

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 7

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2502.5	20775	5	1	0	16.91
				1	24	16.90
				12	6	15.93
				25	0	15.92
	2535	21100		1	0	16.88
				1	24	16.88
				12	6	15.98
				25	0	15.96
	2567.5	21425		1	0	16.94
				1	24	16.87
				12	6	15.94
				25	0	15.91
16QAM	2502.5	20775	5	1	0	15.91
				1	24	15.89
				12	6	14.98
				25	0	14.91
	2535	21100		1	0	15.90
				1	24	15.93
				12	6	14.89
				25	0	14.96
	2567.5	21425		1	0	15.90
				1	24	15.87
				12	6	14.89
				25	0	14.88

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2505	20800	10	1	0	16.87
				1	49	16.94
				24	12	15.95
				50	0	15.87
	2535	21100		1	0	16.93
				1	49	16.93
				24	12	15.99
				50	0	15.95
	2565	21400		1	0	16.89
				1	49	16.88
				24	12	15.99
				50	0	15.96
16QAM	2505	20800	10	1	0	15.91
				1	49	15.94
				24	12	14.96
				50	0	14.88
	2535	21100		1	0	15.93
				1	49	15.94
				24	12	14.85
				50	0	14.98
	2565	21400		1	0	15.87
				1	49	15.86
				24	12	14.87
				50	0	14.92

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2507.5	20825	15	1	0	16.90
				1	74	16.93
				40	18	15.88
				75	0	15.92
	2535	21100		1	0	16.86
				1	74	16.87
				40	18	16.02
				75	0	15.99
	2562.5	21375		1	0	16.99
				1	74	16.91
				40	18	15.93
				75	0	15.92
16QAM	2507.5	20825	15	1	0	15.94
				1	74	15.87
				40	18	14.96
				75	0	14.96
	2535	21100		1	0	15.89
				1	74	15.93
				40	18	14.91
				75	0	14.95
	2562.5	21375		1	0	15.92
				1	74	15.88
				40	18	14.90
				75	0	14.85

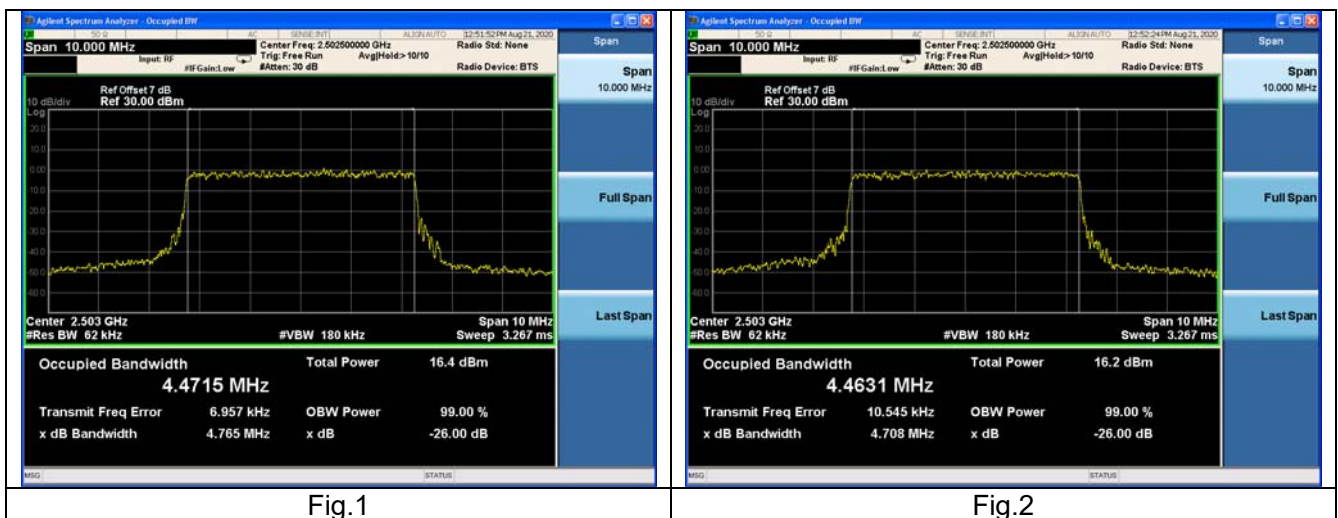
Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted power (dBm)
QPSK	2510	20850	20	1	0	16.93
				1	99	16.94
				50	25	15.94
				100	0	15.88
	2535	21100		1	0	16.88
				1	99	16.87
				50	25	15.95
				100	0	15.96
	2560	21350		1	0	16.94
				1	99	16.86
				50	25	15.99
				100	0	15.94
16QAM	2510	20850	20	1	0	15.96
				1	99	15.89
				50	25	15.01
				100	0	14.95
	2535	21100		1	0	15.93
				1	99	15.95
				50	25	14.91
				100	0	14.96
	2560	21350		1	0	15.93
				1	99	15.86
				50	25	14.86
				100	0	14.88

2 Occupied Bandwidth

Test result

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)			
						QPSK		16-QAM	
7	2502.5	20775	5	25	0	4.4715	Fig.1	4.4631	Fig.2
	2535	21100		25	0	4.4712	Fig.3	4.4535	Fig.4
	2567.5	21425		25	0	4.4669	Fig.5	4.4793	Fig.6
	2505	20800	10	50	0	8.9155	Fig.7	8.9062	Fig.8
	2535	21100		50	0	8.9216	Fig.9	8.9150	Fig.10
	2565	21400		50	0	8.9164	Fig.11	8.9171	Fig.12
	2507.5	20825	15	75	0	13.349	Fig.13	13.413	Fig.14
	2535	21100		75	0	13.436	Fig.15	13.394	Fig.16
	2562.5	21375		75	0	13.432	Fig.17	13.391	Fig.18
	2510	20850	20	100	0	17.830	Fig.19	17.726	Fig.20
	2535	21100		100	0	17.828	Fig.21	17.859	Fig.22
	2560	21350		100	0	17.861	Fig.23	17.802	Fig.24

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)			
						QPSK		16-QAM	
7	2502.5	20775	5	25	0	4.765	Fig.1	4.708	Fig.2
	2535	21100		25	0	4.710	Fig.3	4.716	Fig.4
	2567.5	21425		25	0	4.698	Fig.5	4.739	Fig.6
	2505	20800	10	50	0	9.325	Fig.7	9.323	Fig.8
	2535	21100		50	0	9.307	Fig.9	9.355	Fig.10
	2565	21400		50	0	9.327	Fig.11	9.420	Fig.12
	2507.5	20825	15	75	0	13.92	Fig.13	13.87	Fig.14
	2535	21100		75	0	13.90	Fig.15	14.04	Fig.16
	2562.5	21375		75	0	13.95	Fig.17	14.06	Fig.18
	2510	20850	20	100	0	18.65	Fig.19	18.59	Fig.20
	2535	21100		100	0	18.64	Fig.21	18.92	Fig.22
	2560	21350		100	0	18.62	Fig.23	18.51	Fig.24



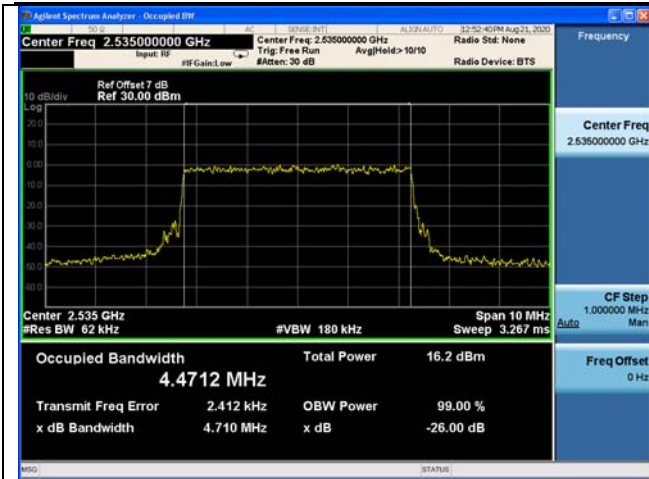


Fig.3

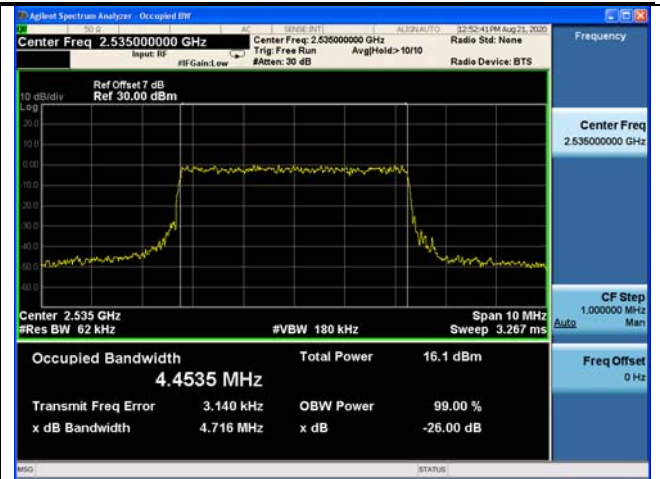


Fig.4

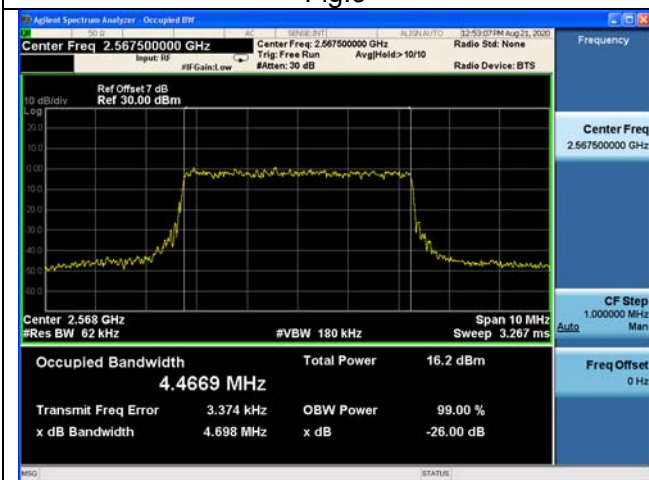


Fig.5

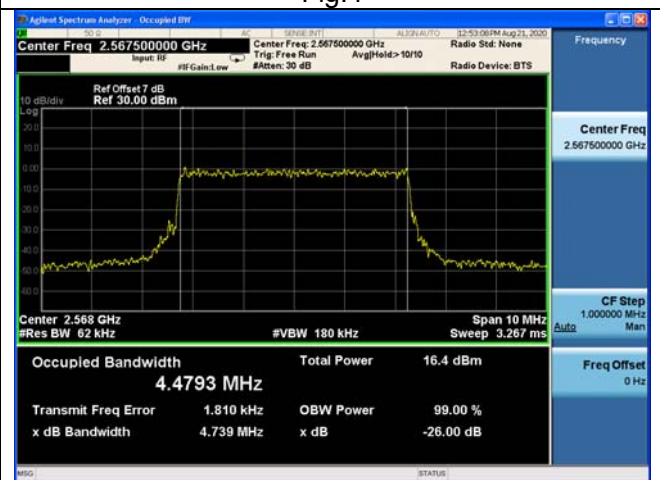


Fig.6

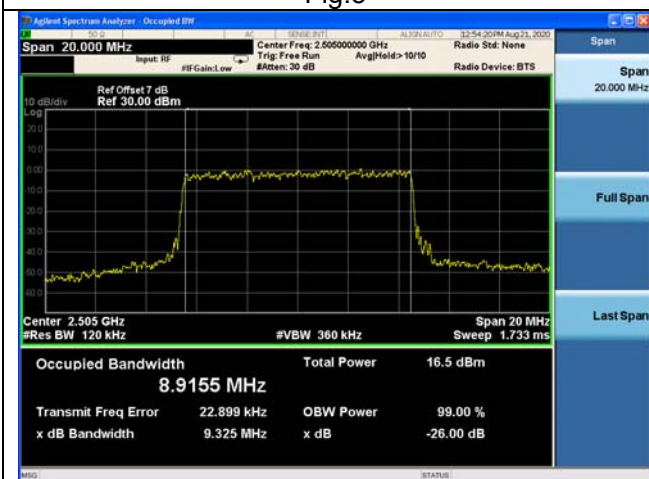


Fig.7

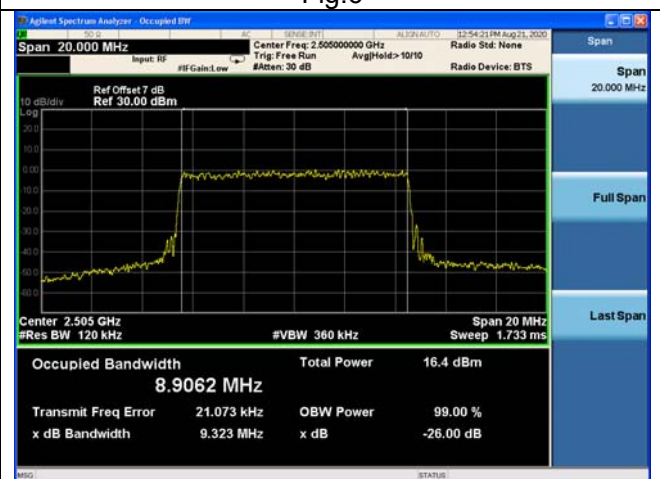


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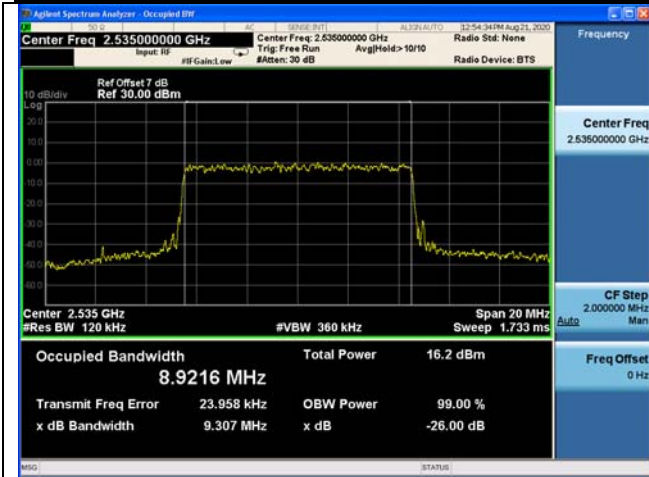


Fig.9

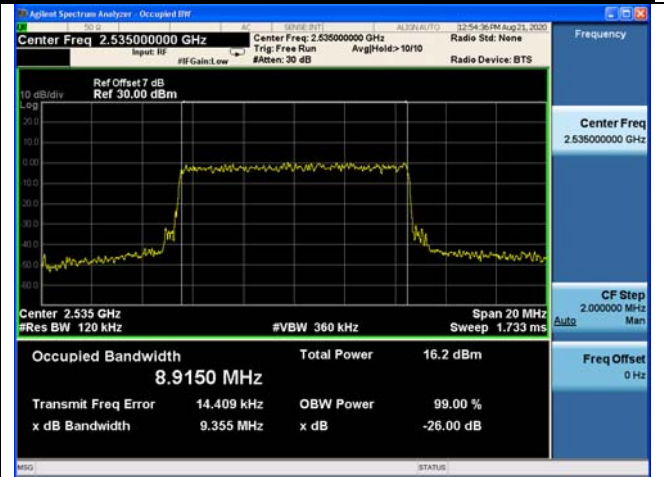


Fig.10

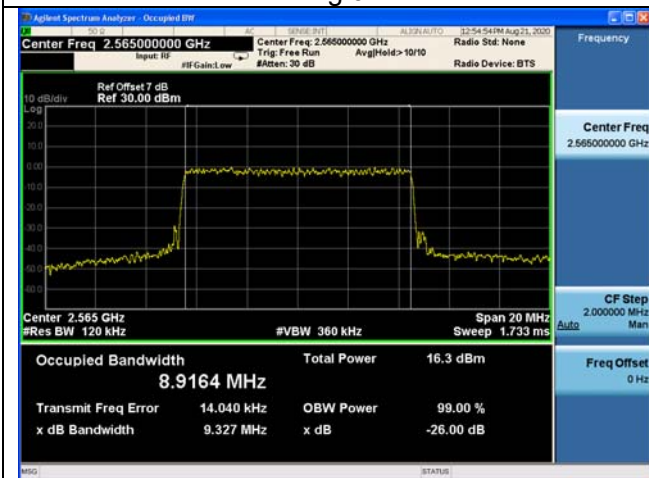


Fig.11

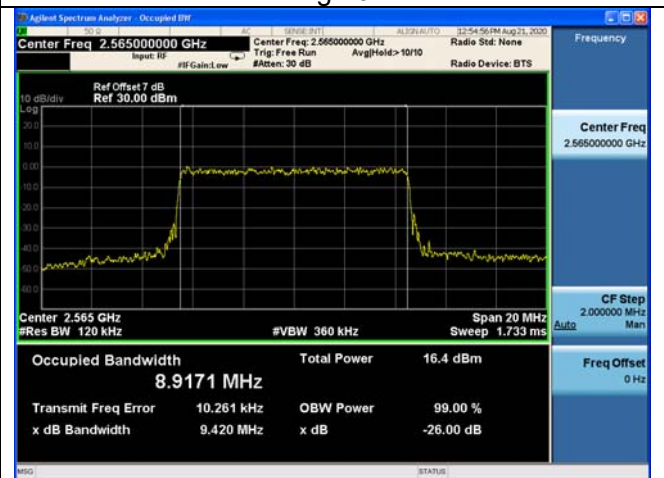


Fig.12

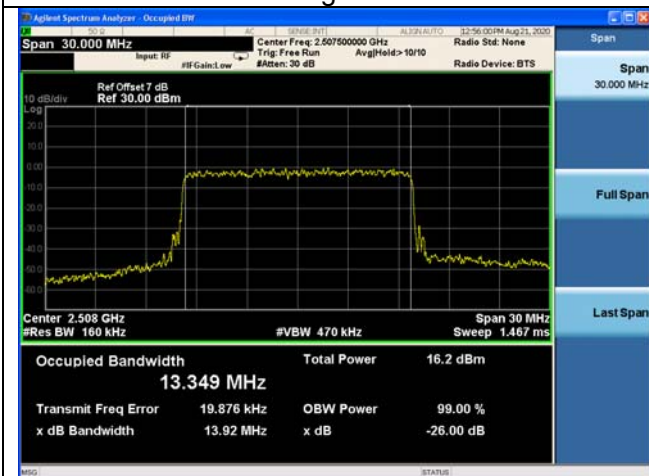


Fig.13

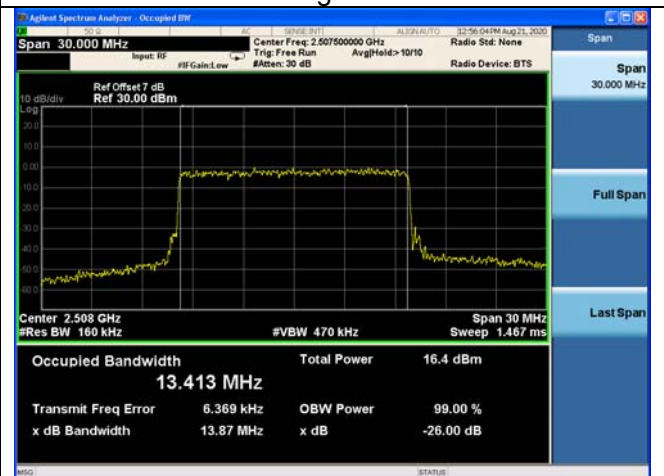


Fig.14

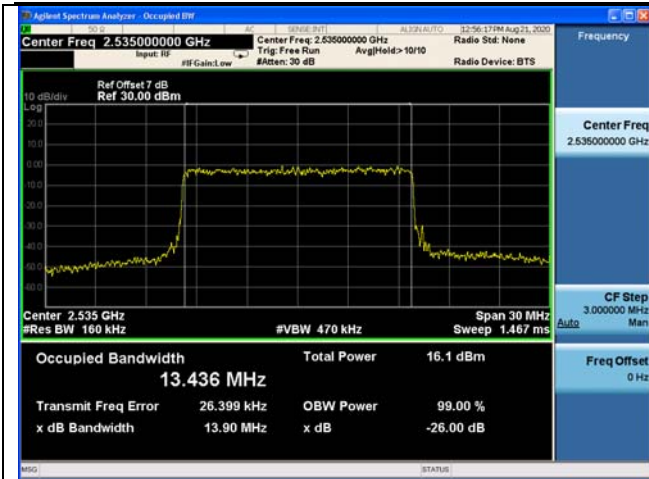


Fig.15

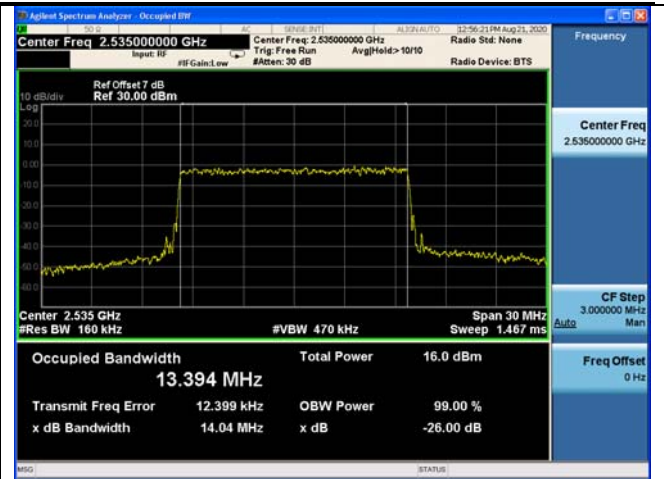


Fig.16

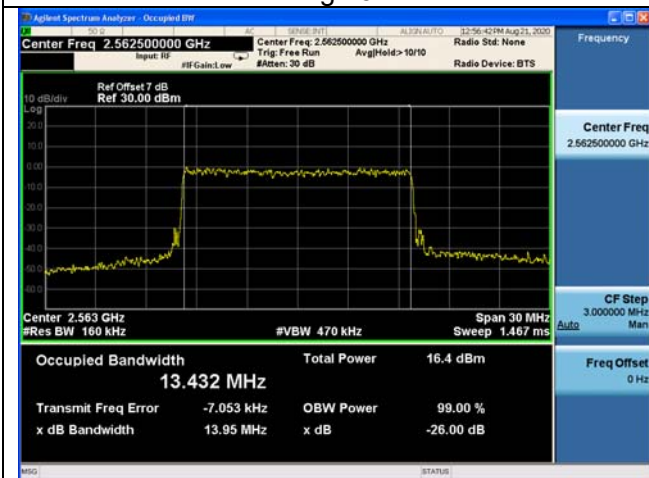


Fig.17

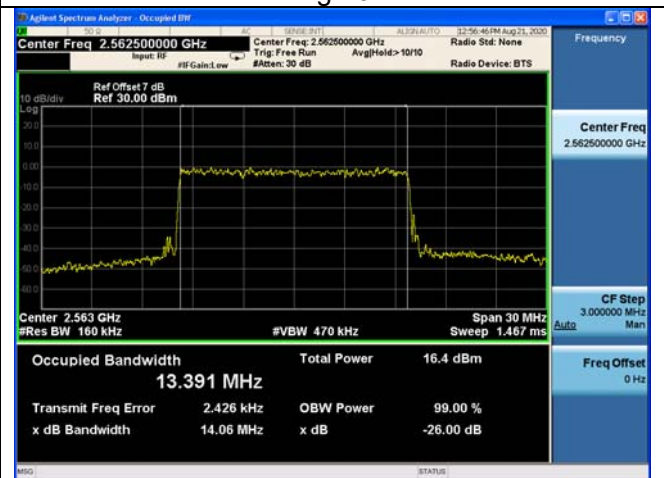


Fig.18

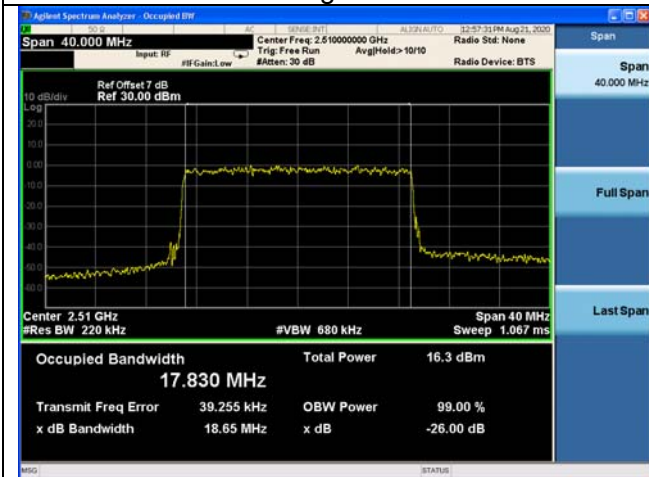


Fig.19

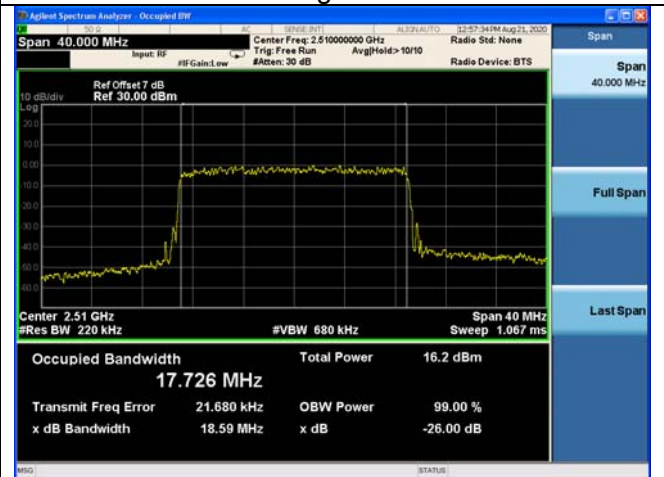


Fig.20

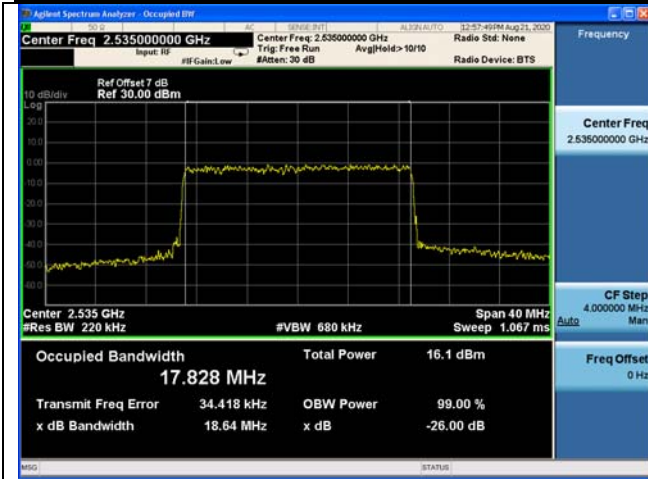


Fig.21

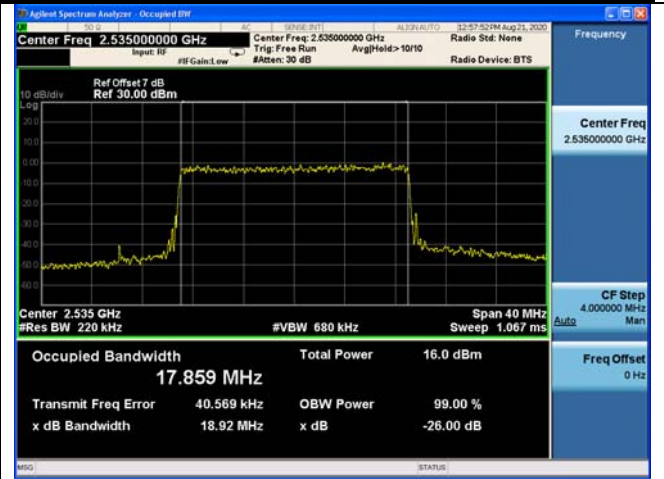


Fig.22

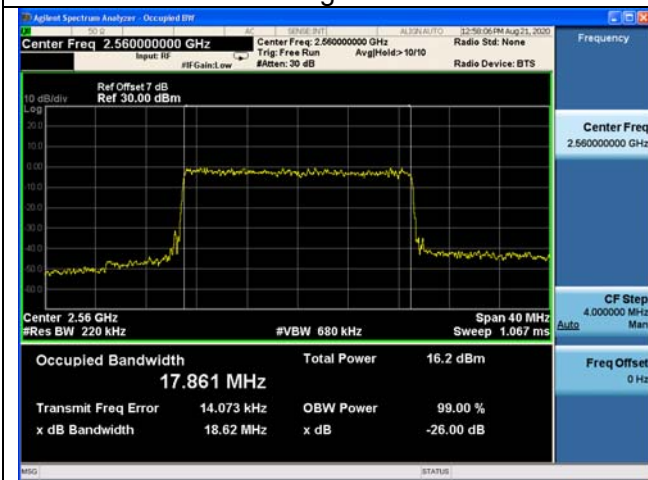


Fig.23

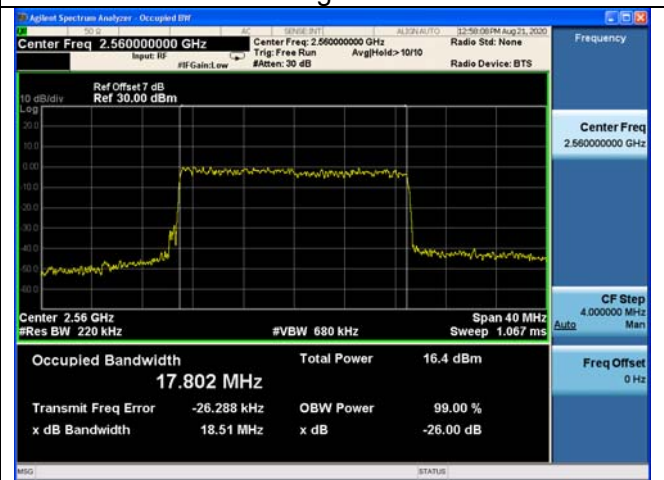


Fig.24

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM
7	2535	21100	5	1	0	Fig.1	Fig.2
			10	1	0	Fig.3	Fig.4
			15	1	0	Fig.5	Fig.6
			20	1	0	Fig.7	Fig.8

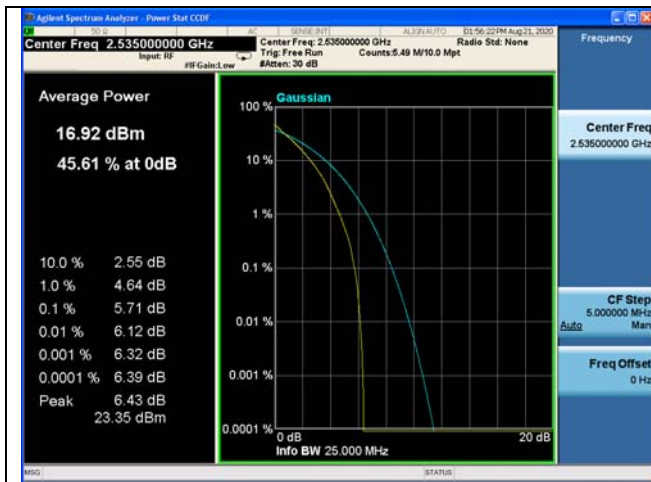


Fig.1

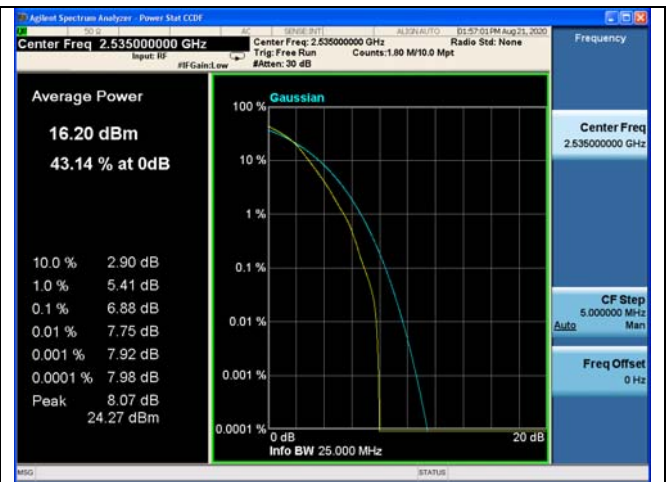


Fig.2

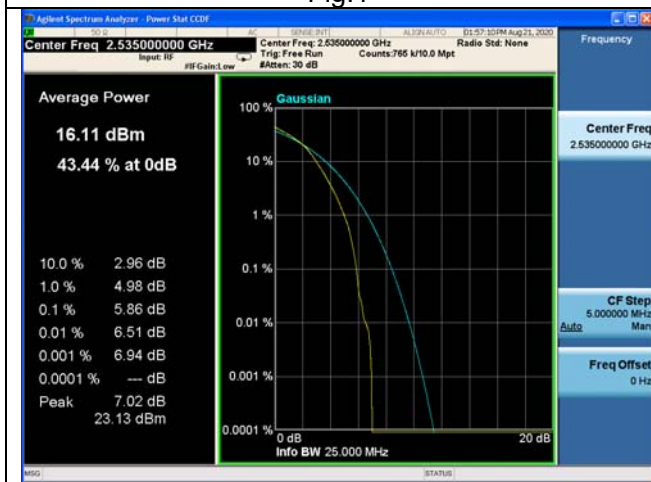


Fig.3



Fig.4

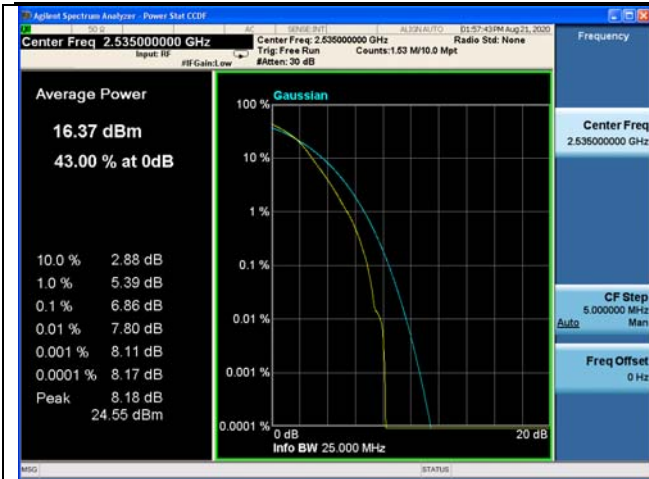


Fig.5



Fig.6



Fig.7



Fig.8

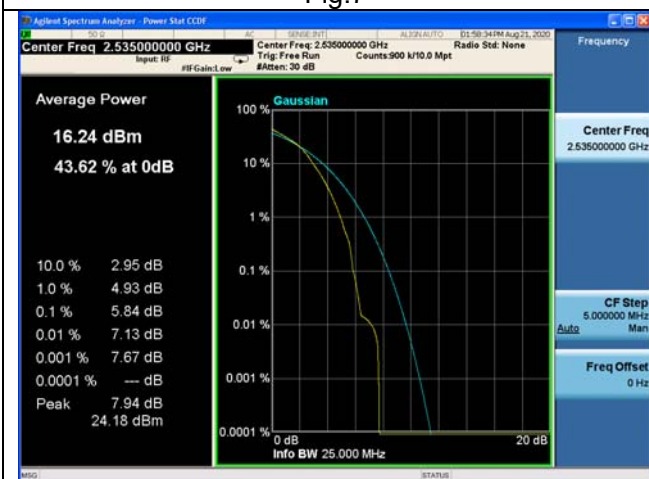


Fig.9



Fig.10



Fig.11



Fig.12

4 Spurious Emissions at antenna terminal

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Conducted Spurious Plot
						QPSK
7	2510	20850	20	1	0	Fig.1-2
	2535	21100	20	1	0	Fig.3-4
	2560	21350	20	1	0	Fig.5-6

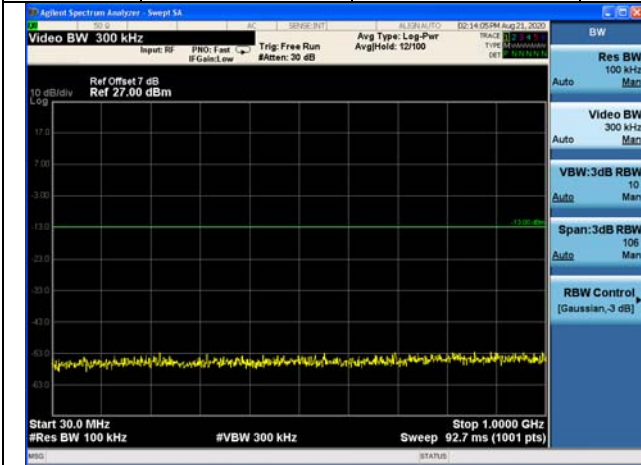


Fig.1

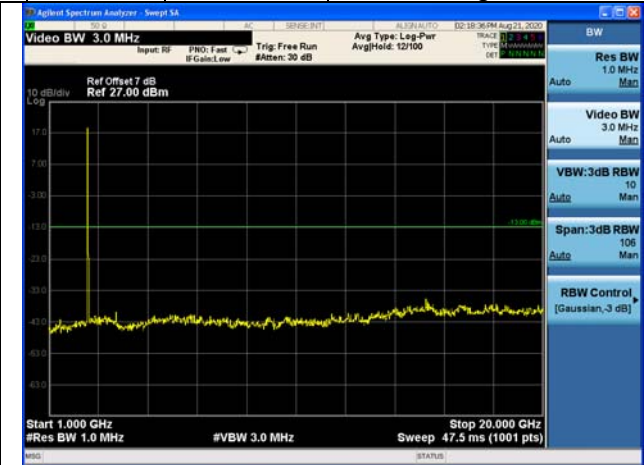


Fig.2

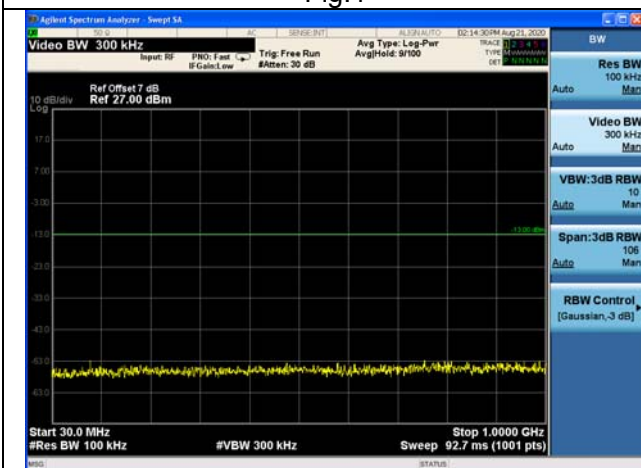


Fig3

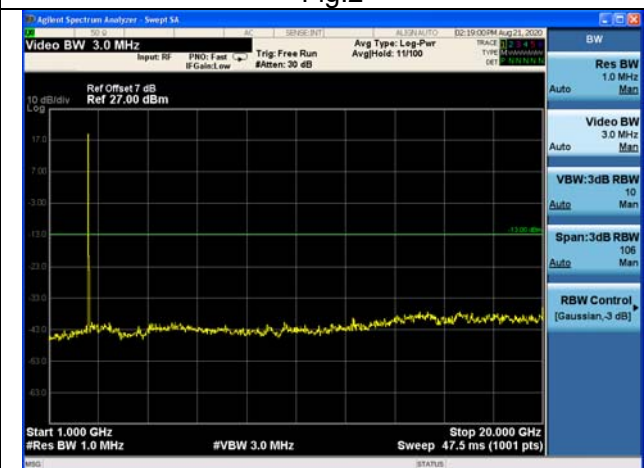


Fig4

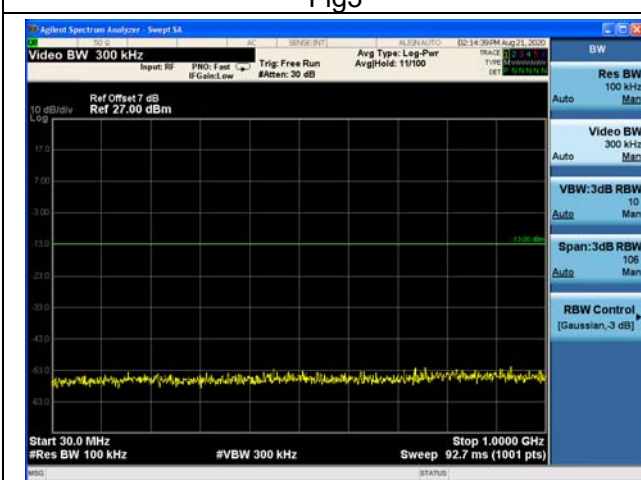


Fig5

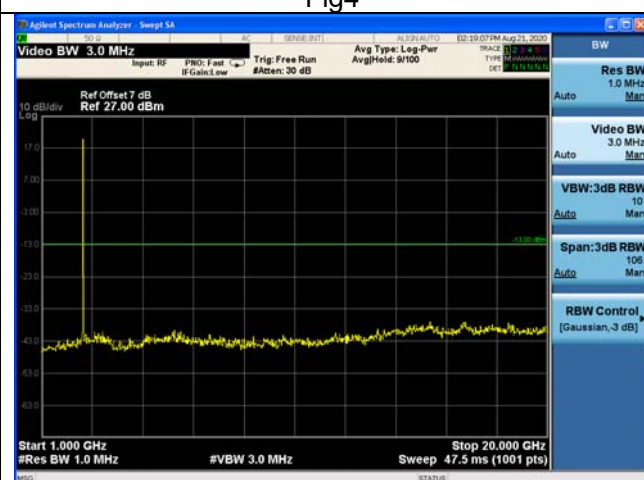


Fig6

5 Band Edges Compliance
Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
7	2502.5	20775	5	1	0	Fig.1
				25	0	Fig.2
	2567.5	21425		1	24	Fig.3
				25	0	Fig.4
	2505	20800	10	1	0	Fig.5
				50	0	Fig.6
	2565	21400		1	49	Fig.7
				50	0	Fig.8
	2507.5	20825	15	1	0	Fig.9
				75	0	Fig.10
	2562.5	21375		1	74	Fig.11
				75	0	Fig.12
	2510	20850	20	1	0	Fig.13
				100	0	Fig.14
	2560	21350		1	99	Fig.15
				100	0	Fig.16

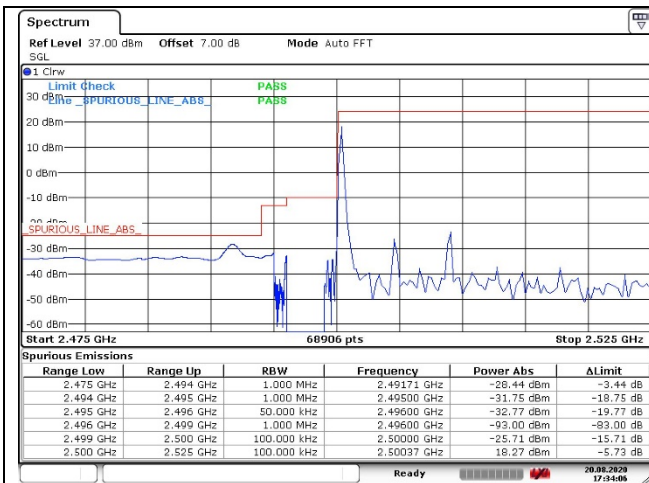


Fig.1

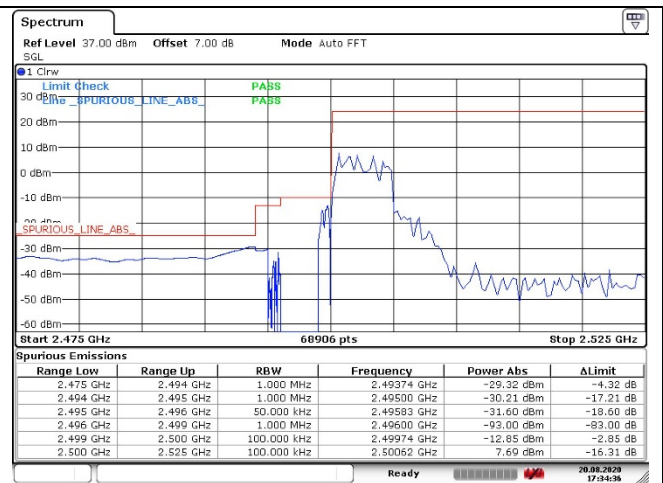


Fig.2

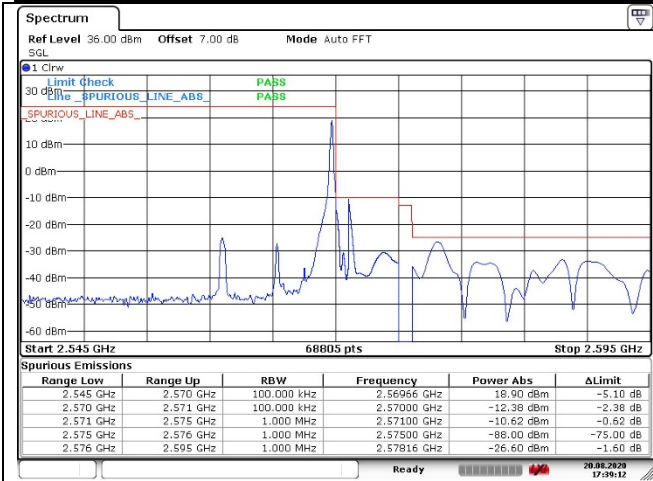


Fig.3

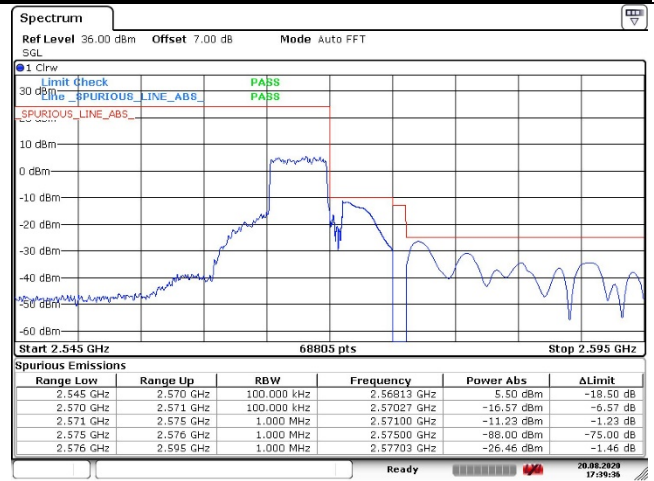


Fig.4

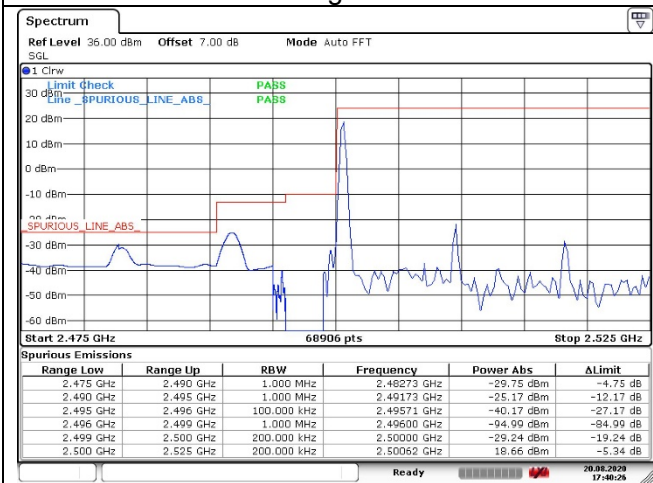


Fig.5

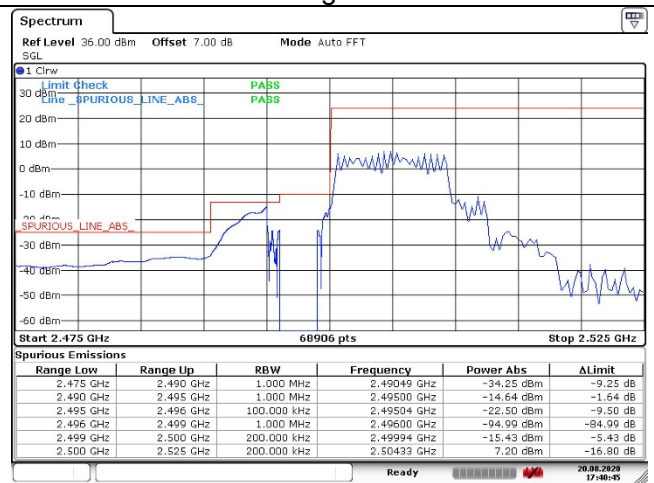


Fig.6

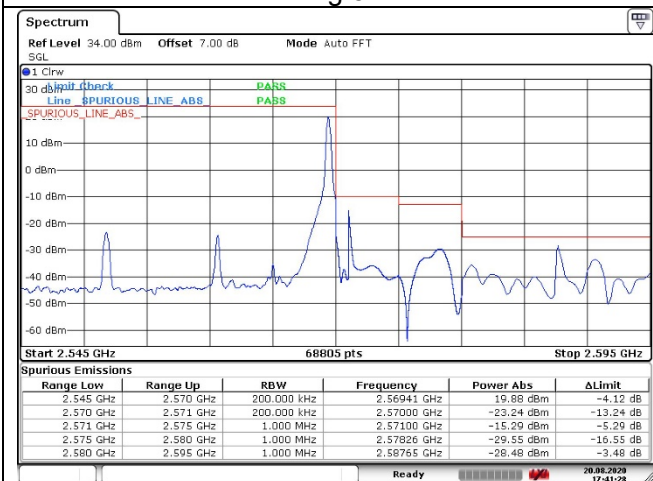


Fig.7

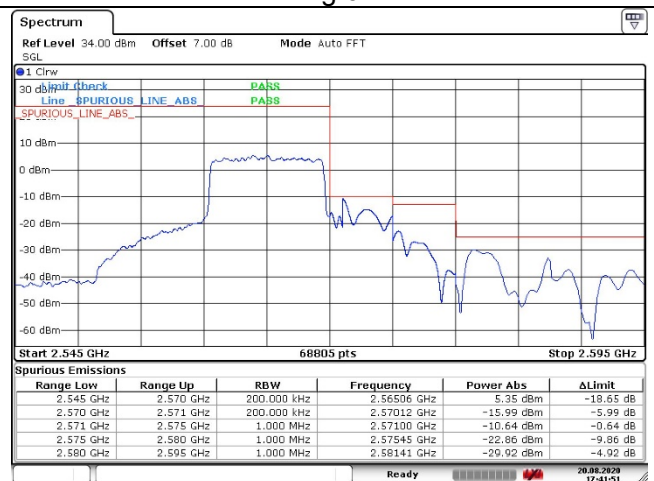


Fig.8

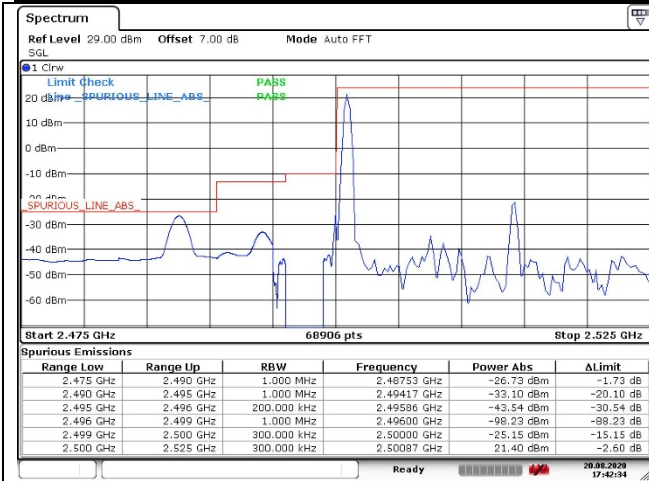


Fig.9

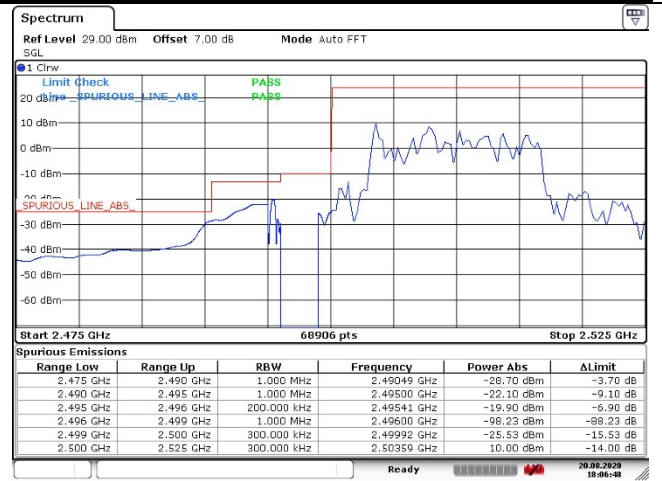


Fig.10

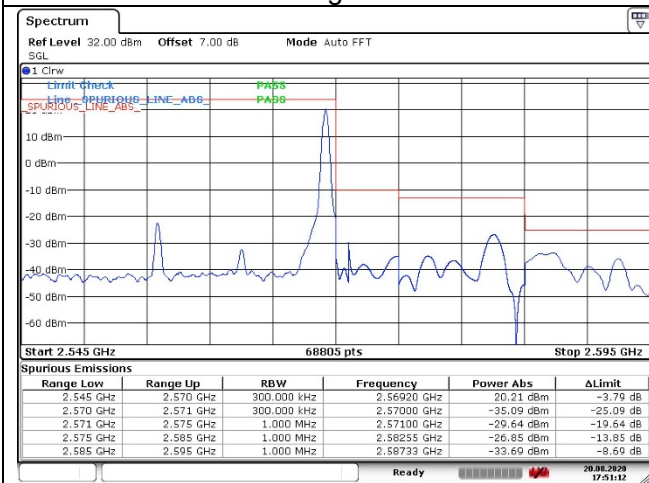


Fig.11

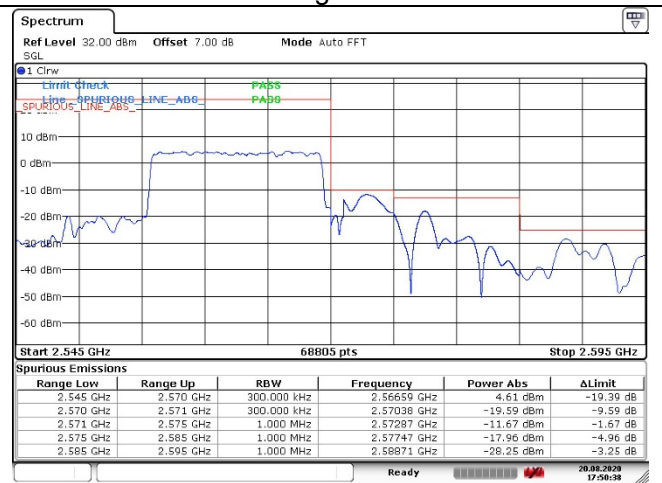


Fig.12

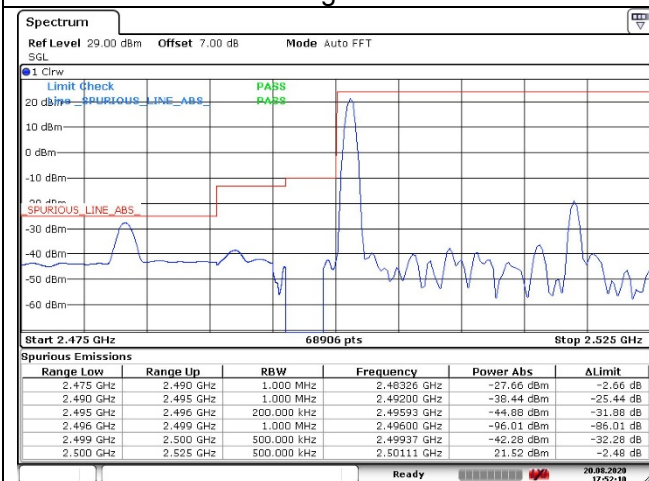


Fig.13

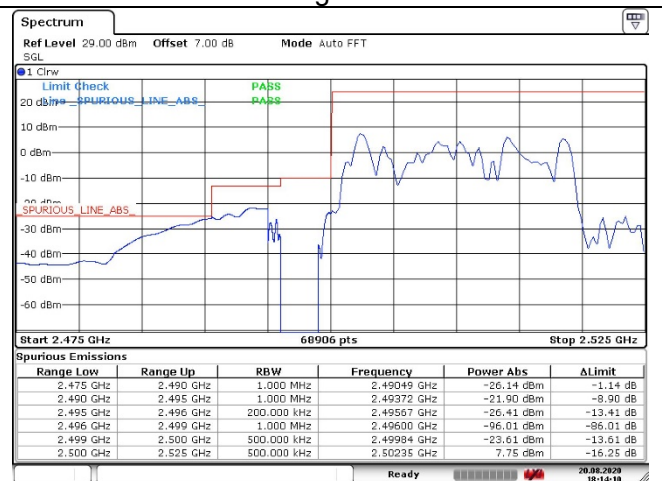
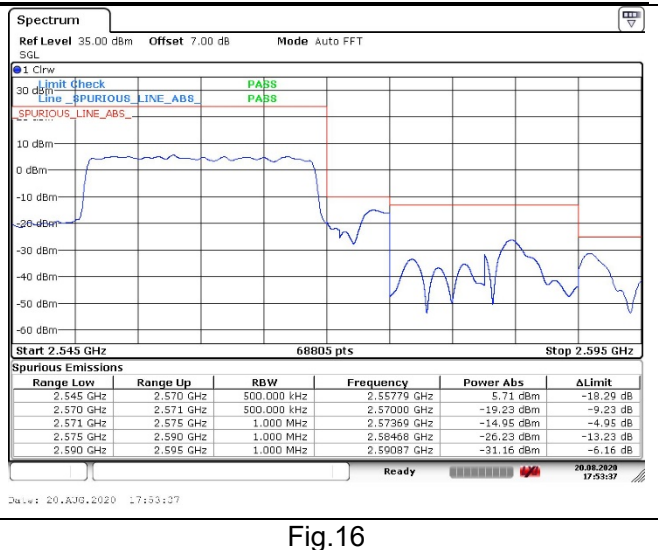
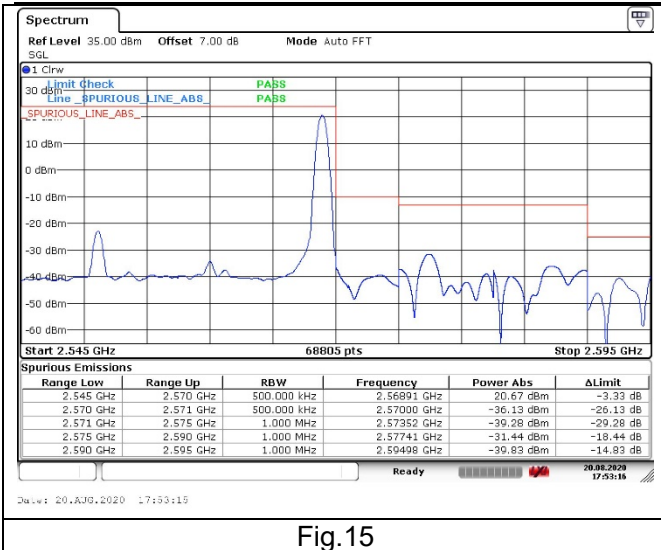


Fig.14



6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band7 Low Channel			
		5M	10M	15M	20M
-20	NV	-0.045	-0.043	-0.003	0.039
-10	NV	-0.009	-0.009	-0.004	-0.022
0	NV	-0.023	0.047	-0.042	-0.016
+10	NV	0.038	-0.030	-0.056	-0.084
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.031	0.049	0.018	0.004
+40	NV	0.021	0.080	-0.077	-0.014
+50	NV	-0.023	0.025	0.040	-0.008
+20	LV	-0.040	-0.021	-0.002	-0.029
+20	HV	-0.062	0.025	-0.036	0.085

Temperature(°C)	Voltage	Test Result (ppm) Band7 High Channel			
		5M	10M	15M	20M
-20	NV	0.026	-0.050	0.080	-0.057
-10	NV	-0.037	-0.041	0.049	-0.009
0	NV	-0.009	0.031	0.052	-0.027
+10	NV	0.056	-0.052	-0.004	0.057
+20	NV	0.000	0.000	0.000	0.000
+30	NV	-0.011	-0.075	-0.076	-0.076
+40	NV	0.064	-0.015	-0.080	0.072
+50	NV	-0.009	-0.031	0.021	0.002
+20	LV	0.059	-0.004	-0.040	0.039
+20	HV	-0.044	-0.045	-0.044	-0.036