



Appendix A.11

1. Effective (Isotropic) Radiated Power Output Data

1.1 Test Result

1.1.1 B17_5MHz_ERP

Band: 17 / Bandwidth: 5MHz / NTN								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	
QPSK	706.5	1	0	22.97	-0.75	20.07	<=34.77	Pass
			13	22.98	-0.75	20.08	<=34.77	Pass
			24	22.95	-0.75	20.05	<=34.77	Pass
		12	0	21.94	-0.75	19.04	<=34.77	Pass
			6	21.98	-0.75	19.08	<=34.77	Pass
			13	21.99	-0.75	19.09	<=34.77	Pass
		25	0	22.04	-0.75	19.14	<=34.77	Pass
	710	1	0	22.97	-0.75	20.07	<=34.77	Pass
			13	23.00	-0.75	20.10	<=34.77	Pass
			24	22.96	-0.75	20.06	<=34.77	Pass
		12	0	22.03	-0.75	19.13	<=34.77	Pass
			6	22.06	-0.75	19.16	<=34.77	Pass
			13	21.99	-0.75	19.09	<=34.77	Pass
		25	0	22.00	-0.75	19.10	<=34.77	Pass
	713.5	1	0	23.11	-0.75	20.21	<=34.77	Pass
			13	23.16	-0.75	20.26	<=34.77	Pass
			24	23.14	-0.75	20.24	<=34.77	Pass
		12	0	22.22	-0.75	19.32	<=34.77	Pass
			6	22.38	-0.75	19.48	<=34.77	Pass
			13	22.18	-0.75	19.28	<=34.77	Pass
		25	0	22.14	-0.75	19.24	<=34.77	Pass
16QAM	706.5	1	0	22.47	-0.75	19.57	<=34.77	Pass
			13	22.15	-0.75	19.25	<=34.77	Pass
			24	22.15	-0.75	19.25	<=34.77	Pass
		12	0	21.05	-0.75	18.15	<=34.77	Pass
			6	21.12	-0.75	18.22	<=34.77	Pass
			13	21.07	-0.75	18.17	<=34.77	Pass
		25	0	21.10	-0.75	18.20	<=34.77	Pass
	710	1	0	22.08	-0.75	19.18	<=34.77	Pass
			13	22.16	-0.75	19.26	<=34.77	Pass
			24	22.21	-0.75	19.31	<=34.77	Pass
		12	0	21.03	-0.75	18.13	<=34.77	Pass
			6	21.11	-0.75	18.21	<=34.77	Pass
			13	21.06	-0.75	18.16	<=34.77	Pass
		25	0	21.02	-0.75	18.12	<=34.77	Pass
	713.5	1	0	22.26	-0.75	19.36	<=34.77	Pass
			13	22.29	-0.75	19.39	<=34.77	Pass
			24	22.49	-0.75	19.59	<=34.77	Pass
		12	0	21.17	-0.75	18.27	<=34.77	Pass
			6	21.17	-0.75	18.27	<=34.77	Pass
			6	21.17	-0.75	18.27	<=34.77	Pass

			13	21.19	-0.75	18.29	<=34.77	Pass		
		25	0	21.11	-0.75	18.21	<=34.77	Pass		
64QAM	706.5	1	0	22.15	-0.75	19.25	<=34.77	Pass		
			13	22.01	-0.75	19.11	<=34.77	Pass		
			24	22.14	-0.75	19.24	<=34.77	Pass		
		12	0	20.95	-0.75	18.05	<=34.77	Pass		
			6	21.08	-0.75	18.18	<=34.77	Pass		
			13	21.05	-0.75	18.15	<=34.77	Pass		
		25	0	21.08	-0.75	18.18	<=34.77	Pass		
		710	1	0	22.17	-0.75	19.27	<=34.77	Pass	
				13	22.24	-0.75	19.34	<=34.77	Pass	
	24			21.94	-0.75	19.04	<=34.77	Pass		
	12		0	21.10	-0.75	18.20	<=34.77	Pass		
			6	20.99	-0.75	18.09	<=34.77	Pass		
			13	21.04	-0.75	18.14	<=34.77	Pass		
	25		0	21.07	-0.75	18.17	<=34.77	Pass		
	713.5		1	0	22.15	-0.75	19.25	<=34.77	Pass	
				13	22.19	-0.75	19.29	<=34.77	Pass	
		24		22.08	-0.75	19.18	<=34.77	Pass		
		12	0	21.07	-0.75	18.17	<=34.77	Pass		
			6	21.24	-0.75	18.34	<=34.77	Pass		
			13	21.15	-0.75	18.25	<=34.77	Pass		
		25	0	21.13	-0.75	18.23	<=34.77	Pass		
		256QAM	706.5	1	0	18.14	-0.75	15.24	<=34.77	Pass
					13	18.14	-0.75	15.24	<=34.77	Pass
	24				18.07	-0.75	15.17	<=34.77	Pass	
12	0			17.96	-0.75	15.06	<=34.77	Pass		
	6			18.03	-0.75	15.13	<=34.77	Pass		
	13			18.10	-0.75	15.20	<=34.77	Pass		
25	0			17.99	-0.75	15.09	<=34.77	Pass		
710	1			0	17.98	-0.75	15.08	<=34.77	Pass	
				13	18.34	-0.75	15.44	<=34.77	Pass	
			24	17.92	-0.75	15.02	<=34.77	Pass		
	12		0	18.04	-0.75	15.14	<=34.77	Pass		
			6	17.95	-0.75	15.05	<=34.77	Pass		
			13	18.06	-0.75	15.16	<=34.77	Pass		
	25		0	17.97	-0.75	15.07	<=34.77	Pass		
	713.5		1	0	18.03	-0.75	15.13	<=34.77	Pass	
				13	18.42	-0.75	15.52	<=34.77	Pass	
24				18.13	-0.75	15.23	<=34.77	Pass		
12			0	18.11	-0.75	15.21	<=34.77	Pass		
			6	18.16	-0.75	15.26	<=34.77	Pass		
			13	18.21	-0.75	15.31	<=34.77	Pass		
25			0	18.16	-0.75	15.26	<=34.77	Pass		
Note1: ERP=Conducted Power+Antenna Gain-2.15										

1.1.2 B17_10MHz_ERP

Band: 17 / Bandwidth: 10MHz / NTN								
Modulation	Frequency (MHz)	RB Allocation		Conducted Power (dBm)	Gain (dBi)	ERP (dBm)		Verdict
		Size	Offset			Result	Limit	

QPSK	709	1	0	23.00	-0.75	20.10	<=34.77	Pass
			25	23.01	-0.75	20.11	<=34.77	Pass
			49	23.12	-0.75	20.22	<=34.77	Pass
		25	0	21.95	-0.75	19.05	<=34.77	Pass
			13	22.12	-0.75	19.22	<=34.77	Pass
			25	22.09	-0.75	19.19	<=34.77	Pass
		50	0	22.00	-0.75	19.10	<=34.77	Pass
	710	1	0	23.04	-0.75	20.14	<=34.77	Pass
			25	22.99	-0.75	20.09	<=34.77	Pass
			49	22.97	-0.75	20.07	<=34.77	Pass
		25	0	22.04	-0.75	19.14	<=34.77	Pass
			13	22.10	-0.75	19.20	<=34.77	Pass
			25	22.12	-0.75	19.22	<=34.77	Pass
		50	0	22.06	-0.75	19.16	<=34.77	Pass
	711	1	0	23.25	-0.75	20.35	<=34.77	Pass
			25	23.29	-0.75	20.39	<=34.77	Pass
			49	23.05	-0.75	20.15	<=34.77	Pass
		25	0	21.99	-0.75	19.09	<=34.77	Pass
			13	22.14	-0.75	19.24	<=34.77	Pass
			25	22.08	-0.75	19.18	<=34.77	Pass
		50	0	22.04	-0.75	19.14	<=34.77	Pass
16QAM	709	1	0	22.19	-0.75	19.29	<=34.77	Pass
			25	22.34	-0.75	19.44	<=34.77	Pass
			49	22.24	-0.75	19.34	<=34.77	Pass
		25	0	21.05	-0.75	18.15	<=34.77	Pass
			13	21.20	-0.75	18.30	<=34.77	Pass
			25	21.08	-0.75	18.18	<=34.77	Pass
		50	0	21.11	-0.75	18.21	<=34.77	Pass
	710	1	0	22.38	-0.75	19.48	<=34.77	Pass
			25	22.42	-0.75	19.52	<=34.77	Pass
			49	22.34	-0.75	19.44	<=34.77	Pass
		25	0	21.01	-0.75	18.11	<=34.77	Pass
			13	21.11	-0.75	18.21	<=34.77	Pass
			25	21.10	-0.75	18.20	<=34.77	Pass
		50	0	21.05	-0.75	18.15	<=34.77	Pass
	711	1	0	22.41	-0.75	19.51	<=34.77	Pass
			25	22.51	-0.75	19.61	<=34.77	Pass
			49	22.38	-0.75	19.48	<=34.77	Pass
		25	0	21.00	-0.75	18.10	<=34.77	Pass
			13	21.23	-0.75	18.33	<=34.77	Pass
			25	21.16	-0.75	18.26	<=34.77	Pass
		50	0	21.12	-0.75	18.22	<=34.77	Pass
64QAM	709	1	0	22.16	-0.75	19.26	<=34.77	Pass
			25	22.14	-0.75	19.24	<=34.77	Pass
			49	21.93	-0.75	19.03	<=34.77	Pass
		25	0	20.90	-0.75	18.00	<=34.77	Pass
			13	21.19	-0.75	18.29	<=34.77	Pass
			25	21.09	-0.75	18.19	<=34.77	Pass
		50	0	21.09	-0.75	18.19	<=34.77	Pass
	710	1	0	22.15	-0.75	19.25	<=34.77	Pass
			25	22.00	-0.75	19.10	<=34.77	Pass
			49	22.21	-0.75	19.31	<=34.77	Pass
		25	0	21.02	-0.75	18.12	<=34.77	Pass



Report No.: SUCR260600048901

Page: 4 of 30

		50	13	21.09	-0.75	18.19	<=34.77	Pass
			25	21.11	-0.75	18.21	<=34.77	Pass
			0	21.05	-0.75	18.15	<=34.77	Pass
	711	1	0	22.12	-0.75	19.22	<=34.77	Pass
			25	21.98	-0.75	19.08	<=34.77	Pass
			49	22.18	-0.75	19.28	<=34.77	Pass
		25	0	21.05	-0.75	18.15	<=34.77	Pass
			13	21.13	-0.75	18.23	<=34.77	Pass
			25	21.05	-0.75	18.15	<=34.77	Pass
		50	0	21.09	-0.75	18.19	<=34.77	Pass
256QAM	709	1	0	17.90	-0.75	15.00	<=34.77	Pass
			25	18.24	-0.75	15.34	<=34.77	Pass
			49	17.93	-0.75	15.03	<=34.77	Pass
		25	0	17.95	-0.75	15.05	<=34.77	Pass
			13	18.09	-0.75	15.19	<=34.77	Pass
			25	18.05	-0.75	15.15	<=34.77	Pass
		50	0	17.99	-0.75	15.09	<=34.77	Pass
	710	1	0	17.99	-0.75	15.09	<=34.77	Pass
			25	18.26	-0.75	15.36	<=34.77	Pass
			49	18.00	-0.75	15.10	<=34.77	Pass
		25	0	17.92	-0.75	15.02	<=34.77	Pass
			13	18.03	-0.75	15.13	<=34.77	Pass
			25	18.10	-0.75	15.20	<=34.77	Pass
		50	0	17.94	-0.75	15.04	<=34.77	Pass
	711	1	0	17.92	-0.75	15.02	<=34.77	Pass
			25	18.39	-0.75	15.49	<=34.77	Pass
			49	17.94	-0.75	15.04	<=34.77	Pass
		25	0	17.98	-0.75	15.08	<=34.77	Pass
			13	18.22	-0.75	15.32	<=34.77	Pass
			25	18.05	-0.75	15.15	<=34.77	Pass
		50	0	18.04	-0.75	15.14	<=34.77	Pass

Note1: ERP=Conducted Power+Antenna Gain-2.15

2. Frequency Stability

2.1 Test Result

2.1.1 B17_10MHz

Band: 17 / Bandwidth: 10MHz									
Modulation	Frequency (MHz)	RB Allocation		Temp. (°C)	Voltage (VDC)	Freq. Error (Hz)	Freq. vs. Rated (ppm)		Verdict
		Size	Offset				Result	Limit	
QPSK	710	50	0	20	3.27	0.700	0.0010	-2.5 to 2.5	Pass
					3.85	-1.500	-0.0021	-2.5 to 2.5	Pass
					4.43	0.600	0.0008	-2.5 to 2.5	Pass
				-30	3.85	-1.800	-0.0025	-2.5 to 2.5	Pass
				-20	3.85	0.300	0.0004	-2.5 to 2.5	Pass
				-10	3.85	-0.600	-0.0008	-2.5 to 2.5	Pass
				0	3.85	0.400	0.0006	-2.5 to 2.5	Pass
				10	3.85	-0.600	-0.0008	-2.5 to 2.5	Pass



Report No.: SUCR260600048901

Page: 5 of 30

				30	3.85	-0.100	-0.0001	-2.5 to 2.5	Pass
				40	3.85	-0.900	-0.0013	-2.5 to 2.5	Pass
				50	3.85	-1.200	-0.0017	-2.5 to 2.5	Pass

3. 99% & 26dB Bandwidth

3.1 Test Result

3.1.1 Band17_OBW

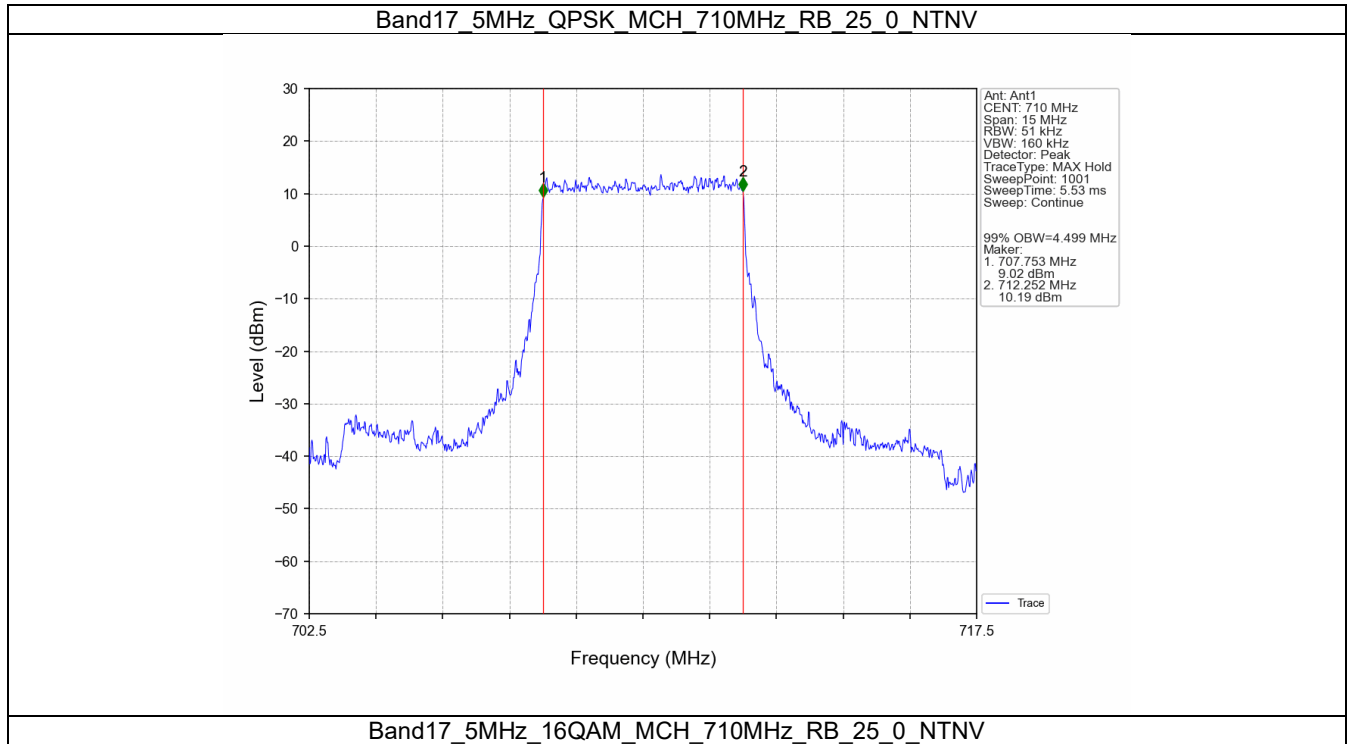
Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		99% Occupied Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	4.499	/	Pass
	16QAM	710	25	0	4.485	/	Pass
	64QAM	710	25	0	4.482	/	Pass
	256QAM	710	25	0	4.479	/	Pass
10	QPSK	710	50	0	8.957	/	Pass
	16QAM	710	50	0	8.982	/	Pass
	64QAM	710	50	0	8.965	/	Pass
	256QAM	710	50	0	8.960	/	Pass

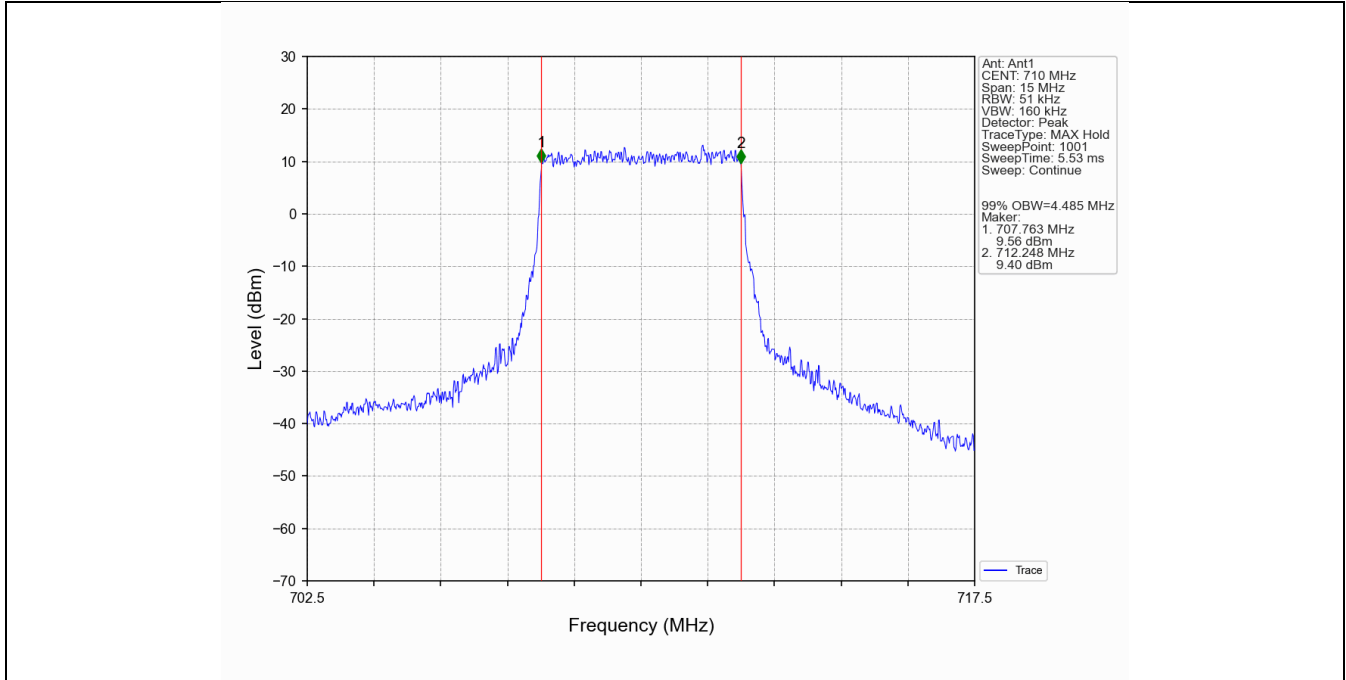
3.1.2 Band17_XDB

Band: 17 / NTNV							
Bandwidth (MHz)	Modulation	Frequency (MHz)	RB Allocation		26dB Bandwidth (MHz)		Verdict
			Size	Offset	Result	Limit	
5	QPSK	710	25	0	5.032	/	Pass
	16QAM	710	25	0	5.049	/	Pass
	64QAM	710	25	0	5.006	/	Pass
	256QAM	710	25	0	4.936	/	Pass
10	QPSK	710	50	0	9.866	/	Pass
	16QAM	710	50	0	9.753	/	Pass
	64QAM	710	50	0	9.828	/	Pass
	256QAM	710	50	0	9.786	/	Pass

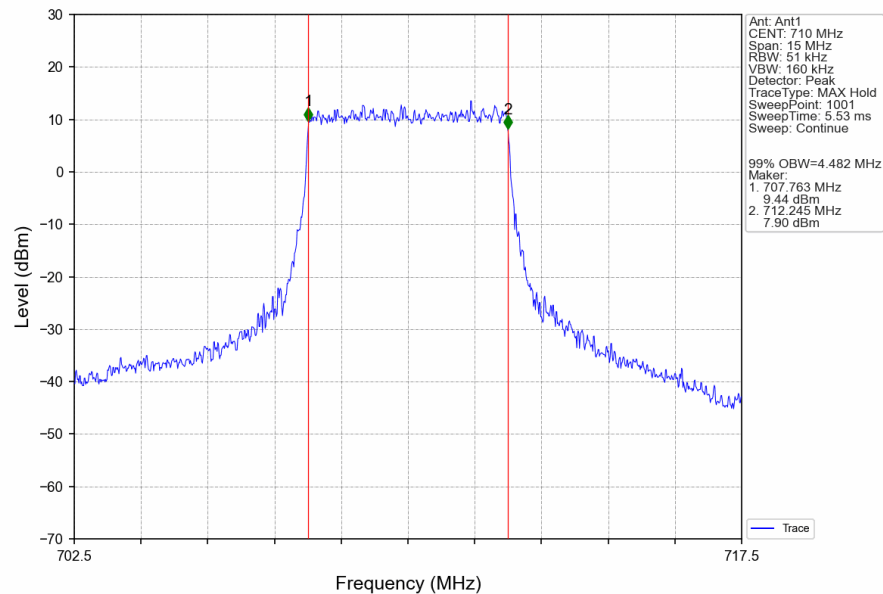
3.2 Test Graph

3.2.1 Band17_OBW

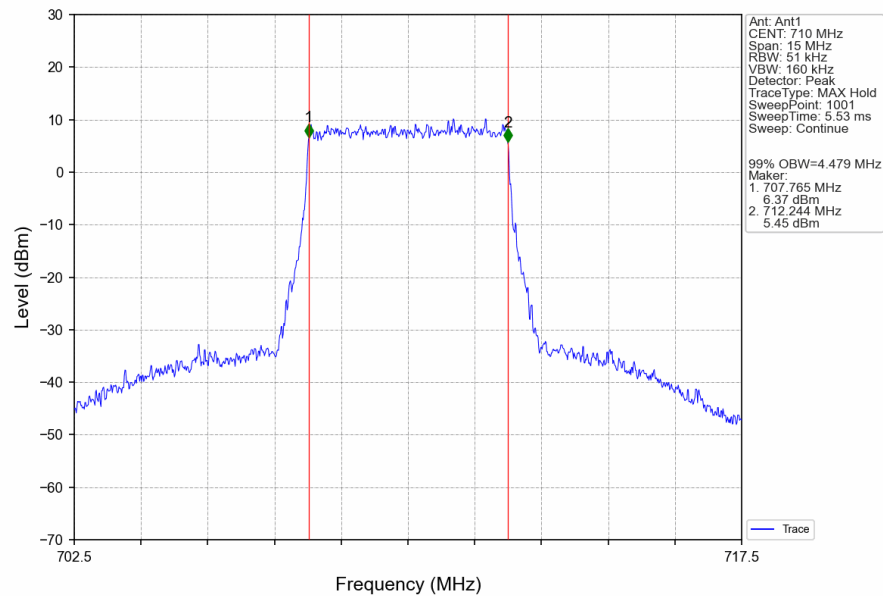




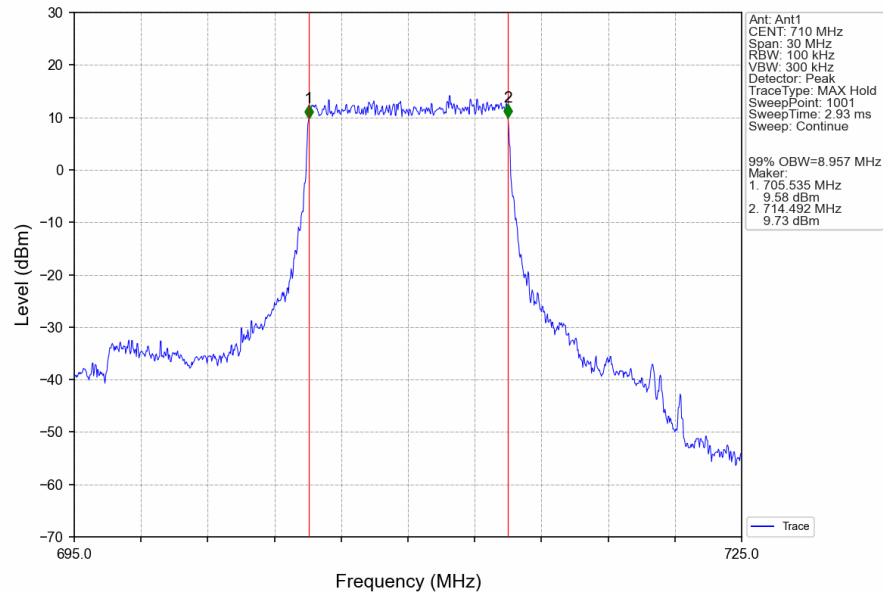
Band17_5MHz_64QAM_MCH_710MHz_RB_25_0_NTNV



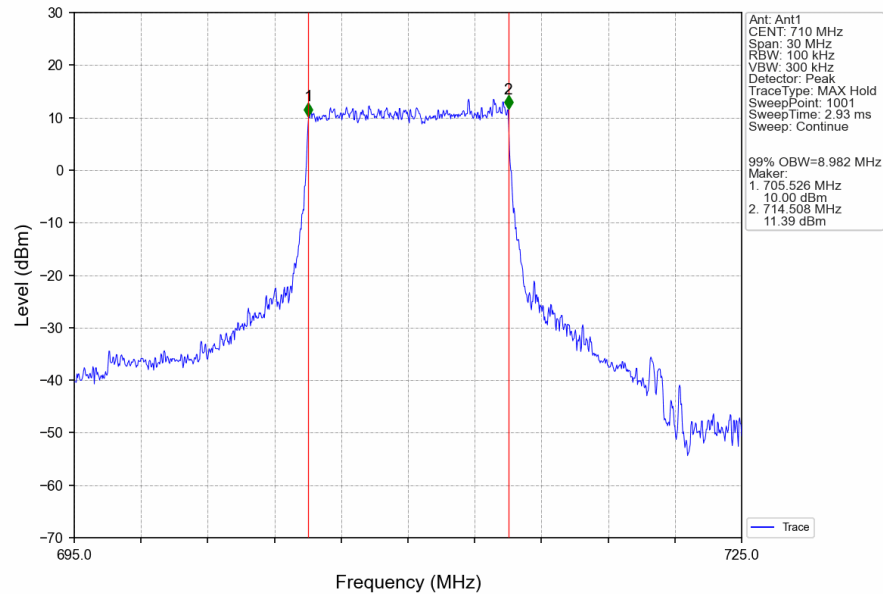
Band17_5MHz_256QAM_MCH_710MHz_RB_25_0_NTNV



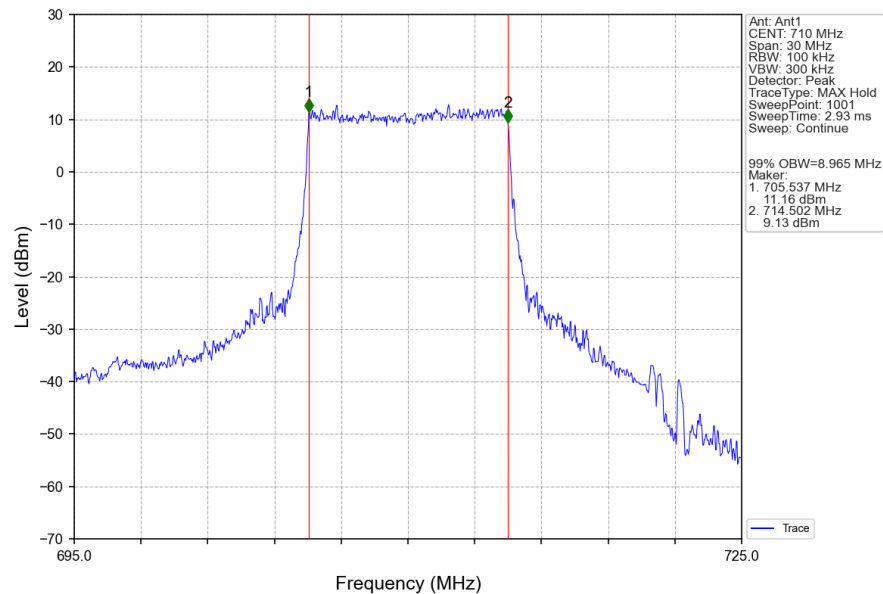
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



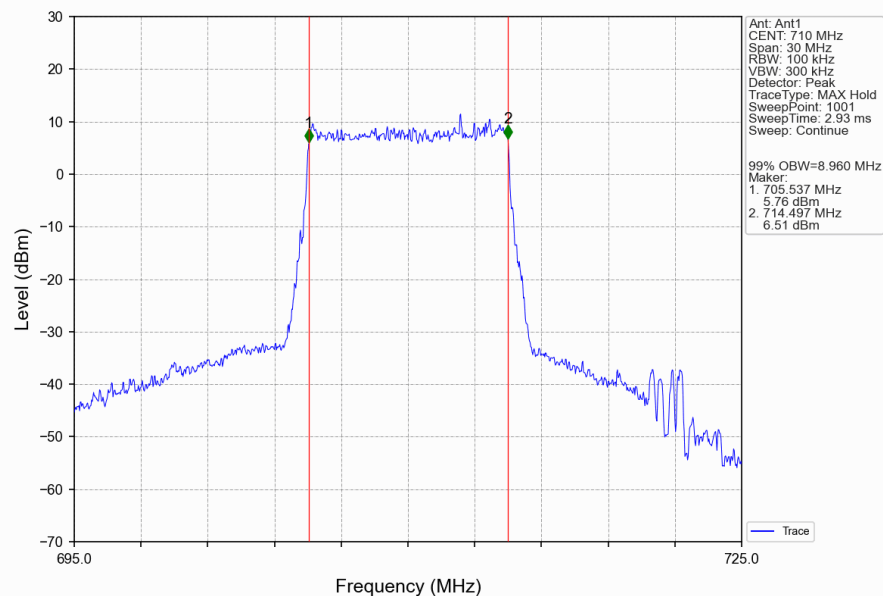
Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



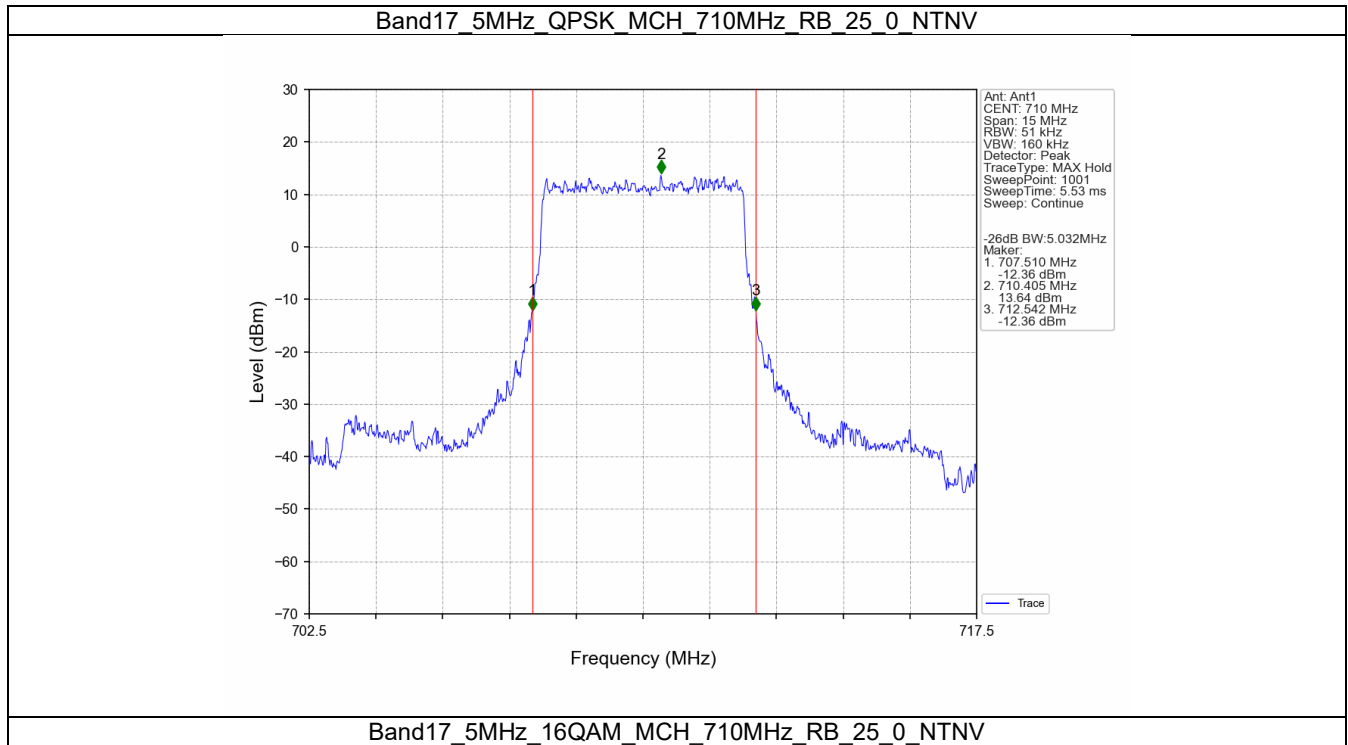
Band17_10MHz_64QAM_MCH_710MHz_RB_50_0_NTNV

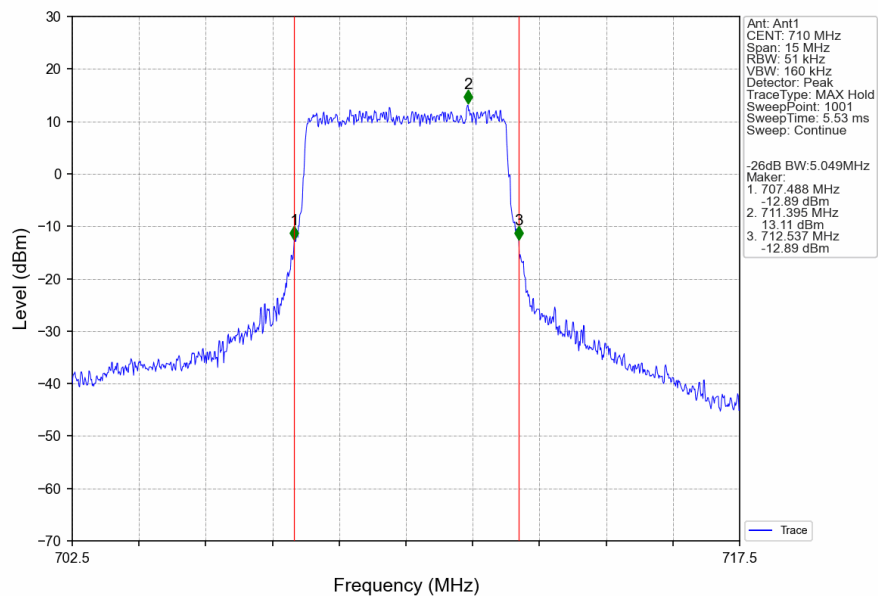


Band17_10MHz_256QAM_MCH_710MHz_RB_50_0_NTNV

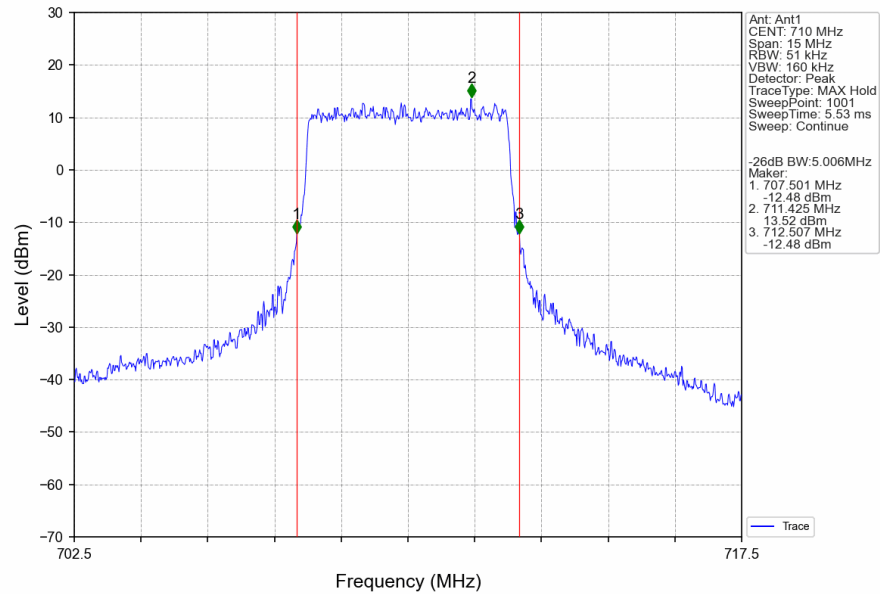


3.2.2 Band17_XDB

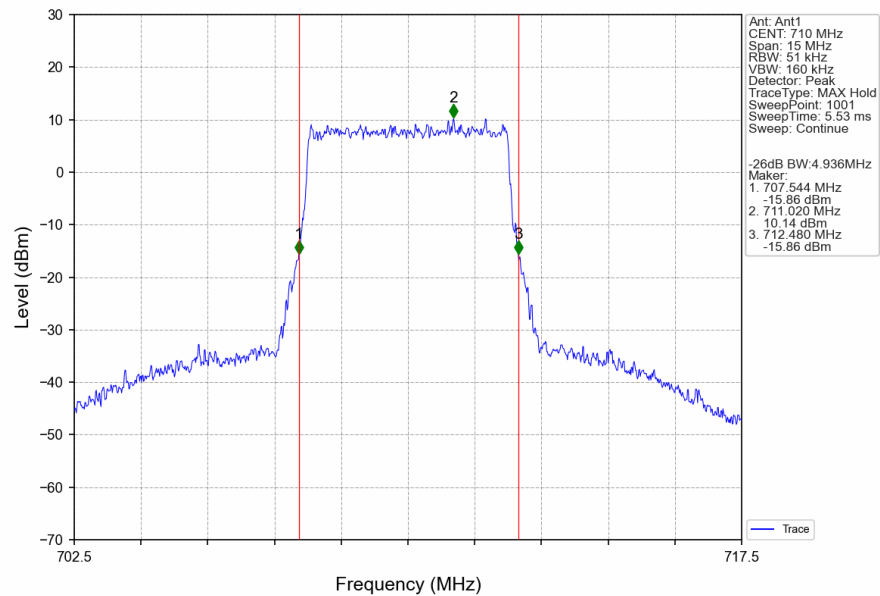




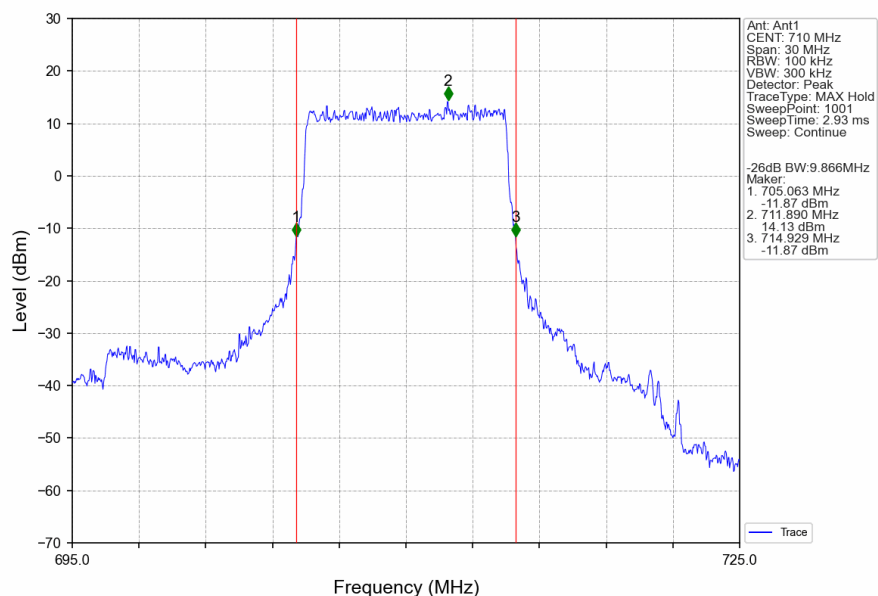
Band17_5MHz_64QAM_MCH_710MHz_RB_25_0_NTNV



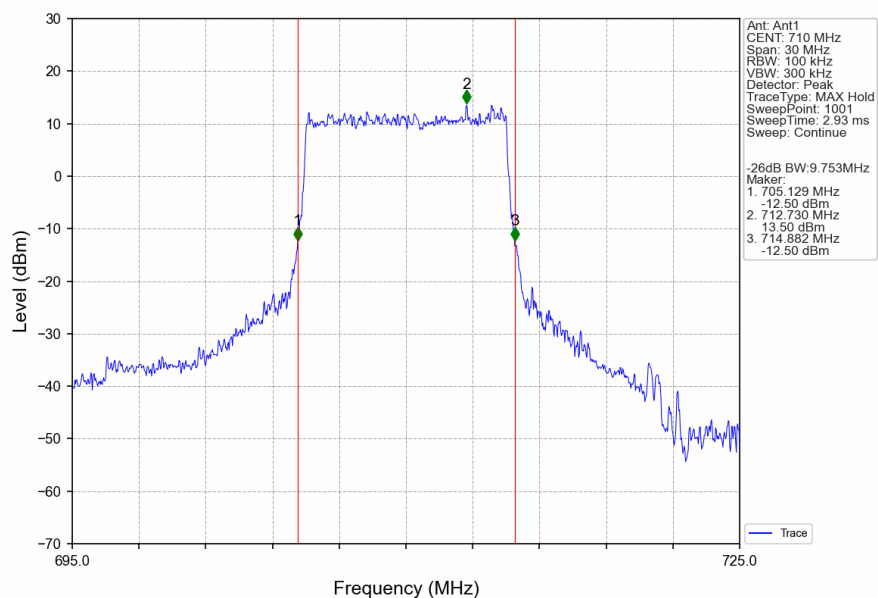
Band17_5MHz_256QAM_MCH_710MHz_RB_25_0_NTNV



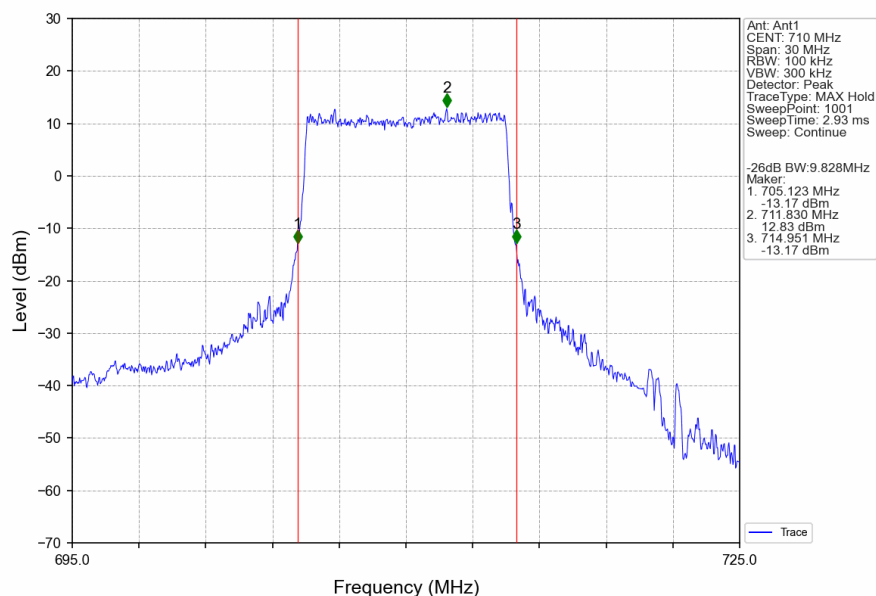
Band17_10MHz_QPSK_MCH_710MHz_RB_50_0_NTNV



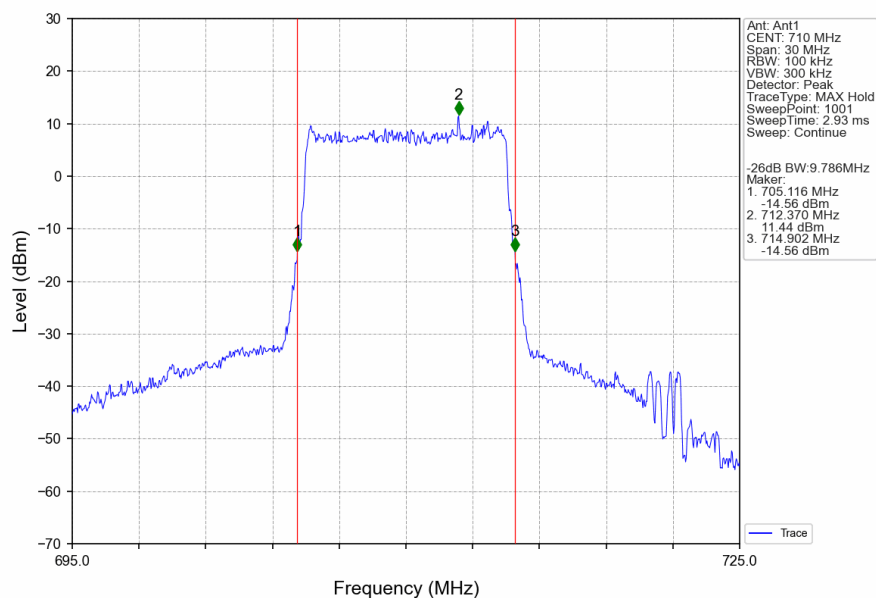
Band17_10MHz_16QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_64QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_256QAM_MCH_710MHz_RB_50_0_NTNV





Report No.: SUCR260600048901
Page: 16 of 30

4. Peak-Average Ratio

4.1 Test Result

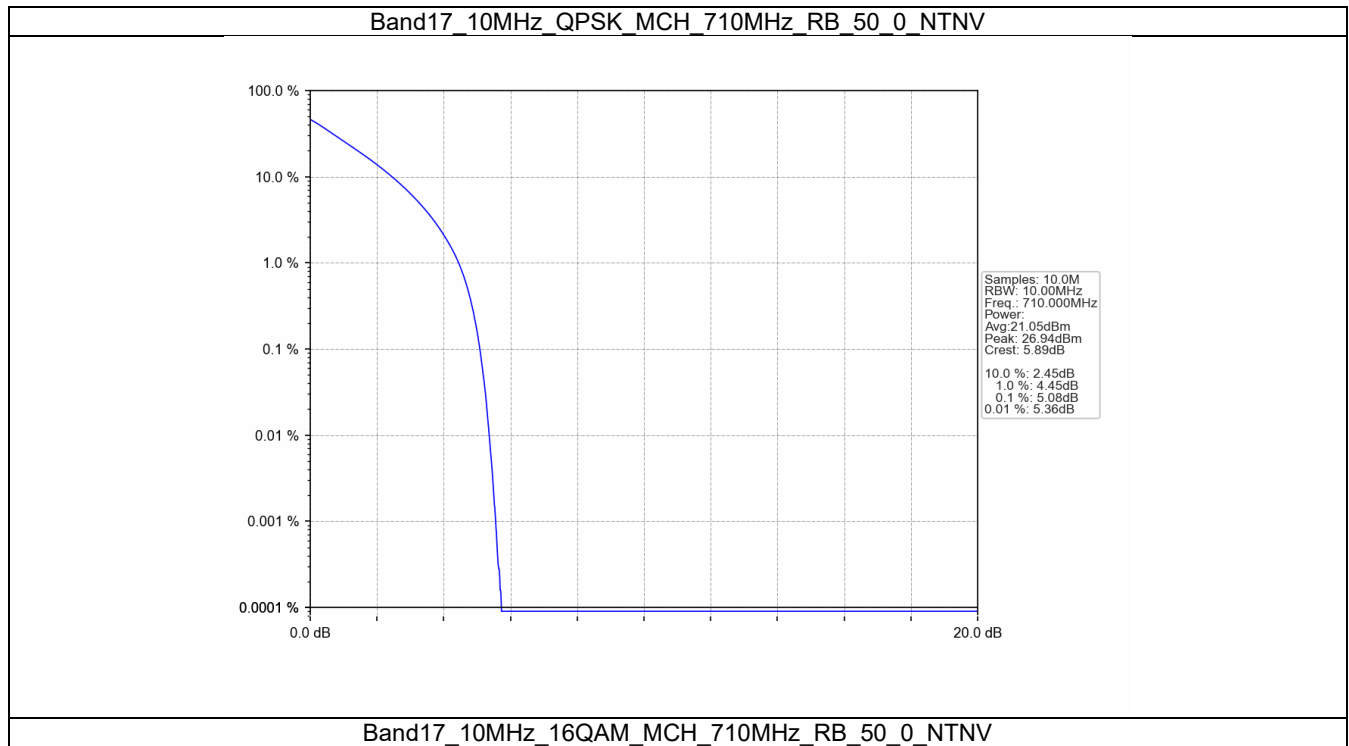
4.1.1 B17_10MHz

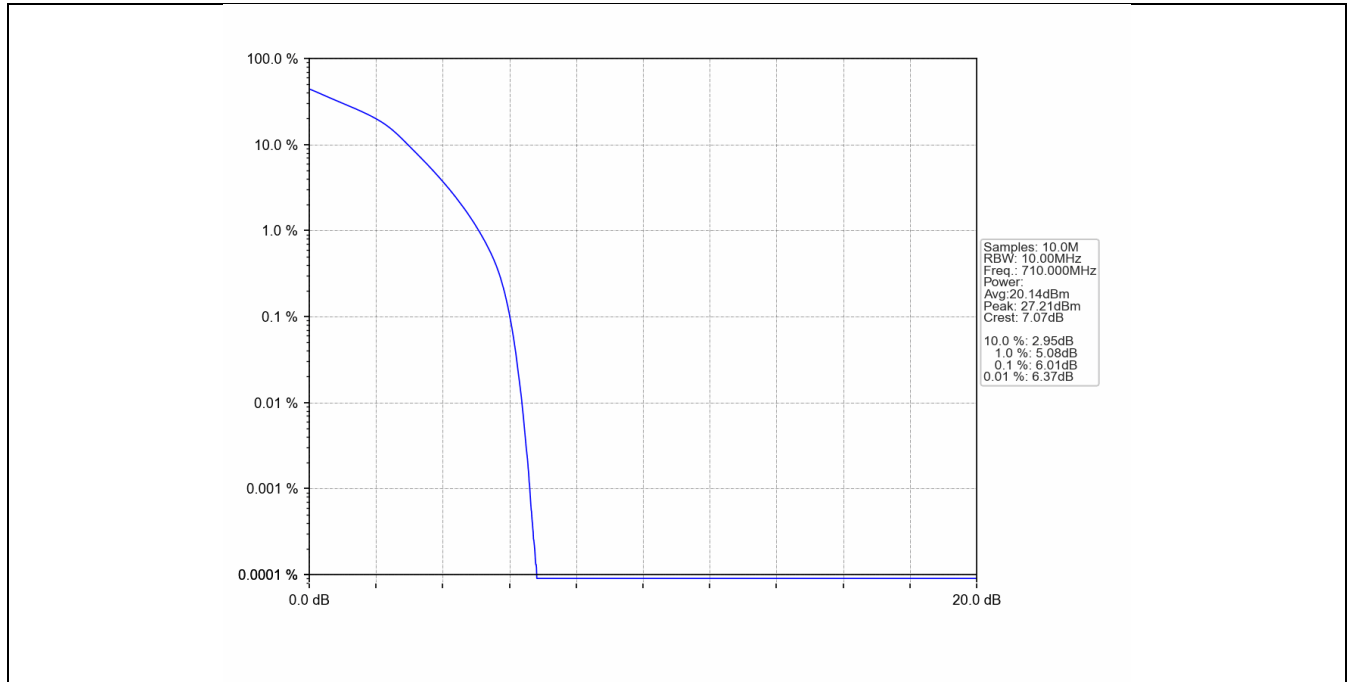
Band: 17 / Bandwidth: 10MHz / NTNV						
Modulation	Frequency (MHz)	RB Allocation		Peak-Average Ratio (dB)		Verdict
		Size	Offset	Result	Limit	
QPSK	710	50	0	5.08	<=13	Pass
16QAM	710	50	0	6.01	<=13	Pass
64QAM	710	50	0	6.01	<=13	Pass
256QAM	710	50	0	6.71	<=13	Pass



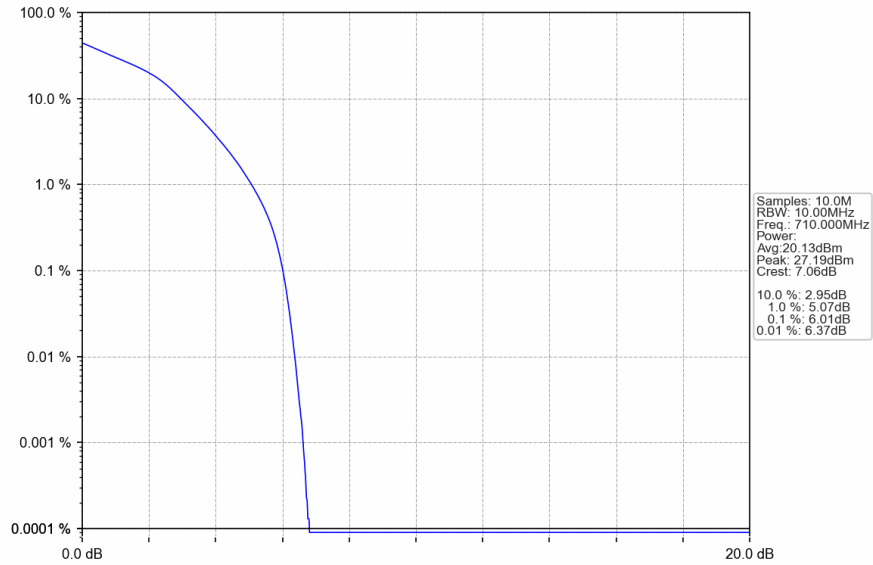
4.2 Test Graph

4.2.1 B17_10MHz

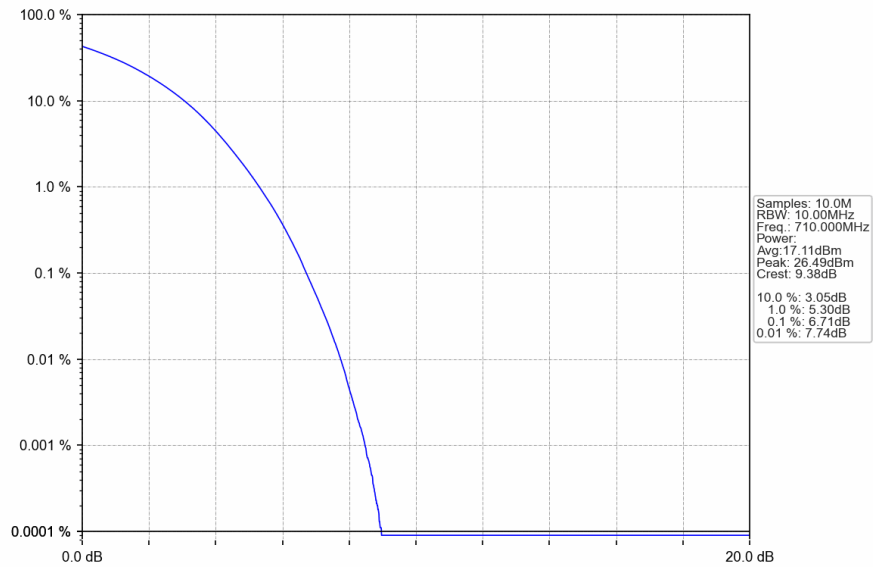




Band17_10MHz_64QAM_MCH_710MHz_RB_50_0_NTNV



Band17_10MHz_256QAM_MCH_710MHz_RB_50_0_NTNV





Report No.: SUCR260600048901

Page: 20 of 30

5. Spurious Emission

5.1 Test Result

5.1.1 B17_5MHz

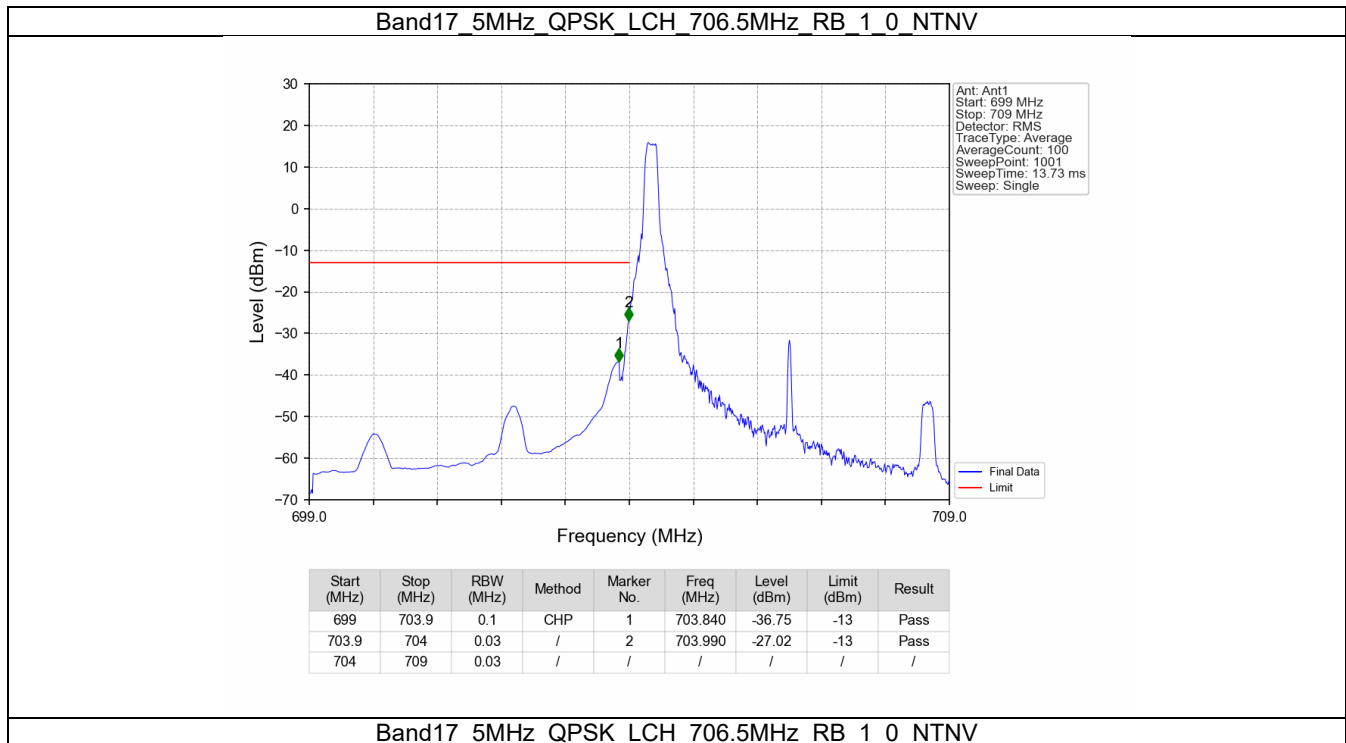
Band: 17 / Bandwidth: 5MHz / NTV						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	706.5	1	0	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	713.5	1	0	Refer To Test Graph		Pass
			24	Refer To Test Graph		Pass
		25	0	Refer To Test Graph		Pass

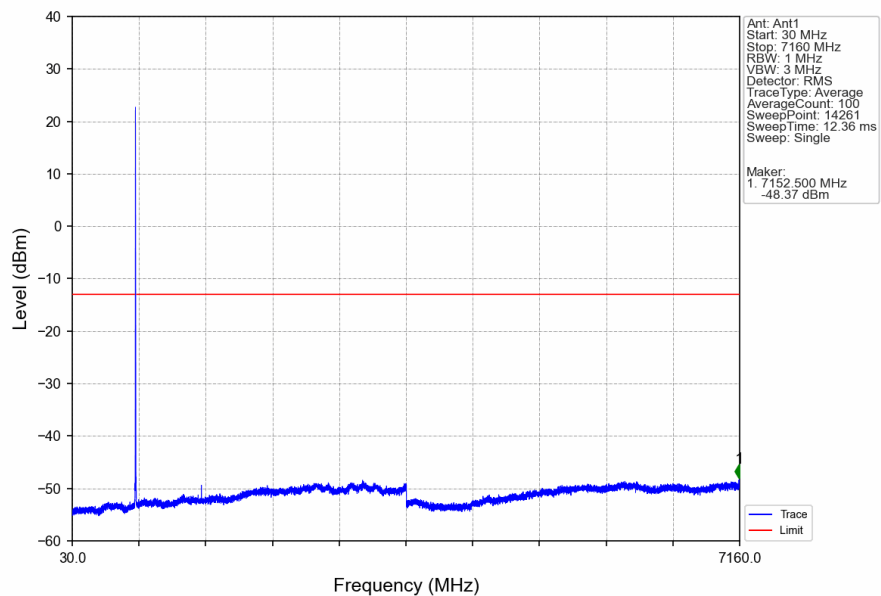
5.1.2 B17_10MHz

Band: 17 / Bandwidth: 10MHz / NTVN						
Modulation	Frequency (MHz)	RB Allocation		Spurious Emission		Verdict
		Size	Offset	Result	Limit	
QPSK	709	1	0	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass
	710	1	0	Refer To Test Graph		Pass
	711	1	0	Refer To Test Graph		Pass
			49	Refer To Test Graph		Pass
		50	0	Refer To Test Graph		Pass

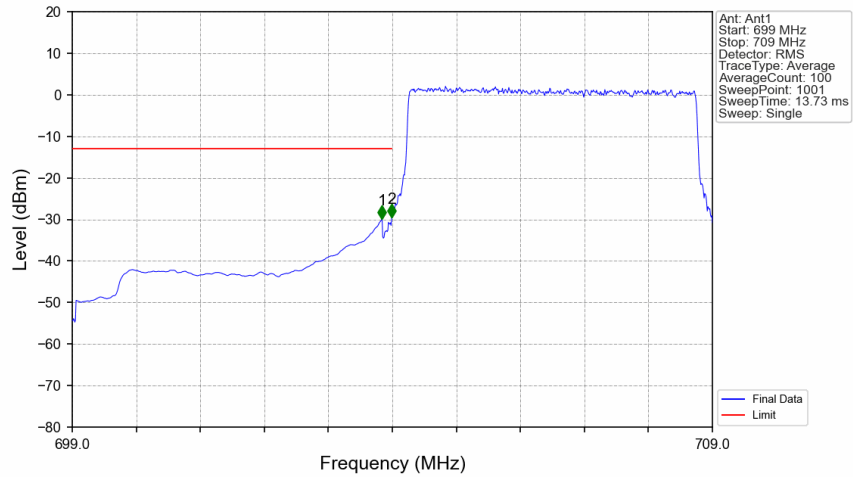
5.2 Test Graph

5.2.1 B17_5MHz



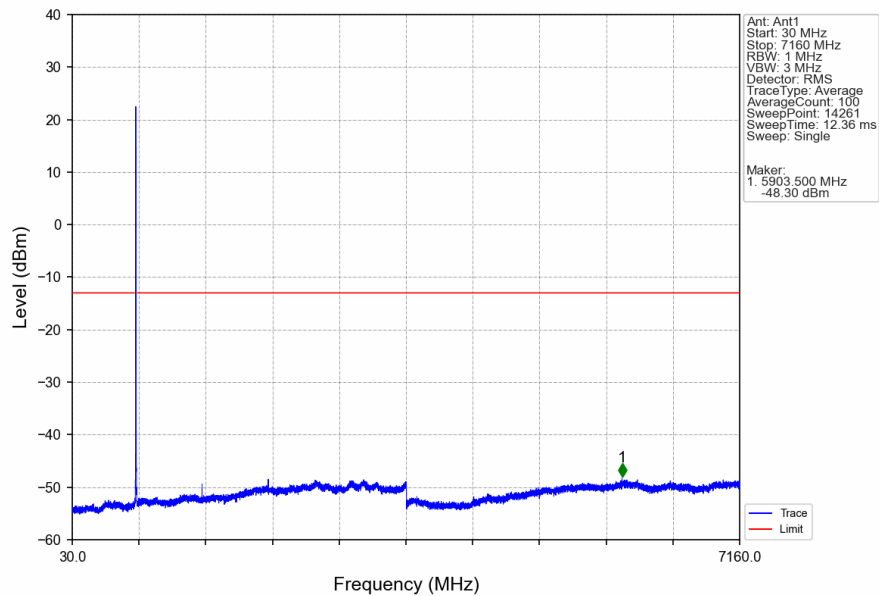


Band17_5MHz_QPSK_LCH_706.5MHz_RB_25_0_NTNV

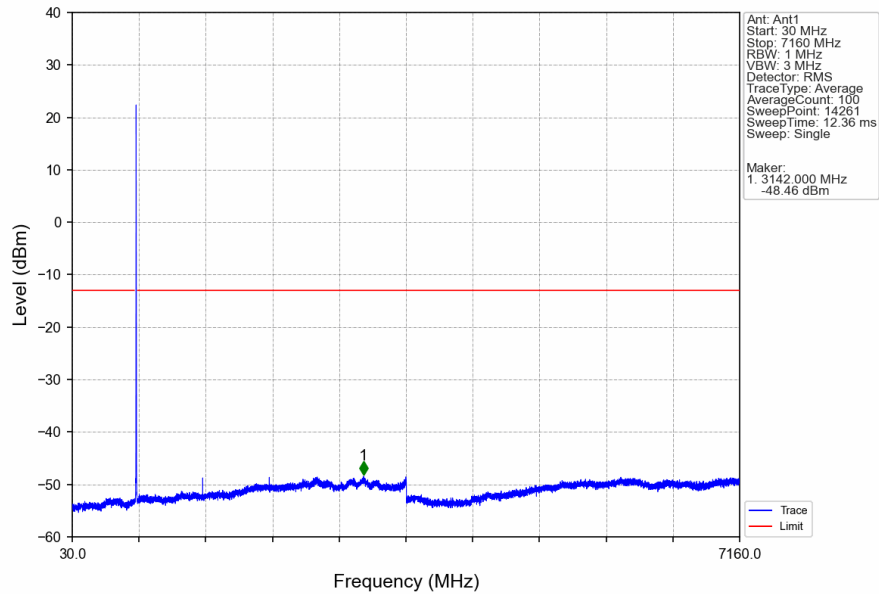


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
699	703.9	0.1	CHP	1	703.840	-29.78	-13	Pass
703.9	704	0.03	/	2	703.990	-29.49	-13	Pass
704	709	0.03	/	/	/	/	/	/

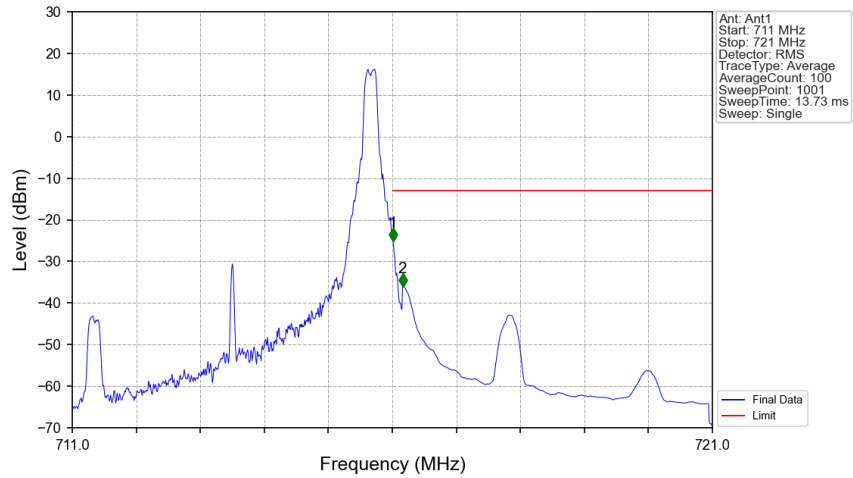
Band17_5MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_0_NTNV



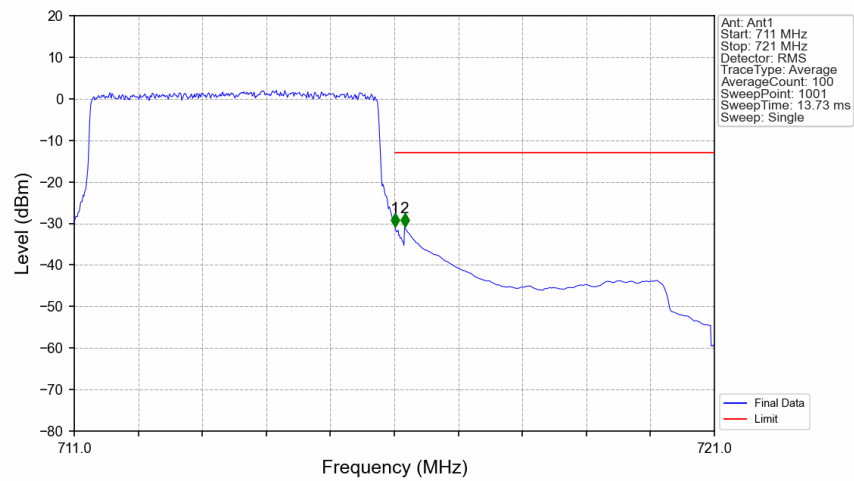
Band17_5MHz_QPSK_HCH_713.5MHz_RB_1_24_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.010	-25.21	-13	Pass
716.1	721	0.1	CHP	2	716.160	-36.02	-13	Pass

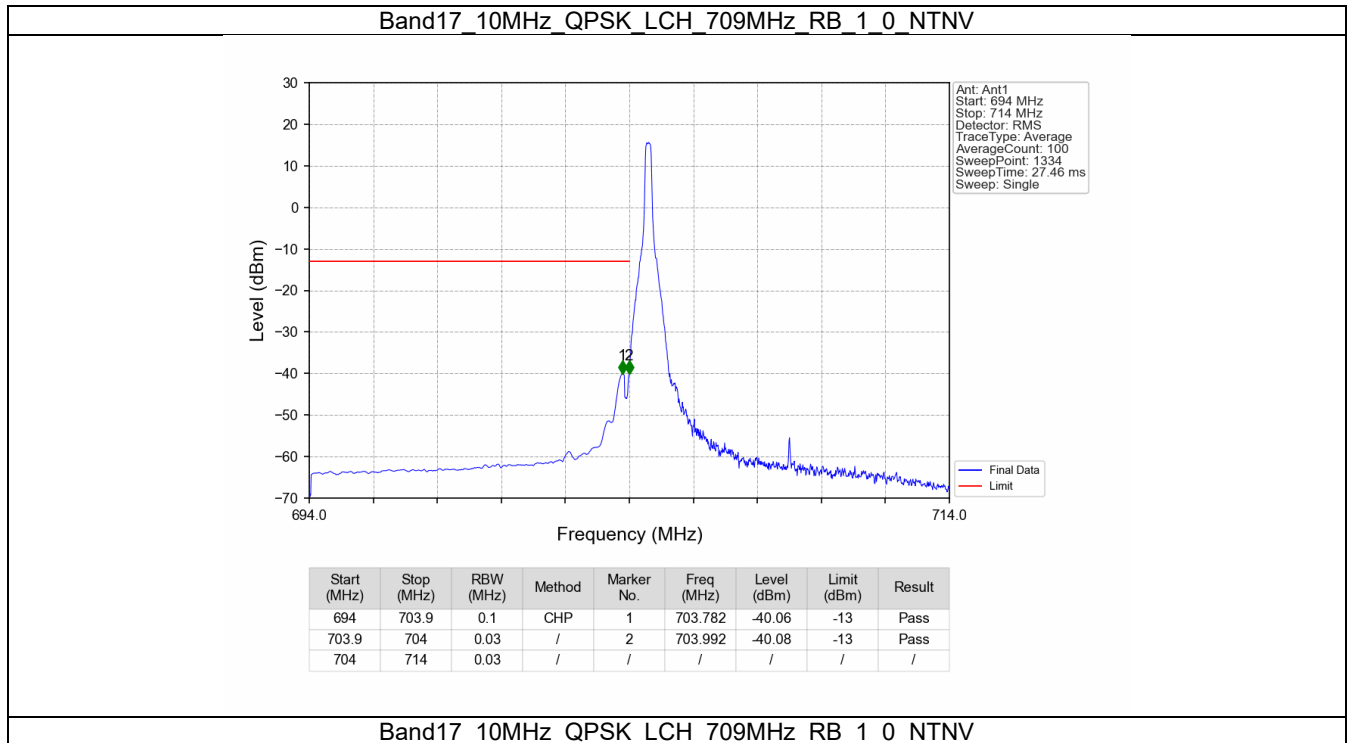


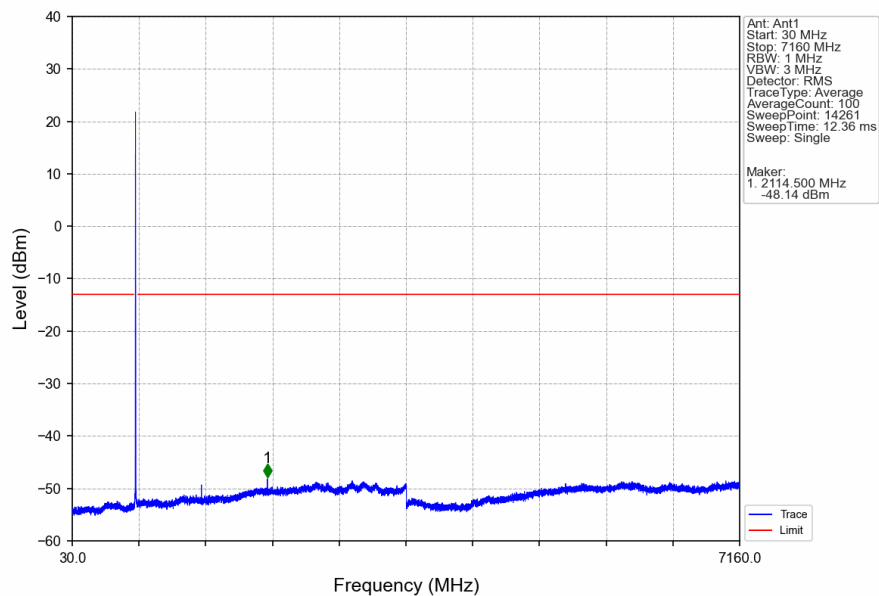
Band17_5MHz_QPSK_HCH_713.5MHz_RB_25_0_NTNV



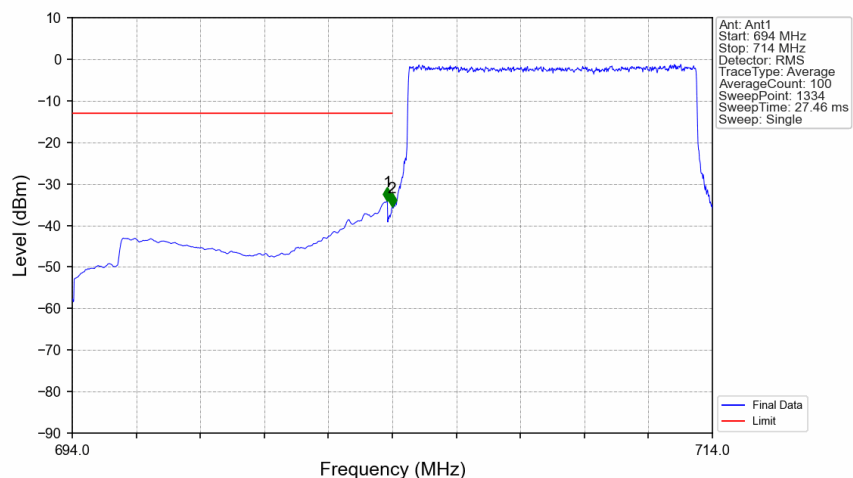
Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
711	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.010	-30.78	-13	Pass
716.1	721	0.1	CHP	2	716.160	-30.75	-13	Pass

5.2.2 B17_10MHz



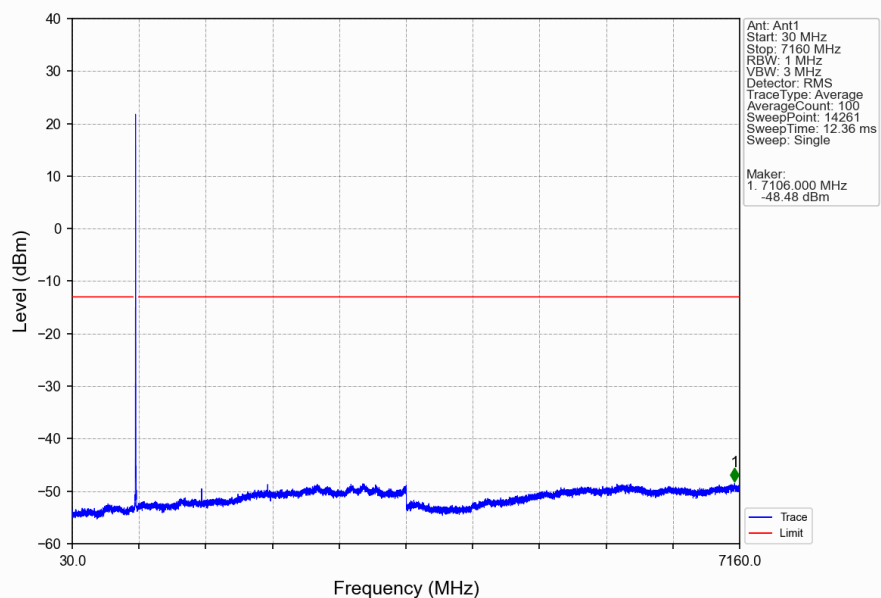


Band17_10MHz_QPSK_LCH_709MHz_RB_50_0_NTNV

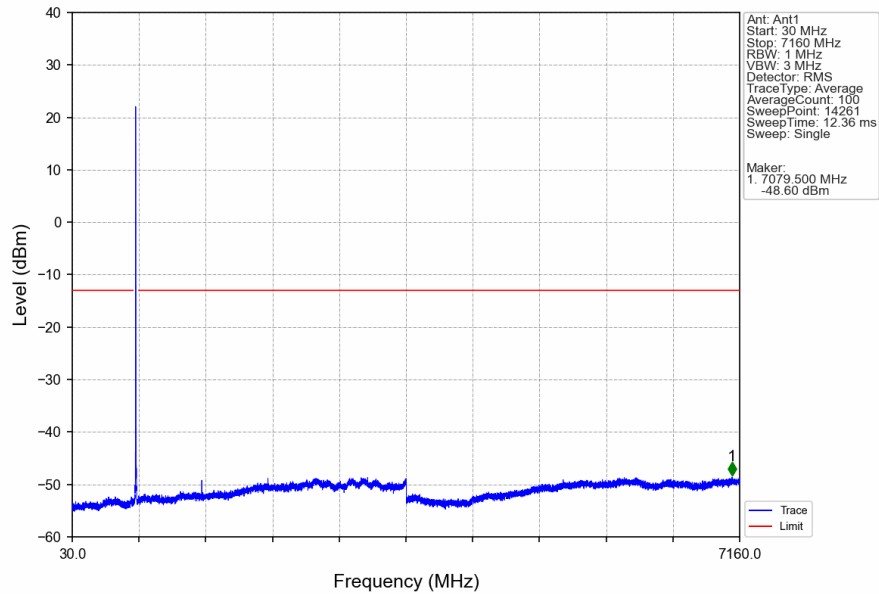


Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
694	703.9	0.1	CHP	1	703.842	-34.00	-13	Pass
703.9	704	0.03	/	2	703.992	-35.45	-13	Pass
704	714	0.03	/	/	/	/	/	/

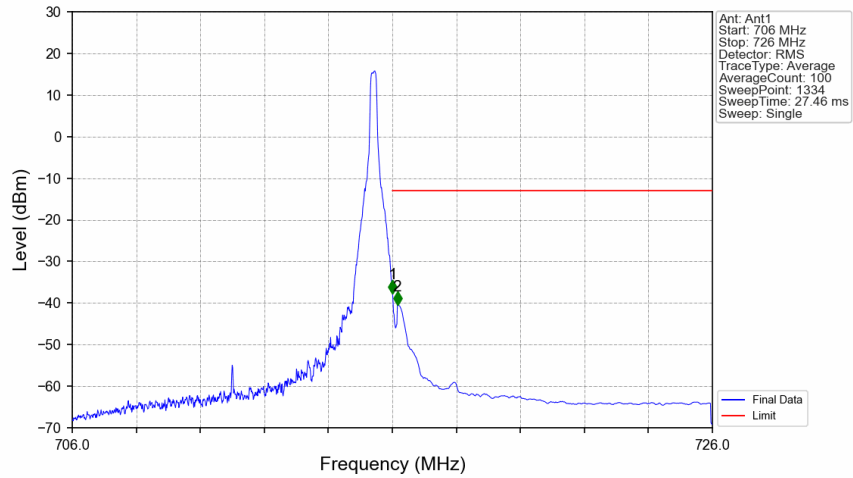
Band17_10MHz_QPSK_MCH_710MHz_RB_1_0_NTNV



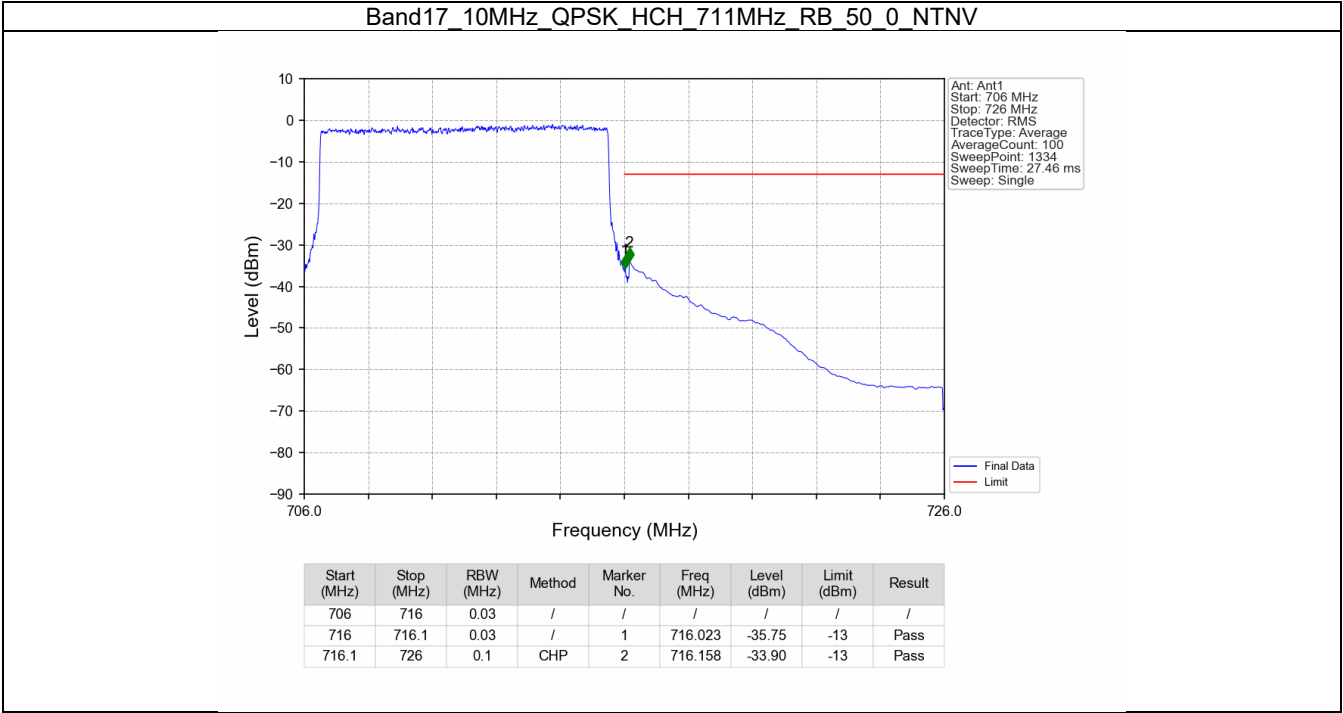
Band17_10MHz_QPSK_HCH_711MHz_RB_1_0_NTNV



Band17_10MHz_QPSK_HCH_711MHz_RB_1_49_NTNV



Start (MHz)	Stop (MHz)	RBW (MHz)	Method	Marker No.	Freq (MHz)	Level (dBm)	Limit (dBm)	Result
706	716	0.03	/	/	/	/	/	/
716	716.1	0.03	/	1	716.008	-37.62	-13	Pass
716.1	726	0.1	CHP	2	716.158	-40.48	-13	Pass



---End of Attachment---