

1. AGC threshold

Signal Level	Modulation	Input Power (dBm)	Frequency (MHz)	RF output Power (dBm)	ERP (dBm)	PAR (dB)	Booster gain (dB)
AGC	AWGN (LTE, 5MHz)	-10	763.0	37.55	35.40	8.35	47.55
3dB Above AGC	AWGN (LTE, 5MHz)	-7	763.0	37.86	35.71	8.37	/

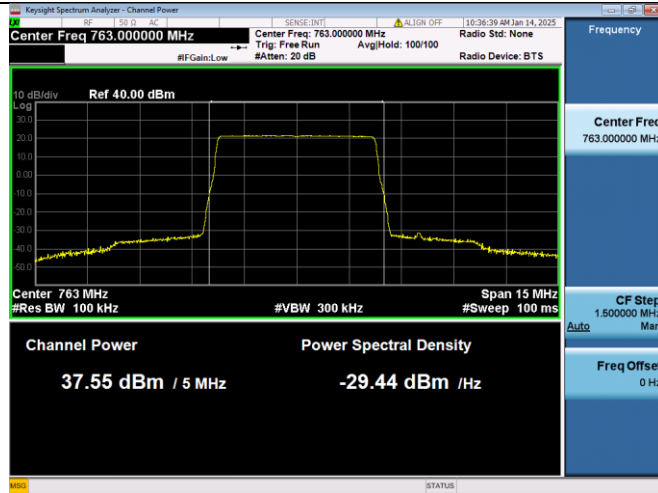
Remark:

The normal power is 37dBm and the measured output power which show in above table is within±1.0dB tolerance.

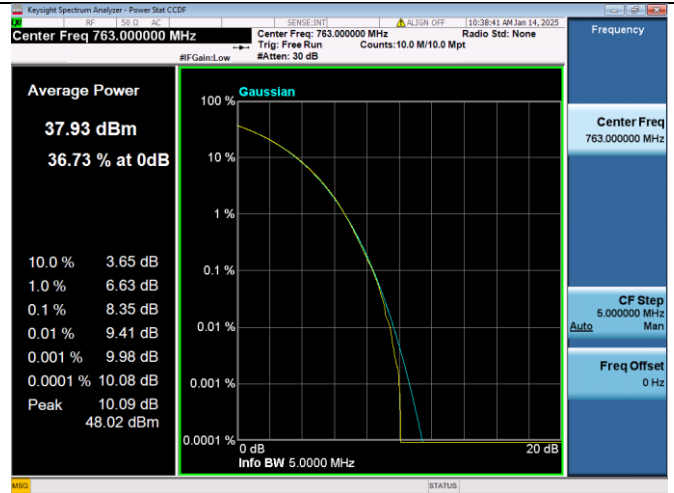
ERP(dBm)=Total Output Power(dBm)+Antenna Gain(dBi)-2.15dB.Antenna Gain is 0.0dBi

5MHz

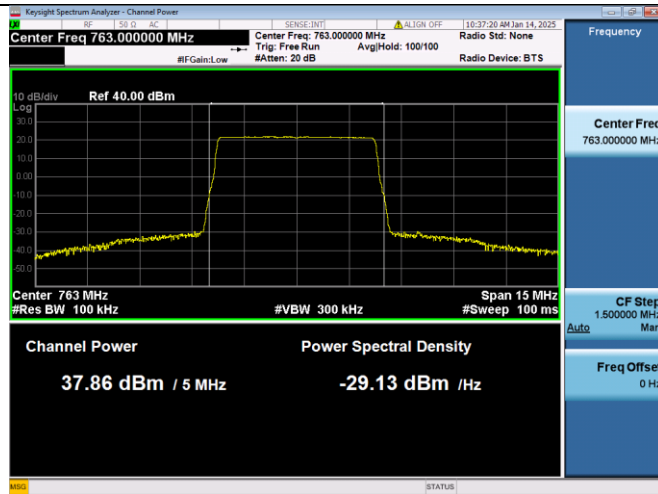
AGC-Power



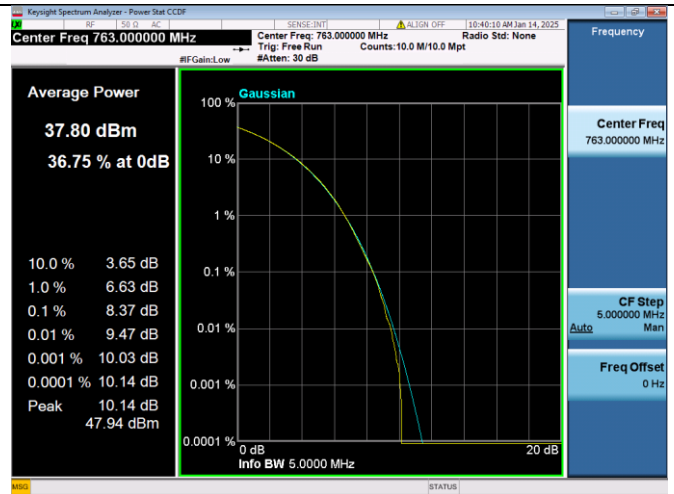
AGC-PAR



3dB Above AGC-Power



3dB Above AGC-PAR



2. Occupied bandwidth

Channel Spacing (MHz)	Test Frequency F0(MHz)	Signal Level	Signal Type	99%Occupied Channel Bandwidth (MHz)
5MHz	763.000	Pre-AGC	Input	4.5396
	763.000		Output	4.5391
	763.000	3dB Above AGC	Input	4.5438
	763.000		Output	4.5402



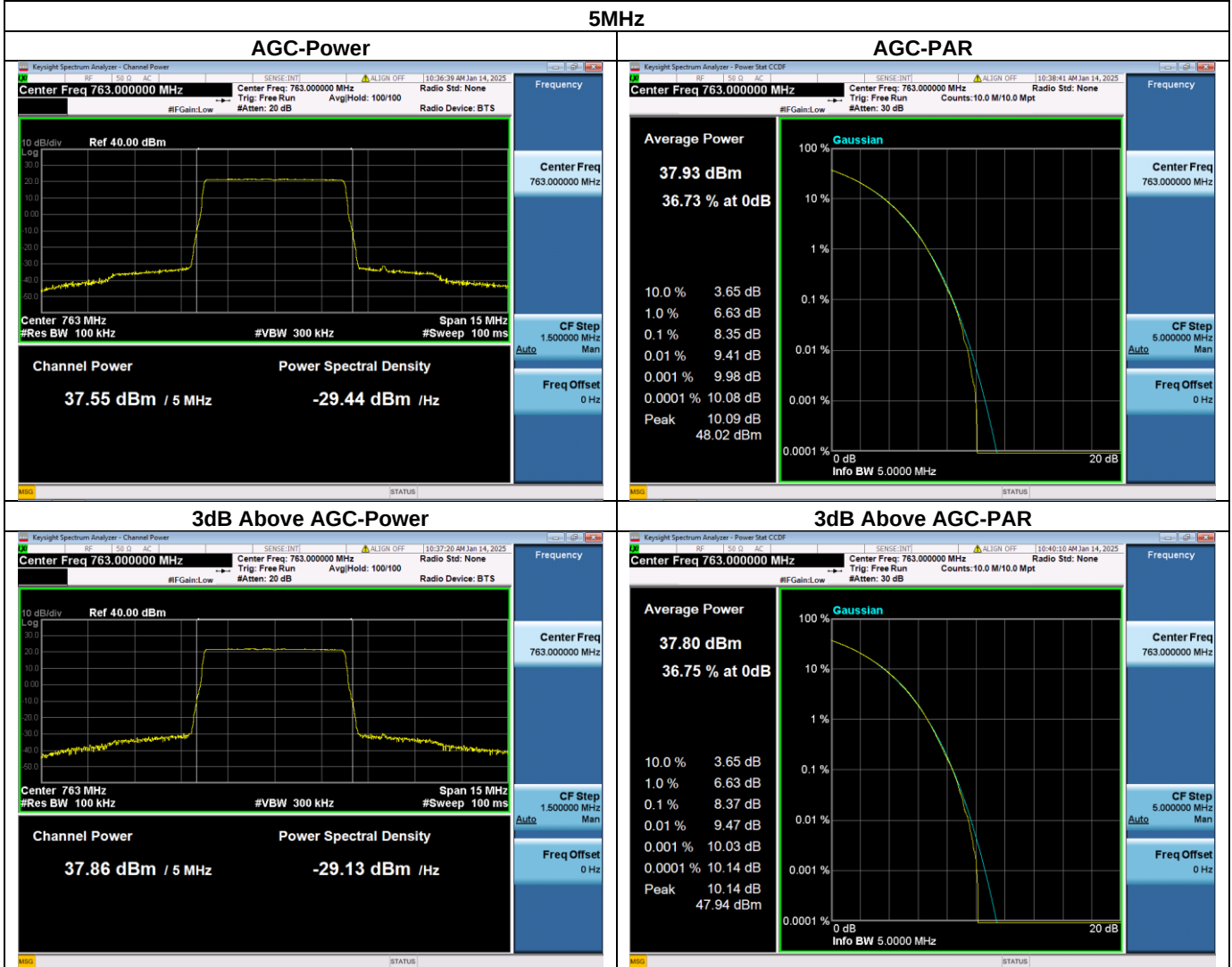
3 Output power at RF antenna connector

Signal Level	Modulation	Frequency (MHz)	RF output Power (dBm)	ERP (dBm)	PAR (dB)
AGC	AWGN (LTE, 5MHz)	763.0	37.55	35.40	9.66
3dB Above AGC	AWGN (LTE, 5MHz)	763.0	37.86	35.71	9.45

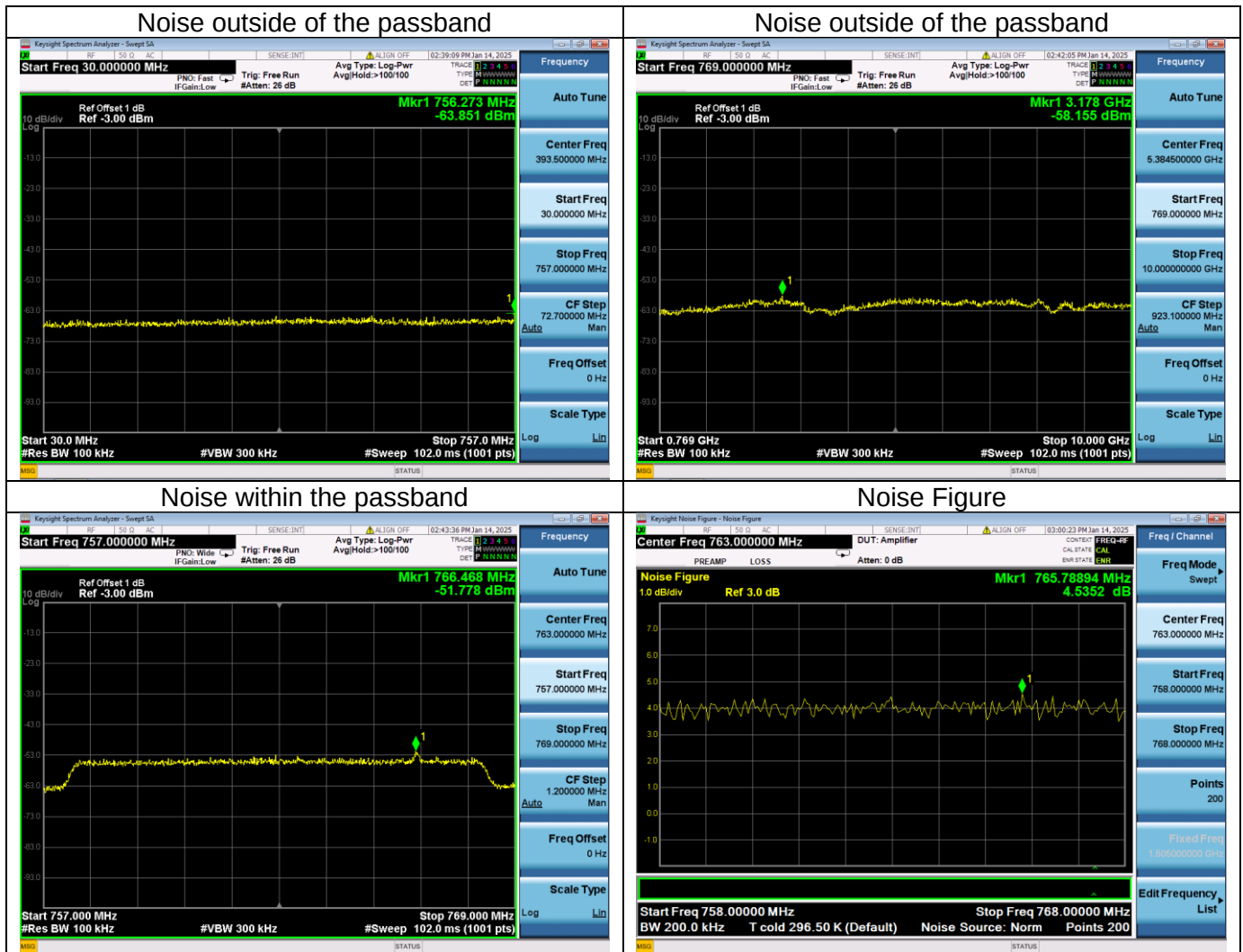
Remark:

- The normal power is 37dBm and the measured output power which show in above table is within±1.0dB tolerance.

ERP(dBm)=Total Output Power(dBm)+Antenna Gain(dBi)-2.15dB.Antenna Gain is 0.0dBi



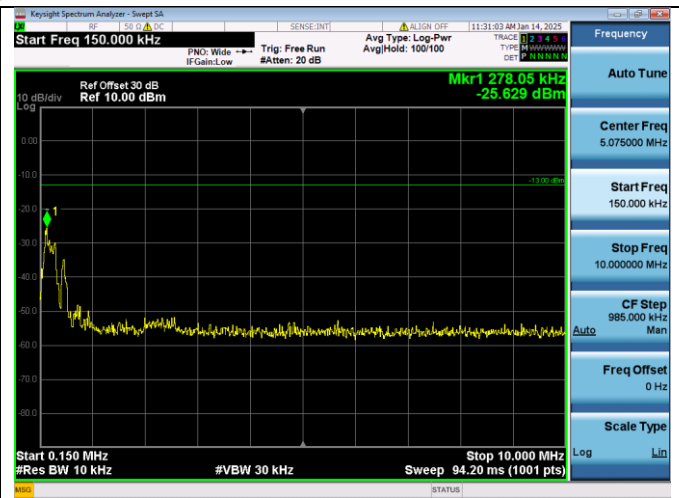
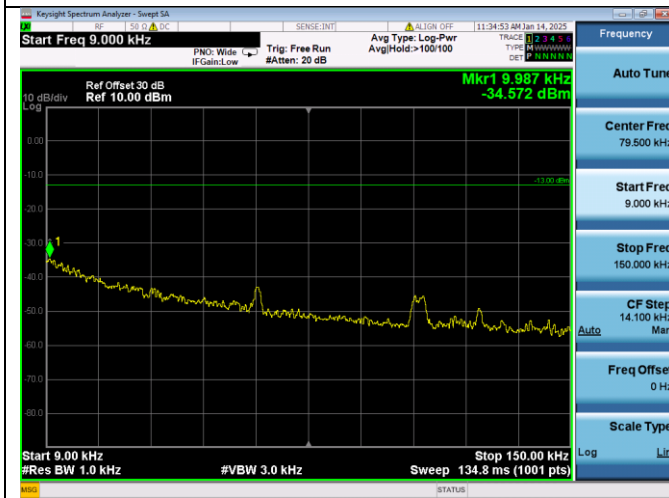
4. Noise Figure



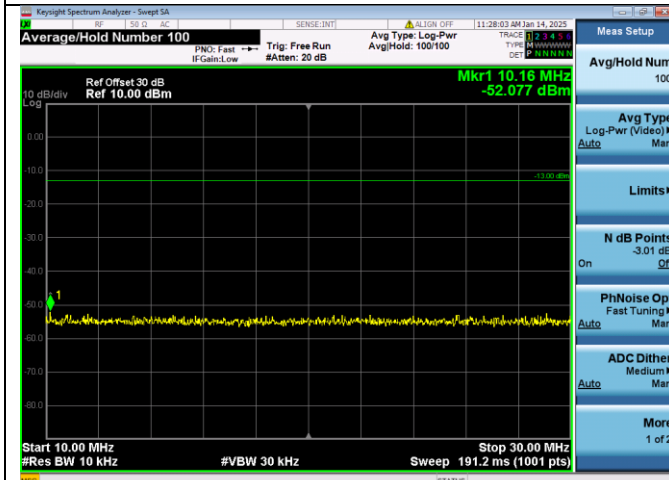
5. Spurious emissions at RF antenna connector

Channel	Frequency Range (MHz)	Worst Test Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
LCH	0.009~0.15	-34.572	-13.00	-21.572	Pass
	0.15~10	-25.629	-13.00	-12.629	Pass
	10~30	-52.077	-13.00	-39.077	Pass
	30~1000	-34.779	-13.00	-21.779	Pass
	1000~10000	-21.616	-13.00	-8.616	Pass
MCH	0.009~0.15	-35.926	-13.00	-22.926	Pass
	0.15~10	-26.620	-13.00	-13.620	Pass
	10~30	-52.578	-13.00	-39.578	Pass
	30~1000	-34.728	-13.00	-21.728	Pass
	1000~10000	-21.578	-13.00	-8.578	Pass
HCH	0.009~0.15	-36.179	-13.00	-23.179	Pass
	0.15~10	-25.646	-13.00	-12.646	Pass
	10 - 30	-52.742	-13.00	-39.742	Pass
	30 - 1000	-34.599	-13.00	-21.599	Pass
	1000 - 10000	-21.634	-13.00	-8.634	Pass

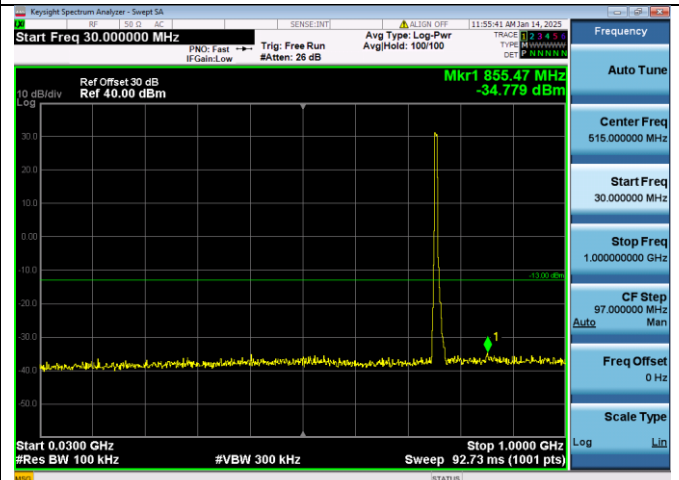
LCH



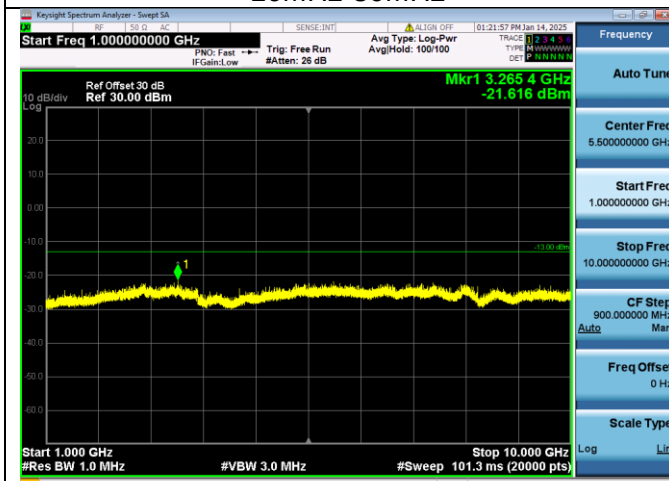
9KHz-150KHz



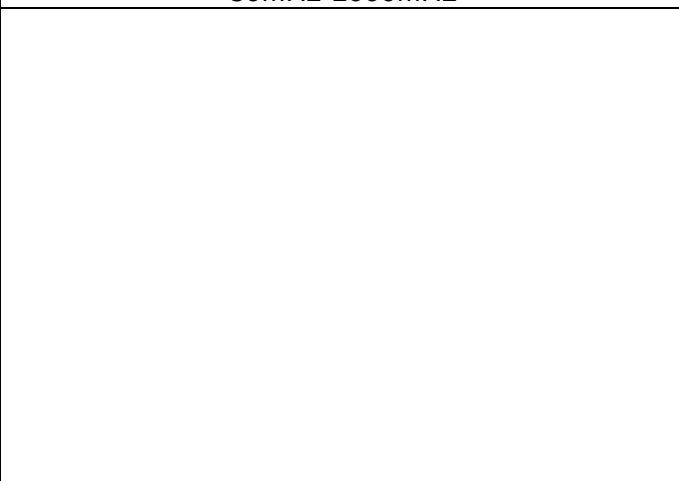
15KHz-10MHz



10MHz-30MHz

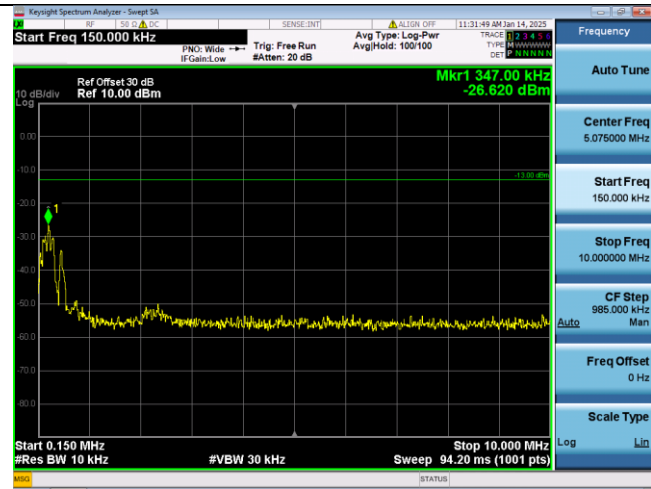
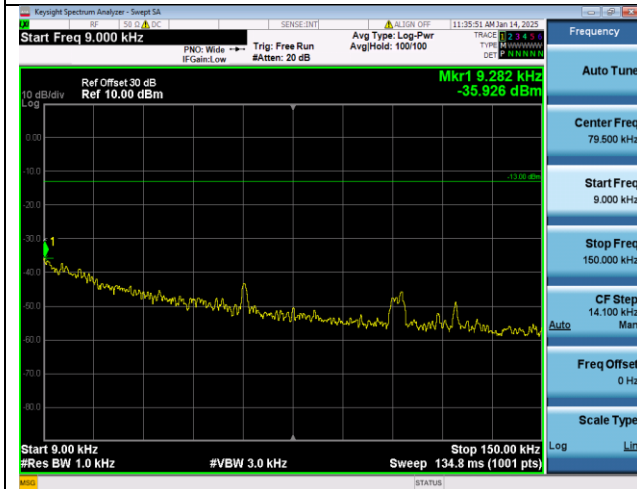


30MHz-1000MHz

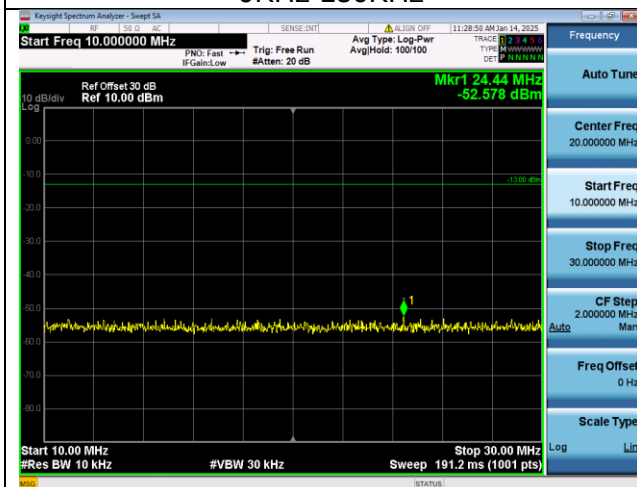


1000MHz-10000MHz

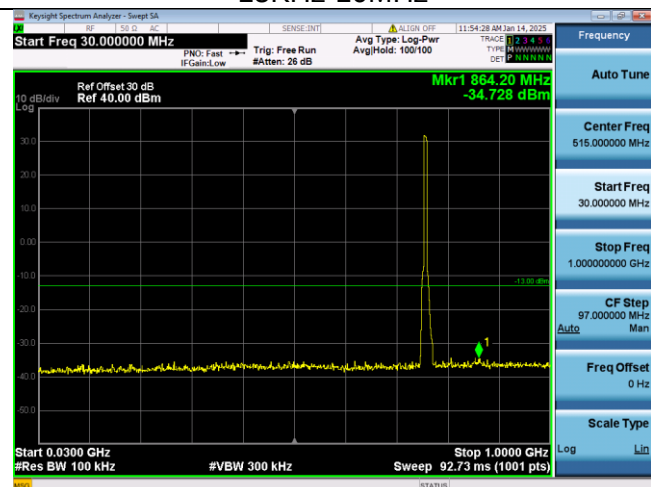
MCH



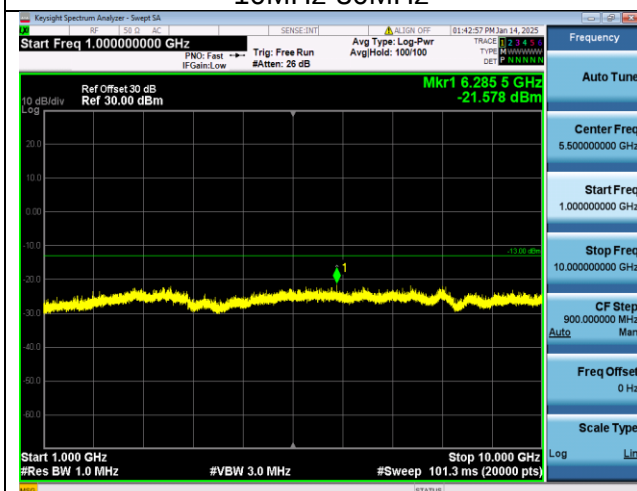
9KHz-150KHz



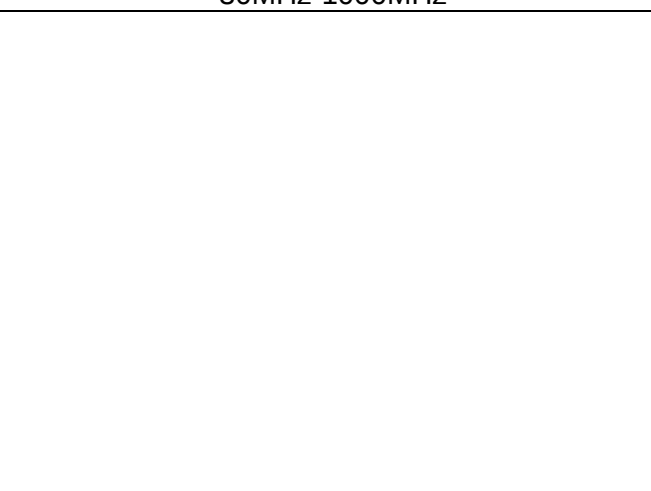
15KHz-10MHz



10MHz-30MHz

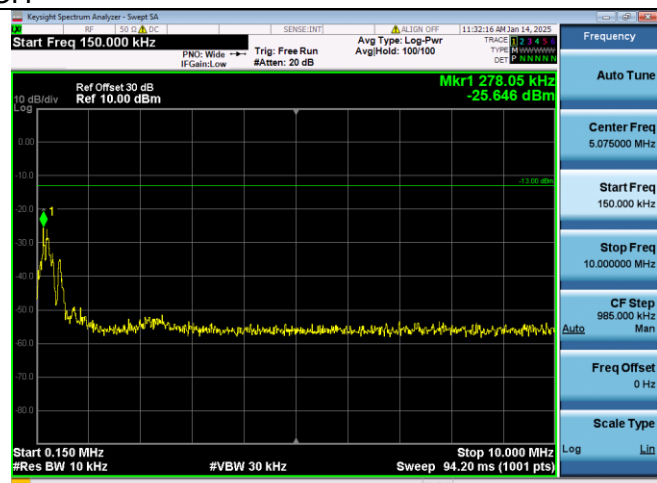
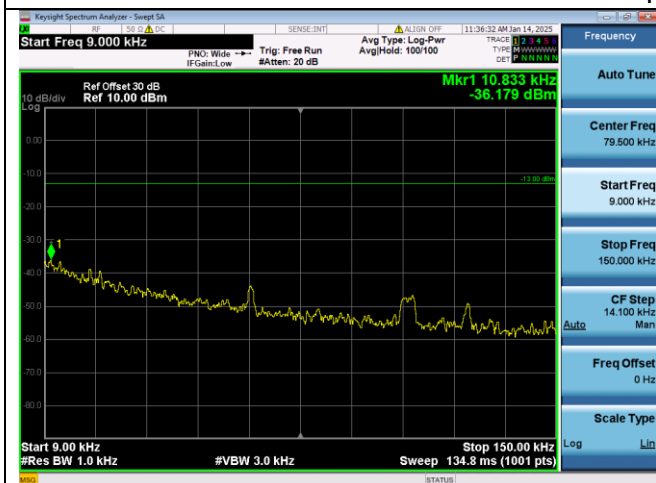


30MHz-1000MHz

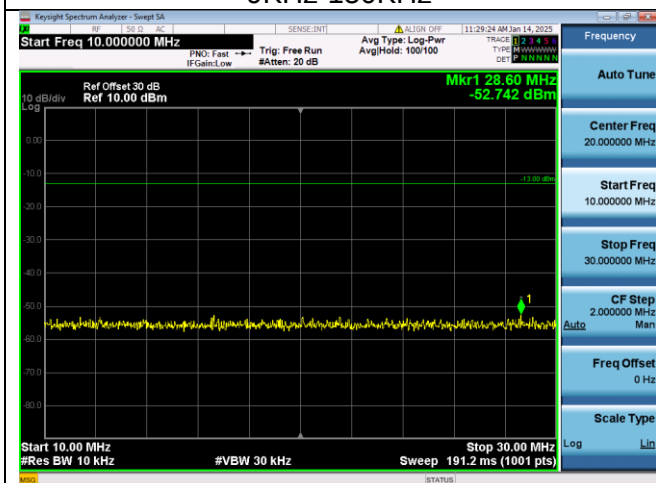


1000MHz-10000MHz

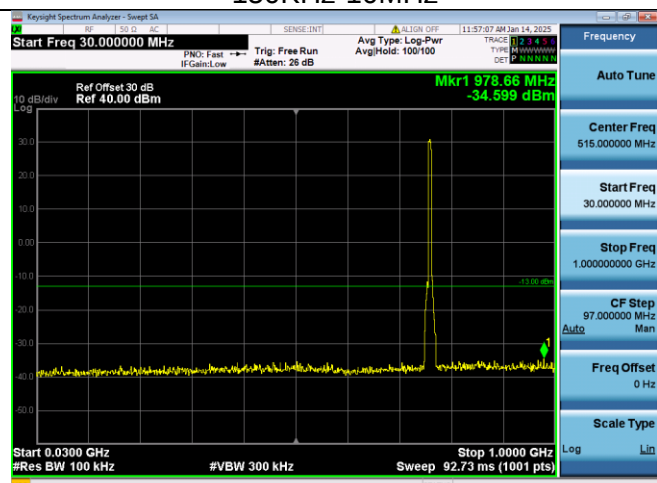
HCH



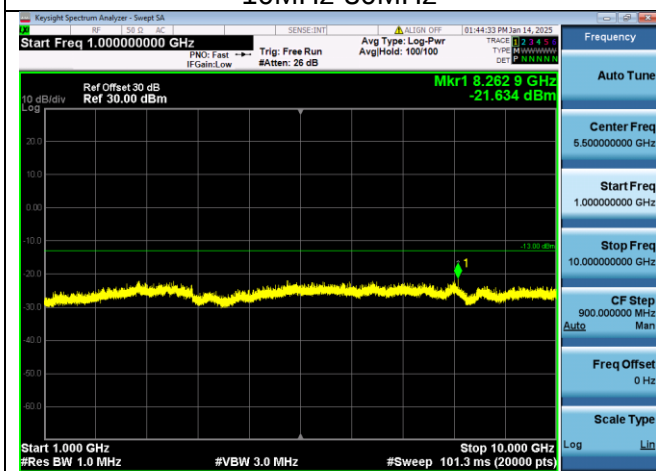
9KHz-150KHz



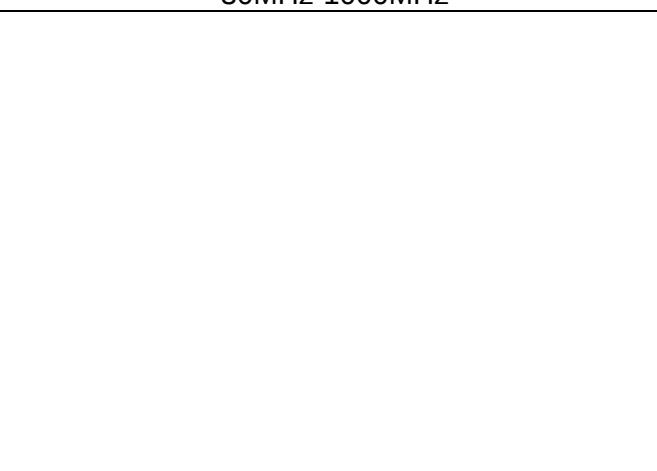
150KHz-10MHz



10MHz-30MHz

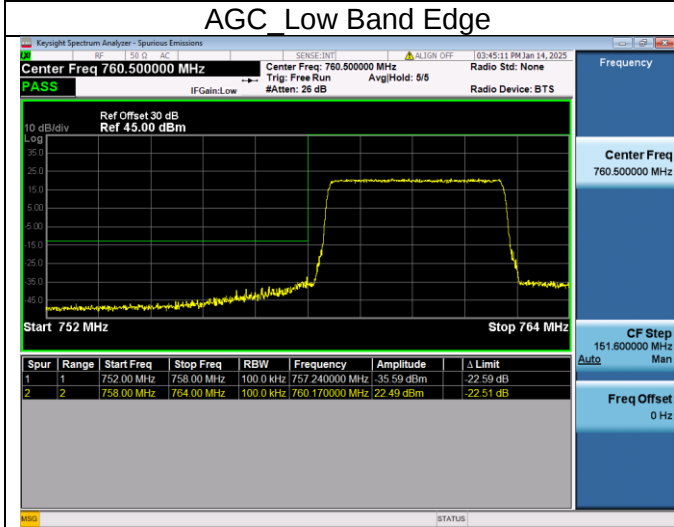


30MHz-1000MHz

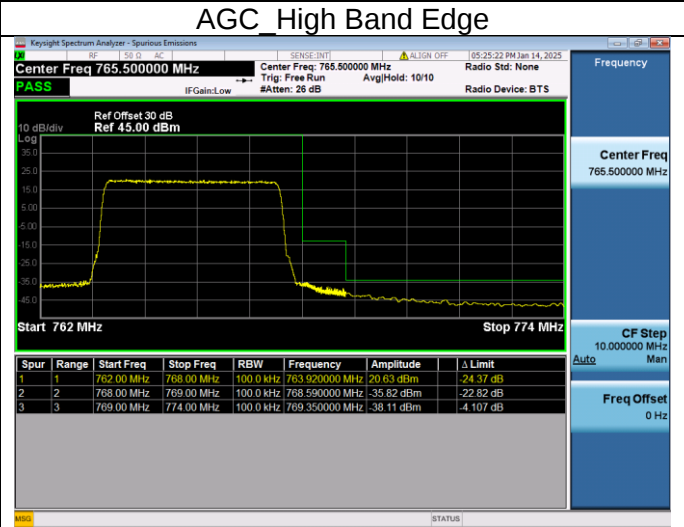


1000MHz-10000MHz

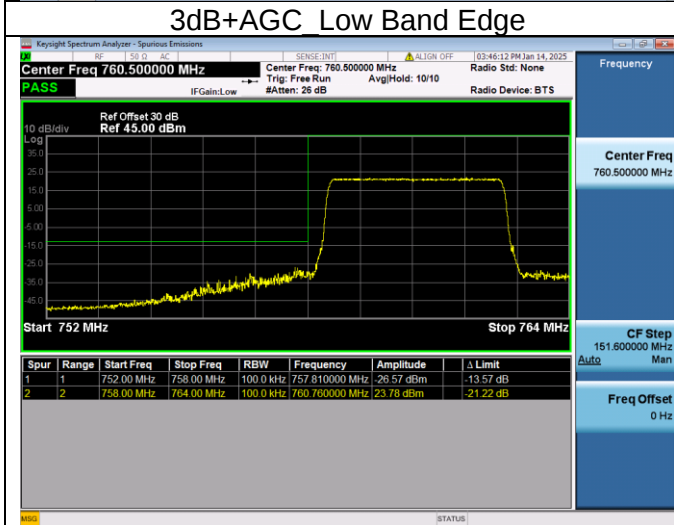
AGC Low Band Edge



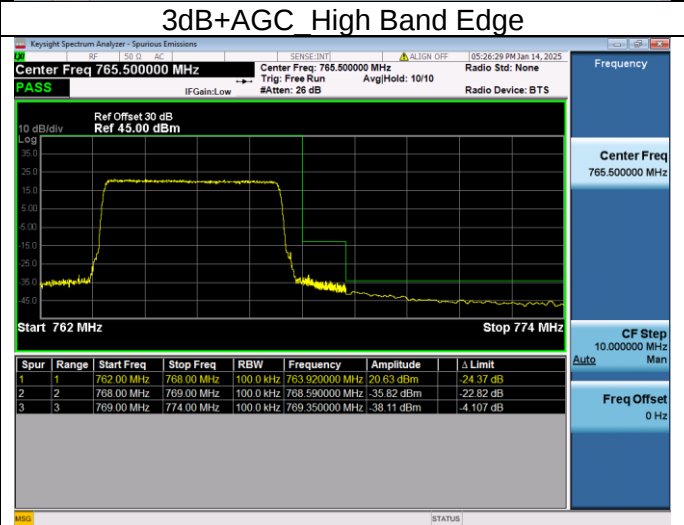
AGC High Band Edge



3dB+AGC Low Band Edge

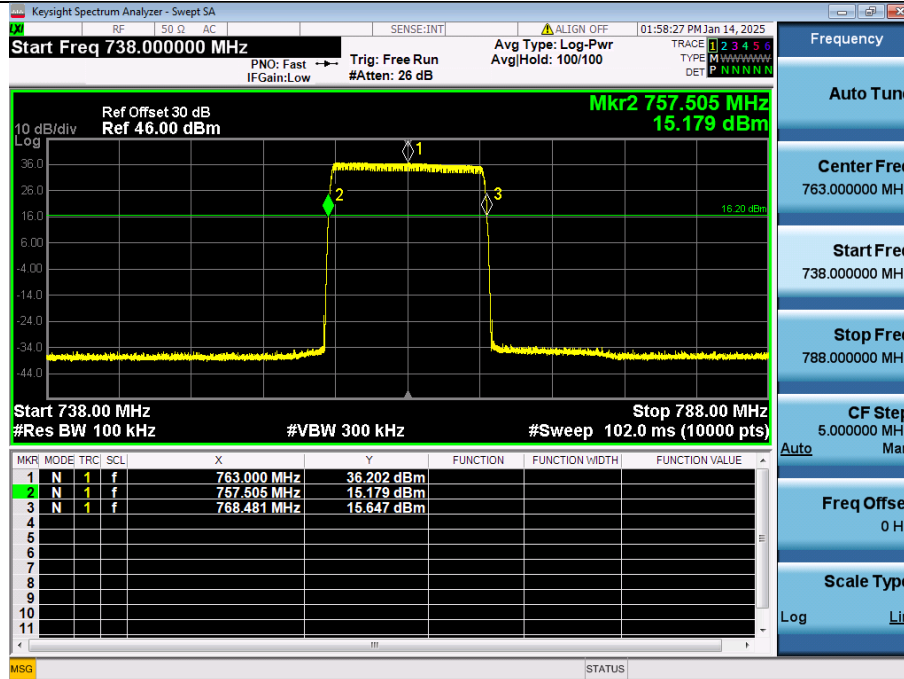


3dB+AGC High Band Edge



6. Out of Band Rejection

Downlink:758MHz to 768MHz



7. Radiated Spurious Emissions

758MHz-768MHz-Low Channel					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
111.39	Horizontal	-56.90	-13	-43.90	Pass
315.17	Horizontal	-58.13	-13	-45.13	Pass
624.11	Horizontal	-48.09	-13	-35.09	Pass
2199.41	Horizontal	-52.68	-13	-39.68	Pass
5740.99	Horizontal	-48.10	-13	-35.10	Pass
9872.03	Horizontal	-42.52	-13	-29.52	Pass
80.65	Vertical	-55.70	-13	-42.70	Pass
328.95	Vertical	-54.02	-13	-41.02	Pass
589.53	Vertical	-49.06	-13	-36.06	Pass
2212.84	Vertical	-46.89	-13	-33.89	Pass
5752.55	Vertical	-48.06	-13	-35.06	Pass
9856.72	Vertical	-37.87	-13	-24.87	Pass

758MHz-768MHz-Middle Channel					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
108.94	Horizontal	-54.98	-13	-41.98	Pass
341.35	Horizontal	-56.96	-13	-43.96	Pass
585.37	Horizontal	-48.97	-13	-35.97	Pass
2216.60	Horizontal	-51.61	-13	-38.61	Pass
5750.32	Horizontal	-51.25	-13	-38.25	Pass
9887.36	Horizontal	-42.15	-13	-29.15	Pass
109.29	Vertical	-59.35	-13	-46.35	Pass
303.79	Vertical	-53.50	-13	-40.50	Pass
613.39	Vertical	-52.86	-13	-39.86	Pass
2221.79	Vertical	-48.20	-13	-35.20	Pass
5743.80	Vertical	-54.43	-13	-41.43	Pass
9892.92	Vertical	-38.55	-13	-25.55	Pass

758MHz-768MHz-High Channel					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
90.96	Horizontal	-56.28	-13	-43.28	Pass
334.98	Horizontal	-52.74	-13	-39.74	Pass
615.43	Horizontal	-47.59	-13	-34.59	Pass
2329.60	Horizontal	-50.17	-13	-37.17	Pass
5351.58	Horizontal	-51.32	-13	-38.32	Pass
9668.82	Horizontal	-39.87	-13	-26.87	Pass
107.24	Vertical	-59.72	-13	-46.72	Pass
323.45	Vertical	-55.08	-13	-42.08	Pass
587.76	Vertical	-52.89	-13	-39.89	Pass
2294.15	Vertical	-51.57	-13	-38.57	Pass
5376.16	Vertical	-50.57	-13	-37.57	Pass
9685.07	Vertical	-42.78	-13	-29.78	Pass

1559MHz-1610MHz					
Channel	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
	Polarization	dBm	dBm	dB	
Low	Horizontal	-59.61	-50	-9.61	Pass
	Vertical	-60.17	-50	-10.17	Pass
Middle	Horizontal	-58.44	-50	-8.44	Pass
	Vertical	-58.80	-50	-8.80	Pass
High	Horizontal	-59.07	-50	-9.07	Pass
	Vertical	-58.61	-50	-8.61	Pass

8. Frequency Stability

Frequency Stability vs temperature:

Test for 758MHz to 768MHz (middle channel=763MHz)

Channel (MHz)	Temperature (°C)	Voltage (V ac)	Frequency Error (Hz)	Tolerance (ppm)	Limit (ppm)
Middle	55	120	6	0.0079	0.1
	50	120	4	0.0052	0.1
	40	120	5	0.0066	0.1
	30	120	3	0.0039	0.1
	20	120	7	0.0092	0.1
	10	120	8	0.0105	0.1
	0	120	2	0.0026	0.1
	-10	120	5	0.0066	0.1
	-20	120	9	0.0118	0.1
	-30	120	4	0.0052	0.1
	-40	120	3	0.0039	0.1

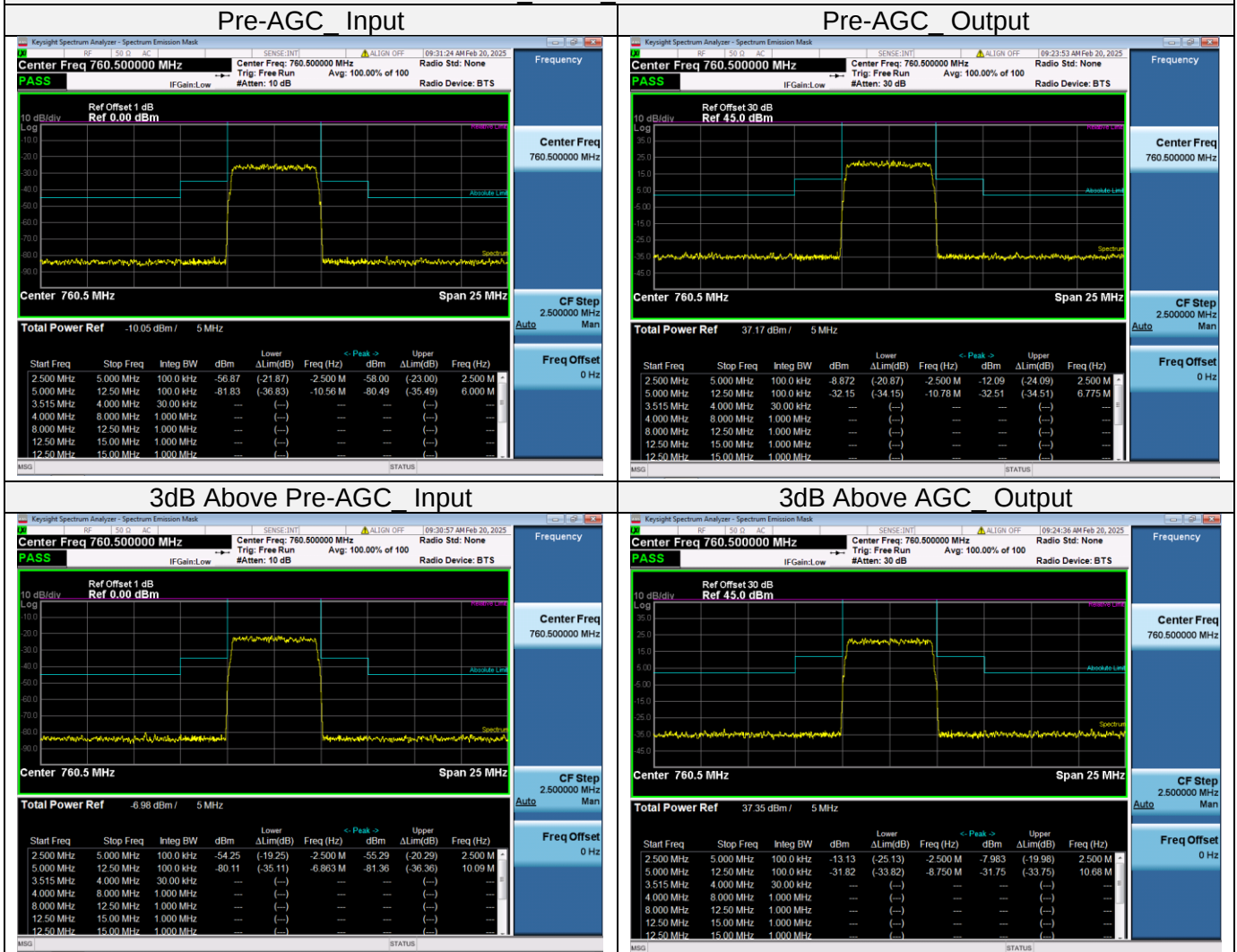
Frequency Stability vs voltage:

Channel Bandwidth (kHz)	Voltage (V ac)	Temperature (°C)	Frequency Error (Hz)	Tolerance (ppm)	Limit (ppm)
Middle	102	20	7	0.0092	0.1
	120	20	4	0.0052	0.1
	138	20	6	0.0079	0.1

9. Emissions mask

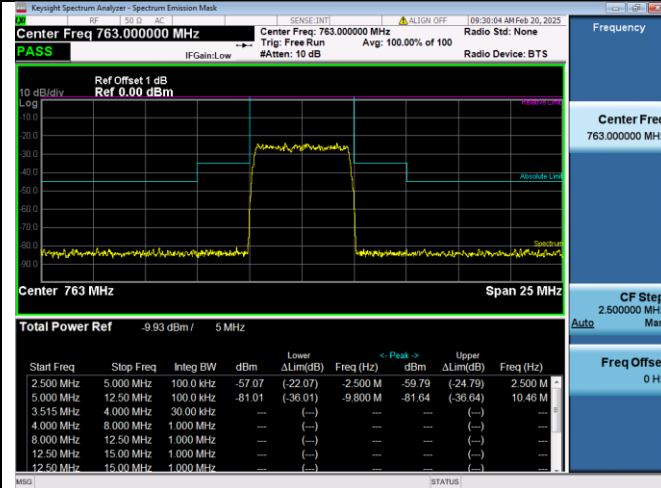
Channel Spacing (kHz)	Signal Level	Test Channel	Signal Type	Result
LTE 5MHz	Pre-AGC	760.5MHz	Input	Pass
			Output	Pass
	3dB Above AGC	760.5MHz	Input	Pass
			Output	Pass
	Pre-AGC	763MHz	Input	Pass
			Output	Pass
	3dB Above AGC	763MHz	Input	Pass
			Output	Pass
	Pre-AGC	765.5MHz	Input	Pass
			Output	Pass
	3dB Above AGC	765.5MHz	Input	Pass
			Output	Pass

LTE 5MHz Low Channel

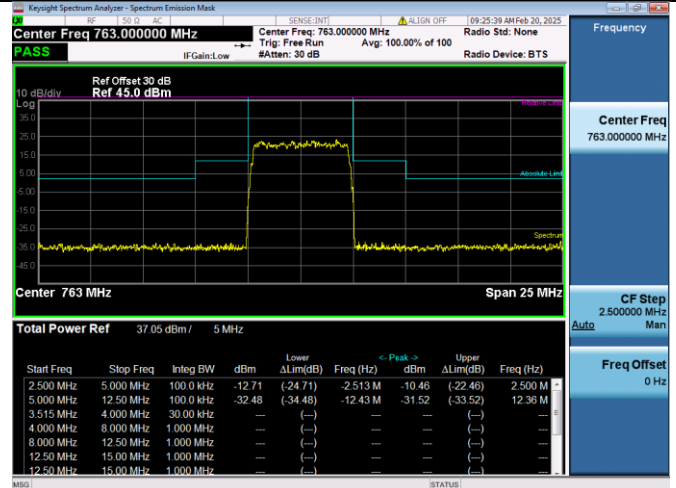


LTE_5MHz_Middle Channel

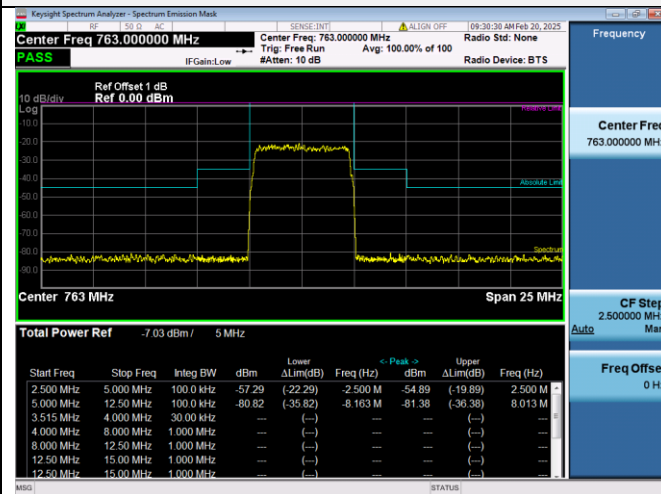
Pre-AGC_ Input



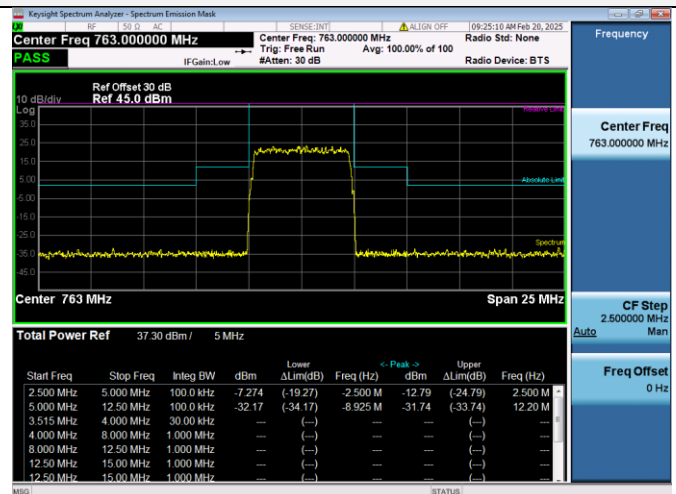
Pre-AGC_ Output



3dB Above Pre-AGC_ Input

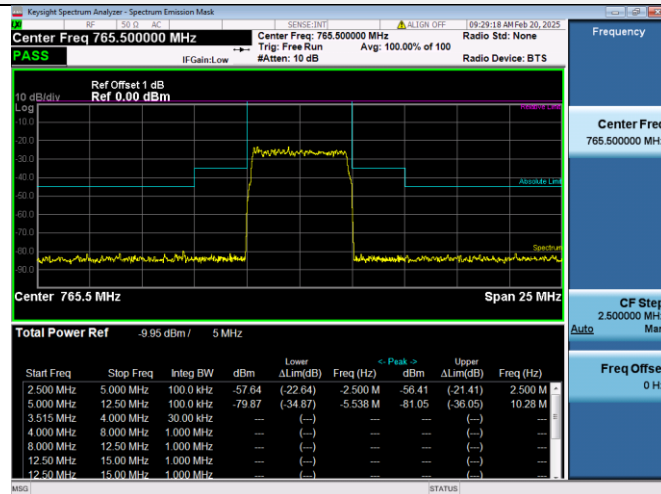


3dB Above AGC_ Output

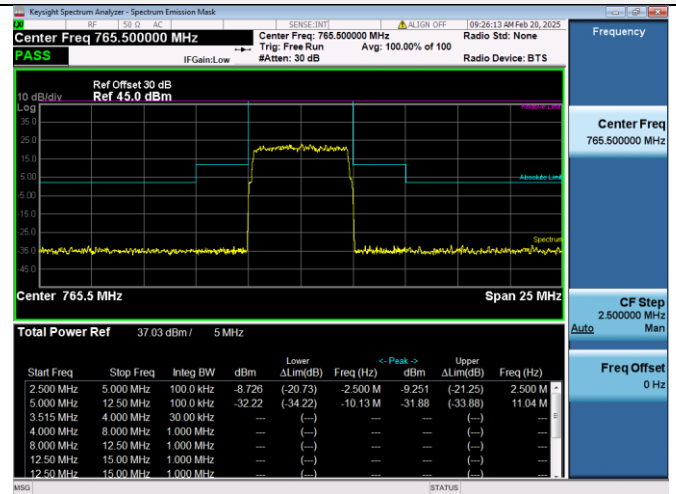


LTE_5MHz_High Channel

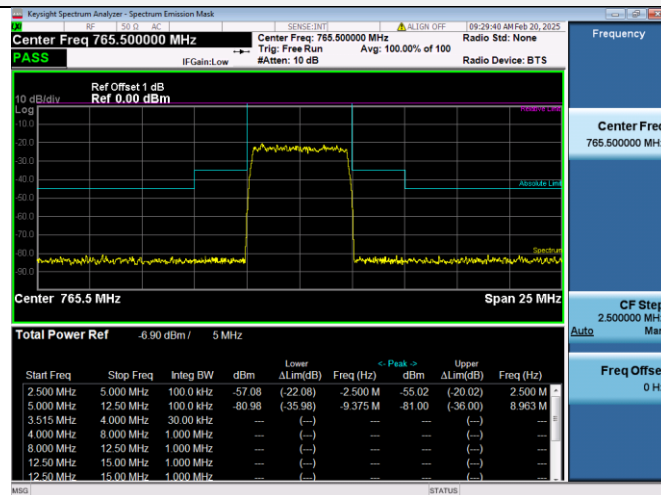
Pre-AGC_Input



Pre-AGC_Output



3dB Above Pre-AGC_Input



3dB Above AGC_Output

