

Report No.: SZEM180500437001

Page: 1 of 59

Appendix B

E-UTRA BAND 7



Report No.: SZEM180500437001

Page: 2 of 59

CONTENT

1.	. Effective (Isotropic) Radiated Power	3
	1.1. Test Result	3
2.	PEAK-TO-AVERAGE RATIO(CCDF)	10
	2.1. Test Result	10
	2.2. Test Plots	10
3.	. Modulation Characteristics	14
	3.1. Test BAND = LTE BAND7	14
	3.1.1. Test Mode = LTE /TM1 20MHz	14
	3.1.1.1. Test Channel = MCH	14
	3.1.2. Test Mode = LTE /TM2 20MHz	15
	3.1.2.1. Test Channel = MCH	15
	3.1.1. Test Mode = LTE /TM3 20MHz	16
	3.1.1.1. Test Channel = MCH	16
4.	. 26dB Bandwidth and Occupied Bandwidth	17
	4.1. Test Result	17
	4.2. Test Plots	18
5.	. BAND EDGE COMPLIANCE	31
	5.1. Test Plots	31
6.	. Spurious Emission at Antenna Terminal	48
	6.1. Test Plots	48
7.	. FIELD STRENGTH OF SPURIOUS RADIATION	55
	7.1. Test BAND = LTE BAND 7	55
	7.1.1. Test Mode =LTE/TM1 20MHz	55
	7.1.1.1. Test Channel = LCH	55
	7.1.1.2. Test Channel = MCH	55
	7.1.1.3. Test Channel = HCH	56
8.	. Frequency Stability	57
	8.1. Frequency Vs Voltage	57
	8.2. Frequency Vs Temperature	58



Report No.: SZEM180500437001

Page: 3 of 59

1. Effective (Isotropic) Radiated Power

1.1.Test Result

BAND	Bandwidth	Modulation	Channel	RB	Result	EIRP	Limit	Verdic
				Configuration	(dBm)	(dBm)	(dBm)	t
BAND7	5MHz	QPSK	20775	1RB#0	23.88	27.88	33.00	PASS
BAND7	5MHz	QPSK	20775	1RB#12	23.79	27.79	33.00	PASS
BAND7	5MHz	QPSK	20775	1RB#24	23.86	27.86	33.00	PASS
BAND7	5MHz	QPSK	20775	12RB#0	22.91	26.91	33.00	PASS
BAND7	5MHz	QPSK	20775	12RB#13	22.97	26.97	33.00	PASS
BAND7	5MHz	QPSK	20775	12RB#6	22.95	26.95	33.00	PASS
BAND7	5MHz	QPSK	20775	25RB#0	22.99	26.99	33.00	PASS
BAND7	5MHz	QPSK	21100	1RB#0	23.61	27.61	33.00	PASS
BAND7	5MHz	QPSK	21100	1RB#12	23.54	27.54	33.00	PASS
BAND7	5MHz	QPSK	21100	1RB#24	23.50	27.50	33.00	PASS
BAND7	5MHz	QPSK	21100	12RB#0	22.50	26.50	33.00	PASS
BAND7	5MHz	QPSK	21100	12RB#13	22.36	26.36	33.00	PASS
BAND7	5MHz	QPSK	21100	12RB#6	22.43	26.43	33.00	PASS
BAND7	5MHz	QPSK	21100	25RB#0	22.44	26.44	33.00	PASS
BAND7	5MHz	QPSK	21425	1RB#0	23.28	27.28	33.00	PASS
BAND7	5MHz	QPSK	21425	1RB#12	23.22	27.22	33.00	PASS
BAND7	5MHz	QPSK	21425	1RB#24	23.18	27.18	33.00	PASS
BAND7	5MHz	QPSK	21425	12RB#0	22.18	26.18	33.00	PASS
BAND7	5MHz	QPSK	21425	12RB#13	22.09	26.09	33.00	PASS
BAND7	5MHz	QPSK	21425	12RB#6	22.15	26.15	33.00	PASS
BAND7	5MHz	QPSK	21425	25RB#0	22.18	26.18	33.00	PASS
BAND7	5MHz	16QAM	20775	1RB#0	22.97	26.97	33.00	PASS
BAND7	5MHz	16QAM	20775	1RB#12	22.98	26.98	33.00	PASS
BAND7	5MHz	16QAM	20775	1RB#24	22.89	26.89	33.00	PASS
BAND7	5MHz	16QAM	20775	12RB#0	21.91	25.91	33.00	PASS
BAND7	5MHz	16QAM	20775	12RB#13	21.88	25.88	33.00	PASS
BAND7	5MHz	16QAM	20775	12RB#6	21.88	25.88	33.00	PASS
BAND7	5MHz	16QAM	20775	25RB#0	21.90	25.90	33.00	PASS
BAND7	5MHz	16QAM	21100	1RB#0	22.95	26.95	33.00	PASS
BAND7	5MHz	16QAM	21100	1RB#12	22.81	26.81	33.00	PASS
BAND7	5MHz	16QAM	21100	1RB#24	22.91	26.91	33.00	PASS
BAND7	5MHz	16QAM	21100	12RB#0	21.84	25.84	33.00	PASS
BAND7	5MHz	16QAM	21100	12RB#13	21.91	25.91	33.00	PASS
BAND7	5MHz	16QAM	21100	12RB#6	21.94	25.94	33.00	PASS



Report No.: SZEM180500437001

Page: 4 of 59

BAND7	5MHz	16QAM	21100	25RB#0	21.82	25.82	33.00	PASS
BAND7	5MHz	16QAM	21425	1RB#0	22.87	26.87	33.00	PASS
BAND7	5MHz	16QAM	21425	1RB#12	22.94	26.94	33.00	PASS
BAND7	5MHz	16QAM	21425	1RB#24	22.82	26.82	33.00	PASS
BAND7	5MHz	16QAM	21425	12RB#0	21.92	25.92	33.00	PASS
BAND7	5MHz	16QAM	21425	12RB#13	21.92	25.92	33.00	PASS
BAND7	5MHz	16QAM	21425	12RB#6	21.91	25.91	33.00	PASS
BAND7	5MHz	16QAM	21425	25RB#0	21.91	25.91	33.00	PASS
BAND7	5MHz	64QAM	20775	1RB#0	21.83	25.83	33.00	PASS
BAND7	5MHz	64QAM	20775	1RB#12	21.96	25.96	33.00	PASS
BAND7	5MHz	64QAM	20775	1RB#24	21.95	25.95	33.00	PASS
BAND7	5MHz	64QAM	20775	12RB#0	20.92	24.92	33.00	PASS
BAND7	5MHz	64QAM	20775	12RB#13	20.91	24.91	33.00	PASS
BAND7	5MHz	64QAM	20775	12RB#6	20.99	24.99	33.00	PASS
BAND7	5MHz	64QAM	20775	25RB#0	20.85	24.85	33.00	PASS
BAND7	5MHz	64QAM	21100	1RB#0	21.85	25.85	33.00	PASS
BAND7	5MHz	64QAM	21100	1RB#12	21.94	25.94	33.00	PASS
BAND7	5MHz	64QAM	21100	1RB#24	21.81	25.81	33.00	PASS
BAND7	5MHz	64QAM	21100	12RB#0	20.96	24.96	33.00	PASS
BAND7	5MHz	64QAM	21100	12RB#13	20.83	24.83	33.00	PASS
BAND7	5MHz	64QAM	21100	12RB#6	20.93	24.93	33.00	PASS
BAND7	5MHz	64QAM	21100	25RB#0	20.89	24.89	33.00	PASS
BAND7	5MHz	64QAM	21425	1RB#0	21.91	25.91	33.00	PASS
BAND7	5MHz	64QAM	21425	1RB#12	21.94	25.94	33.00	PASS
BAND7	5MHz	64QAM	21425	1RB#24	21.97	25.97	33.00	PASS
BAND7	5MHz	64QAM	21425	12RB#0	20.91	24.91	33.00	PASS
BAND7	5MHz	64QAM	21425	12RB#13	20.96	24.96	33.00	PASS
BAND7	5MHz	64QAM	21425	12RB#6	20.90	24.90	33.00	PASS
BAND7	5MHz	64QAM	21425	25RB#0	20.95	24.95	33.00	PASS
BAND7	10MHz	QPSK	20800	1RB#0	23.87	27.87	33.00	PASS
BAND7	10MHz	QPSK	20800	1RB#24	23.56	27.56	33.00	PASS
BAND7	10MHz	QPSK	20800	1RB#49	23.84	27.84	33.00	PASS
BAND7	10MHz	QPSK	20800	25RB#0	22.88	26.88	33.00	PASS
BAND7	10MHz	QPSK	20800	25RB#12	22.85	26.85	33.00	PASS
BAND7	10MHz	QPSK	20800	25RB#25	22.79	26.79	33.00	PASS
BAND7	10MHz	QPSK	20800	50RB#0	22.56	26.56	33.00	PASS
BAND7	10MHz	QPSK	21100	1RB#0	23.65	27.65	33.00	PASS
BAND7	10MHz	QPSK	21100	1RB#24	23.57	27.57	33.00	PASS
BAND7	10MHz	QPSK	21100	1RB#49	23.43	27.43	33.00	PASS
BAND7	10MHz	QPSK	21100	25RB#0	22.64	26.64	33.00	PASS
BAND7	10MHz	QPSK	21100	25RB#12	22.57	26.57	33.00	PASS
	1	I .	<u> </u>	I	<u> </u>	<u> </u>	<u> </u>	



Report No.: SZEM180500437001

Page: 5 of 59

		,						
BAND7	10MHz	QPSK	21100	25RB#25	22.50	26.50	33.00	PASS
BAND7	10MHz	QPSK	21100	50RB#0	22.57	26.57	33.00	PASS
BAND7	10MHz	QPSK	21400	1RB#0	23.38	27.38	33.00	PASS
BAND7	10MHz	QPSK	21400	1RB#24	23.27	27.27	33.00	PASS
BAND7	10MHz	QPSK	21400	1RB#49	23.21	27.21	33.00	PASS
BAND7	10MHz	QPSK	21400	25RB#0	22.37	26.37	33.00	PASS
BAND7	10MHz	QPSK	21400	25RB#12	22.33	26.33	33.00	PASS
BAND7	10MHz	QPSK	21400	25RB#25	22.30	26.30	33.00	PASS
BAND7	10MHz	QPSK	21400	50RB#0	22.34	26.34	33.00	PASS
BAND7	10MHz	16QAM	20800	1RB#0	22.86	26.86	33.00	PASS
BAND7	10MHz	16QAM	20800	1RB#24	22.86	26.86	33.00	PASS
BAND7	10MHz	16QAM	20800	1RB#49	22.97	26.97	33.00	PASS
BAND7	10MHz	16QAM	20800	25RB#0	21.82	25.82	33.00	PASS
BAND7	10MHz	16QAM	20800	25RB#12	21.93	25.93	33.00	PASS
BAND7	10MHz	16QAM	20800	25RB#25	21.86	25.86	33.00	PASS
BAND7	10MHz	16QAM	20800	50RB#0	21.88	25.88	33.00	PASS
BAND7	10MHz	16QAM	21100	1RB#0	22.81	26.81	33.00	PASS
BAND7	10MHz	16QAM	21100	1RB#24	22.83	26.83	33.00	PASS
BAND7	10MHz	16QAM	21100	1RB#49	22.96	26.96	33.00	PASS
BAND7	10MHz	16QAM	21100	25RB#0	21.87	25.87	33.00	PASS
BAND7	10MHz	16QAM	21100	25RB#12	21.81	25.81	33.00	PASS
BAND7	10MHz	16QAM	21100	25RB#25	21.88	25.88	33.00	PASS
BAND7	10MHz	16QAM	21100	50RB#0	21.84	25.84	33.00	PASS
BAND7	10MHz	16QAM	21400	1RB#0	22.84	26.84	33.00	PASS
BAND7	10MHz	16QAM	21400	1RB#24	22.87	26.87	33.00	PASS
BAND7	10MHz	16QAM	21400	1RB#49	22.89	26.89	33.00	PASS
BAND7	10MHz	16QAM	21400	25RB#0	21.99	25.99	33.00	PASS
BAND7	10MHz	16QAM	21400	25RB#12	21.89	25.89	33.00	PASS
BAND7	10MHz	16QAM	21400	25RB#25	21.92	25.92	33.00	PASS
BAND7	10MHz	16QAM	21400	50RB#0	21.92	25.92	33.00	PASS
BAND7	10MHz	64QAM	20800	1RB#0	21.97	25.97	33.00	PASS
BAND7	10MHz	64QAM	20800	1RB#24	21.87	25.87	33.00	PASS
BAND7	10MHz	64QAM	20800	1RB#49	21.88	25.88	33.00	PASS
BAND7	10MHz	64QAM	20800	25RB#0	20.97	24.97	33.00	PASS
BAND7	10MHz	64QAM	20800	25RB#12	20.81	24.81	33.00	PASS
BAND7	10MHz	64QAM	20800	25RB#25	20.96	24.96	33.00	PASS
BAND7	10MHz	64QAM	20800	50RB#0	20.80	24.80	33.00	PASS
BAND7	10MHz	64QAM	21100	1RB#0	21.97	25.97	33.00	PASS
BAND7	10MHz	64QAM	21100	1RB#24	21.98	25.98	33.00	PASS
BAND7	10MHz	64QAM	21100	1RB#49	21.90	25.90	33.00	PASS
BAND7	10MHz	64QAM	21100	25RB#0	20.98	24.98	33.00	PASS



Report No.: SZEM180500437001

Page: 6 of 59

BAND7	10MHz	64QAM	21100	25RB#12	20.94	24.94	33.00	PASS
BAND7	10MHz	64QAM	21100	25RB#25	20.90	24.90	33.00	PASS
BAND7	10MHz	64QAM	21100	50RB#0	20.95	24.95	33.00	PASS
BAND7	10MHz	64QAM	21400	1RB#0	21.84	25.84	33.00	PASS
BAND7	10MHz	64QAM	21400	1RB#24	21.97	25.97	33.00	PASS
BAND7	10MHz	64QAM	21400	1RB#49	21.84	25.84	33.00	PASS
BAND7	10MHz	64QAM	21400	25RB#0	20.89	24.89	33.00	PASS
BAND7	10MHz	64QAM	21400	25RB#12	20.86	24.86	33.00	PASS
BAND7	10MHz	64QAM	21400	25RB#25	20.99	24.99	33.00	PASS
BAND7	10MHz	64QAM	21400	50RB#0	20.80	24.80	33.00	PASS
BAND7	15MHz	QPSK	20825	1RB#0	23.86	27.86	33.00	PASS
BAND7	15MHz	QPSK	20825	1RB#38	23.90	27.90	33.00	PASS
BAND7	15MHz	QPSK	20825	1RB#74	23.75	27.75	33.00	PASS
BAND7	15MHz	QPSK	20825	36RB#0	22.89	26.89	33.00	PASS
BAND7	15MHz	QPSK	20825	36RB#18	22.85	26.85	33.00	PASS
BAND7	15MHz	QPSK	20825	36RB#39	22.93	26.93	33.00	PASS
BAND7	15MHz	QPSK	20825	75RB#0	22.91	26.91	33.00	PASS
BAND7	15MHz	QPSK	21100	1RB#0	23.61	27.61	33.00	PASS
BAND7	15MHz	QPSK	21100	1RB#38	23.53	27.53	33.00	PASS
BAND7	15MHz	QPSK	21100	1RB#74	23.40	27.40	33.00	PASS
BAND7	15MHz	QPSK	21100	36RB#0	22.65	26.65	33.00	PASS
BAND7	15MHz	QPSK	21100	36RB#18	22.58	26.58	33.00	PASS
BAND7	15MHz	QPSK	21100	36RB#39	22.39	26.39	33.00	PASS
BAND7	15MHz	QPSK	21100	75RB#0	22.57	26.57	33.00	PASS
BAND7	15MHz	QPSK	21375	1RB#0	23.47	27.47	33.00	PASS
BAND7	15MHz	QPSK	21375	1RB#38	23.28	27.28	33.00	PASS
BAND7	15MHz	QPSK	21375	1RB#74	23.15	27.15	33.00	PASS
BAND7	15MHz	QPSK	21375	36RB#0	22.40	26.40	33.00	PASS
BAND7	15MHz	QPSK	21375	36RB#18	22.36	26.36	33.00	PASS
BAND7	15MHz	QPSK	21375	36RB#39	22.30	26.30	33.00	PASS
BAND7	15MHz	QPSK	21375	75RB#0	22.36	26.36	33.00	PASS
BAND7	15MHz	16QAM	20825	1RB#0	22.99	26.99	33.00	PASS
BAND7	15MHz	16QAM	20825	1RB#38	22.91	26.91	33.00	PASS
BAND7	15MHz	16QAM	20825	1RB#74	22.88	26.88	33.00	PASS
BAND7	15MHz	16QAM	20825	36RB#0	21.96	25.96	33.00	PASS
BAND7	15MHz	16QAM	20825	36RB#18	21.85	25.85	33.00	PASS
BAND7	15MHz	16QAM	20825	36RB#39	21.83	25.83	33.00	PASS
BAND7	15MHz	16QAM	20825	75RB#0	21.93	25.93	33.00	PASS
BAND7	15MHz	16QAM	21100	1RB#0	22.80	26.80	33.00	PASS
BAND7	15MHz	16QAM	21100	1RB#38	22.93	26.93	33.00	PASS
BAND7	15MHz	16QAM	21100	1RB#74	22.99	26.99	33.00	PASS



Report No.: SZEM180500437001

Page: 7 of 59

		,						
BAND7	15MHz	16QAM	21100	36RB#0	21.99	25.99	33.00	PASS
BAND7	15MHz	16QAM	21100	36RB#18	21.83	25.83	33.00	PASS
BAND7	15MHz	16QAM	21100	36RB#39	21.89	25.89	33.00	PASS
BAND7	15MHz	16QAM	21100	75RB#0	21.88	25.88	33.00	PASS
BAND7	15MHz	16QAM	21375	1RB#0	22.98	26.98	33.00	PASS
BAND7	15MHz	16QAM	21375	1RB#38	22.96	26.96	33.00	PASS
BAND7	15MHz	16QAM	21375	1RB#74	22.84	26.84	33.00	PASS
BAND7	15MHz	16QAM	21375	36RB#0	21.91	25.91	33.00	PASS
BAND7	15MHz	16QAM	21375	36RB#18	21.96	25.96	33.00	PASS
BAND7	15MHz	16QAM	21375	36RB#39	21.92	25.92	33.00	PASS
BAND7	15MHz	16QAM	21375	75RB#0	21.94	25.94	33.00	PASS
BAND7	15MHz	64QAM	20825	1RB#0	21.88	25.88	33.00	PASS
BAND7	15MHz	64QAM	20825	1RB#38	21.91	25.91	33.00	PASS
BAND7	15MHz	64QAM	20825	1RB#74	21.84	25.84	33.00	PASS
BAND7	15MHz	64QAM	20825	36RB#0	20.96	24.96	33.00	PASS
BAND7	15MHz	64QAM	20825	36RB#18	20.92	24.92	33.00	PASS
BAND7	15MHz	64QAM	20825	36RB#39	20.82	24.82	33.00	PASS
BAND7	15MHz	64QAM	20825	75RB#0	20.95	24.95	33.00	PASS
BAND7	15MHz	64QAM	21100	1RB#0	21.94	25.94	33.00	PASS
BAND7	15MHz	64QAM	21100	1RB#38	21.82	25.82	33.00	PASS
BAND7	15MHz	64QAM	21100	1RB#74	21.92	25.92	33.00	PASS
BAND7	15MHz	64QAM	21100	36RB#0	20.89	24.89	33.00	PASS
BAND7	15MHz	64QAM	21100	36RB#18	20.93	24.93	33.00	PASS
BAND7	15MHz	64QAM	21100	36RB#39	20.87	24.87	33.00	PASS
BAND7	15MHz	64QAM	21100	75RB#0	20.80	24.80	33.00	PASS
BAND7	15MHz	64QAM	21375	1RB#0	21.92	25.92	33.00	PASS
BAND7	15MHz	64QAM	21375	1RB#38	21.95	25.95	33.00	PASS
BAND7	15MHz	64QAM	21375	1RB#74	21.89	25.89	33.00	PASS
BAND7	15MHz	64QAM	21375	36RB#0	20.98	24.98	33.00	PASS
BAND7	15MHz	64QAM	21375	36RB#18	20.84	24.84	33.00	PASS
BAND7	15MHz	64QAM	21375	36RB#39	20.99	24.99	33.00	PASS
BAND7	15MHz	64QAM	21375	75RB#0	20.91	24.91	33.00	PASS
BAND7	20MHz	QPSK	20850	1RB#0	23.79	27.79	33.00	PASS
BAND7	20MHz	QPSK	20850	1RB#49	23.81	27.81	33.00	PASS
BAND7	20MHz	QPSK	20850	1RB#99	23.63	27.63	33.00	PASS
BAND7	20MHz	QPSK	20850	50RB#0	22.89	26.89	33.00	PASS
BAND7	20MHz	QPSK	20850	50RB#25	22.96	26.96	33.00	PASS
BAND7	20MHz	QPSK	20850	50RB#50	22.83	26.83	33.00	PASS
BAND7	20MHz	QPSK	20850	100RB#0	22.78	26.78	33.00	PASS
BAND7	20MHz	QPSK	21100	1RB#0	23.64	27.64	33.00	PASS
BAND7	20MHz	QPSK	21100	1RB#49	23.55	27.55	33.00	PASS
	<u> </u>	I	<u> </u>	I	<u> </u>		<u> </u>	



Report No.: SZEM180500437001

Page: 8 of 59

BAND7	20MHz	QPSK	21100	1RB#99	23.45	27.45	33.00	PASS
BAND7	20MHz	QPSK	21100	50RB#0	22.66	26.66	33.00	PASS
BAND7	20MHz	QPSK	21100	50RB#25	22.56	26.56	33.00	PASS
BAND7	20MHz	QPSK	21100	50RB#50	22.39	26.39	33.00	PASS
BAND7	20MHz	QPSK	21100	100RB#0	22.58	26.58	33.00	PASS
BAND7	20MHz	QPSK	21350	1RB#0	23.51	27.51	33.00	PASS
BAND7	20MHz	QPSK	21350	1RB#49	23.30	27.30	33.00	PASS
BAND7	20MHz	QPSK	21350	1RB#99	23.19	27.19	33.00	PASS
BAND7	20MHz	QPSK	21350	50RB#0	22.47	26.47	33.00	PASS
BAND7	20MHz	QPSK	21350	50RB#25	22.36	26.36	33.00	PASS
BAND7	20MHz	QPSK	21350	50RB#50	22.32	26.32	33.00	PASS
BAND7	20MHz	QPSK	21350	100RB#0	22.40	26.40	33.00	PASS
BAND7	20MHz	16QAM	20850	1RB#0	22.82	26.82	33.00	PASS
BAND7	20MHz	16QAM	20850	1RB#49	22.87	26.87	33.00	PASS
BAND7	20MHz	16QAM	20850	1RB#99	22.89	26.89	33.00	PASS
BAND7	20MHz	16QAM	20850	50RB#0	21.98	25.98	33.00	PASS
BAND7	20MHz	16QAM	20850	50RB#25	21.90	25.90	33.00	PASS
BAND7	20MHz	16QAM	20850	50RB#50	21.94	25.94	33.00	PASS
BAND7	20MHz	16QAM	20850	100RB#0	21.93	25.93	33.00	PASS
BAND7	20MHz	16QAM	21100	1RB#0	22.97	26.97	33.00	PASS
BAND7	20MHz	16QAM	21100	1RB#49	22.93	26.93	33.00	PASS
BAND7	20MHz	16QAM	21100	1RB#99	22.89	26.89	33.00	PASS
BAND7	20MHz	16QAM	21100	50RB#0	21.84	25.84	33.00	PASS
BAND7	20MHz	16QAM	21100	50RB#25	21.84	25.84	33.00	PASS
BAND7	20MHz	16QAM	21100	50RB#50	21.86	25.86	33.00	PASS
BAND7	20MHz	16QAM	21100	100RB#0	21.89	25.89	33.00	PASS
BAND7	20MHz	16QAM	21350	1RB#0	22.99	26.99	33.00	PASS
BAND7	20MHz	16QAM	21350	1RB#49	22.91	26.91	33.00	PASS
BAND7	20MHz	16QAM	21350	1RB#99	22.95	26.95	33.00	PASS
BAND7	20MHz	16QAM	21350	50RB#0	21.93	25.93	33.00	PASS
BAND7	20MHz	16QAM	21350	50RB#25	21.96	25.96	33.00	PASS
BAND7	20MHz	16QAM	21350	50RB#50	21.99	25.99	33.00	PASS
BAND7	20MHz	16QAM	21350	100RB#0	21.87	25.87	33.00	PASS
BAND7	20MHz	64QAM	20850	1RB#0	21.90	25.90	33.00	PASS
BAND7	20MHz	64QAM	20850	1RB#49	21.86	25.86	33.00	PASS
BAND7	20MHz	64QAM	20850	1RB#99	21.81	25.81	33.00	PASS
BAND7	20MHz	64QAM	20850	50RB#0	20.91	24.91	33.00	PASS
BAND7	20MHz	64QAM	20850	50RB#25	20.92	24.92	33.00	PASS
BAND7	20MHz	64QAM	20850	50RB#50	20.88	24.88	33.00	PASS
BAND7	20MHz	64QAM	20850	100RB#0	20.87	24.87	33.00	PASS
BAND7	20MHz	64QAM	21100	1RB#0	21.85	25.85	33.00	PASS



Report No.: SZEM180500437001

Page: 9 of 59

BAND7	20MHz	64QAM	21100	1RB#49	21.84	25.84	33.00	PASS
BAND7	20MHz	64QAM	21100	1RB#99	21.95	25.95	33.00	PASS
BAND7	20MHz	64QAM	21100	50RB#0	20.83	24.83	33.00	PASS
BAND7	20MHz	64QAM	21100	50RB#25	20.97	24.97	33.00	PASS
BAND7	20MHz	64QAM	21100	50RB#50	20.89	24.89	33.00	PASS
BAND7	20MHz	64QAM	21100	100RB#0	20.89	24.89	33.00	PASS
BAND7	20MHz	64QAM	21350	1RB#0	21.83	25.83	33.00	PASS
BAND7	20MHz	64QAM	21350	1RB#49	21.94	25.94	33.00	PASS
BAND7	20MHz	64QAM	21350	1RB#99	21.87	25.87	33.00	PASS
BAND7	20MHz	64QAM	21350	50RB#0	20.91	24.91	33.00	PASS
BAND7	20MHz	64QAM	21350	50RB#25	20.93	24.93	33.00	PASS
BAND7	20MHz	64QAM	21350	50RB#50	20.96	24.96	33.00	PASS
BAND7	20MHz	64QAM	21350	100RB#0	20.83	24.83	33.00	PASS

Note:

a: For getting the EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

ERP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBd]

EIRP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBi]

b: SGP=Signal Generator Level



Report No.: SZEM180500437001

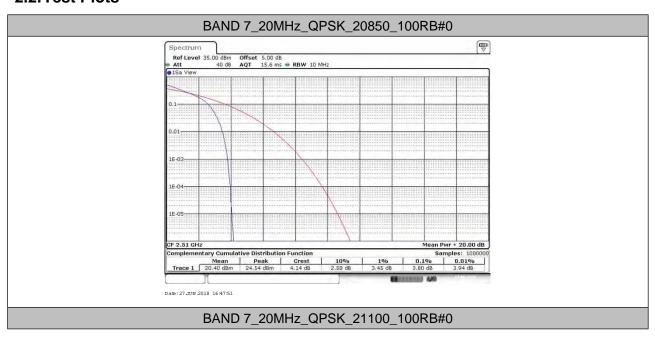
Page: 10 of 59

2. Peak-to-Average Ratio(CCDF)

2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
			20850	100RB#0	3.80	13	PASS
		QPSK	21100	100RB#0	4.29	13	PASS
			21350	100RB#0	4.14	13	PASS
		16QAM	20850	100RB#0	5.39	13	PASS
BAND 7	20MHz		21100	100RB#0	5.88	13	PASS
			21350	100RB#0	5.77	13	PASS
			20850	100RB#0	5.80	13	PASS
		64QAM	21100	100RB#0	6.23	13	PASS
			21350	100RB#0	6.12	13	PASS

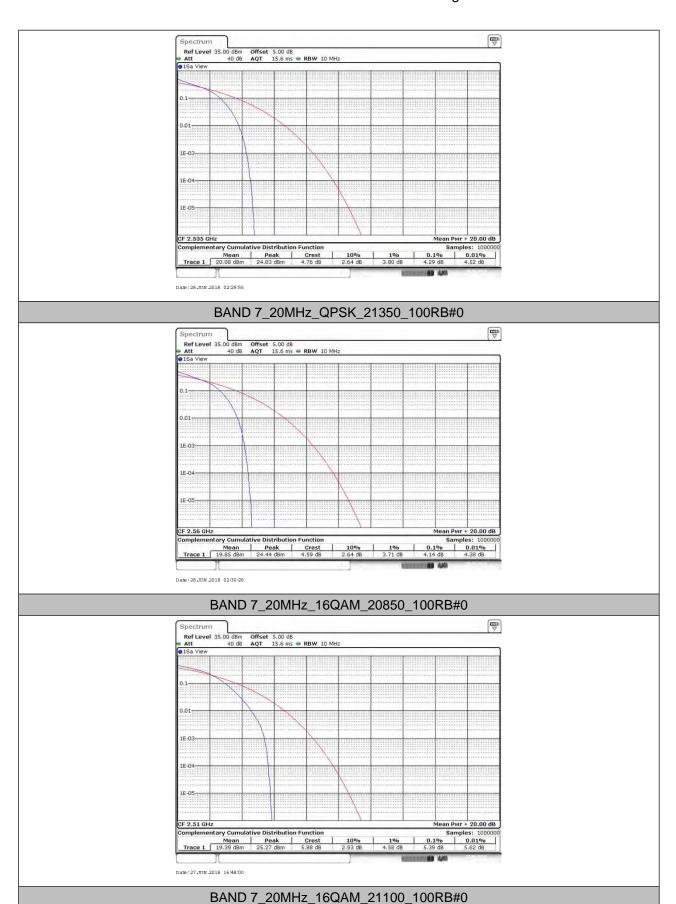
2.2. Test Plots





Report No.: SZEM180500437001

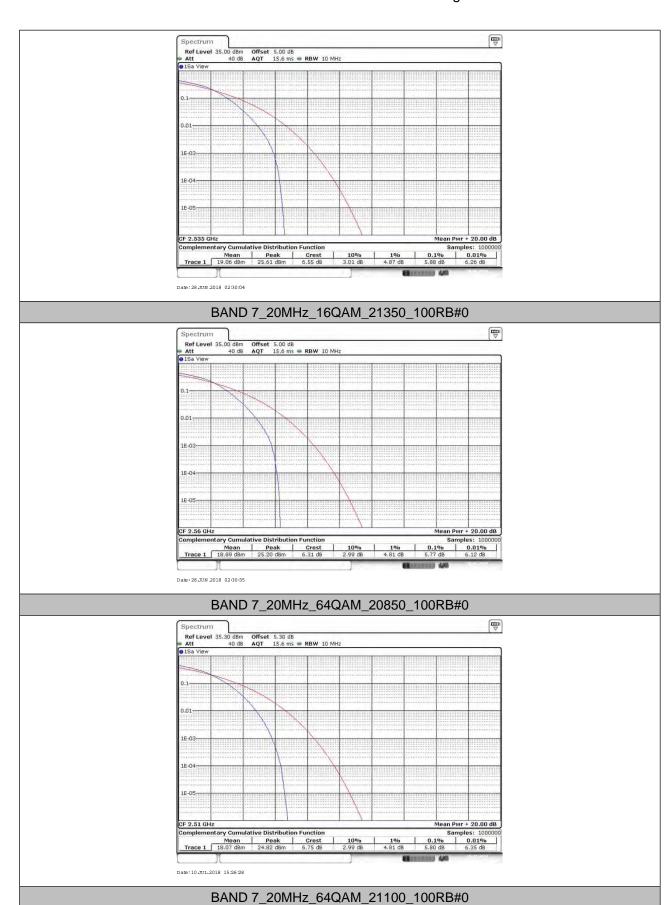
Page: 11 of 59





Report No.: SZEM180500437001

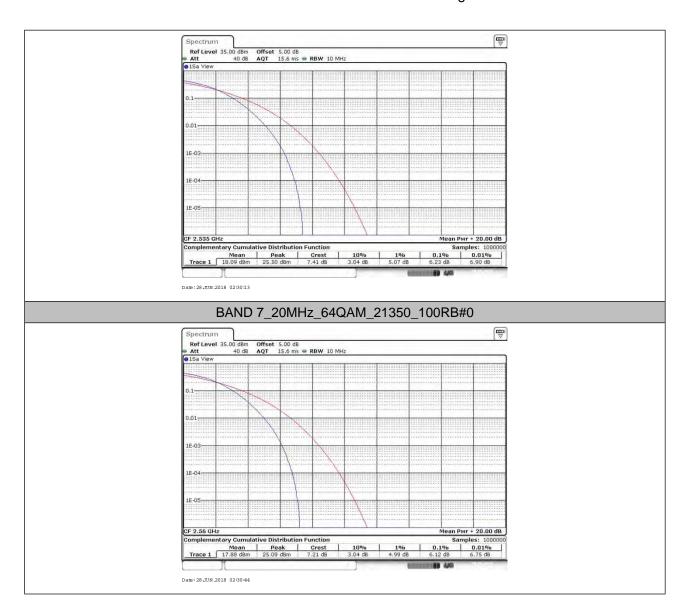
Page: 12 of 59





Report No.: SZEM180500437001

Page: 13 of 59



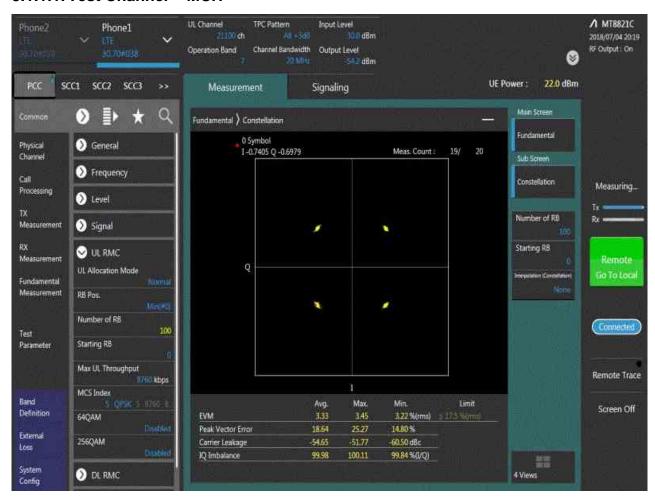


Report No.: SZEM180500437001

Page: 14 of 59

3. Modulation Characteristics

- 3.1. Test BAND = LTE BAND7
- 3.1.1. Test Mode = LTE /TM1 20MHz
- 3.1.1.1. Test Channel = MCH



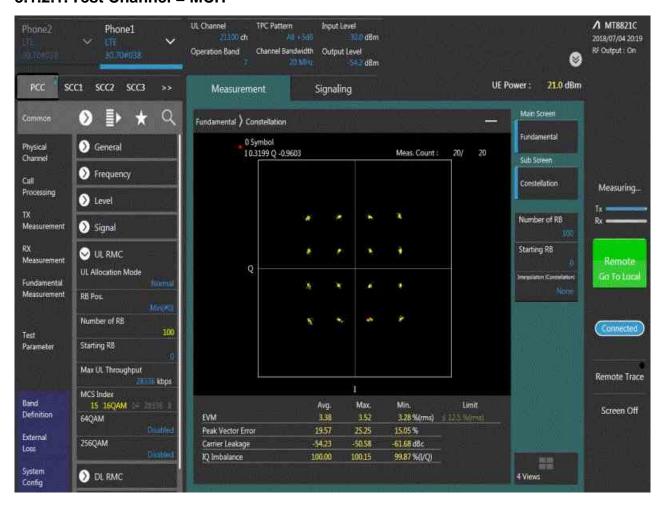


Report No.: SZEM180500437001

Page: 15 of 59

3.1.2. Test Mode = LTE /TM2 20MHz

3.1.2.1. Test Channel = MCH



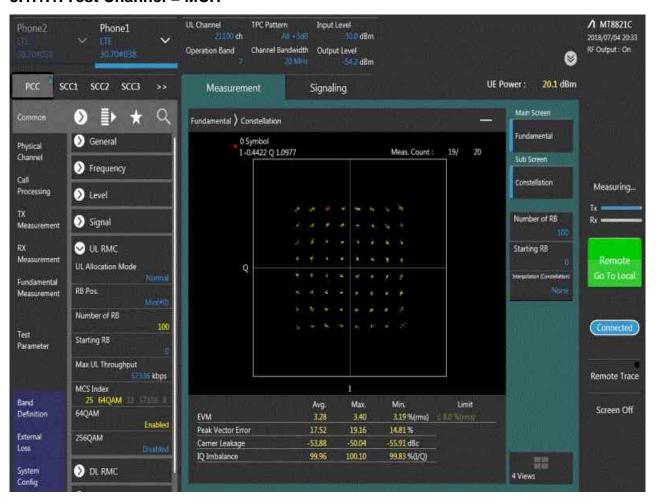


Report No.: SZEM180500437001

Page: 16 of 59

3.1.1. Test Mode = LTE /TM3 20MHz

3.1.1.1. Test Channel = MCH





Report No.: SZEM180500437001

Page: 17 of 59

4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
			20775	25RB#0	4.476	4.890	PASS
		QPSK	21100	25RB#0	4.476	4.920	PASS
			21425	25RB#0	4.476	4.900	PASS
			20775	25RB#0	4.476	4.900	PASS
	5MHz	64QAM	21100	25RB#0	4.486	4.910	PASS
			21425	25RB#0	4.476	4.910	PASS
			20775	25RB#0	4.486	4.890	PASS
		16QAM	21100	25RB#0	4.476	4.900	PASS
			21425	25RB#0	4.486	4.900	PASS
			20800	50RB#0	8.971	10.380	PASS
		QPSK	21100	50RB#0	8.971	10.380	PASS
			21400	50RB#0	8.991	10.320	PASS
		z 64QAM	20800	50RB#0	8.971	10.340	PASS
	10MHz		21100	50RB#0	8.951	10.400	PASS
			21400	50RB#0	8.971	10.360	PASS
			20800	50RB#0	8.971	10.340	PASS
Band7	nd7	16QAM	21100	50RB#0	8.971	10.440	PASS
			21400	50RB#0	8.991	10.400	PASS
			20825	75RB#0	13.546	16.140	PASS
		QPSK	21100	75RB#0	13.546	16.380	PASS
			21375	75RB#0	13.546	16.080	PASS
			20825	75RB#0	13.546	16.260	PASS
	15MHz	64QAM	21100	75RB#0	13.546	15.930	PASS
			21375	75RB#0	13.516	15.600	PASS
			20825	75RB#0	13.546	16.260	PASS
		16QAM	21100	75RB#0	13.546	15.900	PASS
			21375	75RB#0	13.546	15.930	PASS
			20850	100RB#0	17.942	20.720	PASS
		QPSK	21100	100RB#0	17.982	20.160	PASS
	20MHz		21350	100RB#0	17.982	20.400	PASS
	ZUIVITZ		20850	100RB#0	17.982	22.160	PASS
		64QAM	21100	100RB#0	17.982	20.120	PASS
			21350	100RB#0	17.942	19.960	PASS

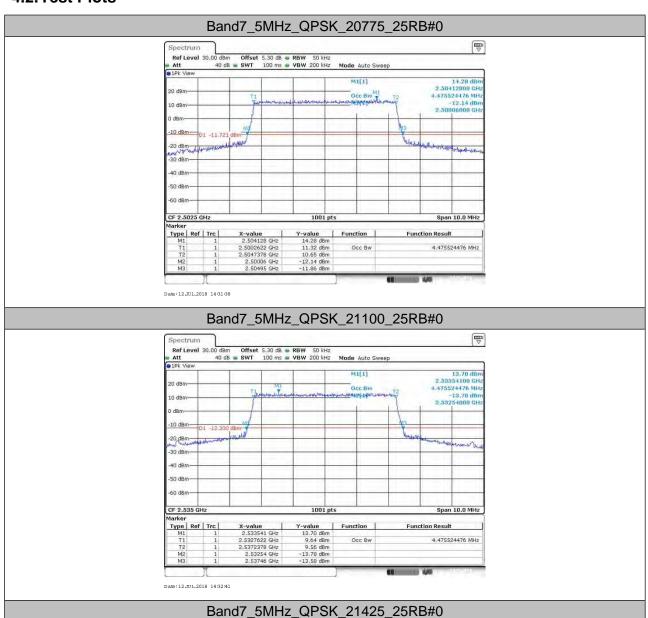


Report No.: SZEM180500437001

Page: 18 of 59

		20850	100RB#0	17.982	22.160	PASS
	16QAM	21100	100RB#0	17.942	20.120	PASS
		21350	100RB#0	17.942	20.280	PASS

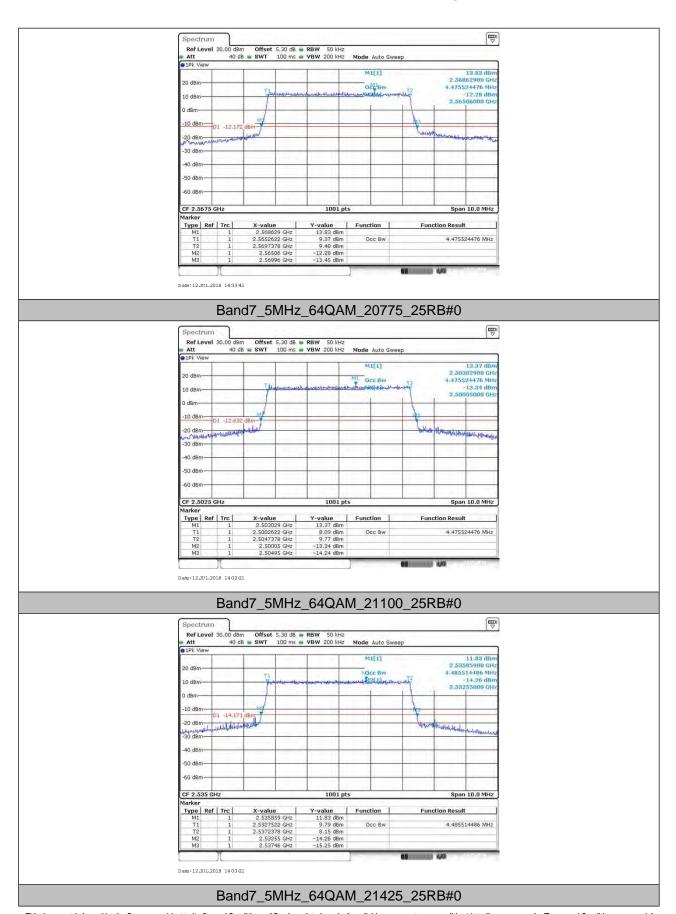
4.2. Test Plots





Report No.: SZEM180500437001

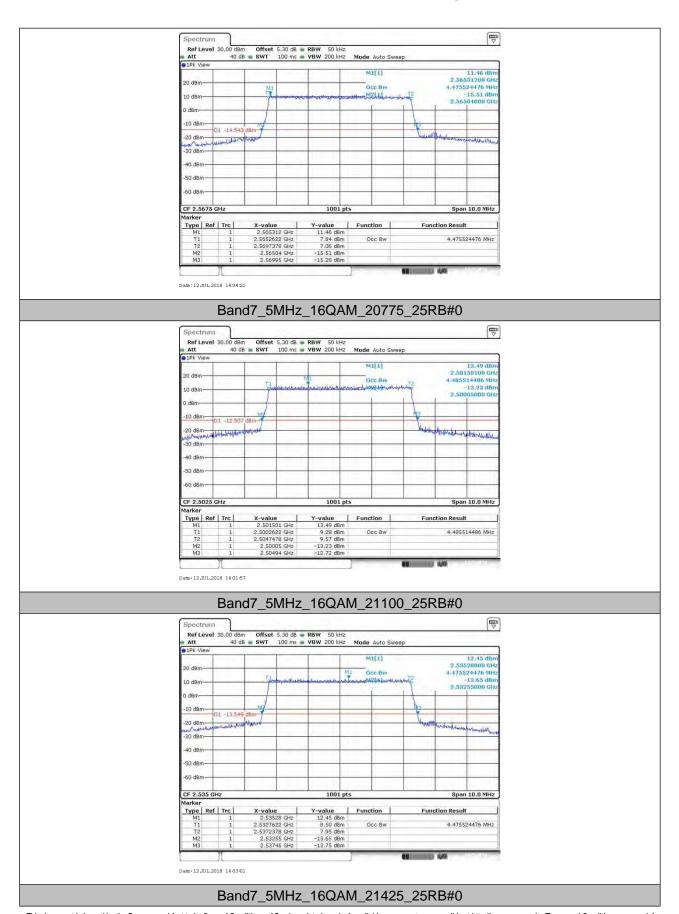
Page: 19 of 59





Report No.: SZEM180500437001

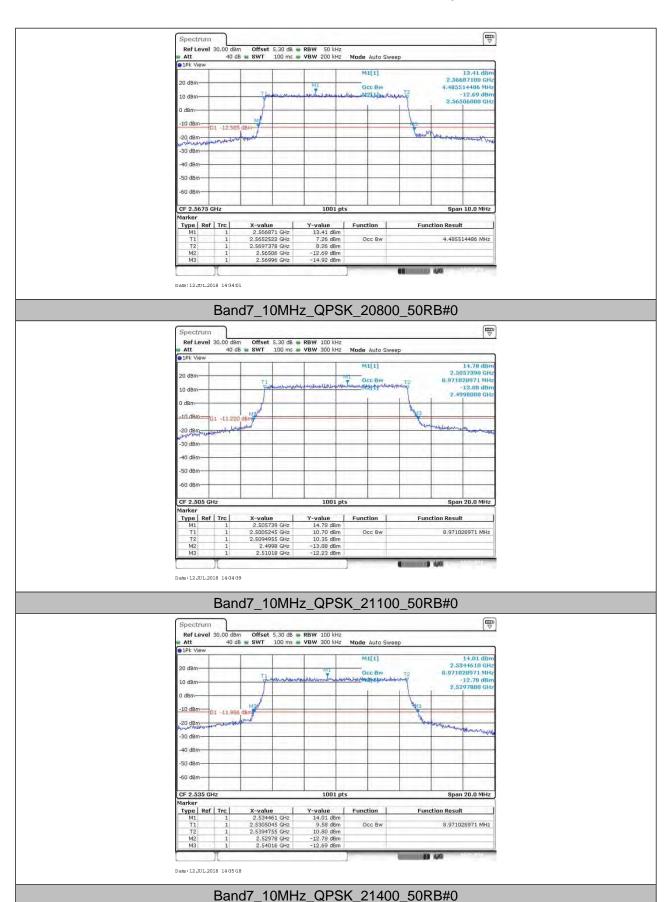
Page: 20 of 59





Report No.: SZEM180500437001

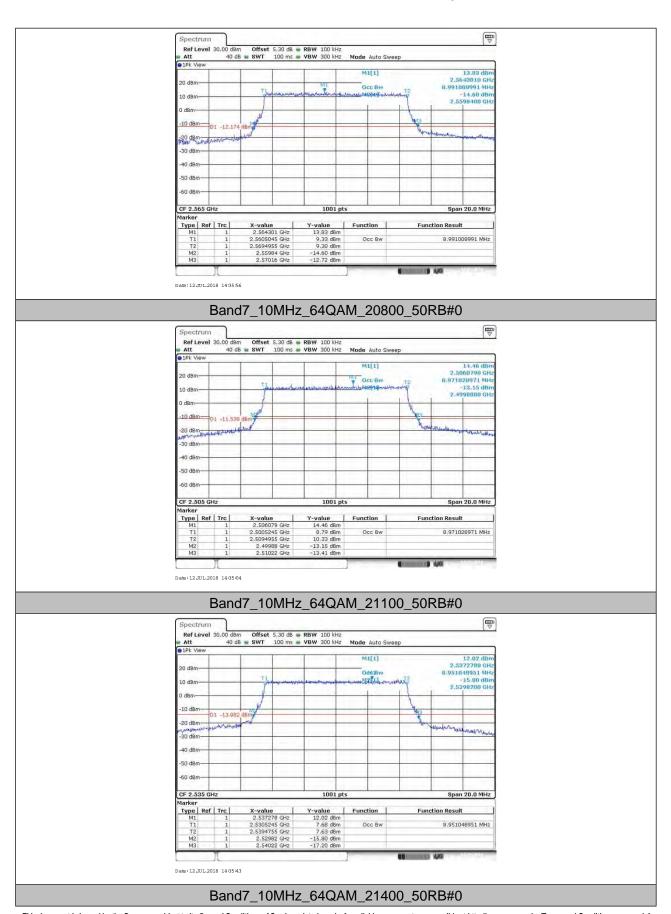
Page: 21 of 59





Report No.: SZEM180500437001

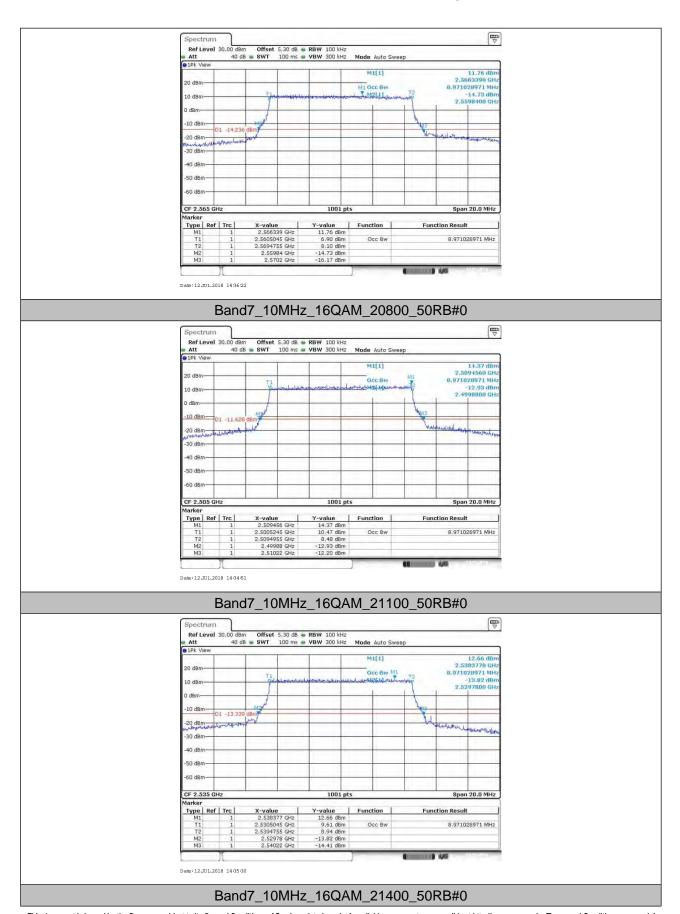
Page: 22 of 59





Report No.: SZEM180500437001

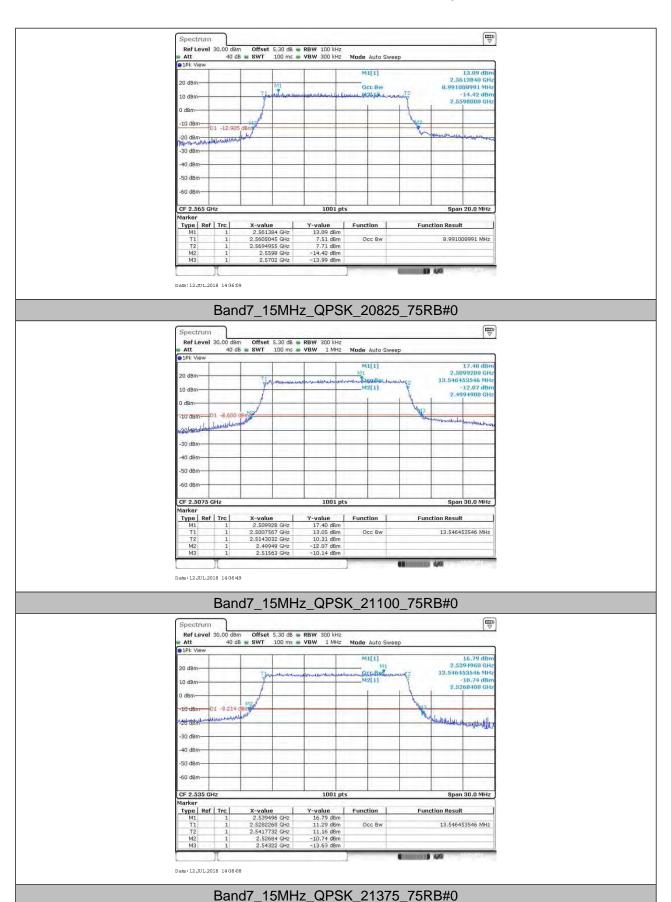
Page: 23 of 59





Report No.: SZEM180500437001

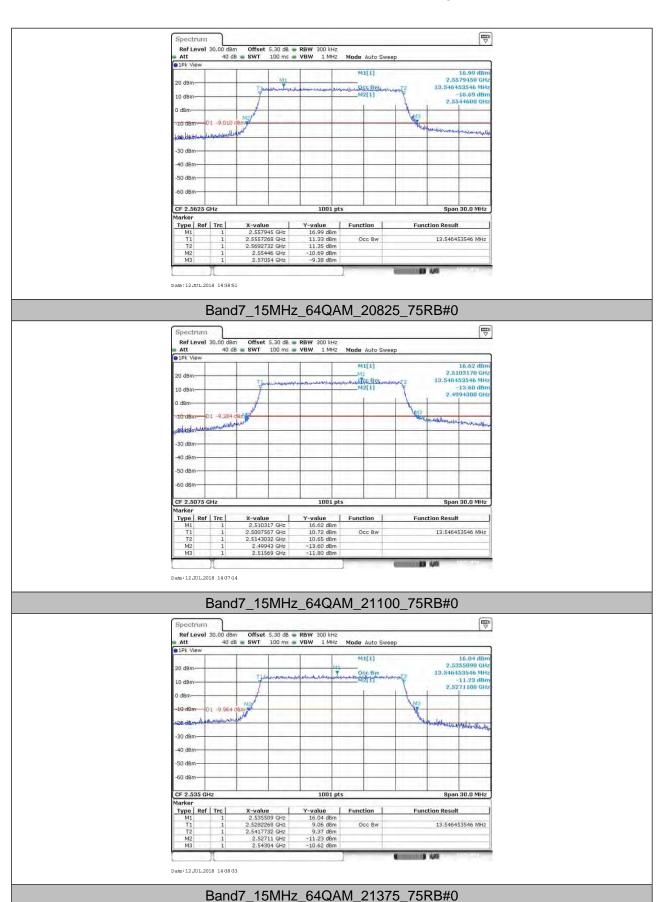
Page: 24 of 59





Report No.: SZEM180500437001

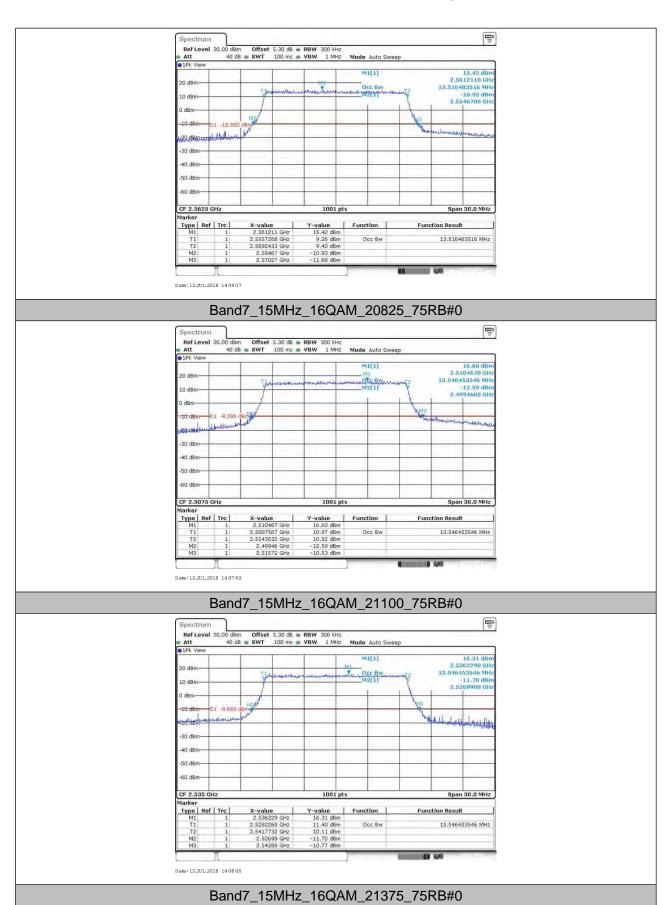
Page: 25 of 59





Report No.: SZEM180500437001

Page: 26 of 59





Report No.: SZEM180500437001

Page: 27 of 59





Report No.: SZEM180500437001

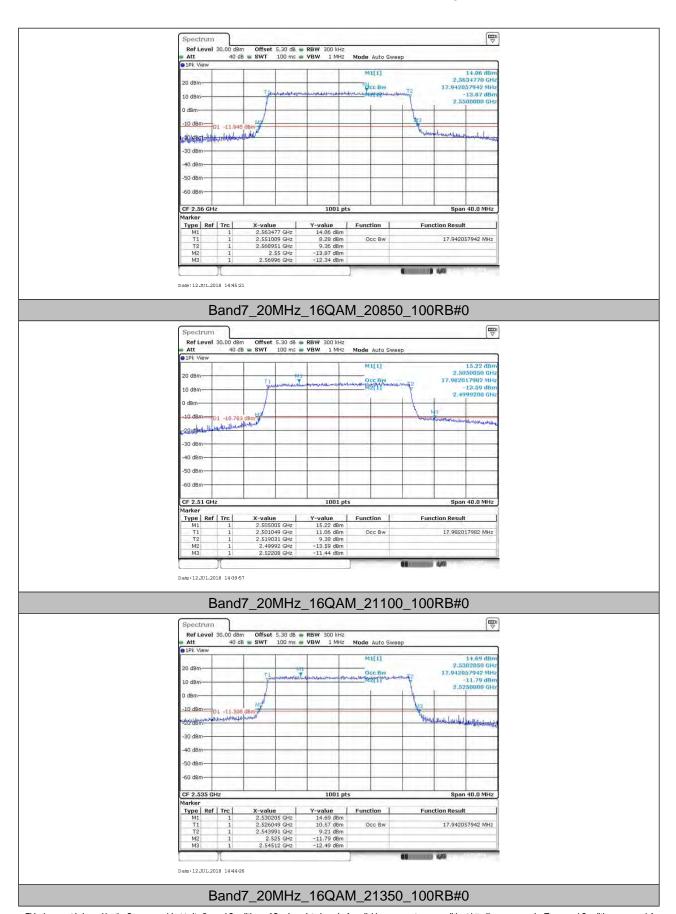
Page: 28 of 59





Report No.: SZEM180500437001

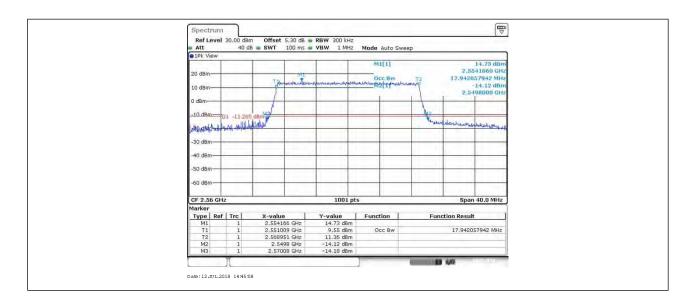
Page: 29 of 59





Report No.: SZEM180500437001

Page: 30 of 59



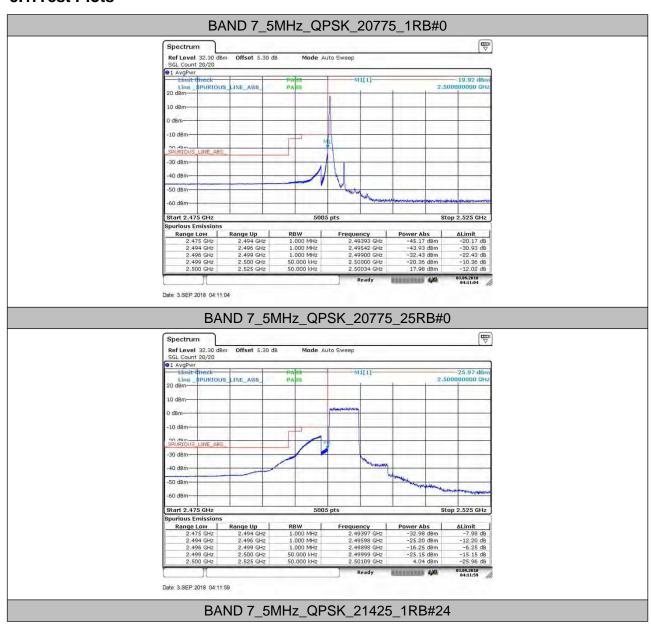


Report No.: SZEM180500437001

Page: 31 of 59

5. Band Edge Compliance

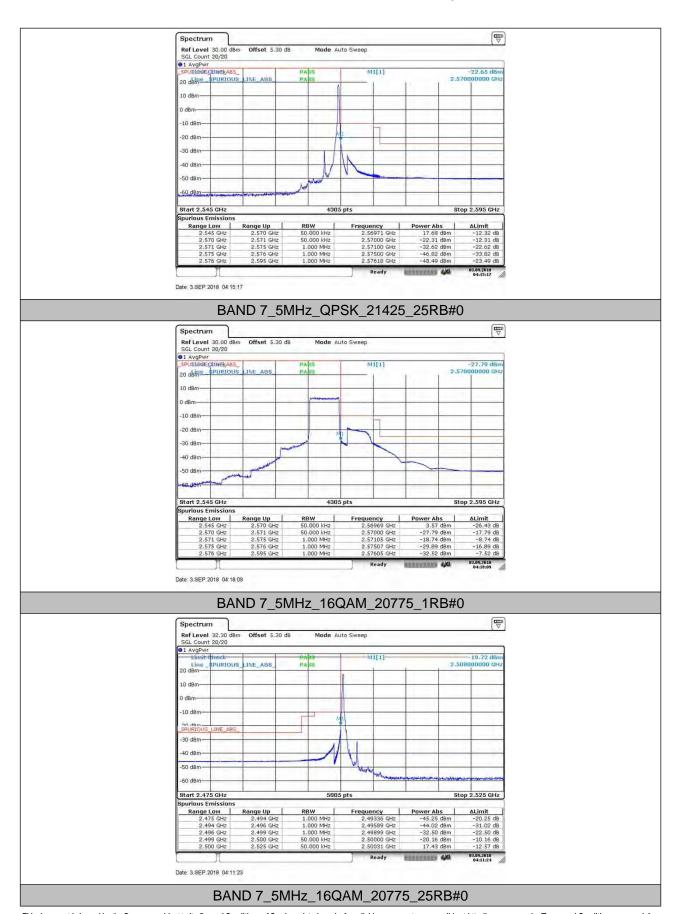
5.1. Test Plots





Report No.: SZEM180500437001

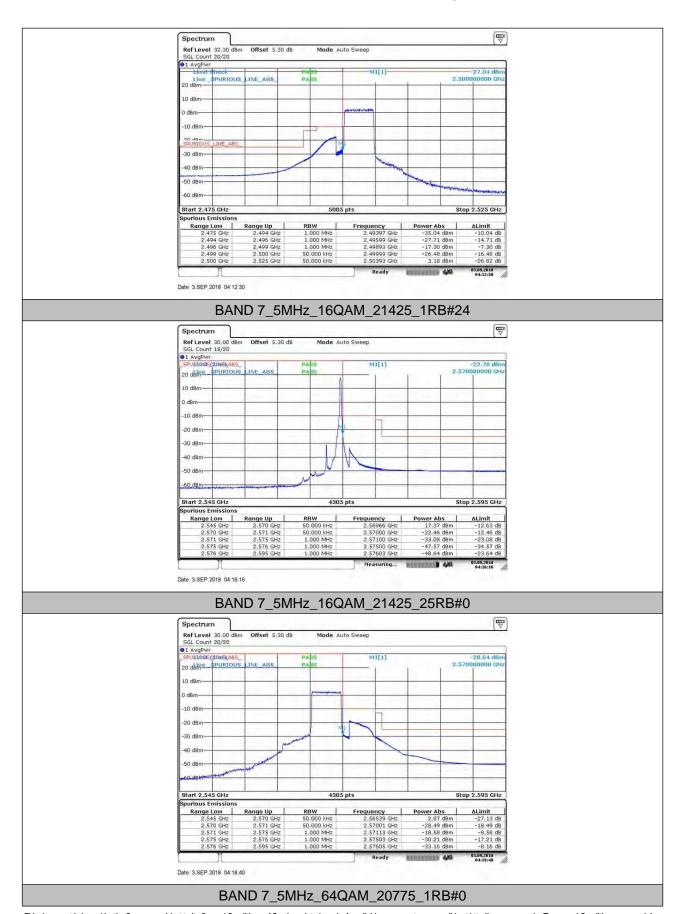
Page: 32 of 59





Report No.: SZEM180500437001

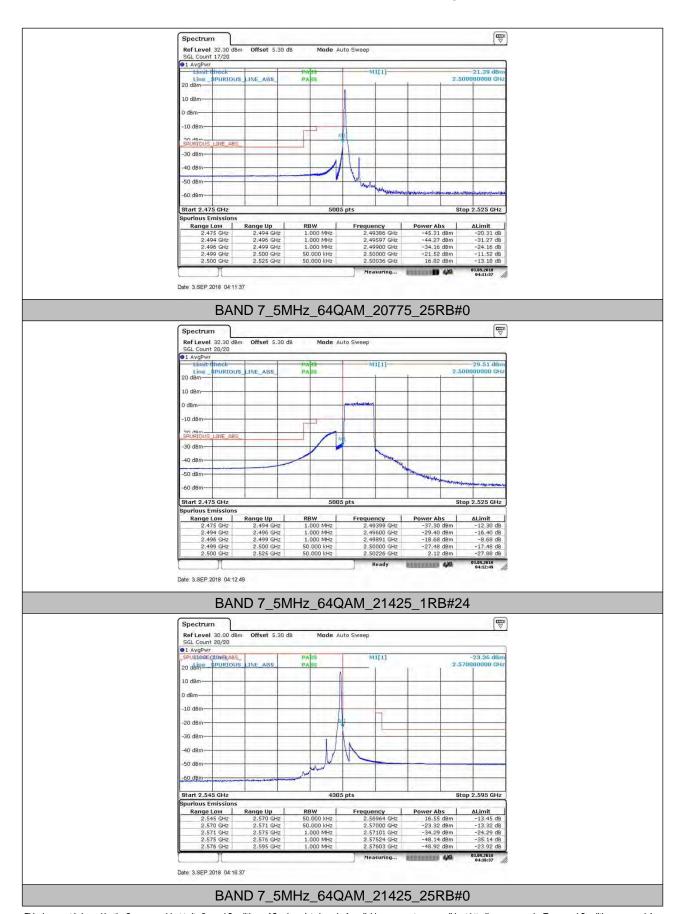
Page: 33 of 59





Report No.: SZEM180500437001

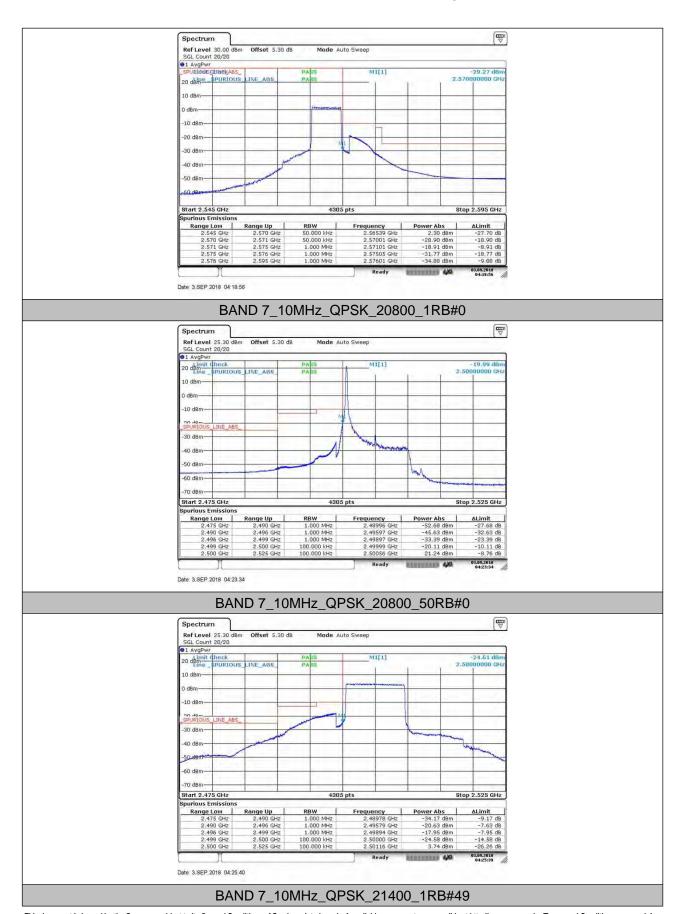
Page: 34 of 59





Report No.: SZEM180500437001

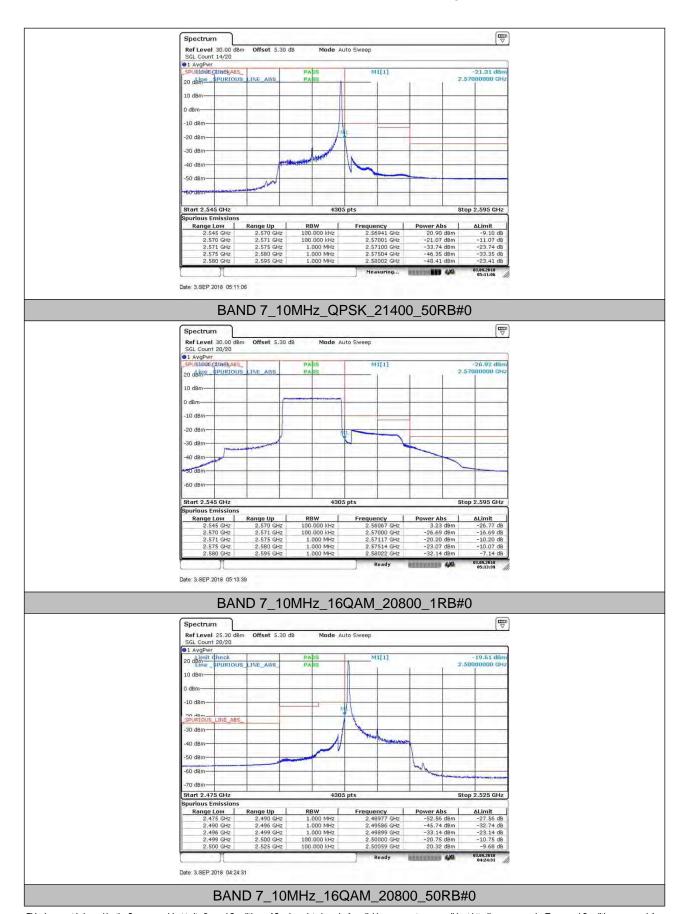
Page: 35 of 59





Report No.: SZEM180500437001

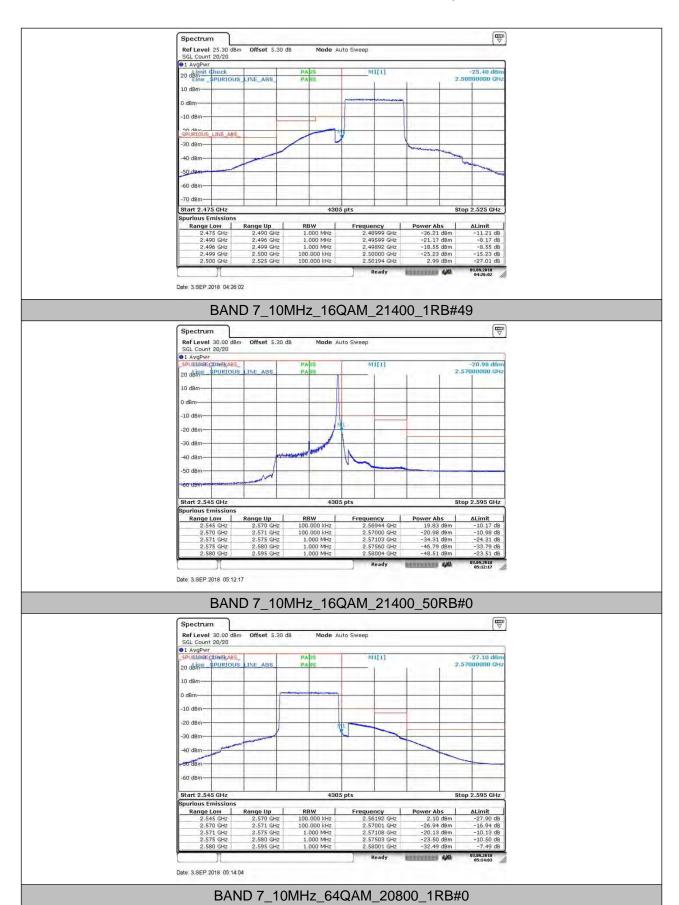
Page: 36 of 59





Report No.: SZEM180500437001

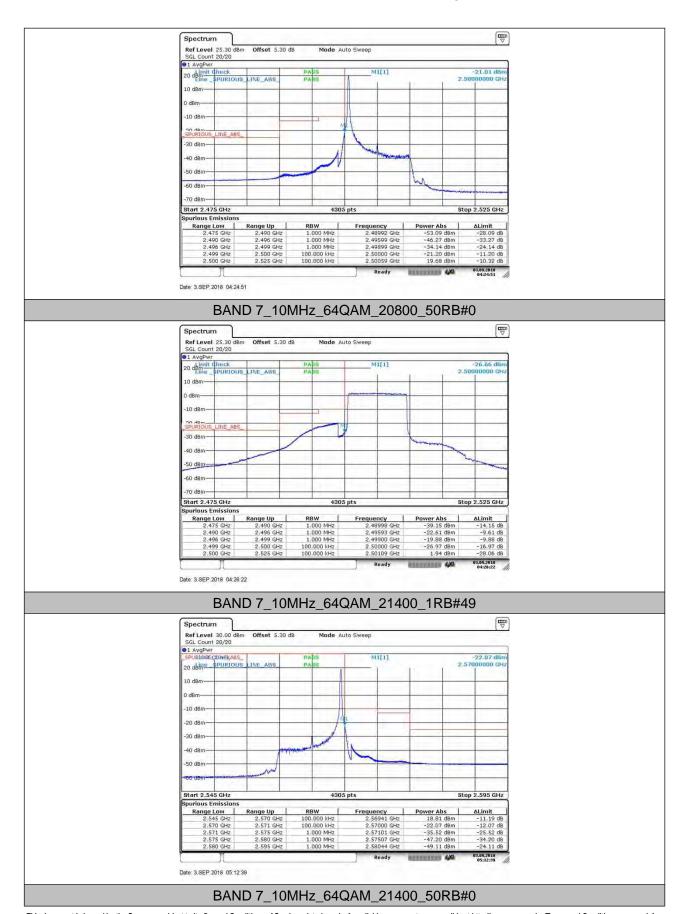
Page: 37 of 59





Report No.: SZEM180500437001

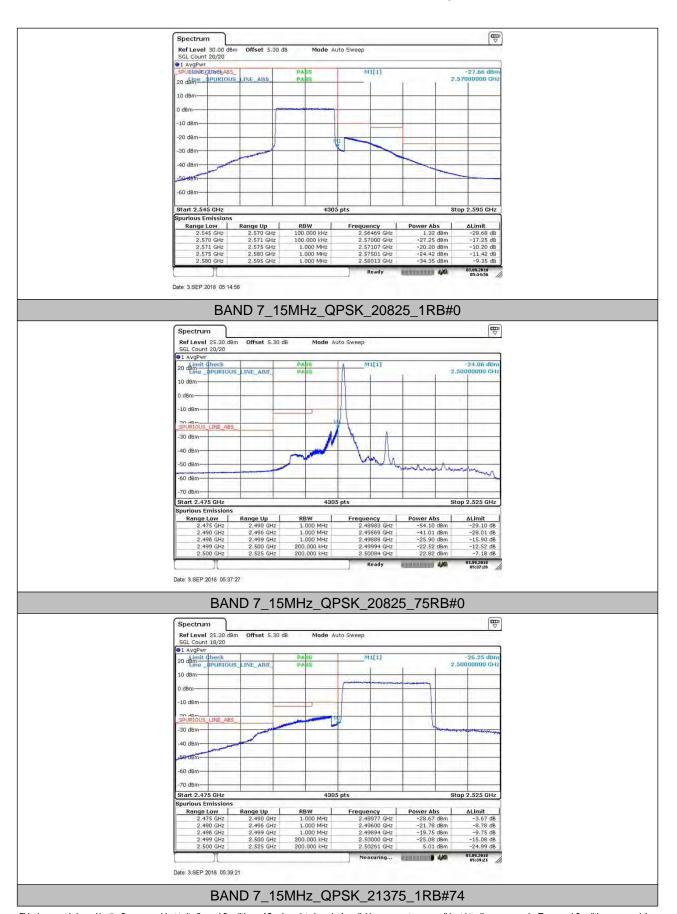
Page: 38 of 59





Report No.: SZEM180500437001

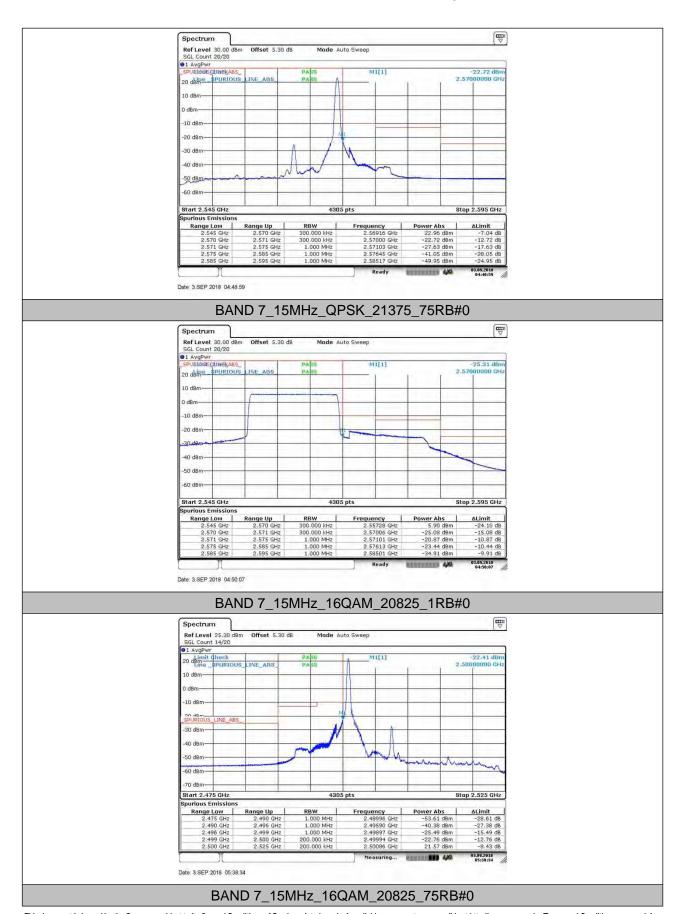
Page: 39 of 59





Report No.: SZEM180500437001

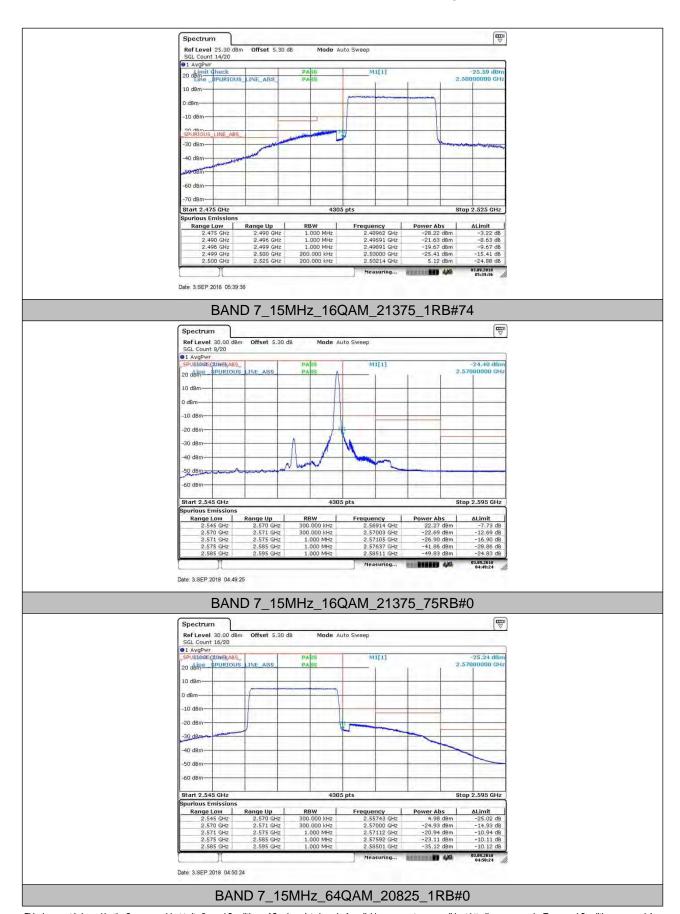
Page: 40 of 59





Report No.: SZEM180500437001

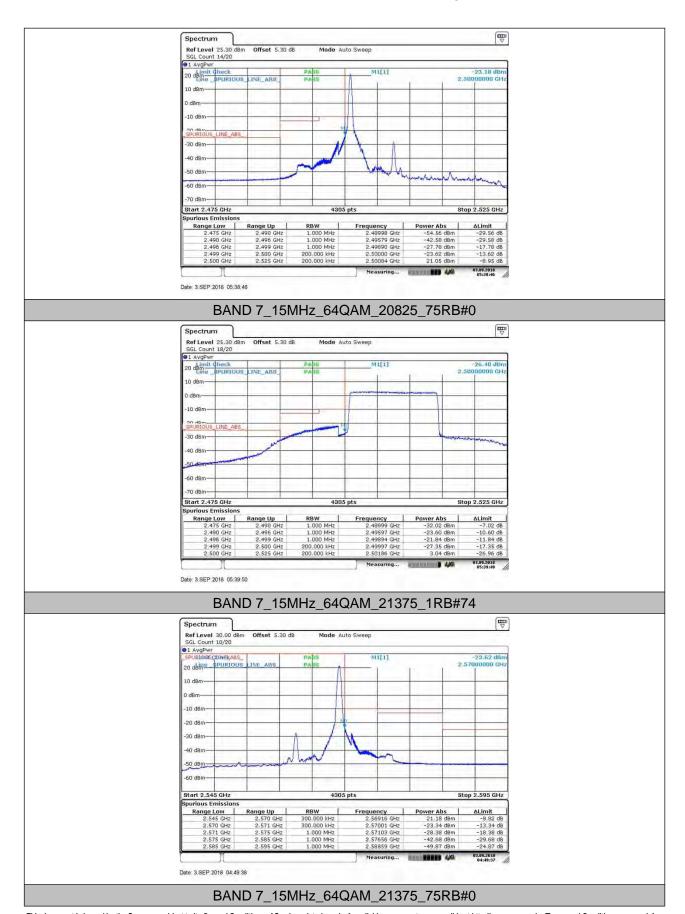
Page: 41 of 59





Report No.: SZEM180500437001

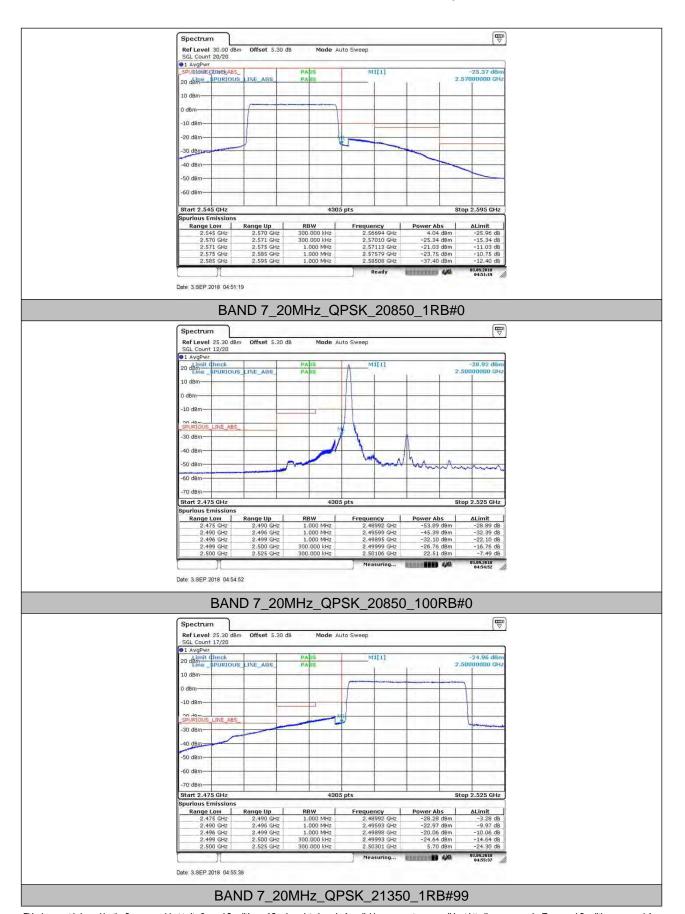
Page: 42 of 59





Report No.: SZEM180500437001

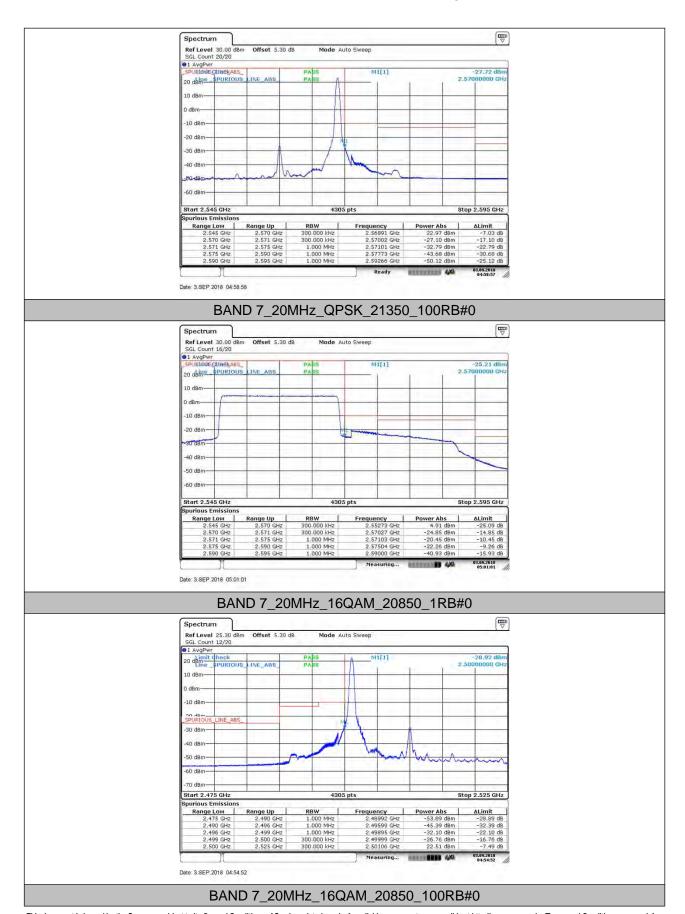
Page: 43 of 59





Report No.: SZEM180500437001

Page: 44 of 59





Report No.: SZEM180500437001

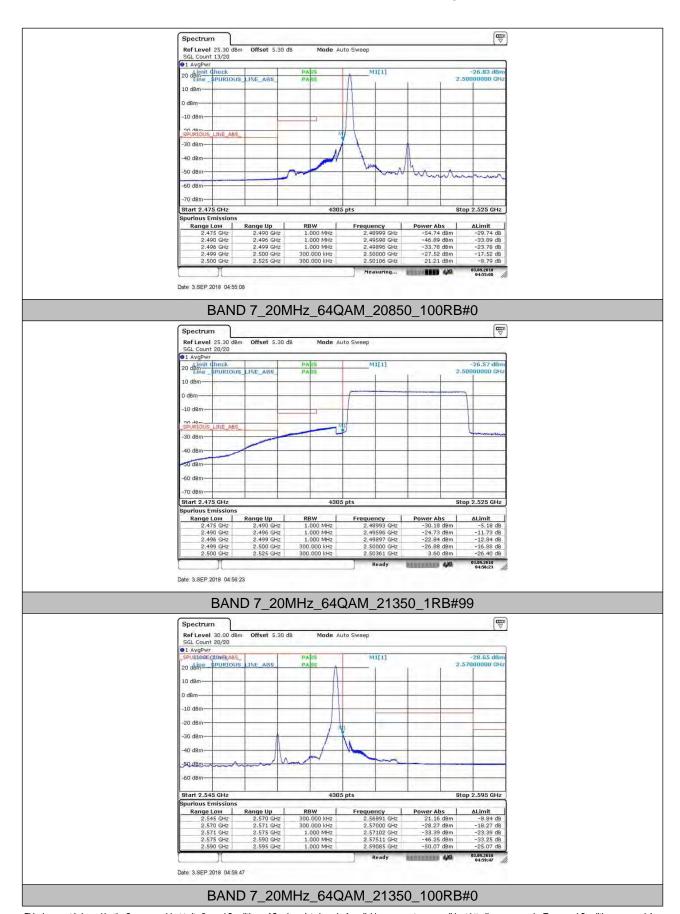
Page: 45 of 59





Report No.: SZEM180500437001

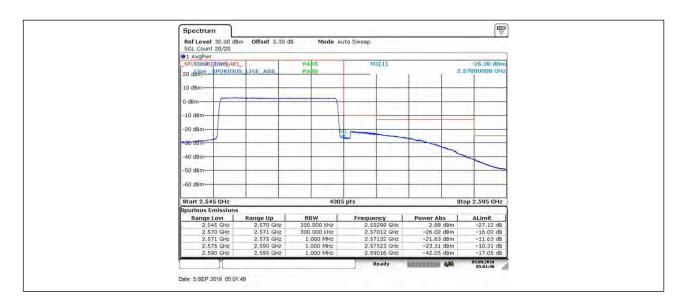
Page: 46 of 59





Report No.: SZEM180500437001

Page: 47 of 59





Report No.: SZEM180500437001

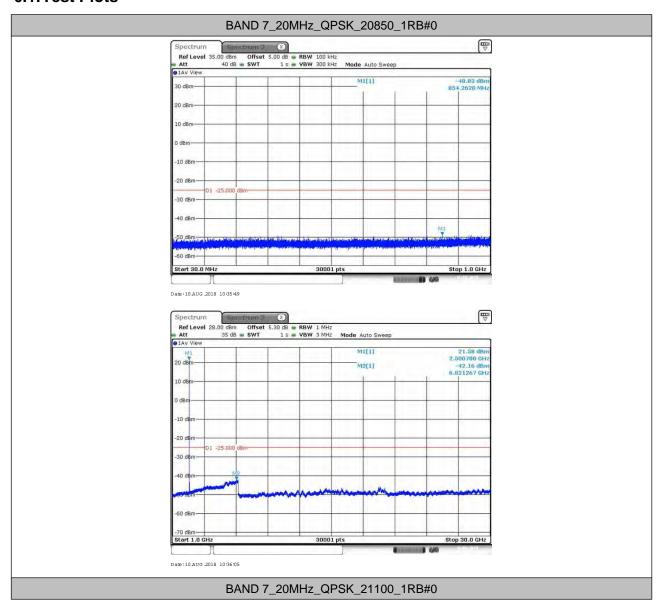
Page: 48 of 59

6. Spurious Emission at Antenna Terminal

NOTE1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of < RBW/2 so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = k * (Span / RBW)" with k = 4 * (Span / RBW) with k = 4 * (Span / RBW) which results in k = 4 * (Span / RBW)

NOTE2: only the worst case data displayed in this report.

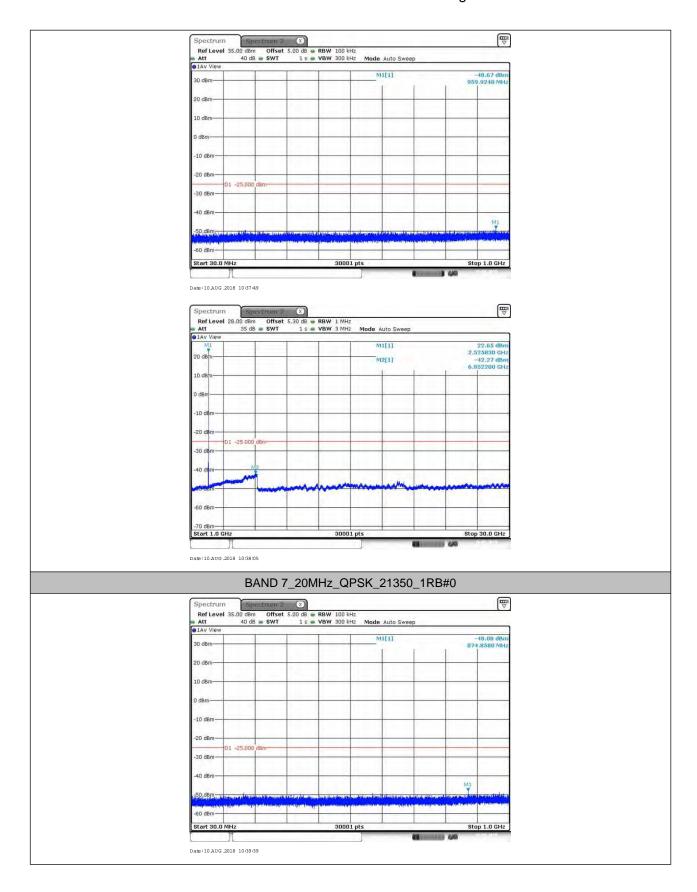
6.1. Test Plots





Report No.: SZEM180500437001

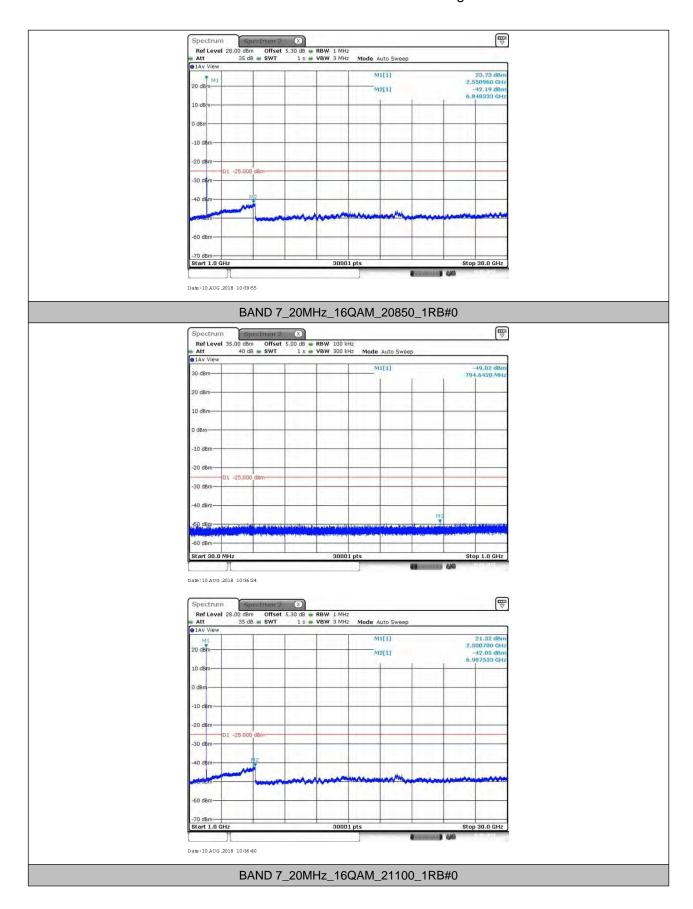
Page: 49 of 59





Report No.: SZEM180500437001

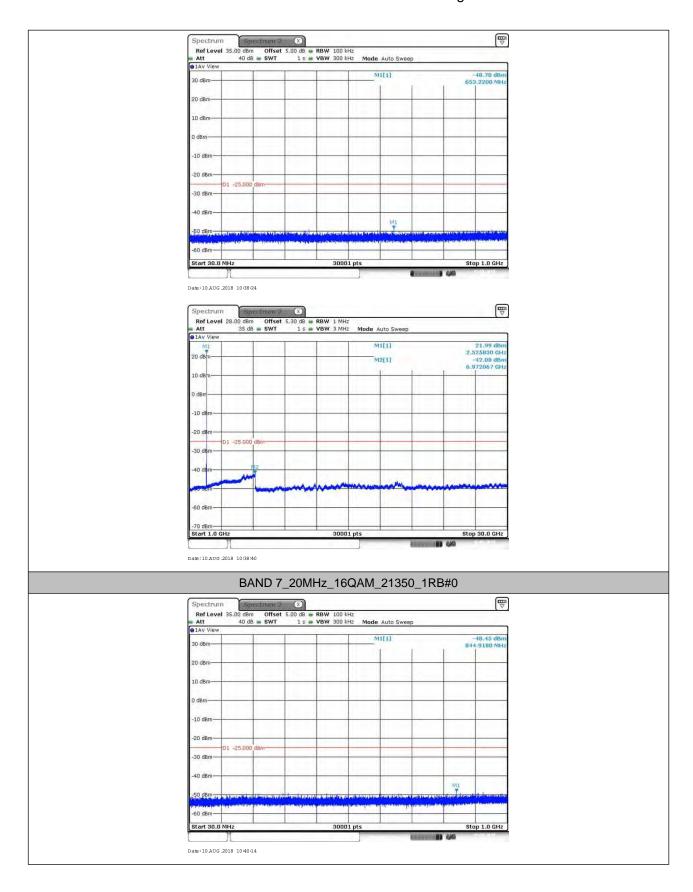
Page: 50 of 59





Report No.: SZEM180500437001

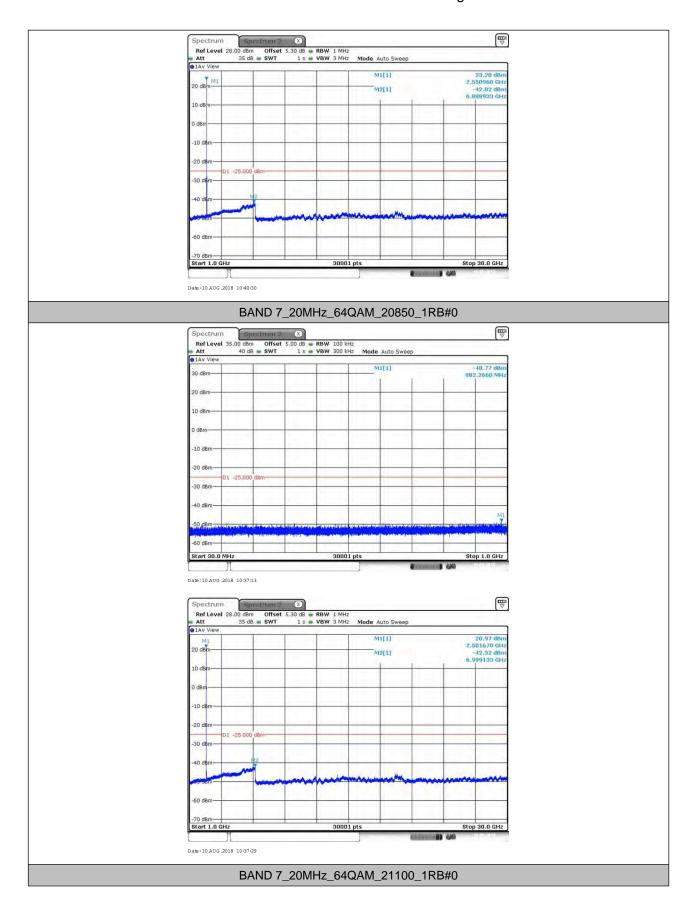
Page: 51 of 59





Report No.: SZEM180500437001

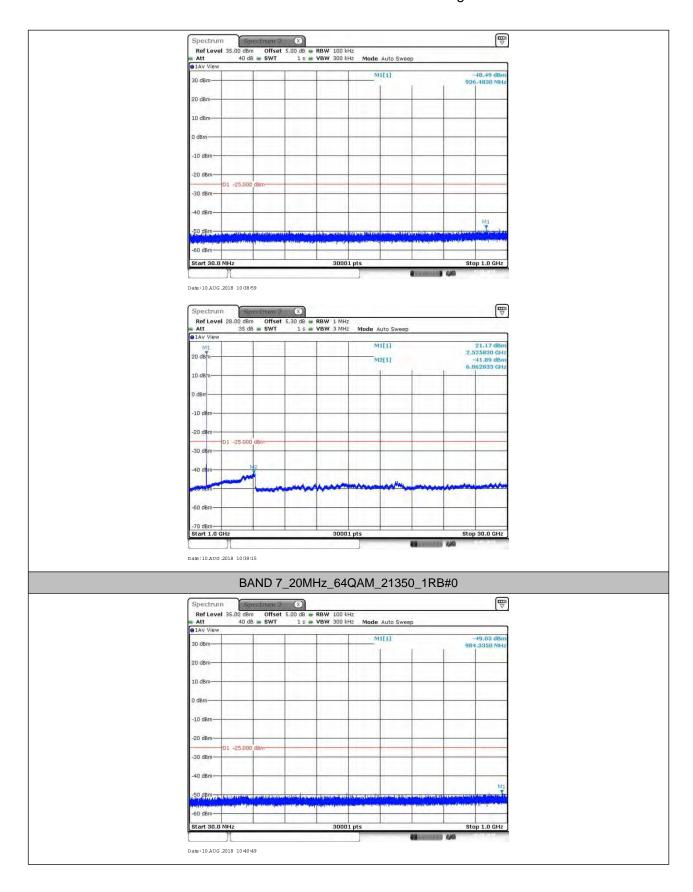
Page: 52 of 59





Report No.: SZEM180500437001

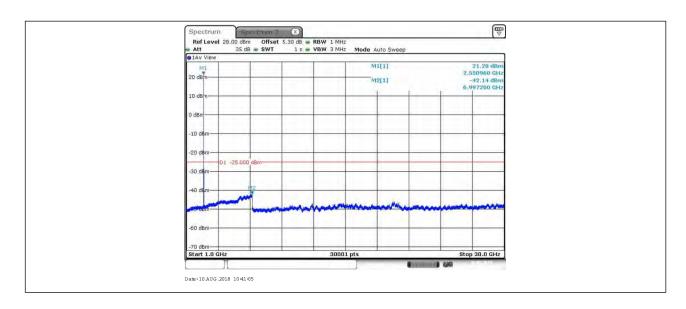
Page: 53 of 59





Report No.: SZEM180500437001

Page: 54 of 59





Report No.: SZEM180500437001

Page: 55 of 59

7. Field Strength of Spurious Radiation

7.1.Test BAND = LTE BAND 7

7.1.1. Test Mode =LTE/TM1 20MHz

7.1.1.1 Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.050000	-81.72	-25.00	56.72	Vertical
104.250000	-65.37	-25.00	40.37	Vertical
1980.500000	-52.80	-25.00	27.80	Vertical
3908.700000	-68.18	-25.00	43.18	Vertical
5002.000000	-65.35	-25.00	40.35	Vertical
7932.200000	-63.76	-25.00	38.76	Vertical
55.850000	-78.09	-25.00	53.09	Horizontal
104.300000	-81.12	-25.00	56.12	Horizontal
1980.500000	-49.03	-25.00	24.03	Horizontal
4293.825000	-66.87	-25.00	41.87	Horizontal
5002.000000	-65.55	-25.00	40.55	Horizontal
7960.475000	-63.75	-25.00	38.75	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.150000	-81.80	-25.00	56.80	Vertical
104.300000	-65.39	-25.00	40.39	Vertical
2005.500000	-56.38	-25.00	31.38	Vertical
3893.750000	-68.08	-25.00	43.08	Vertical
5052.050000	-64.60	-25.00	39.60	Vertical
7954.300000	-63.77	-25.00	38.77	Vertical
62.600000	-78.01	-25.00	53.01	Horizontal
104.300000	-80.80	-25.00	55.80	Horizontal
2005.500000	-49.29	-25.00	24.29	Horizontal
4293.825000	-66.93	-25.00	41.93	Horizontal
5052.050000	-63.91	-25.00	38.91	Horizontal
9236.100000	-63.79	-25.00	38.79	Horizontal



Report No.: SZEM180500437001

Page: 56 of 59

7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
64.950000	-82.38	-25.00	57.38	Vertical
124.950000	-87.14	-25.00	62.14	Vertical
345.450000	-86.11	-25.00	61.11	Vertical
5102.100000	-63.51	-25.00	38.51	Vertical
7856.475000	-63.73	-25.00	38.73	Vertical
10634.575000	-63.12	-25.00	38.12	Vertical
62.250000	-77.93	-25.00	52.93	Horizontal
104.250000	-85.75	-25.00	60.75	Horizontal
473.008333	-84.16	-25.00	59.16	Horizontal
5102.100000	-65.41	-25.00	40.41	Horizontal
7238.325000	-64.84	-25.00	39.84	Horizontal
10631.325000	-63.49	-25.00	38.49	Horizontal

NOTE:

- 1) All modes are tested, but the data presented above is the worst case the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 2) We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



Report No.: SZEM180500437001

Page: 57 of 59

8. Frequency Stability

8.1. Frequency Vs Voltage

					Voltage						
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltag e [Vdc]	Temperatur e ($^{\circ}\mathbb{C}$)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdic t	
				100RB#0	VH	NT	-0.90	-0.000359	±2.5	PASS	
			20850	100RB#0	VL	NT	-3.90	-0.001554	±2.5	PASS	
				100RB#0	VN	NT	-0.70	-0.000279	±2.5	PASS	
				100RB#0	VH	NT	0.20	0.000079	±2.5	PASS	
		QPSK	21100	100RB#0	VL	NT	-1.60	-0.000631	±2.5	PASS	
				100RB#0	VN	NT	-3.20	-0.001262	±2.5	PASS	
				100RB#0	VH	NT	1.10	0.000430	±2.5	PASS	
			21350	100RB#0	VL	NT	0.20	0.000078	±2.5	PASS	
				100RB#0	VN	NT	0.80	0.000313	±2.5	PASS	
				100RB#0	VH	NT	2.40	0.000956	±2.5	PASS	
		łz 16QAM	20850	100RB#0	VL	NT	0.30	0.000120	±2.5	PASS	
				100RB#0	VN	NT	-0.40	-0.000159	±2.5	PASS	
			M 21100 21350	100RB#0	VH	NT	-2.30	-0.000907	±2.5	PASS	
BAND7	20MHz			100RB#0	VL	NT	-1.60	-0.000631	±2.5	PASS	
				100RB#0	VN	NT	-0.60	-0.000237	±2.5	PASS	
				100RB#0	VH	NT	-2.50	-0.000977	±2.5	PASS	
				100RB#0	VL	NT	-1.30	-0.000508	±2.5	PASS	
				100RB#0	VN	NT	-0.20	-0.000078	±2.5	PASS	
				100RB#0	VH	NT	-1.50	-0.000598	±2.5	PASS	
			20850	100RB#0	VL	NT	0.70	0.000279	±2.5	PASS	
				100RB#0	VN	NT	4.10	0.001633	±2.5	PASS	
				100RB#0	VH	NT	-0.30	-0.000118	±2.5	PASS	
		64QAM	21100	100RB#0	VL	NT	0.50	0.000197	±2.5	PASS	
				100RB#0	VN	NT	0.80	0.000316	±2.5	PASS	
			21350	100RB#0	VH	NT	-0.30	-0.000117	±2.5	PASS	
				100RB#0	VL	NT	0.30	0.000117	±2.5	PASS	
						100RB#0	VN	NT	-0.30	-0.000117	±2.5



Report No.: SZEM180500437001

Page: 58 of 59

8.2. Frequency Vs Temperature

_	Temperature									
				RB	Voltag	Temperatur	Deviation	Deviation	Limit	Verdic
BAND	Bandwidth	Modulation	Channel	Configure	e [Vdc]	e (℃)	(Hz)	(ppm)	(ppm)	t
				100RB#0	NV	0	-0.30	-0.000120	±2.5	PASS
				100RB#0	NV	10	1.70	0.000677	±2.5	PASS
			20850	100RB#0	NV	20	-2.90	-0.001155	±2.5	PASS
				100RB#0	NV	-20	0.90	0.000359	±2.5	PASS
				100RB#0	NV	-30	0.60	0.000239	±2.5	PASS
				100RB#0	NV	0	1.40	0.000552	±2.5	PASS
				100RB#0	NV	10	0.20	0.000079	±2.5	PASS
		QPSK	21100	100RB#0	NV	20	0.70	0.000276	±2.5	PASS
				100RB#0	NV	-20	0.60	0.000237	±2.5	PASS
				100RB#0	NV	-30	-1.00	-0.000394	±2.5	PASS
				100RB#0	NV	0	-0.30	-0.000117	±2.5	PASS
				100RB#0	NV	10	0.50	0.000195	±2.5	PASS
			21350	100RB#0	NV	20	0.20	0.000078	±2.5	PASS
				100RB#0	NV	-20	-0.40	-0.000156	±2.5	PASS
				100RB#0	NV	-30	0.40	0.000156	±2.5	PASS
			20850	100RB#0	NV	0	0.80	0.000319	±2.5	PASS
				100RB#0	NV	10	2.00	0.000797	±2.5	PASS
BAND7	20MHz			100RB#0	NV	20	-1.30	-0.000518	±2.5	PASS
				100RB#0	NV	-20	1.80	0.000717	±2.5	PASS
				100RB#0	NV	-30	1.10	0.000438	±2.5	PASS
				100RB#0	NV	0	-1.50	-0.000592	±2.5	PASS
		16QAM	21100	100RB#0	NV	10	-0.70	-0.000276	±2.5	PASS
				100RB#0	NV	20	0.30	0.000118	±2.5	PASS
				100RB#0	NV	-20	-1.00	-0.000394	±2.5	PASS
				100RB#0	NV	-30	-0.90	-0.000355	±2.5	PASS
				100RB#0	NV	0	3.10	0.001211	±2.5	PASS
				100RB#0	NV	10	0.40	0.000156	±2.5	PASS
			21350	100RB#0	NV	20	0.20	0.000078	±2.5	PASS
				100RB#0	NV	-20	0.40	0.000156	±2.5	PASS
				100RB#0	NV	-30	0.60	0.000234	±2.5	PASS
		64QAM		100RB#0	NV	0	2.20	0.000876	±2.5	PASS
			20850	100RB#0	NV	10	0.10	0.0004	±2.5	PASS
				100RB#0	NV	20	0.90	0.000359	±2.5	PASS
				100RB#0	NV	-20	-1.50	-0.000598	±2.5	PASS
				100RB#0	NV	-30	1.30	0.000518	±2.5	PASS



Report No.: SZEM180500437001

Page: 59 of 59

		100RB#0	NV	0	-0.10	-0.000039	±2.5	PASS
		100RB#0	NV	10	0.30	0.000118	±2.5	PASS
	21100	100RB#0	NV	20	-0.40	-0.000158	±2.5	PASS
		100RB#0	NV	-20	1.40	0.000552	±2.5	PASS
		100RB#0	NV	-30	1.10	0.000434	±2.5	PASS
		100RB#0	NV	0	1.90	0.000742	±2.5	PASS
		100RB#0	NV	10	0.30	0.000117	±2.5	PASS
	21350	100RB#0	NV	20	0.80	0.000313	±2.5	PASS
		100RB#0	NV	-20	1.00	0.000391	±2.5	PASS
		100RB#0	NV	-30	0.00	0.000000	±2.5	PASS

The End

а