5.20	12.85	Horizontal	-43.82	-25.00	18.82	315
6	15558.0	-49.73	5.50	14.23	Horizontal	-41.00	-25.00	16.00	45
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-41C QPSK 20MHz+10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-59.59	2.00	10.15	Horizontal	-51.44	-25.00	26.44	90
3	7779.0	-58.35	2.50	11.35	Horizontal	-49.50	-25.00	24.50	225
4	10372.0	-51.63	4.20	12.05	Horizontal	-43.78	-25.00	18.78	0
5	12965.0	-52.79	5.20	14.85	Horizontal	-43.14	-25.00	18.14	45
6	15558.0	-49.90	5.50	13.23	Horizontal	-42.17	-25.00	17.17	315
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-41C QPSK 20MHz+20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-59.15	2.00	10.15	Horizontal	-51.00	-25.00	26.00	45
3	7779.0	-58.53	2.50	11.35	Horizontal	-49.68	-25.00	24.68	90
4	10372.0	-52.10	4.20	12.05	Horizontal	-44.25	-25.00	19.25	225
5	12965.0	-52.47	5.20	14.85	Horizontal	-42.82	-25.00	17.82	315
6	15558.0	-48.81	5.50	13.23	Horizontal	-41.08	-25.00	16.08	45
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

Second Antenna

WCDMA Band IV CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3465.2	-62.30	2.6	10.75	Horizontal	-54.15	-13.00	41.15	180
3	5197.8	-59.69	2.4	11.05	Horizontal	-51.04	-13.00	38.04	0
4	6930.4	-60.33	4.5	11.15	Horizontal	-53.68	-13.00	40.68	270
5	8663.0	-55.67	5.1	11.35	Horizontal	-49.42	-13.00	36.42	90
6	10395.6	-51.51	5.3	11.95	Horizontal	-44.86	-13.00	31.86	225
7	12128.2	-52.43	5.5	13.55	Horizontal	-44.38	-13.00	31.38	315
8	13860.8	-49.51	6.3	13.75	Horizontal	-42.06	-13.00	29.06	180
9	15593.4	-49.66	6.7	13.85	Horizontal	-42.51	-13.00	29.51	45
10	17326.0	-47.70	6.8	14.25	Horizontal	-40.25	-13.00	27.25	135
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 4 QPSK 1.4MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3464.3	-61.84	2.6	10.75	Horizontal	-53.69	-13.00	40.69	180
3	5197.5	-59.56	2.4	11.05	Horizontal	-50.91	-13.00	37.91	315
4	6930.0	-59.65	4.5	11.15	Horizontal	-53.00	-13.00	40.00	180
5	8662.5	-54.35	5.1	11.35	Horizontal	-48.10	-13.00	35.10	90
6	10395.0	-52.21	5.3	11.95	Horizontal	-45.56	-13.00	32.56	225
7	12127.5	-52.01	5.5	13.55	Horizontal	-43.96	-13.00	30.96	45
8	13860.0	-49.56	6.3	13.75	Horizontal	-42.11	-13.00	29.11	180
9	15592.5	-49.01	6.7	13.85	Horizontal	-41.86	-13.00	28.86	0
10	17325.0	-48.46	6.8	14.25	Horizontal	-41.01	-13.00	28.01	135
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 4 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3460.5	-61.69	2.6	10.75	Horizontal	-53.54	-13.00	40.54	45
3	5191.5	-59.70	2.4	11.05	Horizontal	-51.05	-13.00	38.05	315
4	6930.0	-60.86	4.5	11.15	Horizontal	-54.21	-13.00	41.21	180
5	8662.5	-55.40	5.1	11.35	Horizontal	-49.15	-13.00	36.15	90
6	10395.0	-50.91	5.3	11.95	Horizontal	-44.26	-13.00	31.26	225
7	12127.5	-51.39	5.5	13.55	Horizontal	-43.34	-13.00	30.34	315
8	13860.0	-50.07	6.3	13.75	Horizontal	-42.62	-13.00	29.62	0
9	15592.5	-49.02	6.7	13.85	Horizontal	-41.87	-13.00	28.87	180
10	17325.0	-48.50	6.8	14.25	Horizontal	-41.05	-13.00	28.05	135
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 4 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	3465.0	-62.02	2.6	10.75	Horizontal	-53.87	-13.00	40.87	180
3	5170.9	-59.25	2.4	11.05	Horizontal	-50.60	-13.00	37.60	270
4	6930.0	-60.56	4.5	11.15	Horizontal	-53.91	-13.00	40.91	315
5	8662.5	-54.80	5.1	11.35	Horizontal	-48.55	-13.00	35.55	225
6	10395.0	-52.04	5.3	11.95	Horizontal	-45.39	-13.00	32.39	45
7	12127.5	-52.20	5.5	13.55	Horizontal	-44.15	-13.00	31.15	180
8	13860.0	-50.36	6.3	13.75	Horizontal	-42.91	-13.00	29.91	0
9	15592.5	-49.65	6.7	13.85	Horizontal	-42.50	-13.00	29.50	135
10	17325.0	-48.29	6.8	14.25	Horizontal	-40.84	-13.00	27.84	90
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 7 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5065.8	-57.52	2.00	9.15	Horizontal	-50.37	-25.00	25.37	315
3	7598.6	-59.09	2.50	11.35	Horizontal	-50.24	-25.00	25.24	0
4	10130.6	-53.05	4.20	12.05	Horizontal	-45.20	-25.00	20.20	180
5	12675.0	-49.14	5.20	12.85	Horizontal	-41.49	-25.00	16.49	270
6	15210.0	-52.07	5.50	14.23	Horizontal	-43.34	-25.00	18.34	45
7	17745.0	-48.20	5.70	14.15	Horizontal	-39.75	-25.00	14.75	225
8	20280.0	--	--	--	--	--	--	--	--
9	22815.0	--	--	--	--	--	--	--	--
10	25350.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 7 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5070.0	-58.79	2.00	10.15	Horizontal	-50.64	-25.00	25.64	315
3	7605.0	-59.64	2.50	11.35	Horizontal	-50.79	-25.00	25.79	45
4	10140.0	-53.37	4.20	12.05	Horizontal	-45.52	-25.00	20.52	0
5	12675.0	-52.42	5.20	14.85	Horizontal	-42.77	-25.00	17.77	270
6	15210.0	-50.04	5.50	13.23	Horizontal	-42.31	-25.00	17.31	180
7	17745.0	-47.13	5.70	12.15	Horizontal	-40.68	-25.00	15.68	45
8	20280.0	--	--	--	--	--	--	--	--
9	22815.0	--	--	--	--	--	--	--	--
10	25350.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 38 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5185.9	-57.01	2.00	9.15	Horizontal	-49.86	-25.0	24.86	45
3	7495.5	-58.52	2.50	11.35	Horizontal	-49.67	-25.0	24.67	0
4	9994.0	-53.69	4.20	12.05	Horizontal	-45.84	-25.0	20.84	180
5	12492.5	-51.56	5.20	12.85	Horizontal	-43.91	-25.0	18.91	225
6	14991.0	-49.16	5.50	14.23	Horizontal	-40.43	-25.0	15.43	315
7	17489.5	-48.09	5.70	14.15	Horizontal	-39.64	-25.0	14.64	45
8	19988.0	--	--	--	--	--	--	--	--
9	22486.5	--	--	--	--	--	--	--	--
10	24985.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 38 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-59.08	2.00	10.15	Horizontal	-50.93	-25.0	25.93	180
3	7779.0	-56.31	2.50	11.35	Horizontal	-47.46	-25.0	22.46	45
4	10372.0	-49.49	4.20	12.05	Horizontal	-41.64	-25.0	16.64	225
5	12965.0	-52.78	5.20	14.85	Horizontal	-43.13	-25.0	18.13	90
6	15558.0	-50.31	5.50	13.23	Horizontal	-42.58	-25.0	17.58	0
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 41 QPSK 5MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5182.1	-58.14	2.00	9.15	Horizontal	-50.99	-25.00	25.99	45
3	7495.5	-58.47	2.50	11.35	Horizontal	-49.62	-25.00	24.62	180
4	9994.0	-54.23	4.20	12.05	Horizontal	-46.38	-25.00	21.38	0
5	12492.5	-51.62	5.20	12.85	Horizontal	-43.97	-25.00	18.97	180
6	14991.0	-51.93	5.50	14.23	Horizontal	-43.20	-25.00	18.20	0
7	17489.5	-45.98	5.70	14.15	Horizontal	-37.53	-25.00	12.53	45
8	19988.0	--	--	--	--	--	--	--	--
9	22486.5	--	--	--	--	--	--	--	--
10	24985.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

LTE Band 41 QPSK 20MHz CH-Middle, RB 1

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-59.05	2.00	10.15	Horizontal	-50.90	-25.00	25.90	180
3	7779.0	-56.36	2.50	11.35	Horizontal	-47.51	-25.00	22.51	0
4	10372.0	-50.75	4.20	12.05	Horizontal	-42.90	-25.00	17.90	225
5	12965.0	-52.20	5.20	14.85	Horizontal	-42.55	-25.00	17.55	315
6	15558.0	-48.94	5.50	13.23	Horizontal	-41.21	-25.00	16.21	45
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-38C QPSK 15MHz+15MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-56.42	2.00	9.15	Horizontal	-49.27	-25.0	24.27	180
3	7779.0	-58.66	2.50	11.35	Horizontal	-49.81	-25.0	24.81	0
4	10372.0	-50.47	4.20	12.05	Horizontal	-42.62	-25.0	17.62	45
5	12965.0	-51.19	5.20	12.85	Horizontal	-43.54	-25.0	18.54	315
6	15558.0	-49.80	5.50	14.23	Horizontal	-41.07	-25.0	16.07	0
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-38C QPSK 20MHz+20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-58.46	2.00	10.15	Horizontal	-50.31	-25.0	25.31	270
3	7779.0	-58.37	2.50	11.35	Horizontal	-49.52	-25.0	24.52	180
4	10372.0	-51.77	4.20	12.05	Horizontal	-43.92	-25.0	18.92	0
5	12965.0	-52.16	5.20	14.85	Horizontal	-42.51	-25.0	17.51	45
6	15558.0	-49.47	5.50	13.23	Horizontal	-41.74	-25.0	16.74	315
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-41C QPSK 5MHz+20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5168.0	-56.29	2.00	9.15	Horizontal	-49.14	-25.00	24.14	0
3	7779.0	-57.98	2.50	11.35	Horizontal	-49.13	-25.00	24.13	45
4	10372.0	-51.39	4.20	12.05	Horizontal	-43.54	-25.00	18.54	315
5	12965.0	-50.00	5.20	12.85	Horizontal	-42.35	-25.00	17.35	45
6	15558.0	-49.93	5.50	14.23	Horizontal	-41.20	-25.00	16.20	225
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-41C QPSK 20MHz+5MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-58.42	2.00	10.15	Horizontal	-50.27	-25.00	25.27	0
3	7779.0	-58.57	2.50	11.35	Horizontal	-49.72	-25.00	24.72	225
4	10372.0	-52.82	4.20	12.05	Horizontal	-44.97	-25.00	19.97	0
5	12965.0	-52.63	5.20	14.85	Horizontal	-42.98	-25.00	17.98	45
6	15558.0	-48.87	5.50	13.23	Horizontal	-41.14	-25.00	16.14	315
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-41C QPSK 10MHz+20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-57.98	2.00	9.15	Horizontal	-50.83	-25.00	25.83	45
3	7779.0	-58.61	2.50	11.35	Horizontal	-49.76	-25.00	24.76	225
4	10372.0	-52.27	4.20	12.05	Horizontal	-44.42	-25.00	19.42	0
5	12965.0	-50.05	5.20	12.85	Horizontal	-42.40	-25.00	17.40	45
6	15558.0	-50.38	5.50	14.23	Horizontal	-41.65	-25.00	16.65	315
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-41C QPSK 20MHz+10MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-58.40	2.00	10.15	Horizontal	-50.25	-25.00	25.25	315
3	7779.0	-57.50	2.50	11.35	Horizontal	-48.65	-25.00	23.65	270
4	10372.0	-52.30	4.20	12.05	Horizontal	-44.45	-25.00	19.45	180
5	12965.0	-52.15	5.20	14.85	Horizontal	-42.50	-25.00	17.50	0
6	15558.0	-48.25	5.50	13.23	Horizontal	-40.52	-25.00	15.52	45
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

CA-41C QPSK 20MHz+20MHz CH-Middle

Harmonic	Frequency (MHz)	SG (dBm)	Cable Loss (dB)	Gain (dBi)	Antenna Polarization	EIRP Level (dBm)	Limit (dBm)	Margin (dB)	Azimuth (deg)
2	5186.0	-56.21	2.00	10.15	Horizontal	-48.06	-25.00	23.06	0
3	7779.0	-58.00	2.50	11.35	Horizontal	-49.15	-25.00	24.15	315
4	10372.0	-52.84	4.20	12.05	Horizontal	-44.99	-25.00	19.99	45
5	12965.0	-51.59	5.20	14.85	Horizontal	-41.94	-25.00	16.94	180
6	15558.0	-49.03	5.50	13.23	Horizontal	-41.30	-25.00	16.30	0
7	18151.0	--	--	--	--	--	--	--	--
8	20744.0	--	--	--	--	--	--	--	--
9	23337.0	--	--	--	--	--	--	--	--
10	25930.0	--	--	--	--	--	--	--	--
Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor. 2. The worst emission was found in the antenna is Horizontal position.									

6 Main Test Instruments

Name	Manufacturer	Type	Serial Number	Calibration Date	Expiration Date
Base Station Simulator	R&S	CMW500	113824	2020-05-18	2021-05-17
Power Splitter	Hua Xiang	SHX-GF2-2-13	10120101	/	/
Spectrum Analyzer	Key sight	N9010A	MY50210259	2020-05-18	2021-05-17
Signal Analyzer	R&S	FSV30	100815	2019-12-15	2020-12-14
Loop Antenna	SCHWARZBECK	FMZB1519	1519-047	2020-04-02	2023-04-01
Trilog Antenna	SCHWARZBECK	VULB 9163	391	2019-12-16	2021-12-15
Horn Antenna	R&S	HF907	102723	2018-08-11	2021-08-10
Horn Antenna	ETS-Lindgren	3160-09	00102643	2018-06-20	2021-06-19
Horn Antenna	STEATITE	QSH-SL-26-40-K-15	16779	2017-07-20	2021-07-19
Signal generator	R&S	SMB 100A	102594	2020-05-18	2021-05-17
Climatic Chamber	ESPEC	SU-242	93000506	2017-12-17	2020-12-16
Preampflier	R&S	SCU18	102327	2020-05-18	2021-05-17
MOB COMMS DC SUPPLY	Keysight	66319D	MY43004105	2020-05-18	2021-05-17
RF Cable	Agilent	SMA 15cm	0001	2020-06-12	2020-12-11
Software	R&S	EMC32	9.26.0	/	/

********END OF REPORT ********

ANNEX A: The EUT Appearance

The EUT Appearance are submitted separately.

ANNEX B: Test Setup Photos

The Test Setup Photos are submitted separately.