

APPENDIX A – TEST DATA OF CONDUCTED EMISSION

LTE Band 41

1 RF Power Output

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2537.5	39675	5	1	0	23.91
				1	24	23.90
				12	6	22.91
				25	0	22.87
	2593	40620		1	0	23.72
				1	24	23.72
				12	6	22.75
				25	0	22.71
	2652.5	41565		1	0	23.61
				1	24	23.58
				12	6	22.68
				25	0	22.66
16QAM	2537.5	40065	5	1	0	22.94
				1	24	22.95
				12	6	22.06
				25	0	21.84
	2593	40620		1	0	22.75
				1	24	22.70
				12	6	21.74
				25	0	21.69
	2652.5	41215		1	0	22.71
				1	24	22.63
				12	6	21.78
				25	0	21.70

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2501	39700	10	1	0	24.01
				1	49	23.94
				24	12	23.07
				50	0	23.01
	2593	40620		1	0	23.84
				1	49	23.80
				24	12	22.83
				50	0	22.82
	2685	41540		1	0	23.77
				1	49	23.62
				24	12	22.78
				50	0	22.72
16QAM	2501	39700	10	1	0	23.00
				1	49	22.93
				24	12	22.12
				50	0	21.97
	2593	40620		1	0	22.81
				1	49	22.76
				24	12	21.81
				50	0	21.84
	2685	41540		1	0	22.76
				1	49	22.67
				24	12	21.85
				50	0	21.77

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2498.5	39675	15	1	0	23.98
				1	74	23.97
				40	18	23.12
				75	0	22.97
	2593	40620		1	0	23.88
				1	74	23.76
				40	18	22.81
				75	0	22.87
	2687.5	41515		1	0	23.76
				1	74	23.71
				40	18	22.84
				75	0	22.70
16QAM	2498.5	39725	15	1	0	23.04
				1	74	23.04
				40	18	22.07
				75	0	21.96
	2593	40620		1	0	22.89
				1	74	22.83
				40	18	21.92
				75	0	21.85
	2687.5	41515		1	0	22.73
				1	74	22.66
				40	18	21.85
				75	0	21.75

Modulation	Carrier frequency (MHz)	UL Channel	BW	RB Size	RB Offset	Conducted Average (dBm)
QPSK	2506	39750	20	1	0	24.11
				1	99	24.05
				50	25	23.17
				100	0	23.12
	2593	40620		1	0	23.95
				1	99	23.91
				50	25	22.95
				100	0	22.92
	2680	41490		1	0	23.85
				1	99	23.79
				50	25	22.89
				100	0	22.84
16QAM	2506	39750	20	1	0	23.13
				1	99	23.09
				50	25	22.21
				100	0	22.11
	2593	40620		1	0	22.95
				1	99	22.94
				50	25	21.98
				100	0	21.92
	2680	41490		1	0	22.85
				1	99	22.80
				50	25	21.93
				100	0	21.88

2 Occupied Bandwidth

Test result

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of 99% Power (MHz)			
						QPSK		16-QAM	
41	2498.5	39675	5	25	0	4.4815	Fig.1	4.4873	Fig.2
	2593	40620		25	0	4.4810	Fig.3	4.4715	Fig.4
	2687.5	41565		25	0	4.4834	Fig.5	4.4825	Fig.6
	2501	39700	10	50	0	8.9344	Fig.7	8.9109	Fig.8
	2593	40620		50	0	8.9138	Fig.9	8.9212	Fig.10
	2685	41540		50	0	8.9274	Fig.11	8.9161	Fig.12
	2503.5	39725	15	75	0	13.402	Fig.13	13.372	Fig.14
	2593	40620		75	0	13.387	Fig.15	13.377	Fig.16
	2682.5	41515		75	0	13.416	Fig.17	13.404	Fig.18
	2506	39750	20	100	0	17.821	Fig.19	17.798	Fig.20
	2593	40620		100	0	17.841	Fig.21	17.824	Fig.22
	2680	41490		100	0	17.833	Fig.23	17.827	Fig.24

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	Bandwidth of -26dB transmitter power (MHz)			
						QPSK		16-QAM	
41	2498.5	39675	5	25	0	5.154	Fig.1	5.099	Fig.2
	2593	40620		25	0	4.977	Fig.3	5.030	Fig.4
	2687.5	41565		25	0	5.129	Fig.5	5.115	Fig.6
	2501	39700	10	50	0	9.744	Fig.7	10.130	Fig.8
	2593	40620		50	0	9.582	Fig.9	9.514	Fig.10
	2685	41540		50	0	9.730	Fig.11	9.609	Fig.12
	2503.5	39725	15	75	0	14.44	Fig.13	14.42	Fig.14
	2593	40620		75	0	14.46	Fig.15	14.36	Fig.16
	2682.5	41515		75	0	14.47	Fig.17	14.27	Fig.18
	2506	39750	20	100	0	19.17	Fig.19	19.03	Fig.20
	2593	40620		100	0	19.05	Fig.21	18.95	Fig.22
	2680	41490		100	0	19.01	Fig.23	19.01	Fig.24

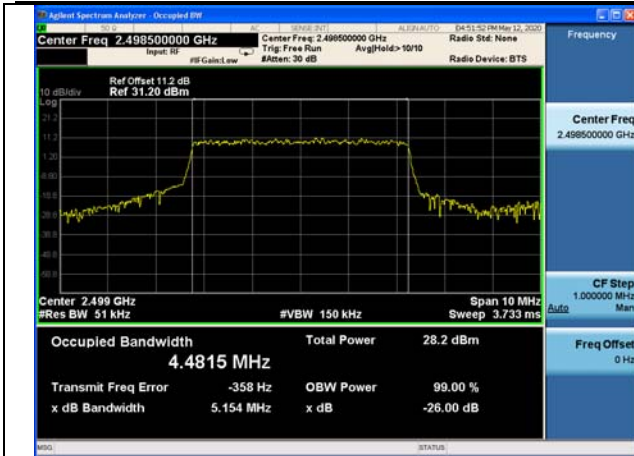


Fig.1

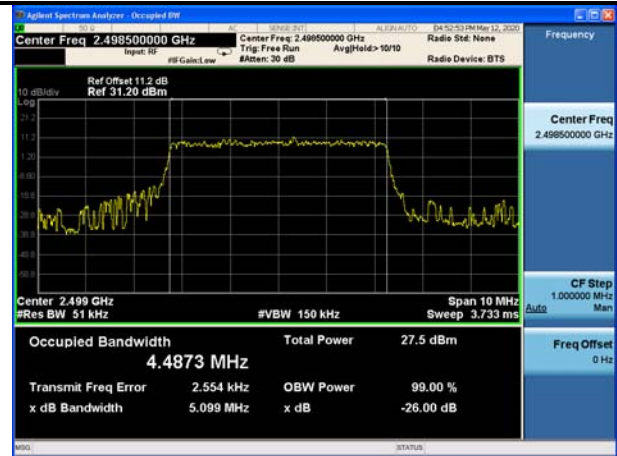


Fig.2

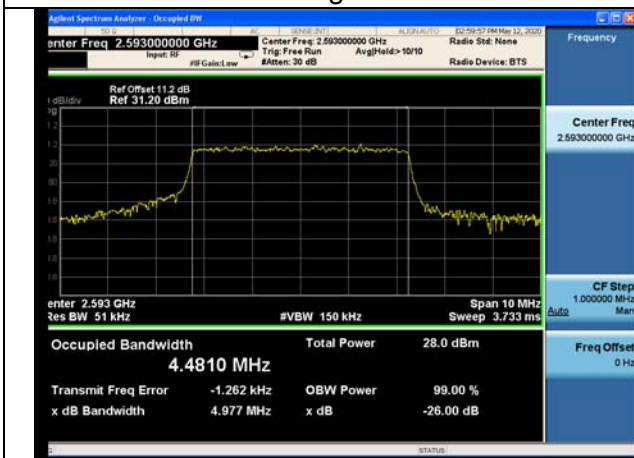


Fig.3

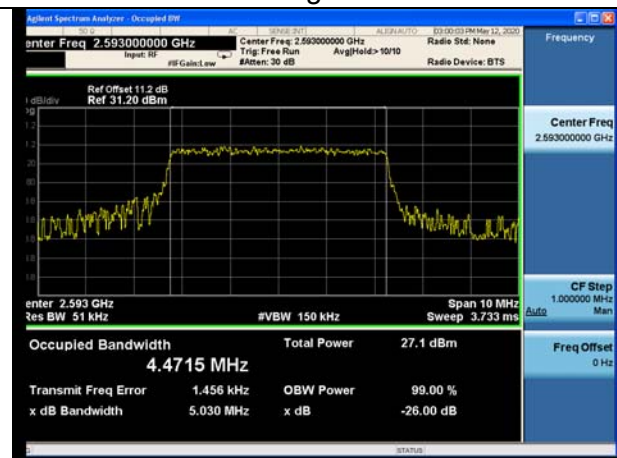


Fig.4

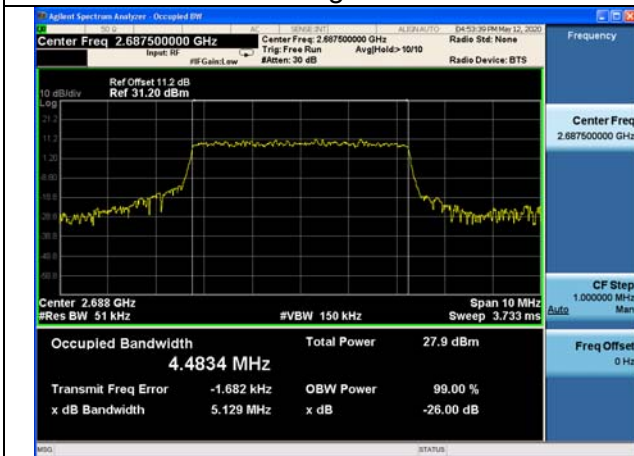


Fig.5

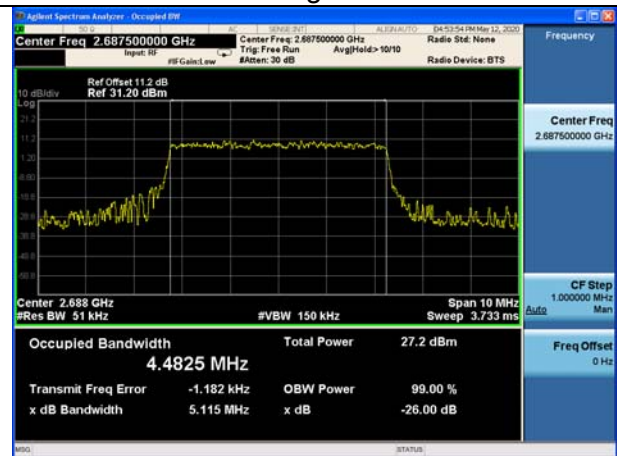


Fig.6

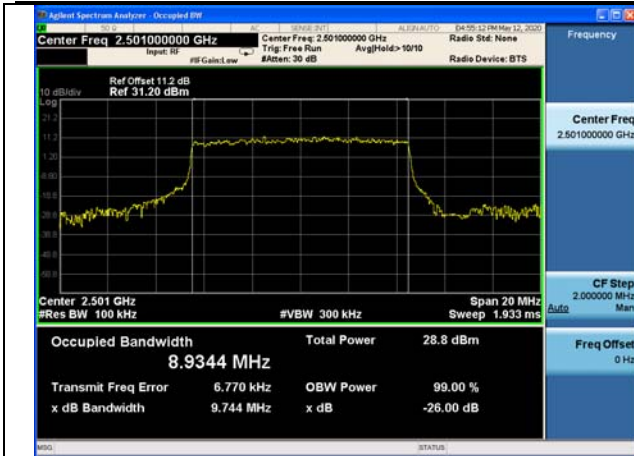


Fig.7

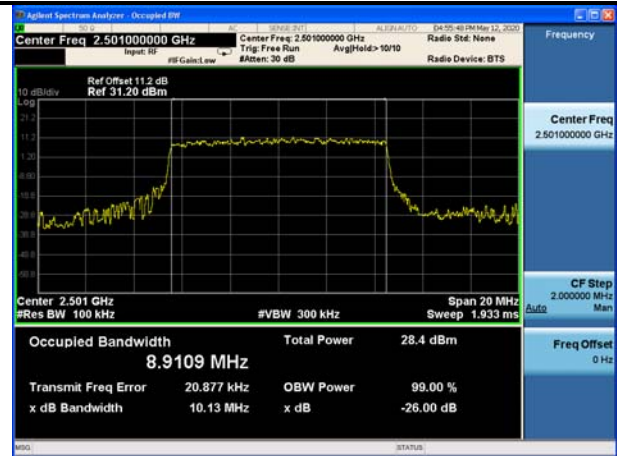


Fig.8

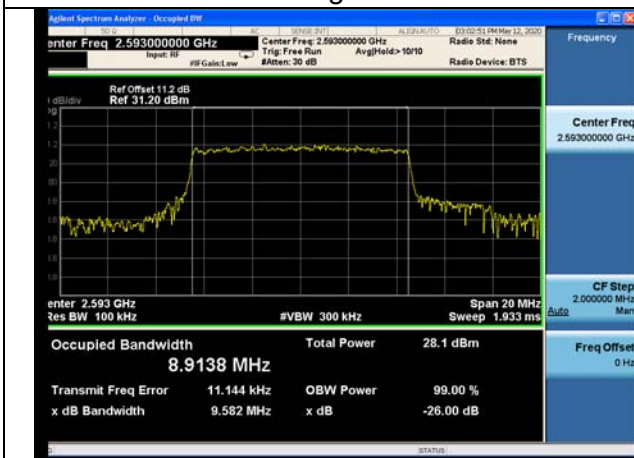


Fig.9

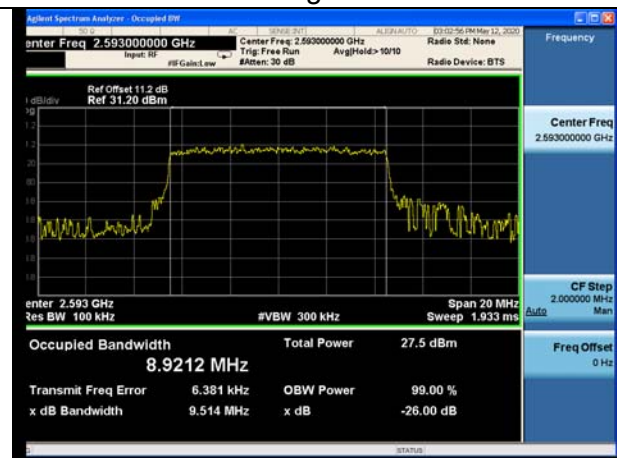


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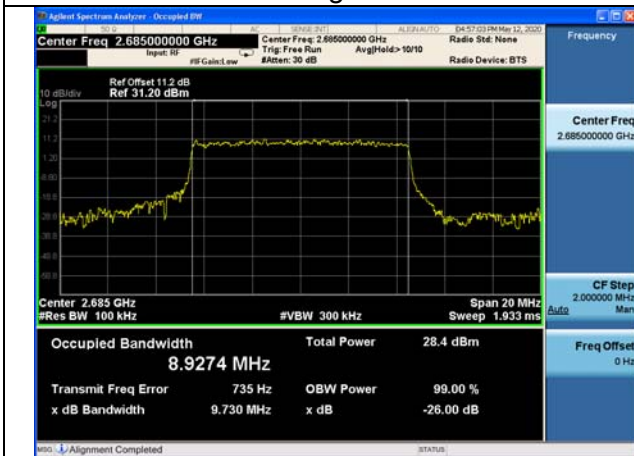


Fig.11

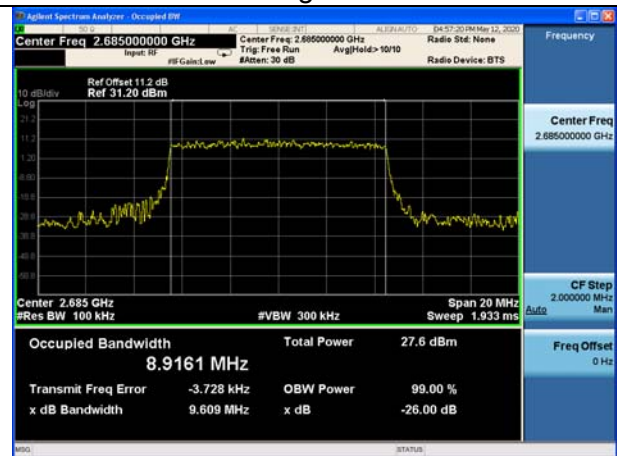


Fig.12

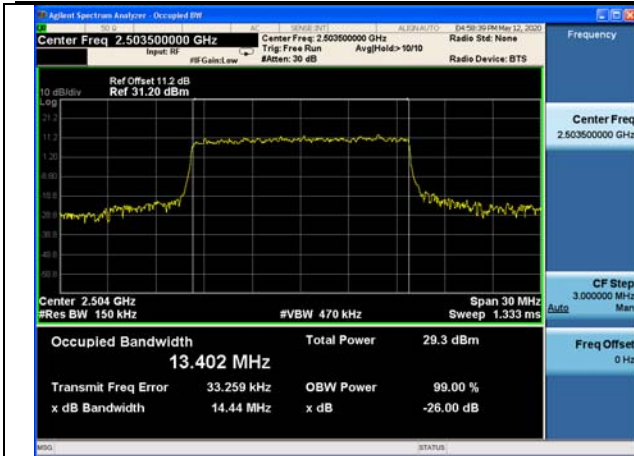


Fig.13

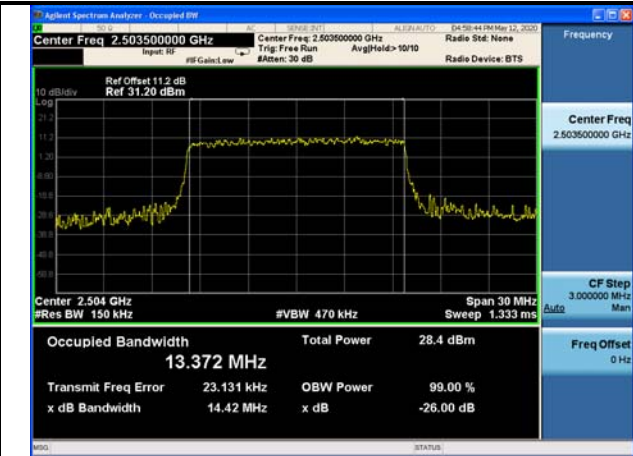


Fig.14

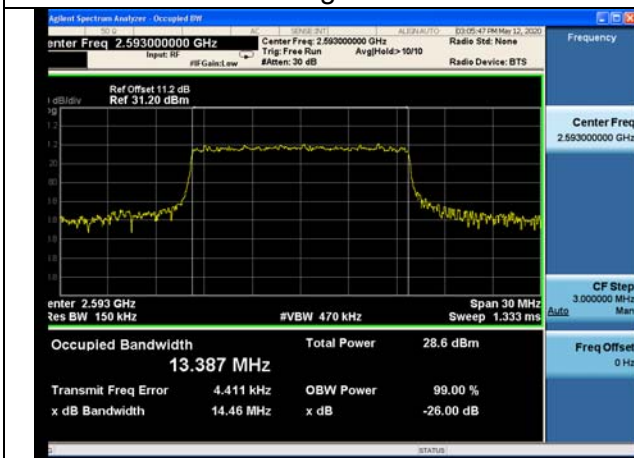


Fig.15

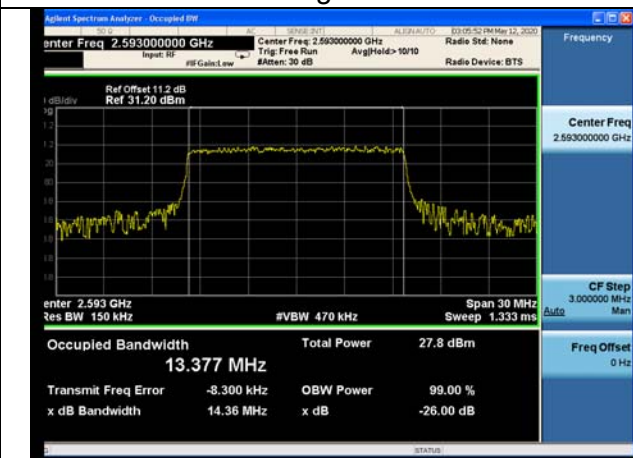


Fig.16

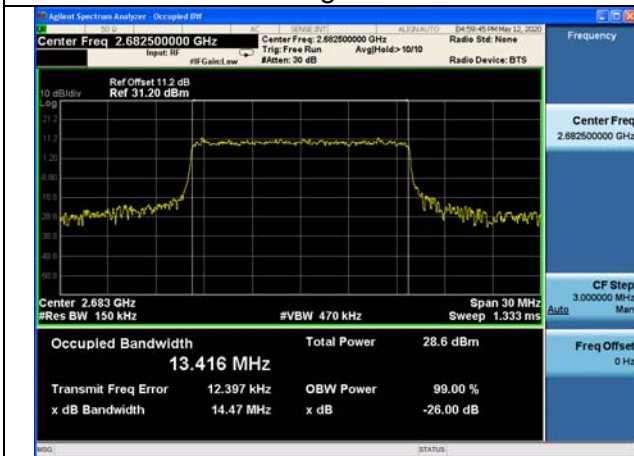


Fig.17

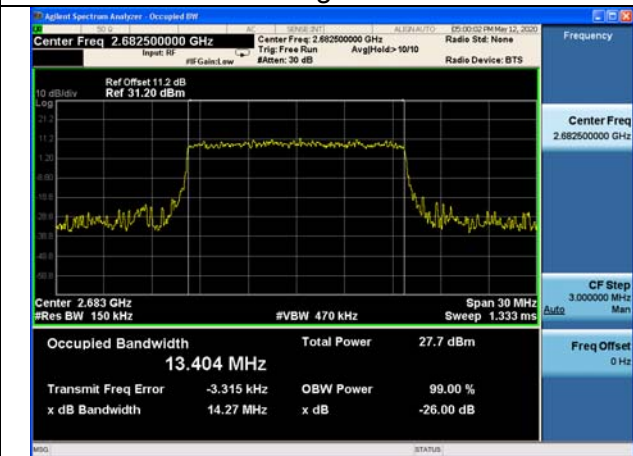


Fig.18

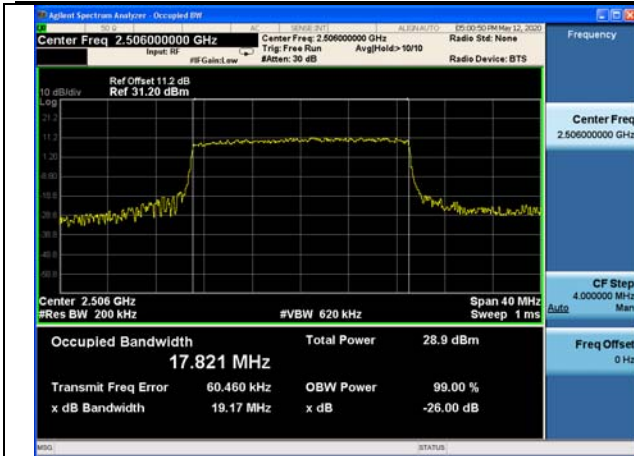


Fig.19

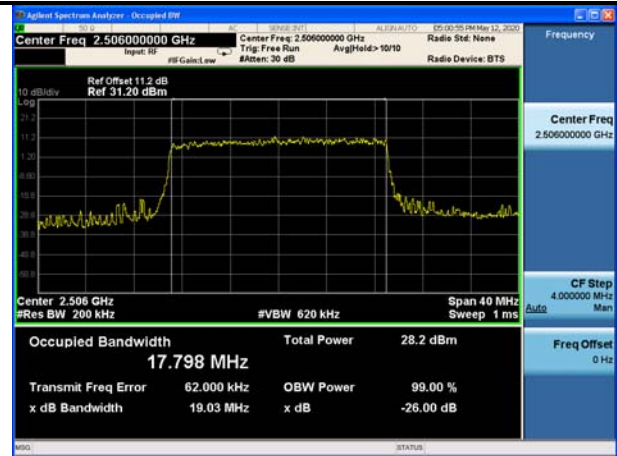


Fig.20

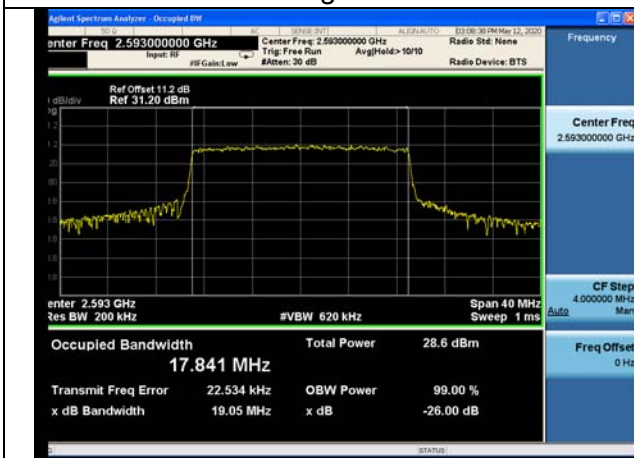


Fig.21

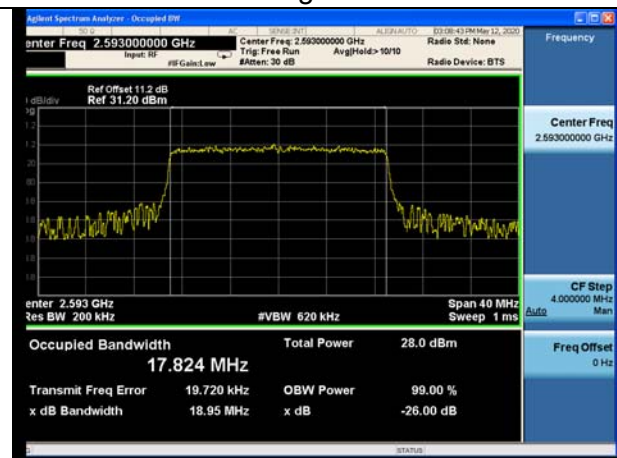


Fig.22

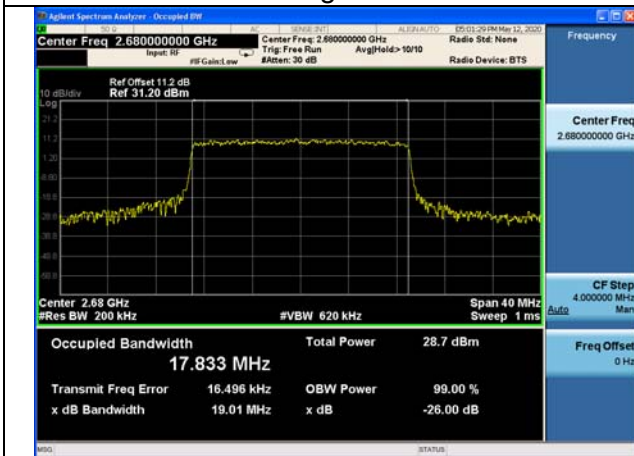


Fig.23

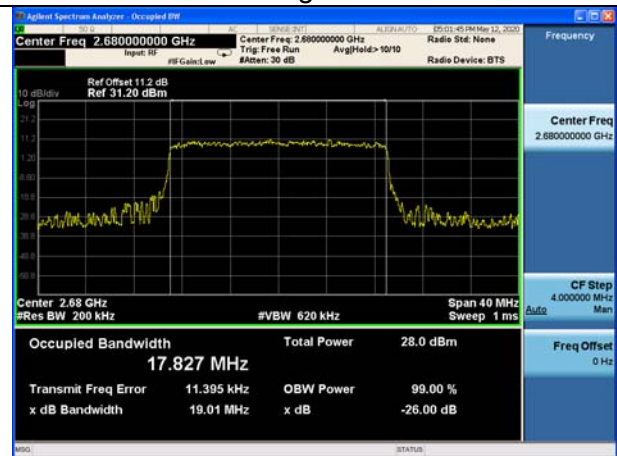


Fig.24

3 Peak-Average Ratio

Band	Carrier frequency (MHz)	Channel	BW (MHz)	RB Size	RB Offset	QPSK	16-QAM
41	2593	40620	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

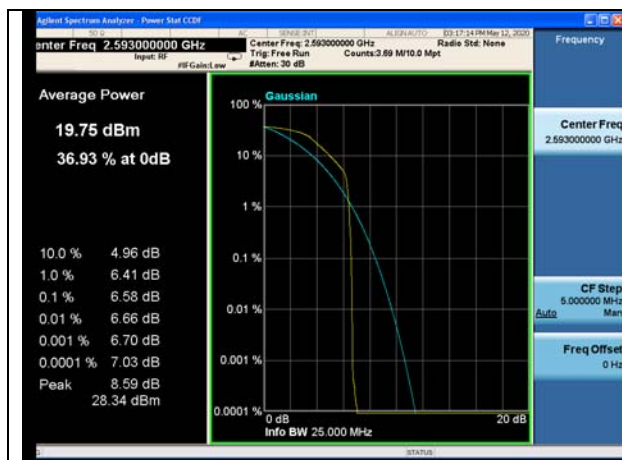


Fig.1

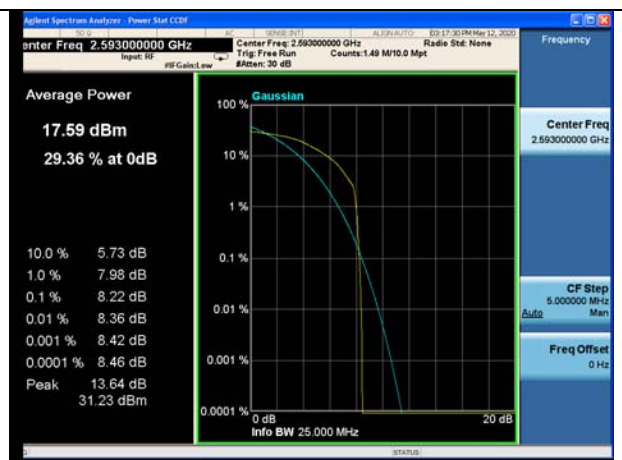


Fig.2

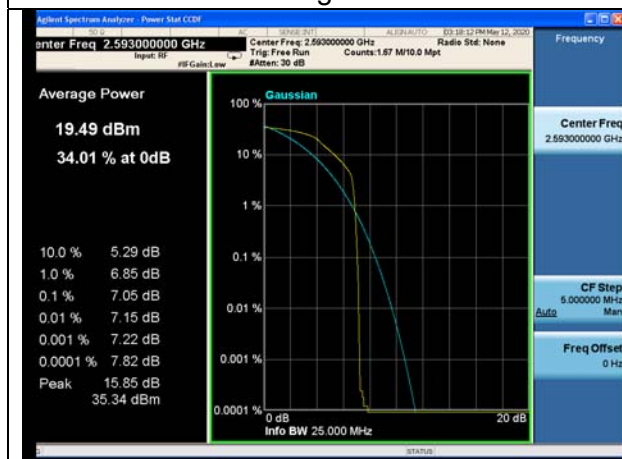


Fig.3

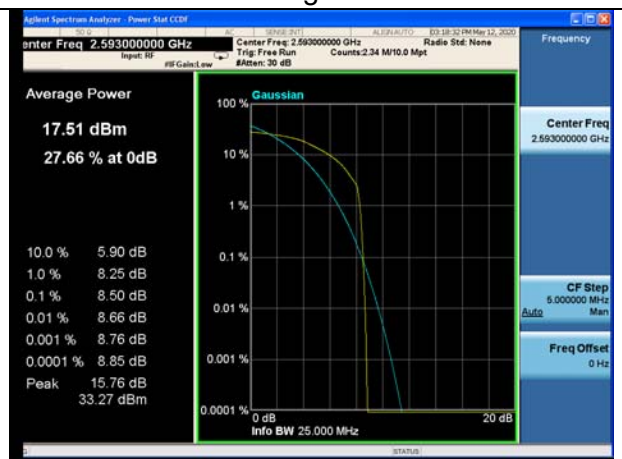


Fig.4

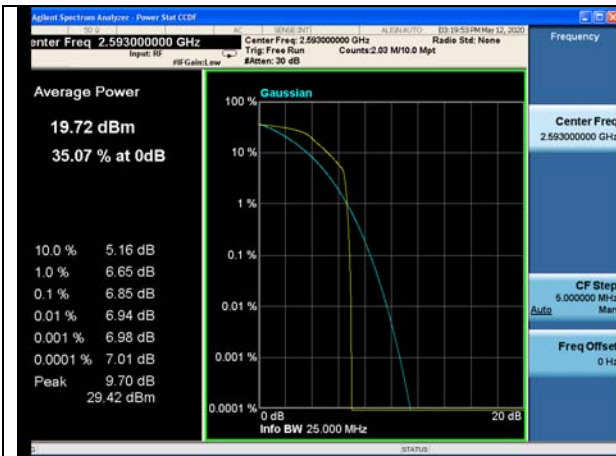


Fig.5

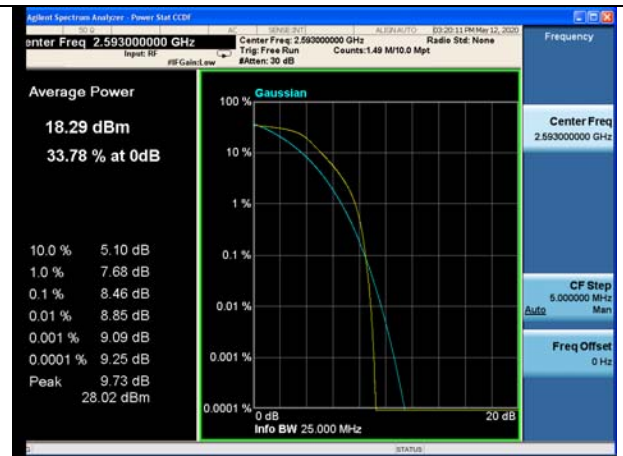


Fig.6



Fig.7



Fig.8

4 Spurious Emissions at antenna terminal

Band	Carrier frequency	Channel	BW	RB Size	RB Offset	Conducted QPSK
41	2506	39750	20	1	0	Fig.1-2
	2593	40620	20	1	0	Fig.3-4
	2680	41490	20	1	0	Fig.5-6

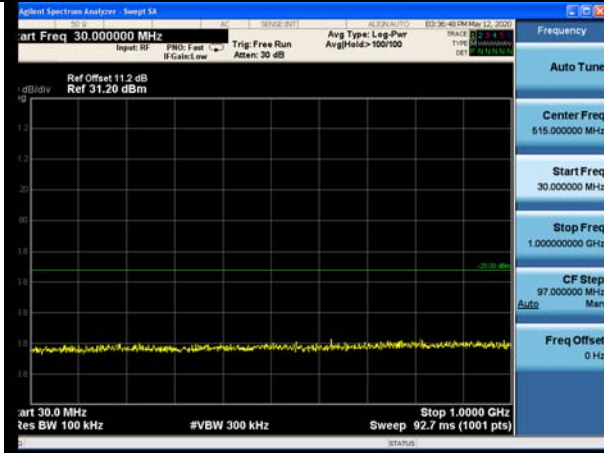


Fig1



Fig2

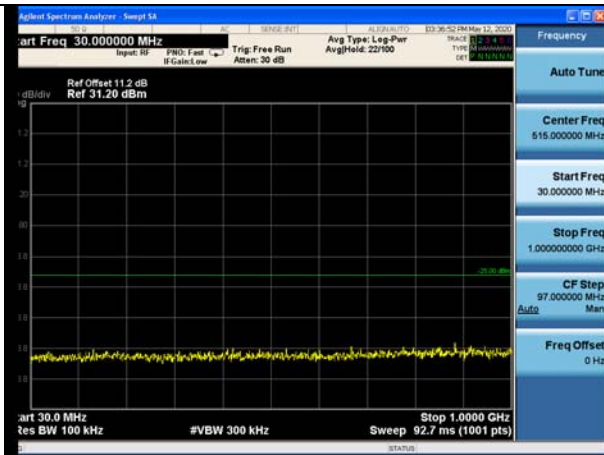


Fig3



Fig4

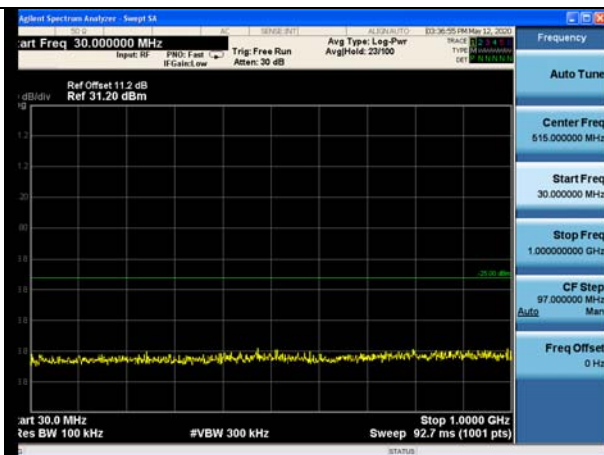


Fig5



Fig6

5 Band Edges Compliance

Test result

Band	Carrier frequency (MHz)	Channel	BW	RB Size	RB Offset	Band Edges Plot
						QPSK
41	2498.5	39675	5	1	0	Fig.1
				25	0	Fig.2
	2687.5	41565		1	24	Fig.3
				25	0	Fig.4
	2501	39700	10	1	0	Fig.5
				50	0	Fig.6
	2685	41540		1	49	Fig.7
				50	0	Fig.8
	2503.5	39725	15	1	0	Fig.9
				75	0	Fig.10
	2682.5	41515		1	74	Fig.11
				75	0	Fig.12
	2506	39750	20	1	0	Fig.13
				100	0	Fig.14
	2680	41490		1	99	Fig.15
				100	0	Fig.16

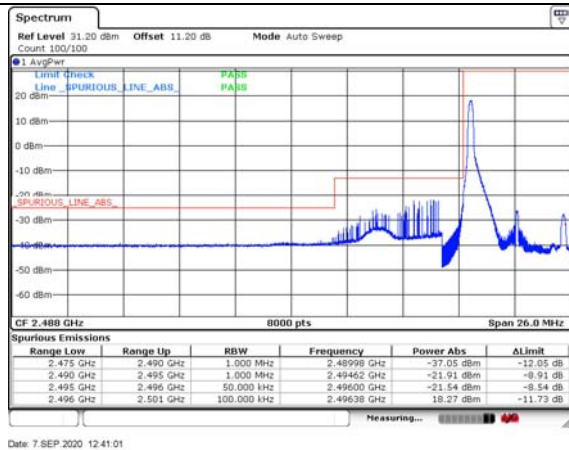


Fig.1

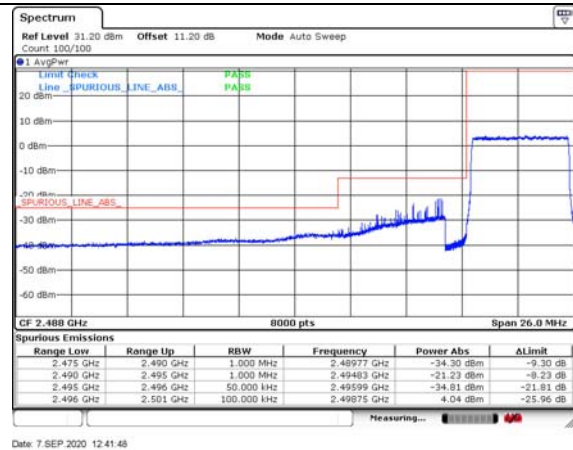


Fig.2

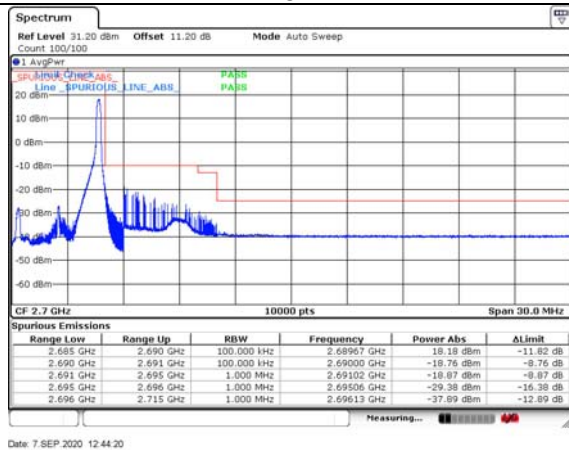


Fig.3

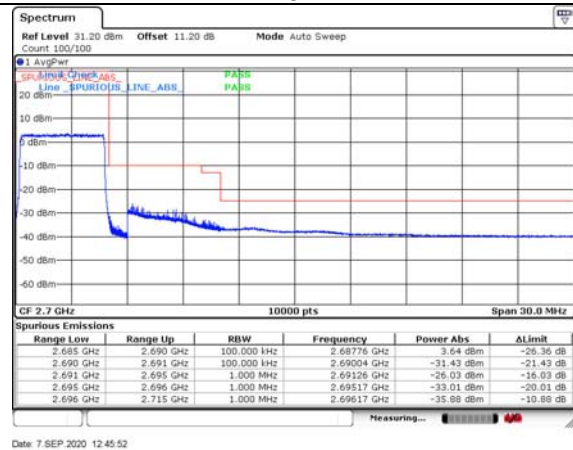


Fig.4

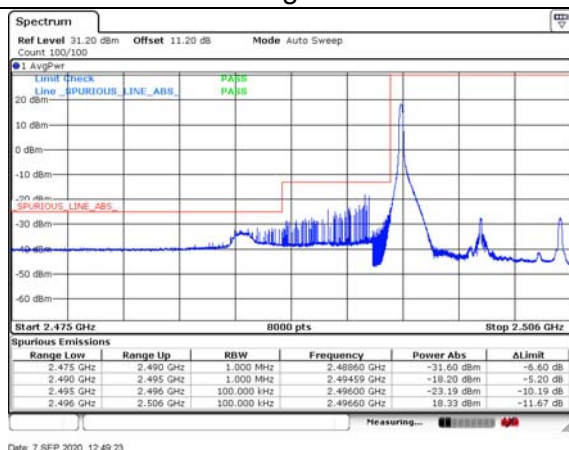


Fig.5

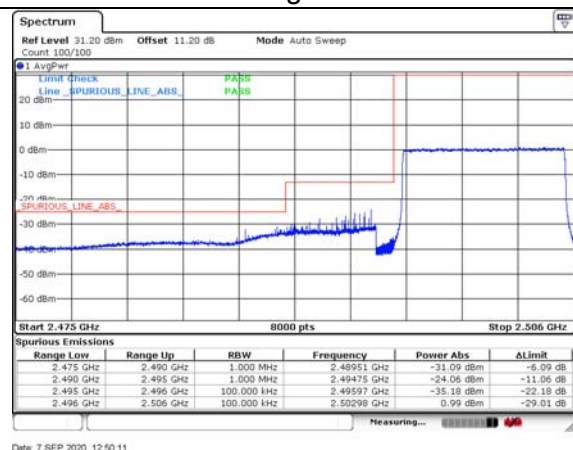
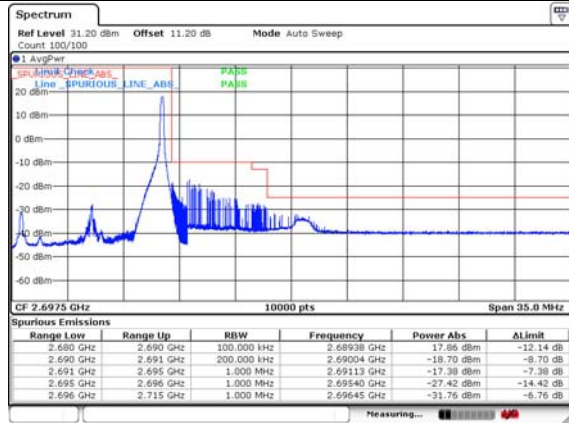
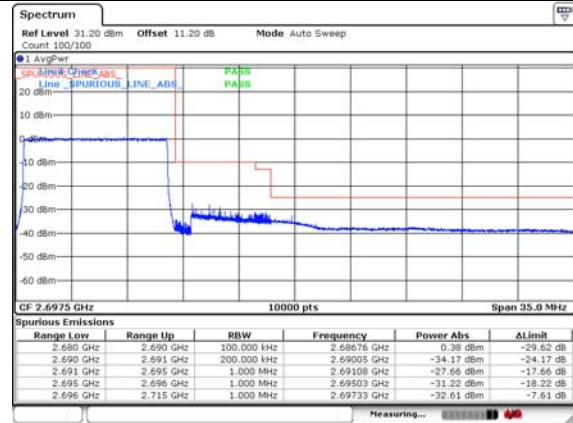


Fig.6



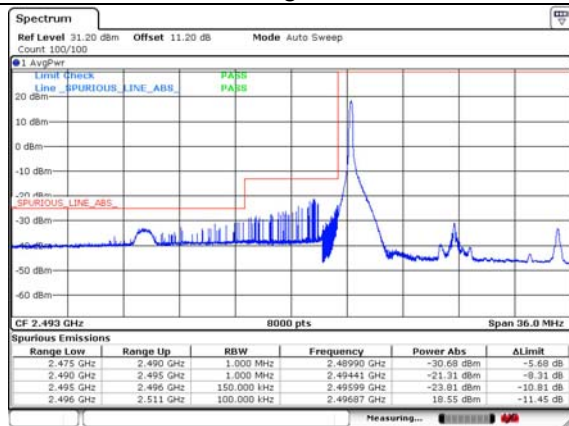
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Fig.7



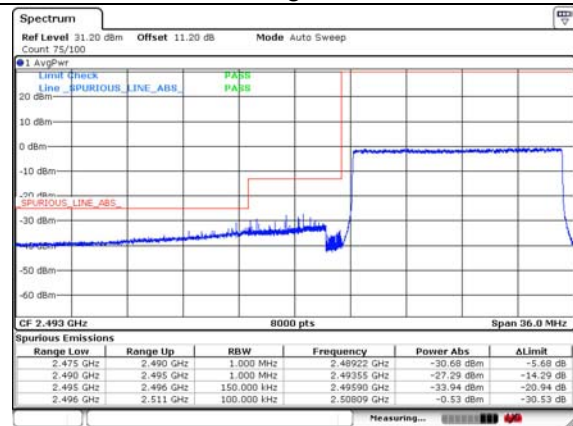
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Fig.8



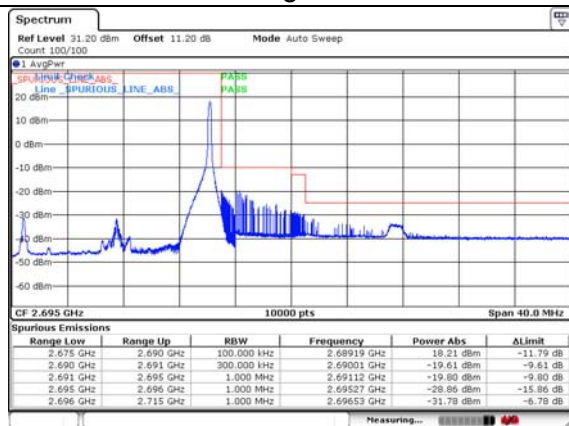
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Fig.9



Date: 7 SEP 2020 12:57:00

Fig.10



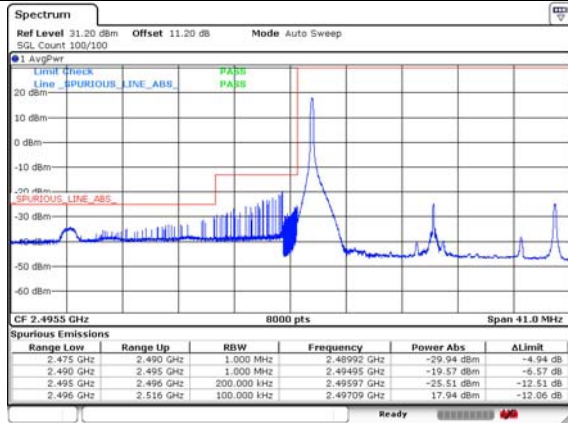
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Fig.11



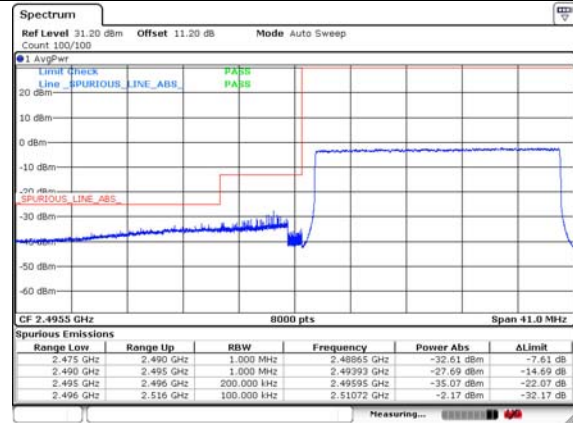
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Fig.12



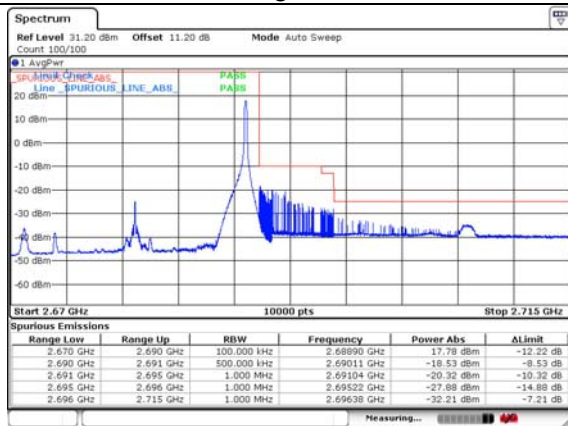
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Fig.13



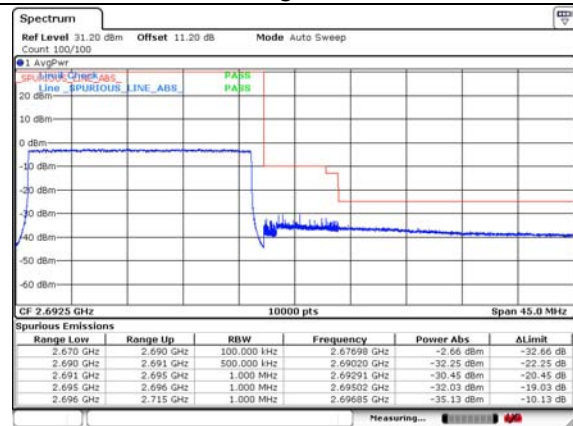
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Fig.14



Date: 7 SEP 2020 13:07:07

Fig.15



Date: 7 SEP 2020 13:08:16

Fig.16

6 Frequency Stability

Test result:

Temperature(°C)	Voltage	Test Result (ppm) Band41 Low Channel			
		5M	10M	15M	20M
-10	NV	0.006	0.022	0.002	0.025
0	NV	-0.005	0.033	-0.005	0.022
+10	NV	0.002	-0.007	0.012	-0.016
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.018	-0.017	0.028	-0.013
+40	NV	0.011	-0.009	-0.032	-0.003
+50	NV	0.016	0.008	0.002	0.015
+55	NV	-0.003	0.030	-0.007	0.001
+20	LV	-0.016	-0.008	0.011	0.012
+20	HV	-0.019	0.009	-0.003	0.031

Temperature(°C)	Voltage	Test Result (ppm) Ban41 High Channel			
		5M	10M	15M	20M
-10	NV	0.002	-0.020	-0.013	0.023
0	NV	-0.014	0.013	0.001	0.025
+10	NV	-0.021	-0.017	0.019	-0.019
+20	NV	0.000	0.000	0.000	0.000
+30	NV	0.024	-0.006	-0.002	-0.013
+40	NV	0.012	-0.008	-0.015	0.020
+50	NV	-0.004	0.017	0.030	0.013
+55	NV	-0.015	0.016	-0.003	-0.011
+20	LV	-0.016	0.019	-0.012	0.019
+20	HV	-0.005	0.023	0.010	0.016