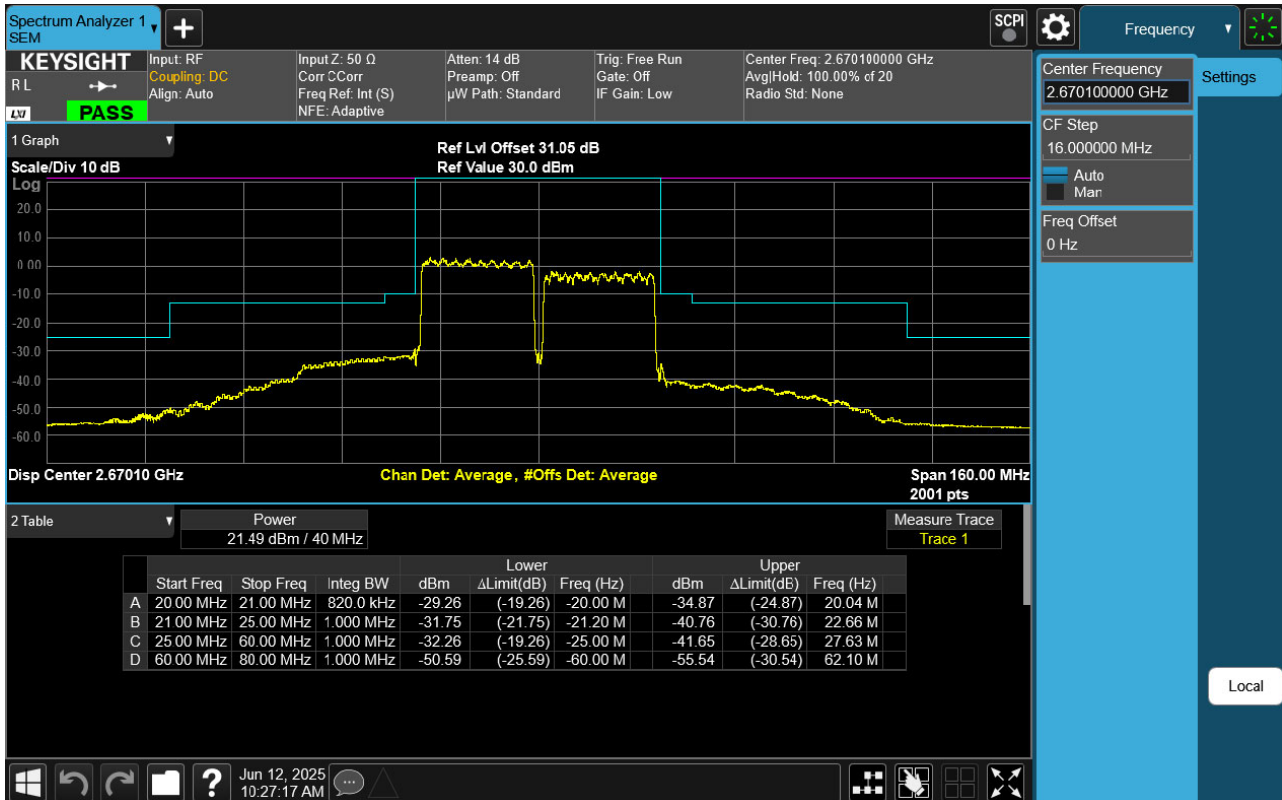


PCC 20MHz Ch41292 RB100 Offset0, SCC 20MHz Ch41490 RB100 Offset0



8.5 Frequency Stability / Variation Of Ambient Temperature

▣ PCC Channel:	39683	
▣ PCC Frequency:	2499.3	MHz
▣ PCC BandWidth:	5	MHz
▣ SCC Channel:	39800	
▣ SCC Frequency:	2511.0	MHz
▣ SCC BandWidth:	20	MHz
▣ Voltage :	3.880	VDC
▣ LIMIT:	Emission must remain in band	

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	-0.0037	-0.0028	2499.30374	2511.00276
100 %		-30	0.0023	-0.0081	2499.29775	2511.00809
100 %		-20	-0.0094	-0.0049	2499.30941	2511.00495
100 %		-10	-0.0041	-0.0038	2499.30406	2511.00375
100 %		0	-0.0100	-0.0053	2499.31002	2511.00530
100 %		10	-0.0101	-0.0068	2499.31014	2511.00677
100 %		30	-0.0098	-0.0096	2499.30977	2511.00962
100 %		40	-0.0060	-0.0048	2499.30596	2511.00478
100 %		50	-0.0086	-0.0055	2499.30864	2511.00549
Batt. Endpoint	3.300	20	-0.0048	-0.0113	2499.30478	2511.01133

▣ PCC Channel:	39705	
▣ PCC Frequency:	2501.5	MHz
▣ PCC BandWidth:	10	MHz
▣ SCC Channel:	39849	
▣ SCC Frequency:	2515.9	MHz
▣ SCC BandWidth:	20	MHz
▣ Voltage :	3.880	VDC
▣ LIMIT:	Emission must remain in band	

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	-0.0032	-0.0031	2501.50324	2515.90306
100 %		-30	-0.0035	-0.0106	2501.50355	2515.91059
100 %		-20	-0.0052	-0.0107	2501.50521	2515.91075
100 %		-10	-0.0007	-0.0105	2501.50066	2515.91045
100 %		0	-0.0045	-0.0009	2501.50452	2515.90090
100 %		10	-0.0091	-0.0093	2501.50914	2515.90927
100 %		30	-0.0015	-0.0085	2501.50147	2515.90852
100 %		40	-0.0091	-0.0084	2501.50906	2515.90838
100 %		50	-0.0097	-0.0054	2501.50974	2515.90539
Batt. Endpoint	3.300	20	-0.0009	-0.0064	2501.50088	2515.90643

▣ PCC Channel:	39728	
▣ PCC Frequency:	2503.8	MHz
▣ PCC BandWidth:	15	MHz
▣ SCC Channel:	39899	
▣ SCC Frequency:	2520.9	MHz
▣ SCC BandWidth:	20	MHz
▣ Voltage :	3.880	VDC
▣ LIMIT:	Emission must remain in band	

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	-0.0043	-0.0007	2503.80434	2520.90066
100 %		-30	0.0005	-0.0094	2503.79955	2520.90939
100 %		-20	-0.0008	-0.0094	2503.80081	2520.90945
100 %		-10	-0.0081	-0.0106	2503.80806	2520.91055
100 %		0	-0.0040	0.0004	2503.80402	2520.89960
100 %		10	-0.0057	-0.0094	2503.80574	2520.90937
100 %		30	-0.0044	-0.0013	2503.80437	2520.90132
100 %		40	-0.0070	-0.0049	2503.80696	2520.90488
100 %		50	-0.0083	-0.0021	2503.80834	2520.90209
Batt. Endpoint	3.300	20	-0.0084	-0.0058	2503.80838	2520.90583

▣ PCC Channel:	39750	
▣ PCC Frequency:	2506.0	MHz
▣ PCC BandWidth:	20	MHz
▣ SCC Channel:	39948	
▣ SCC Frequency:	2525.8	MHz
▣ SCC BandWidth:	20	MHz
▣ Voltage :	3.880	VDC
▣ LIMIT:	Emission must remain in band	

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	-0.0029	-0.0080	2506.00294	2525.80796
100 %		-30	0.0020	-0.0089	2505.99805	2525.80889
100 %		-20	-0.0038	-0.0091	2506.00381	2525.80915
100 %		-10	-0.0031	-0.0057	2506.00306	2525.80565
100 %		0	-0.0009	-0.0029	2506.00092	2525.80290
100 %		10	-0.0039	-0.0032	2506.00394	2525.80317
100 %		30	-0.0110	-0.0050	2506.01097	2525.80502
100 %		40	-0.0090	0.0000	2506.00896	2525.79998
100 %		50	-0.0049	-0.0091	2506.00494	2525.80909
Batt. Endpoint	3.300	20	0.0007	-0.0077	2505.99928	2525.80773

▣ PCC Channel:	41373	
▣ PCC Frequency:	2668.3	MHz
▣ PCC BandWidth:	5	MHz
▣ SCC Channel:	41490	
▣ SCC Frequency:	2680.0	MHz
▣ SCC BandWidth:	20	MHz
▣ Voltage :	3.880	VDC
▣ LIMIT:	Emission must remain in band	

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	-0.0029	-0.0039	2668.30294	2680.00386
100 %		-30	-0.0002	-0.0047	2668.30025	2680.00469
100 %		-20	-0.0009	-0.0027	2668.30091	2680.00275
100 %		-10	-0.0067	-0.0043	2668.30666	2680.00425
100 %		0	-0.0063	-0.0075	2668.30632	2680.00750
100 %		10	-0.0086	-0.0071	2668.30864	2680.00707
100 %		30	-0.0068	-0.0047	2668.30677	2680.00472
100 %		40	-0.0067	-0.0032	2668.30666	2680.00318
100 %		50	-0.0045	-0.0044	2668.30454	2680.00439
Batt. Endpoint	3.300	20	-0.0027	-0.0075	2668.30268	2680.00753

▣ PCC Channel:	41346	
▣ PCC Frequency:	2665.6	MHz
▣ PCC BandWidth:	10	MHz
▣ SCC Channel:	41490	
▣ SCC Frequency:	2680.0	MHz
▣ SCC BandWidth:	20	MHz
▣ Voltage :	3.880	VDC
▣ LIMIT:	Emission must remain in band	

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	-0.0020	-0.0032	2665.60204	2680.00316
100 %		-30	-0.0035	-0.0103	2665.60355	2680.01029
100 %		-20	-0.0030	-0.0095	2665.60301	2680.00955
100 %		-10	-0.0059	-0.0081	2665.60586	2680.00805
100 %		0	-0.0030	0.0006	2665.60302	2679.99940
100 %		10	-0.0088	-0.0045	2665.60884	2680.00447
100 %		30	-0.0037	-0.0026	2665.60367	2680.00262
100 %		40	0.0001	-0.0006	2665.59986	2680.00058
100 %		50	-0.0053	-0.0068	2665.60534	2680.00679
Batt. Endpoint	3.300	20	-0.0023	-0.0059	2665.60228	2680.00593

▣ PCC Channel:	41319	
▣ PCC Frequency:	2662.9	MHz
▣ PCC BandWidth:	15	MHz
▣ SCC Channel:	41490	
▣ SCC Frequency:	2680.0	MHz
▣ SCC BandWidth:	20	MHz
▣ Voltage :	3.880	VDC
▣ LIMIT:	Emission must remain in band	

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	-0.0020	-0.0020	2662.90204	2680.00196
100 %		-30	0.0020	-0.0084	2662.89805	2680.00839
100 %		-20	-0.0052	-0.0106	2662.90521	2680.01065
100 %		-10	-0.0070	-0.0103	2662.90696	2680.01025
100 %		0	-0.0055	0.0010	2662.90552	2679.99900
100 %		10	-0.0082	-0.0071	2662.90824	2680.00707
100 %		30	-0.0091	-0.0058	2662.90907	2680.00582
100 %		40	-0.0031	-0.0059	2662.90306	2680.00588
100 %		50	-0.0031	-0.0006	2662.90314	2680.00059
Batt. Endpoint	3.300	20	-0.0070	-0.0038	2662.90698	2680.00383

▣ PCC Channel:	41292	
▣ PCC Frequency:	2660.2	MHz
▣ PCC BandWidth:	20	MHz
▣ SCC Channel:	41490	
▣ SCC Frequency:	2680.0	MHz
▣ SCC BandWidth:	20	MHz
▣ Voltage :	3.880	MHz
▣ LIMIT:	Emission must remain in band	

Voltage (%)	Power (VDC)	Temp. (°C)	PPM		Frequency Error (MHz)	
			PCC	SCC	PCC	SCC
100 %	3.880	+20(Ref)	-0.0076	-0.0008	2660.20764	2680.00076
100 %		-30	-0.0042	-0.0081	2660.20425	2680.00809
100 %		-20	-0.0068	-0.0045	2660.20681	2680.00455
100 %		-10	0.0005	-0.0072	2660.19946	2680.00715
100 %		0	-0.0046	-0.0032	2660.20462	2680.00320
100 %		10	-0.0027	-0.0046	2660.20274	2680.00457
100 %		30	-0.0040	-0.0051	2660.20397	2680.00512
100 %		40	-0.0073	-0.0045	2660.20726	2680.00448
100 %		50	-0.0055	-0.0009	2660.20554	2680.00089
Batt. Endpoint	3.300	20	-0.0081	-0.0018	2660.20808	2680.00183

8.6 Radiated Spurious Emissions

▣ PCC Channel :	<u>39750 (2506.0 MHz)</u>
▣ PCC BW(MHz) :	20
▣ PCC RB/ RB Offset :	<u>1/ 99</u>
▣ SCC Channel :	<u>39948 (2525.8 MHz)</u>
▣ SCC BW(MHz) :	20
▣ SCC RB/ RB Offset :	<u>1/ 0</u>
▣ DISTANCE:	<u>1 meters</u>
▣ LIMIT:	<u>-25.0 dBm</u>

Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)
5 031.80	-43.88	12.55	-67.99	3.67	V	-59.11
7 547.70	-44.22	11.15	-59.72	4.63	H	-53.20
10 063.60	-45.89	10.66	-55.80	5.48	H	-50.62

- ▣ PCC Channel : 40571 (2588.1 MHz)
- ▣ PCC BW(MHz) : 20
- ▣ PCC RB/ RB Offset : 1/ 99
- ▣ SCC Channel : 40715 (2602.5 MHz)
- ▣ SCC BW(MHz) : 10
- ▣ SCC RB/ RB Offset : 1/ 0
- ▣ DISTANCE: 1 meters
- ▣ LIMIT: -25.0 dBm

Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)
5 190.60	-43.87	12.45	-67.91	3.80	H	-59.26
7 785.90	-44.00	11.55	-59.07	4.70	V	-52.22
10 381.20	-46.13	10.52	-54.54	5.56	H	-49.58

- ▣ PCC Channel : 41292 (2660.2 MHz)
- ▣ PCC BW(MHz) : 20
- ▣ PCC RB/ RB Offset : 1/ 99
- ▣ SCC Channel : 41490 (2680.0 MHz)
- ▣ SCC BW(MHz) : 20
- ▣ SCC RB/ RB Offset : 1/ 0
- ▣ DISTANCE: 1 meters
- ▣ LIMIT: -25.0 dBm

Freq.(MHz)	Measured Level [dBm]	Ant. Gain (dBi)	Substitute Level [dBm]	C.L	Pol.	Result (dBm)
5 340.20	-43.22	13.22	-68.24	3.80	H	-58.82
8 010.30	-44.30	10.92	-56.69	4.77	H	-50.54
10 680.40	-45.08	10.63	-53.87	5.71	V	-48.95

8.7 Occupied Bandwidth

PCC					SCC					Data (MHz)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	40528	2583.8	QPSK	25/0	20	40645	2595.5	QPSK	100/0	22.978
10	40549	2585.9	QPSK	50/0	15	40669	2597.9	QPSK	75/0	23.111
10	40526	2583.6	QPSK	50/0	20	40670	2598	QPSK	100/0	27.793
15	40571	2588.1	QPSK	75/0	10	40691	2600.1	QPSK	50/0	23.127
15	40545	2585.5	QPSK	75/0	15	40695	2600.5	QPSK	75/0	28.407
15	40523	2583.3	QPSK	75/0	20	40694	2600.4	QPSK	100/0	32.741
20	40595	2590.5	QPSK	100/0	5	40712	2602.2	QPSK	25/0	22.980
20	40571	2588.1	QPSK	100/0	10	40715	2602.5	QPSK	50/0	27.827
20	40546	2585.6	QPSK	100/0	15	40717	2602.7	QPSK	75/0	32.715
20	40521	2583.1	QPSK	100/0	20	40719	2602.9	QPSK	100/0	37.619

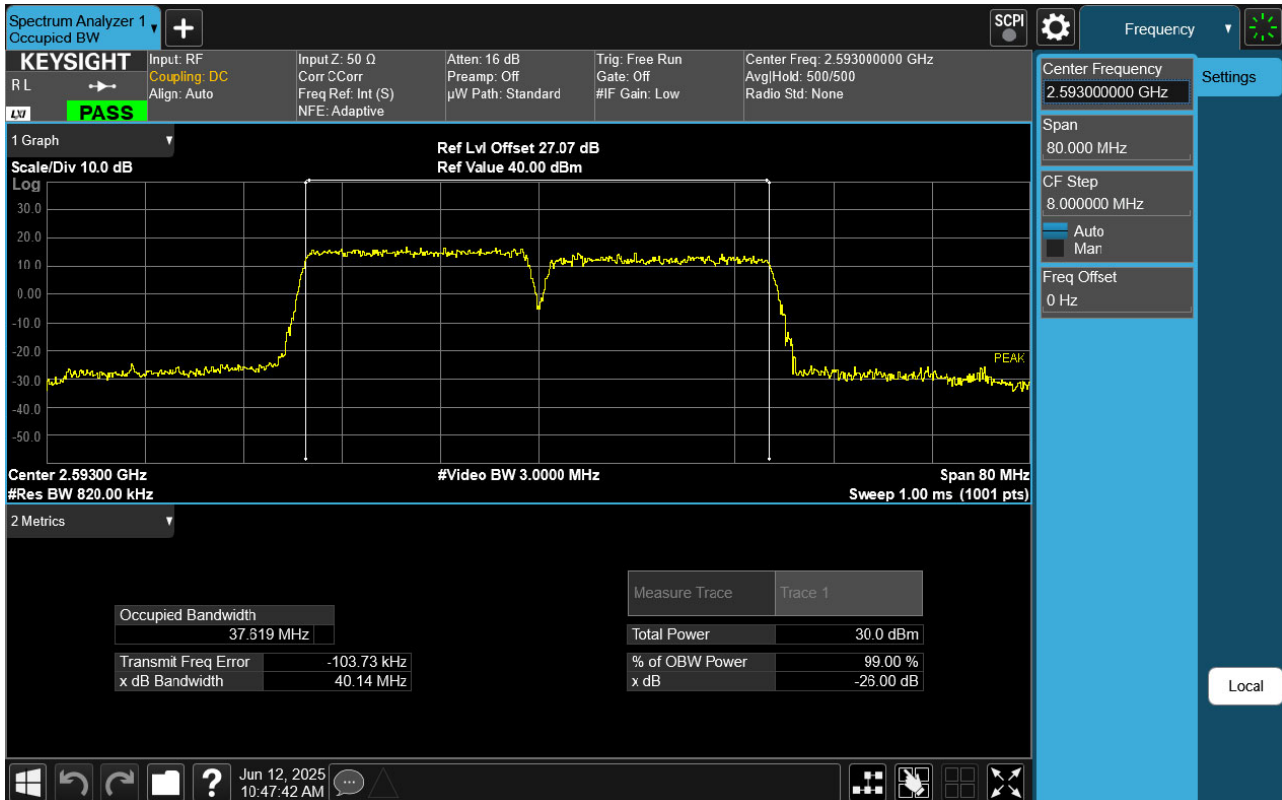
PCC					SCC					Data (MHz)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	40528	2583.8	16QAM	25/0	20	40645	2595.5	16QAM	100/0	22.866
10	40549	2585.9	16QAM	50/0	15	40669	2597.9	16QAM	75/0	23.081
10	40526	2583.6	16QAM	50/0	20	40670	2598	16QAM	100/0	27.802
15	40571	2588.1	16QAM	75/0	10	40691	2600.1	16QAM	50/0	23.113
15	40545	2585.5	16QAM	75/0	15	40695	2600.5	16QAM	75/0	28.388
15	40523	2583.3	16QAM	75/0	20	40694	2600.4	16QAM	100/0	32.562
20	40595	2590.5	16QAM	100/0	5	40712	2602.2	16QAM	25/0	22.914
20	40571	2588.1	16QAM	100/0	10	40715	2602.5	16QAM	50/0	27.803
20	40546	2585.6	16QAM	100/0	15	40717	2602.7	16QAM	75/0	32.719
20	40521	2583.1	16QAM	100/0	20	40719	2602.9	16QAM	100/0	37.683

PCC					SCC					Data (MHz)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	40528	2583.8	64QAM	25/0	20	40645	2595.5	64QAM	100/0	22.962
10	40549	2585.9	64QAM	50/0	15	40669	2597.9	64QAM	75/0	23.119
10	40526	2583.6	64QAM	50/0	20	40670	2598	64QAM	100/0	27.772
15	40571	2588.1	64QAM	75/0	10	40691	2600.1	64QAM	50/0	23.216
15	40545	2585.5	64QAM	75/0	15	40695	2600.5	64QAM	75/0	28.413
15	40523	2583.3	64QAM	75/0	20	40694	2600.4	64QAM	100/0	32.653
20	40595	2590.5	64QAM	100/0	5	40712	2602.2	64QAM	25/0	22.925
20	40571	2588.1	64QAM	100/0	10	40715	2602.5	64QAM	50/0	27.854
20	40546	2585.6	64QAM	100/0	15	40717	2602.7	64QAM	75/0	32.733
20	40521	2583.1	64QAM	100/0	20	40719	2602.9	64QAM	100/0	37.667

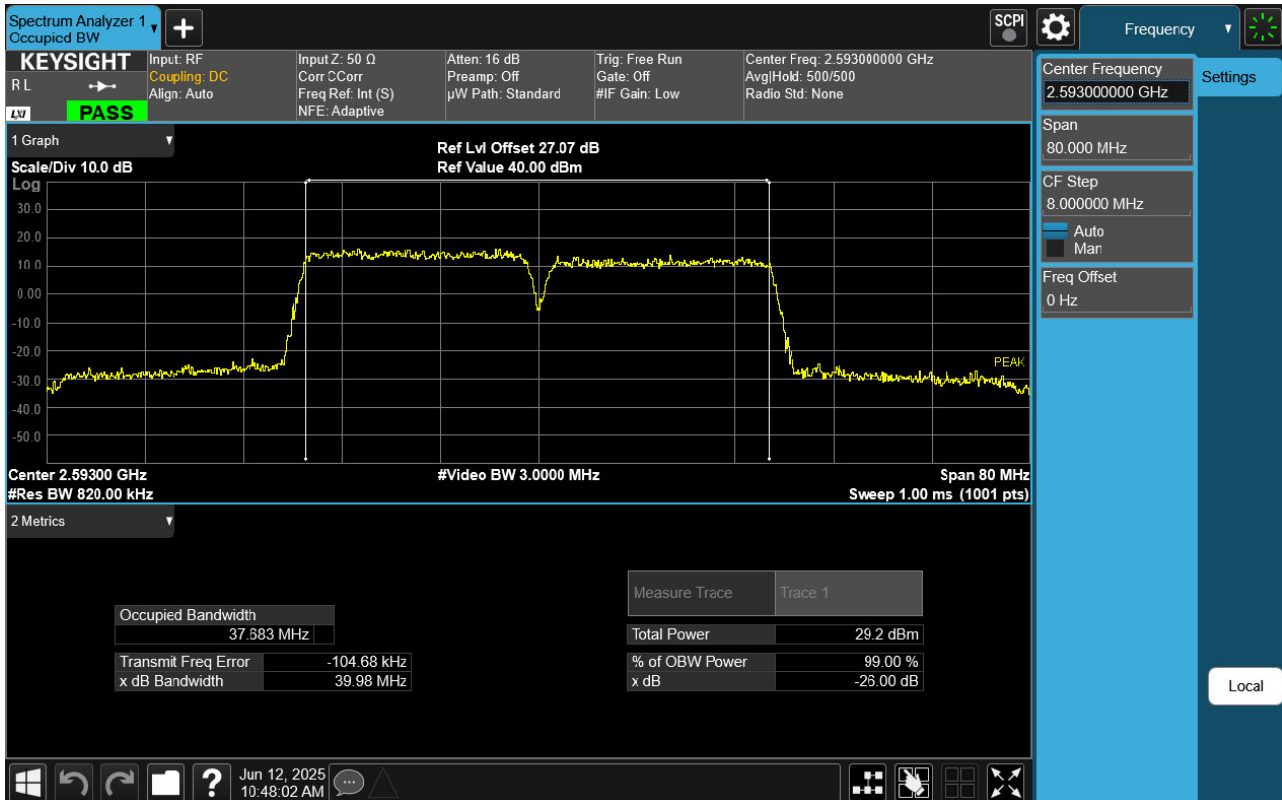
Note:

In order to simplify the report, attached plots were only Max.Bandwidth(20+20)

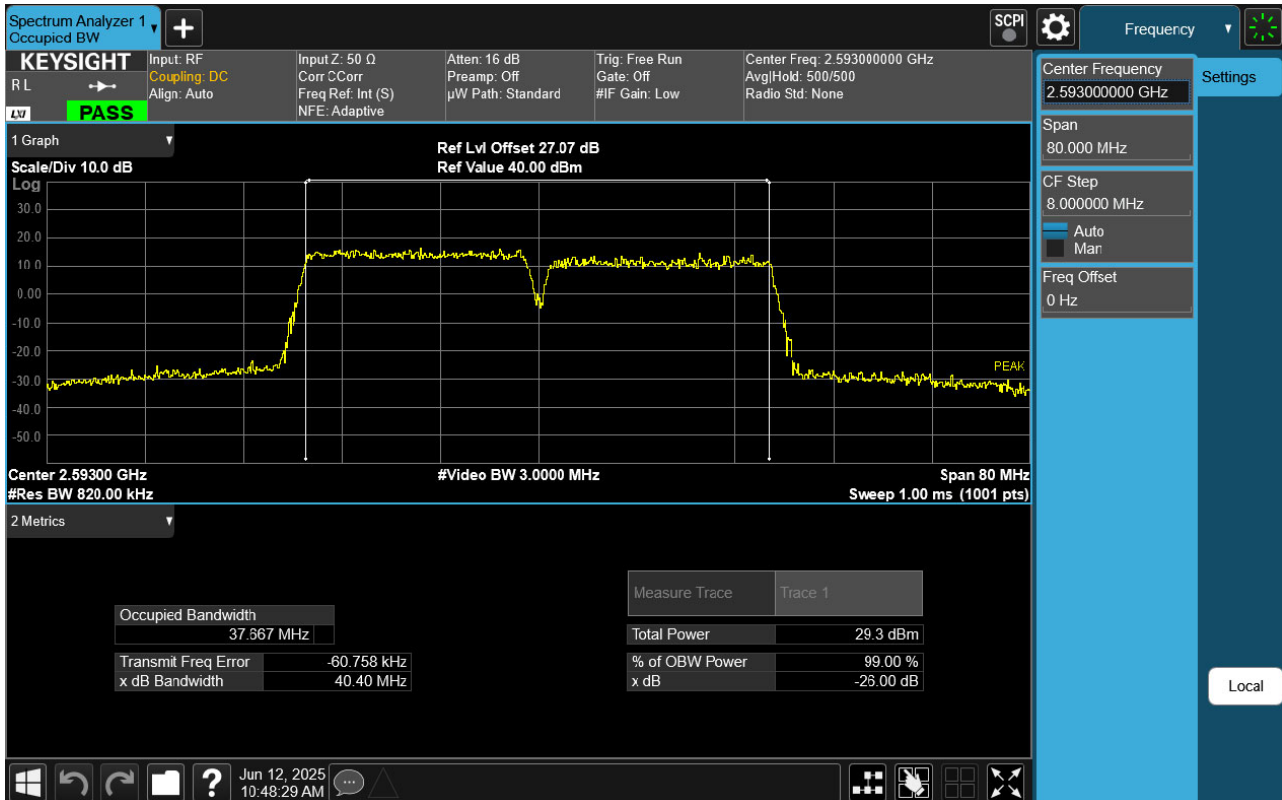
PCC 20 MHz Ch40521 RB100 Offset0, SCC 20 MHz Ch40719 RB100 Offset0_(QPSK)



PCC 20 MHz Ch40521 RB100 Offset0, SCC 20 MHz Ch40719 RB100 Offset0_(16QAM)



PCC 20 MHz Ch40521 RB100 Offset0, SCC 20 MHz Ch40719 RB100 Offset0_(64QAM)



8.8 Peak- to- Average Ratio

PCC					SCC					Data (dB)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/Offset	
5	40528	2583.8	QPSK	25/0	20	40645	2595.5	QPSK	100/0	6.88
10	40549	2585.9	QPSK	50/0	15	40669	2597.9	QPSK	75/0	6.65
10	40526	2583.6	QPSK	50/0	20	40670	2598	QPSK	100/0	6.67
15	40571	2588.1	QPSK	75/0	10	40691	2600.1	QPSK	50/0	6.63
15	40545	2585.5	QPSK	75/0	15	40695	2600.5	QPSK	75/0	7.29
15	40523	2583.3	QPSK	75/0	20	40694	2600.4	QPSK	100/0	6.67
20	40595	2590.5	QPSK	100/0	5	40712	2602.2	QPSK	25/0	6.58
20	40571	2588.1	QPSK	100/0	10	40715	2602.5	QPSK	50/0	6.57
20	40546	2585.6	QPSK	100/0	15	40717	2602.7	QPSK	75/0	6.58
20	40521	2583.1	QPSK	100/0	20	40719	2602.9	QPSK	100/0	7.55

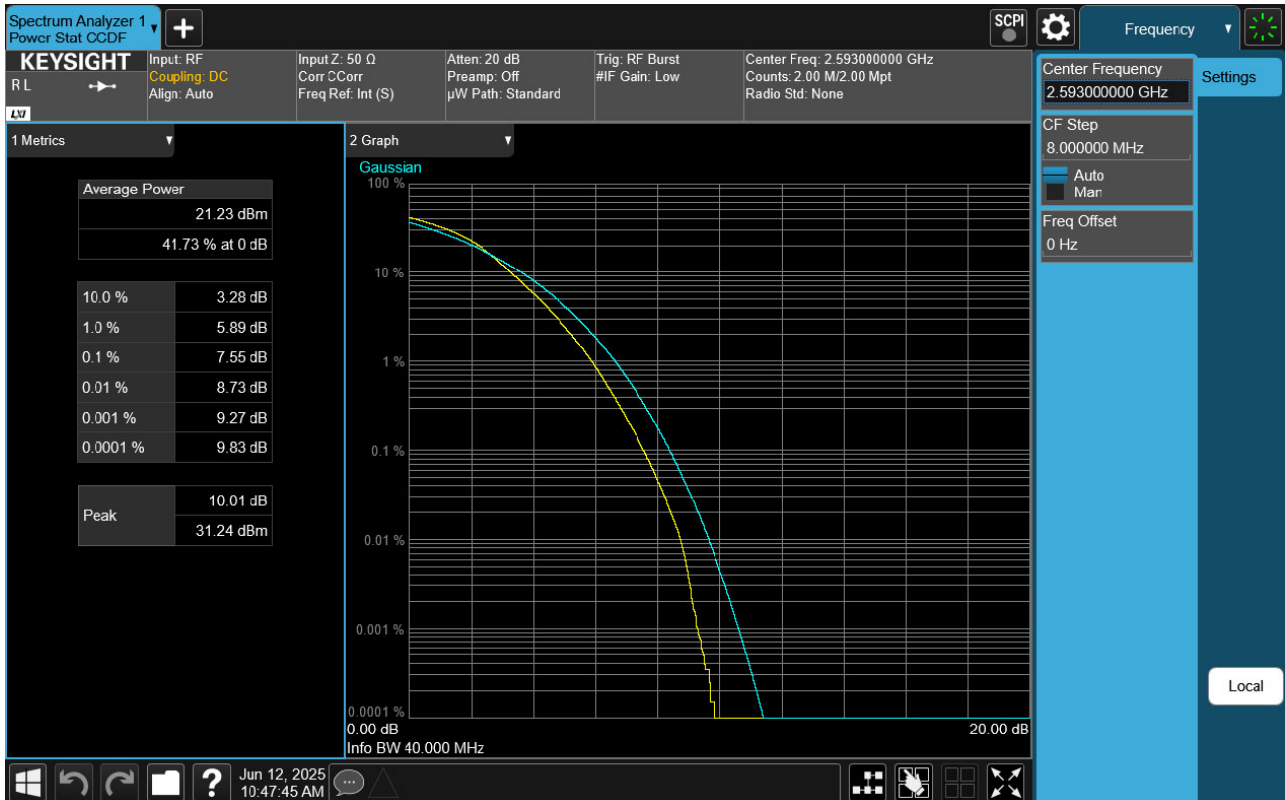
PCC					SCC					Data (dB)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/Offset	
5	40528	2583.8	16QAM	25/0	20	40645	2595.5	16QAM	100/0	7.20
10	40549	2585.9	16QAM	50/0	15	40669	2597.9	16QAM	75/0	7.16
10	40526	2583.6	16QAM	50/0	20	40670	2598	16QAM	100/0	7.20
15	40571	2588.1	16QAM	75/0	10	40691	2600.1	16QAM	50/0	7.11
15	40545	2585.5	16QAM	75/0	15	40695	2600.5	16QAM	75/0	8.26
15	40523	2583.3	16QAM	75/0	20	40694	2600.4	16QAM	100/0	7.19
20	40595	2590.5	16QAM	100/0	5	40712	2602.2	16QAM	25/0	7.18
20	40571	2588.1	16QAM	100/0	10	40715	2602.5	16QAM	50/0	7.17
20	40546	2585.6	16QAM	100/0	15	40717	2602.7	16QAM	75/0	7.19
20	40521	2583.1	16QAM	100/0	20	40719	2602.9	16QAM	100/0	8.39

PCC					SCC					Data (dB)
BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	BW [MHz]	Ch	Freq [MHz]	Mod	RB/ Offset	
5	40528	2583.8	64QAM	25/0	20	40645	2595.5	64QAM	100/0	7.22
10	40549	2585.9	64QAM	50/0	15	40669	2597.9	64QAM	75/0	7.20
10	40526	2583.6	64QAM	50/0	20	40670	2598	64QAM	100/0	7.23
15	40571	2588.1	64QAM	75/0	10	40691	2600.1	64QAM	50/0	7.57
15	40545	2585.5	64QAM	75/0	15	40695	2600.5	64QAM	75/0	7.29
15	40523	2583.3	64QAM	75/0	20	40694	2600.4	64QAM	100/0	7.20
20	40595	2590.5	64QAM	100/0	5	40712	2602.2	64QAM	25/0	7.22
20	40571	2588.1	64QAM	100/0	10	40715	2602.5	64QAM	50/0	7.23
20	40546	2585.6	64QAM	100/0	15	40717	2602.7	64QAM	75/0	7.26
20	40521	2583.1	64QAM	100/0	20	40719	2602.9	64QAM	100/0	7.40

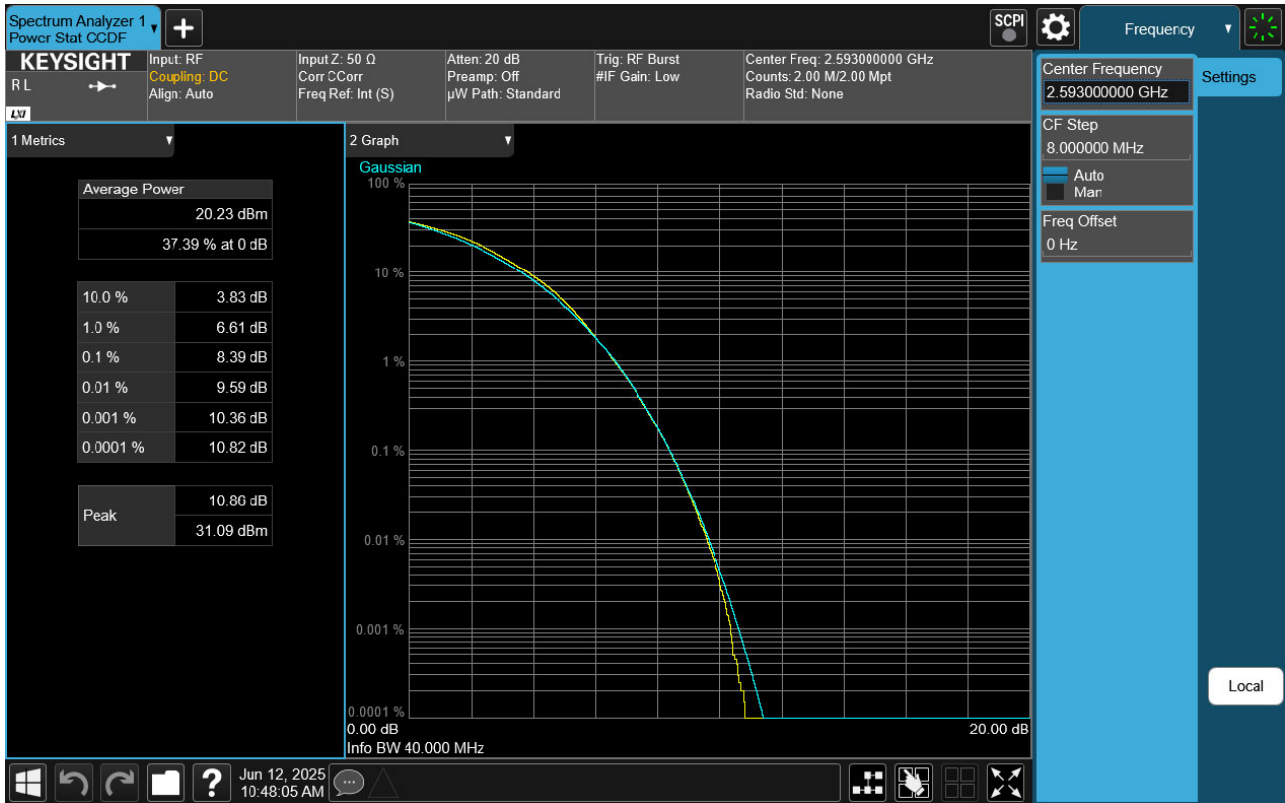
Note:

In order to simplify the report, attached plots were only Max.Bandwidth(20+20)

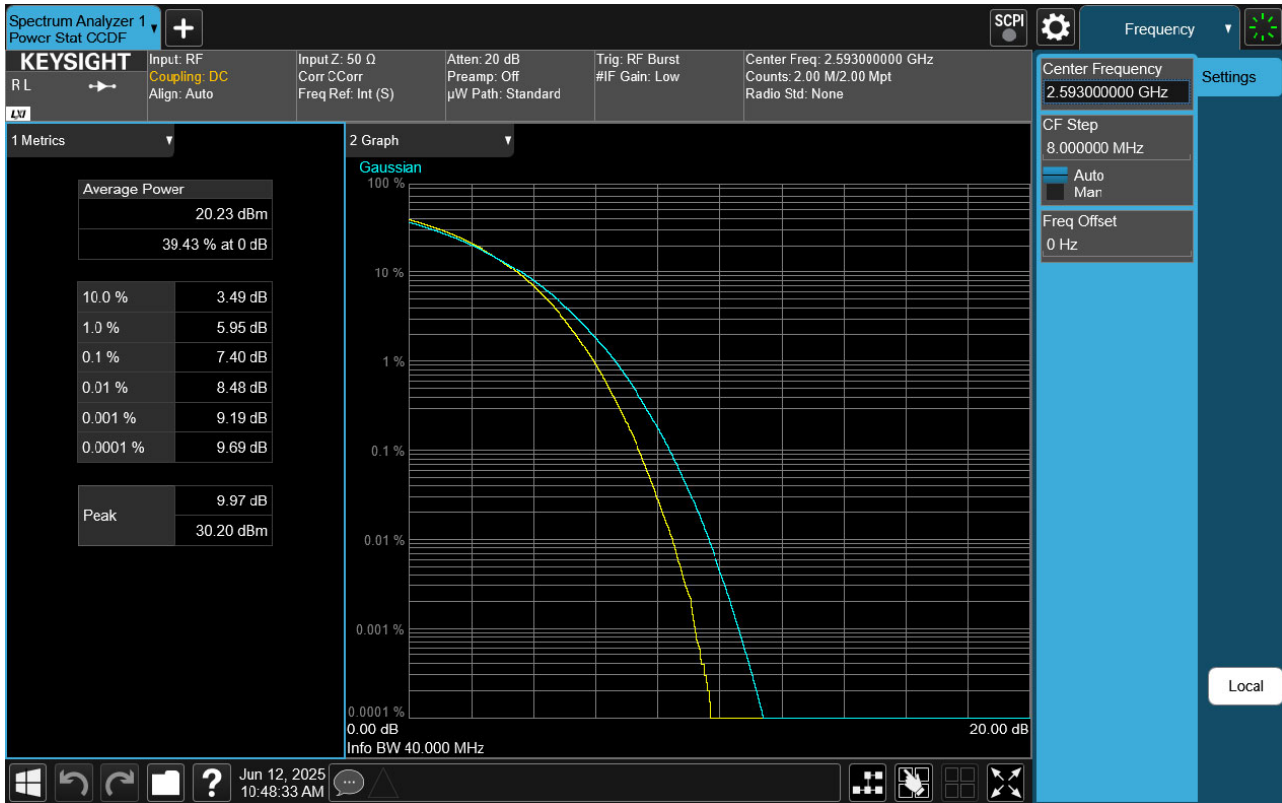
PCC 20 MHz Ch40521 RB100 Offset0, SCC 20 MHz Ch40719 RB100 Offset0_(QPSK)



PCC 20 MHz Ch40521 RB100 Offset0, SCC 20 MHz Ch40719 RB100 Offset0_(16QAM)



PCC 20 MHz Ch40521 RB100 Offset0, SCC 20 MHz Ch40719 RB100 Offset0_(64QAM)



9. TEST DATA(Sub 5 ANT)

Test Overview

The EUT is set up to transmit two contiguous LTE channels. The power level of both carriers and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Test Note

1. All tests were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth.
2. Channel bandwidth is shown in the tables below based only on the channel bandwidths that were supported in this device.

Channel Bandwidth (PCC)	Channel Bandwidth (SCC)	Maximum aggregated bandwidth (MHz)
5	20	25
10	15	25
10	20	30
15	10	25
15	15	30
15	20	35
20	5	25
20	10	30
20	15	35
20	20	40

3. All modes of operation were investigated and the worst case configuration results are reported in this section.
Please refer to the table below.
- Worst case(Conducted Spurious Emissions, Channel Edge)
: We have selected higher of the Conduction Output Power.
 - Worst case(Radiated Spurious Emissions) : We have selected higher of the EIRP.
 - Worst case(OBW, PAR, Frequency stability)
: All modes of operation were investigated and the worst case configuration results are reported.
4. All modes of operation were investigated and the worst case configuration results are reported.
Mode : Stand alone, Stand alone + External accessories (Earphone, AC adapter, etc)
Worst case : Stand alone.
5. The EUT was tested in three modes(Open, Half-open, Closed), the worst case configuration results are reported.
(Worst case: Open mode)
5. All simultaneous transmission scenarios of operation were investigated, and the test results showed no additional significant emissions relative to the least restrictive limit were observed.
Therefore, only the worst case(stand-alone) results were reported
6. All 3 channels(low/mid/high) of conducted power and radiated power were investigated
and the worst case channel results are reported.

[Worst case]

Test Description	Mod	Operating frequency	PCC					SCC				
			BW (MHz)	Freq. (MHz)	Ch.	RB	RB Offset	BW (MHz)	Freq. (MHz)	Ch.	RB	RB Offset
Conducted Spurious Emissions/ Channel Edge	QPSK	Low	20	2506.0	39750	1	99	20	2525.8	39948	1	0
		Mid	20	2585.6	40546	1	99	15	2602.7	40717	1	0
		High	20	2665.1	41341	1	99	15	2682.2	41512	1	0
		Low	20	2506.0	39750	1	0	20	2525.8	39948	1	99
		Mid	20	2585.6	40546	1	0	15	2602.7	40717	1	74
		High	20	2665.1	41341	1	0	15	2682.2	41512	1	74
		Low	20	2506.0	39750	100	0	20	2525.8	39948	100	0
		Mid	20	2590.5	40595	100	0	5	2602.2	40712	25	0
		High	20	2670.1	41391	100	0	10	2684.5	41535	50	0
		Mid	20	2583.1	40521	100	0	20	2602.9	40719	100	0
		High	20	2660.2	41292	100	0	20	2680.0	41490	100	0
Radiated Spurious Emissions	QPSK	Low	20	2506.0	39750	1	99	20	2525.8	39948	1	0
		Mid	5	2583.8	40528	1	24	20	2595.5	40645	1	0
		High	20	2660.2	41292	1	99	20	2680.0	41490	1	0

[Worst case]

Test Description	Mod	Operating frequency	PCC					SCC				
			BW (MHz)	Freq. (MHz)	Ch.	RB	RB Offset	BW (MHz)	Freq. (MHz)	Ch.	RB	RB Offset
OBW, PAR	QPSK, 16QAM, 64QAM	Mid	5	2583.8	40528	25	0	20	2595.5	40645	100	0
			10	2585.9	40549	50	0	15	2597.9	40669	75	0
			10	2583.6	40526	50	0	20	2598.0	40670	100	0
			15	2588.1	40571	75	0	10	2600.1	40691	50	0
			15	2585.5	40545	75	0	15	2600.5	40695	75	0
			15	2583.3	40523	75	0	20	2600.4	40694	100	0
			20	2590.5	40595	100	0	5	2602.2	40712	25	0
			20	2588.1	40571	100	0	10	2602.5	40715	50	0
			20	2585.6	40546	100	0	15	2602.7	40717	75	0
			20	2583.1	40521	100	0	20	2602.9	40719	100	0
Frequency stability	QPSK	Low	5	2499.3	39683	25	0	20	2511.0	39800	100	0
			10	2501.5	39705	50	0	20	2515.9	39849	100	0
			15	2503.8	39728	75	0	20	2520.9	39899	100	0
			20	2506.0	39750	100	0	20	2525.8	39948	100	0
		High	5	2668.3	41373	25	0	20	2680.0	41490	100	0
			10	2665.6	41346	50	0	20	2680.0	41490	100	0
			15	2662.9	41319	75	0	20	2680.0	41490	100	0
			20	2660.2	41292	100	0	20	2680.0	41490	100	0

9.1 Conducted Power

Operating frequency	PCC					SCC					Conducted. Power [dBm]
	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	
Low	5	2499.3	39683	1	24	20	2511.0	39800	1	0	24.82
	10	2501.3	39703	1	49	15	2513.3	39823	1	0	24.86
	10	2501.5	39705	1	49	20	2515.9	39849	1	0	24.75
	15	2503.5	39725	1	74	10	2515.5	39845	1	0	24.88
	15	2503.5	39725	1	74	15	2518.5	39875	1	0	24.92
	15	2503.8	39728	1	74	20	2520.9	39899	1	0	24.92
	20	2506.0	39750	1	99	5	2517.7	39867	1	0	24.91
	20	2506.0	39750	1	99	10	2520.4	39894	1	0	24.93
	20	2506.0	39750	1	99	15	2523.1	39921	1	0	24.93
	20	2506.0	39750	1	99	20	2525.8	39948	1	0	24.94
Mid	5	2583.8	40528	1	24	20	2595.5	40645	1	0	24.43
	10	2585.9	40549	1	49	15	2597.9	40669	1	0	24.48
	10	2583.6	40526	1	49	20	2598.0	40670	1	0	24.42
	15	2588.1	40571	1	74	10	2600.1	40691	1	0	24.52
	15	2585.5	40545	1	74	15	2600.5	40695	1	0	23.73
	15	2583.3	40523	1	74	20	2600.4	40694	1	0	23.74
	20	2590.5	40595	1	99	5	2602.2	40712	1	0	24.59
	20	2588.1	40571	1	99	10	2602.5	40715	1	0	23.82
	20	2585.6	40546	1	99	15	2602.7	40717	1	0	24.60
	20	2583.1	40521	1	99	20	2602.9	40719	1	0	23.82
High	5	2668.3	41373	1	24	20	2680.0	41490	1	0	24.70
	10	2670.5	41395	1	49	15	2682.5	41515	1	0	24.68
	10	2665.6	41346	1	49	20	2680.0	41490	1	0	23.90
	15	2672.7	41417	1	74	10	2684.7	41537	1	0	24.70
	15	2667.5	41365	1	74	15	2682.5	41515	1	0	24.72
	15	2662.9	41319	1	74	20	2680.0	41490	1	0	24.78
	20	2675.0	41440	1	99	5	2686.7	41557	1	0	23.87
	20	2670.1	41391	1	99	10	2684.5	41535	1	0	24.41
	20	2665.1	41341	1	99	15	2682.2	41512	1	0	24.90
	20	2660.2	41292	1	99	20	2680.0	41490	1	0	24.79

Note:

Modulation : QPSK(1RB)

Operating frequency	PCC					SCC					Conducted.
	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Power [dBm]
Low	5	2499.3	39683	25	0	20	2511.0	39800	100	0	22.85
	10	2501.3	39703	50	0	15	2513.3	39823	75	0	22.83
	10	2501.5	39705	50	0	20	2515.9	39849	100	0	22.01
	15	2503.5	39725	75	0	10	2515.5	39845	50	0	22.83
	15	2503.5	39725	75	0	15	2518.5	39875	75	0	22.86
	15	2503.8	39728	75	0	20	2520.9	39899	100	0	22.84
	20	2506.0	39750	100	0	5	2517.7	39867	25	0	22.83
	20	2506.0	39750	100	0	10	2520.4	39894	50	0	22.84
	20	2506.0	39750	100	0	15	2523.1	39921	75	0	22.86
	20	2506.0	39750	100	0	20	2525.8	39948	100	0	22.90
Mid	5	2583.8	40528	25	0	20	2595.5	40645	100	0	22.42
	10	2585.9	40549	50	0	15	2597.9	40669	75	0	22.41
	10	2583.6	40526	50	0	20	2598.0	40670	100	0	22.01
	15	2588.1	40571	75	0	10	2600.1	40691	50	0	22.46
	15	2585.5	40545	75	0	15	2600.5	40695	75	0	22.02
	15	2583.3	40523	75	0	20	2600.4	40694	100	0	22.05
	20	2590.5	40595	100	0	5	2602.2	40712	25	0	22.52
	20	2588.1	40571	100	0	10	2602.5	40715	50	0	22.06
	20	2585.6	40546	100	0	15	2602.7	40717	75	0	22.04
	20	2583.1	40521	100	0	20	2602.9	40719	100	0	22.47
High	5	2668.3	41373	25	0	20	2680.0	41490	100	0	22.67
	10	2670.5	41395	50	0	15	2682.5	41515	75	0	22.70
	10	2665.6	41346	50	0	20	2680.0	41490	100	0	22.64
	15	2672.7	41417	75	0	10	2684.7	41537	50	0	22.79
	15	2667.5	41365	75	0	15	2682.5	41515	75	0	22.02
	15	2662.9	41319	75	0	20	2680.0	41490	100	0	22.78
	20	2675.0	41440	100	0	5	2686.7	41557	25	0	22.76
	20	2670.1	41391	100	0	10	2684.5	41535	50	0	22.81
	20	2665.1	41341	100	0	15	2682.2	41512	75	0	22.23
	20	2660.2	41292	100	0	20	2680.0	41490	100	0	22.80

Note:

Modulation : QPSK(Full RB)

Operating frequency	PCC					SCC					Conducted.
	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Power [dBm]
Low	20	2506.0	39750	1	99	20	2525.8	39948	1	0	24.47
Mid	20	2585.6	40546	1	99	15	2602.7	40717	1	0	24.20
High	20	2665.1	41341	1	99	15	2682.2	41512	1	0	24.38
Low	20	2506.0	39750	100	0	20	2525.8	39948	100	0	21.97
Mid	20	2590.5	40595	100	0	5	2602.2	40712	25	0	21.74
High	20	2670.1	41391	100	0	10	2684.5	41535	50	0	21.95

Note:

Modulation : 16QAM

Operating frequency	PCC					SCC					Conducted.
	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Bandwidth [MHz]	Freq. (MHz)	Channel	RB	RB Offset	Power [dBm]
Low	20	2506.0	39750	1	99	20	2525.8	39948	1	0	22.10
Mid	20	2585.6	40546	1	99	15	2602.7	40717	1	0	21.82
High	20	2665.1	41341	1	99	15	2682.2	41512	1	0	21.85
Low	20	2506.0	39750	100	0	20	2525.8	39948	100	0	21.95
Mid	20	2590.5	40595	100	0	5	2602.2	40712	25	0	21.63
High	20	2670.1	41391	100	0	10	2684.5	41535	50	0	21.77

Note:

Modulation : 64QAM

9.2 Equivalent Isotropic Radiated Power

	PCC			SCC			Measured	Substitute	Ant.	C.L	Pol.	E.I.R.P	
	BW [MHz]	Channel	RB/Offset	BW [MHz]	Channel	RB/Offset	Level (dBm)	Level (dBm)	Gain (dBi)			W	dBm
Low	5	39683	25/0	20	39800	100/0	-25.21	11.81	10.70	2.51	H	0.100	20.00
	10	39703	50/0	15	39823	75/0	-25.04	11.98	10.70	2.51	H	0.104	20.17
	10	39705	50/0	20	39849	100/0	-24.98	12.00	10.70	2.51	H	0.104	20.19
	15	39725	75/0	10	39845	50/0	-25.07	11.91	10.70	2.51	H	0.102	20.10
	15	39725	75/0	15	39875	75/0	-25.04	11.94	10.70	2.51	H	0.103	20.13
	15	39728	75/0	20	39899	100/0	-25.01	11.97	10.70	2.51	H	0.104	20.16
	20	39750	100/0	5	39867	25/0	-24.73	12.25	10.70	2.51	H	0.111	20.44
	20	39750	100/0	10	39894	50/0	-24.74	12.21	10.70	2.53	H	0.109	20.39
	20	39750	100/0	15	39921	75/0	-24.69	12.26	10.70	2.53	H	0.111	20.44
	20	39750	100/0	20	39948	100/0	-24.68	12.27	10.70	2.52	H	0.111	20.45
Mid	5	40528	25/0	20	40645	100/0	-24.91	12.50	10.62	2.58	H	0.113	20.54
	10	40549	50/0	15	40669	75/0	-25.24	12.17	10.62	2.58	H	0.105	20.21
	10	40526	50/0	20	40670	100/0	-25.11	12.30	10.62	2.58	H	0.108	20.34
	15	40571	75/0	10	40691	50/0	-25.25	12.18	10.61	2.55	H	0.106	20.24
	15	40545	75/0	15	40695	75/0	-25.12	12.31	10.61	2.55	H	0.109	20.37
	15	40523	75/0	20	40694	100/0	-25.18	12.23	10.62	2.58	H	0.106	20.27
	20	40595	100/0	5	40712	25/0	-25.04	12.39	10.61	2.55	H	0.111	20.45
	20	40571	100/0	10	40715	50/0	-25.00	12.43	10.61	2.55	H	0.112	20.49
	20	40546	100/0	15	40717	75/0	-25.16	12.27	10.61	2.55	H	0.108	20.33
	20	40521	100/0	20	40719	100/0	-25.14	12.29	10.61	2.55	H	0.108	20.35
High	5	41373	25/0	20	41490	100/0	-26.29	11.65	10.75	2.62	H	0.095	19.78
	10	41395	50/0	15	41515	75/0	-26.28	11.66	10.75	2.62	H	0.095	19.79
	10	41346	50/0	20	41490	100/0	-26.23	11.71	10.75	2.62	H	0.096	19.84
	15	41417	75/0	10	41537	50/0	-26.32	11.66	10.76	2.61	H	0.096	19.81
	15	41365	75/0	15	41515	75/0	-26.32	11.62	10.75	2.62	H	0.094	19.75
	15	41319	75/0	20	41490	100/0	-26.19	11.70	10.74	2.62	H	0.096	19.82
	20	41440	100/0	5	41557	25/0	-26.65	11.33	10.76	2.61	H	0.089	19.48
	20	41391	100/0	10	41535	50/0	-26.34	11.64	10.76	2.61	H	0.095	19.79
	20	41341	100/0	15	41512	75/0	-26.31	11.63	10.75	2.62	H	0.095	19.76
	20	41292	100/0	20	41490	100/0	-26.03	11.86	10.74	2.62	H	0.100	19.98

Note:

1. Modulation : QPSK
2. Limit : < 2 Watts

PCC			SCC			Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	E.I.R.P	
BW [MHz]	Channel	RB/ Offset	BW [MHz]	Channel	RB/ Offset						W	dBm
20	39750	100/0	20	39948	100/0	-25.45	11.50	10.70	2.52	H	0.093	19.68
5	40528	25/0	20	40645	100/0	-25.61	11.80	10.62	2.58	H	0.096	19.84
10	40549	50/0	15	40669	75/0	-25.96	11.45	10.62	2.58	H	0.089	19.49
10	40526	50/0	20	40670	100/0	-25.84	11.57	10.62	2.58	H	0.091	19.61
15	40571	75/0	10	40691	50/0	-25.93	11.50	10.61	2.55	H	0.090	19.56
15	40545	75/0	15	40695	75/0	-25.81	11.62	10.61	2.55	H	0.093	19.68
15	40523	75/0	20	40694	100/0	-25.90	11.51	10.62	2.58	H	0.090	19.55
20	40595	100/0	5	40712	25/0	-25.73	11.70	10.61	2.55	H	0.095	19.76
20	40571	100/0	10	40715	50/0	-25.71	11.72	10.61	2.55	H	0.095	19.78
20	40546	100/0	15	40717	75/0	-25.78	11.65	10.61	2.55	H	0.094	19.71
20	40521	100/0	20	40719	100/0	-25.88	11.55	10.61	2.55	H	0.091	19.61
20	41292	100/0	20	41490	100/0	-26.86	11.03	10.74	2.62	H	0.082	19.15

Note:

1. Modulation : 16QAM
2. Limit : < 2 Watts

PCC			SCC			Measured Level (dBm)	Substitute Level (dBm)	Ant. Gain (dBi)	C.L	Pol.	E.I.R.P	
BW [MHz]	Channel	RB/ Offset	BW [MHz]	Channel	RB/ Offset						W	dBm
20	39750	100/0	20	39948	100/0	-27.70	9.25	10.70	2.52	H	0.055	17.43
5	40528	25/0	20	40645	100/0	-27.79	9.62	10.62	2.58	H	0.058	17.66
10	40549	50/0	15	40669	75/0	-28.10	9.31	10.62	2.58	H	0.054	17.35
10	40526	50/0	20	40670	100/0	-28.10	9.31	10.62	2.58	H	0.054	17.35
15	40571	75/0	10	40691	50/0	-28.11	9.32	10.61	2.55	H	0.055	17.38
15	40545	75/0	15	40695	75/0	-27.98	9.45	10.61	2.55	H	0.056	17.51
15	40523	75/0	20	40694	100/0	-28.10	9.31	10.62	2.58	H	0.054	17.35
20	40595	100/0	5	40712	25/0	-27.98	9.45	10.61	2.55	H	0.056	17.51
20	40571	100/0	10	40715	50/0	-27.95	9.48	10.61	2.55	H	0.057	17.54
20	40546	100/0	15	40717	75/0	-28.10	9.33	10.61	2.55	H	0.055	17.39
20	40521	100/0	20	40719	100/0	-27.93	9.50	10.61	2.55	H	0.057	17.56
20	41292	100/0	20	41490	100/0	-29.03	8.86	10.74	2.62	H	0.050	16.98

Note:

1. Modulation : 64QAM
2. Limit : < 2 Watts

9.3 Conducted Spurious Emissions

Operating frequency	PCC				SCC				Measurement	Factor (dB)	Measurement	Result (dBm)
	BW [MHz]	Ch.	Freq. (MHz)	RB/ Offset	BW [MHz]	Ch.	Freq. (MHz)	RB/ Offset	Maximum Frequency (GHz)		Maximum Data (dBm)	
Low	20	39750	2506.0	1/99	20	39948	2525.8	1/0	3.8784	27.9760	-60.74	-32.76
Mid	20	40546	2585.6	1/99	15	40717	2602.7	1/0	3.9283	27.9760	-61.27	-33.29
High	20	41341	2665.1	1/99	15	41512	2682.2	1/0	4.9851	27.9760	-62.67	-34.69
Low	20	39750	2506.0	1/0	20	39948	2525.8	1/99	4.0778	27.9600	-62.17	-34.21
Mid	20	40546	2585.6	1/0	15	40717	2602.7	1/74	4.8256	27.9760	-61.13	-33.15
High	20	41341	2665.1	1/0	15	41512	2682.2	1/74	8.8136	28.5910	-62.76	-34.17
Low	20	39750	2506.0	100/0	20	39948	2525.8	100/0	4.7658	27.9760	-61.86	-33.89
Mid	20	40595	2590.5	100/0	5	40712	2602.2	25/0	4.9851	27.9760	-62.33	-34.35
High	20	41391	2670.1	100/0	10	41535	2684.5	50/0	4.5863	27.9760	-62.09	-34.12
Mid	20	40521	2583.1	100/0	20	40719	2602.9	100/0	4.3570	27.9760	-62.02	-34.04
High	20	41292	2660.2	100/0	20	41490	2680.0	100/0	3.7089	27.9760	-62.16	-34.18

Note:

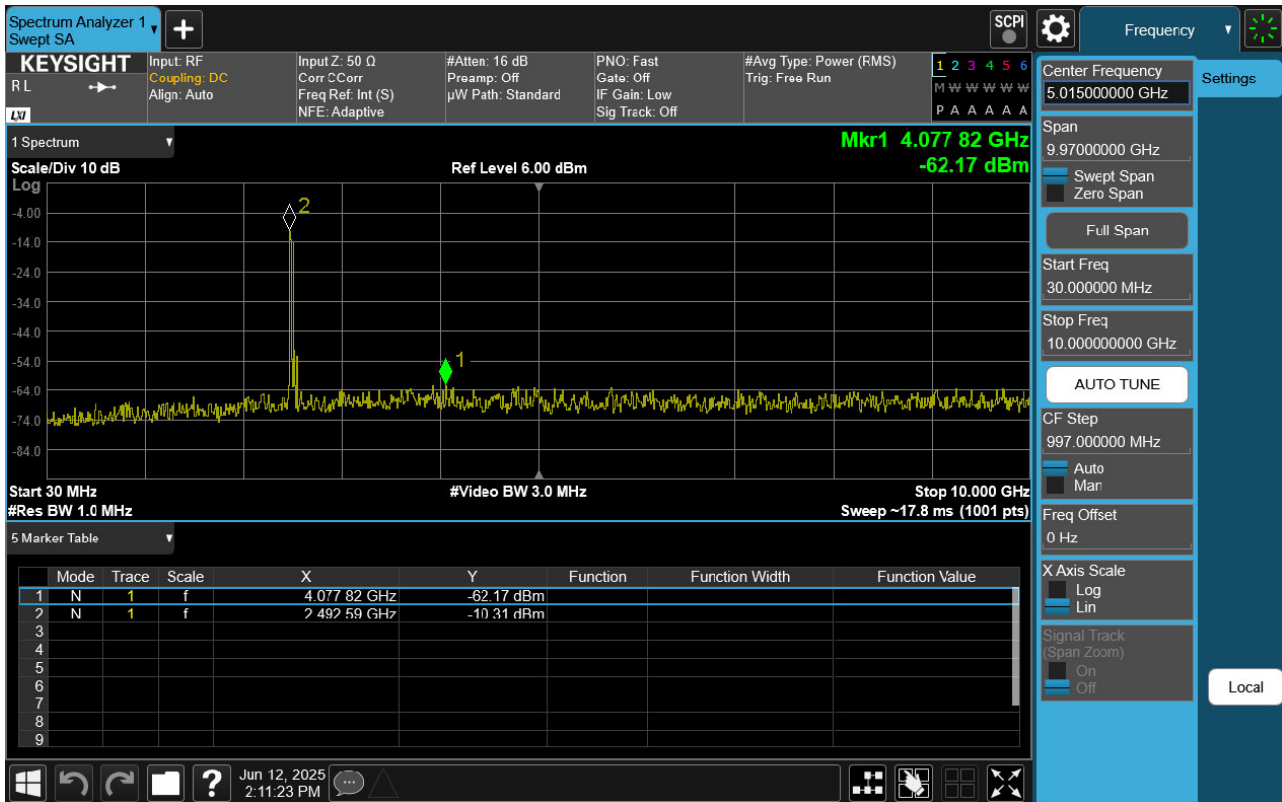
1. Modulation : See Section 9.
2. Result (dBm) = Measurement Maximum Data (dBm) + Factor (dB)
3. Factor(dB) = Cable Loss + Attenuator + Power Splitter

Frequency Range (GHz)	Factor [dB]
0.03 – 1	25.270
1 – 5	27.976
5 – 10	28.591
10 – 15	29.116
15 – 20	29.489
Above 20(26.5)	30.131

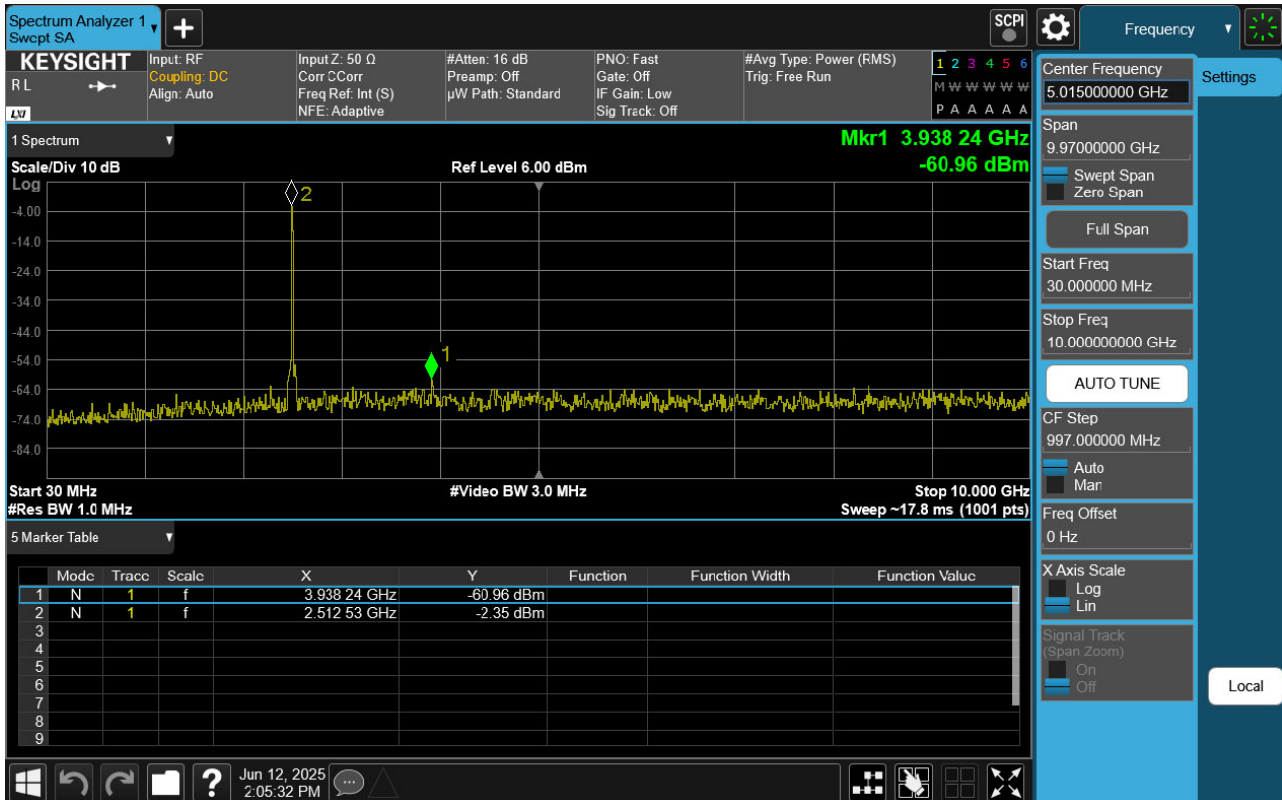
4. Limit : -25.0 dBm

Frequency Range : 30 MHz ~ 10 GHz

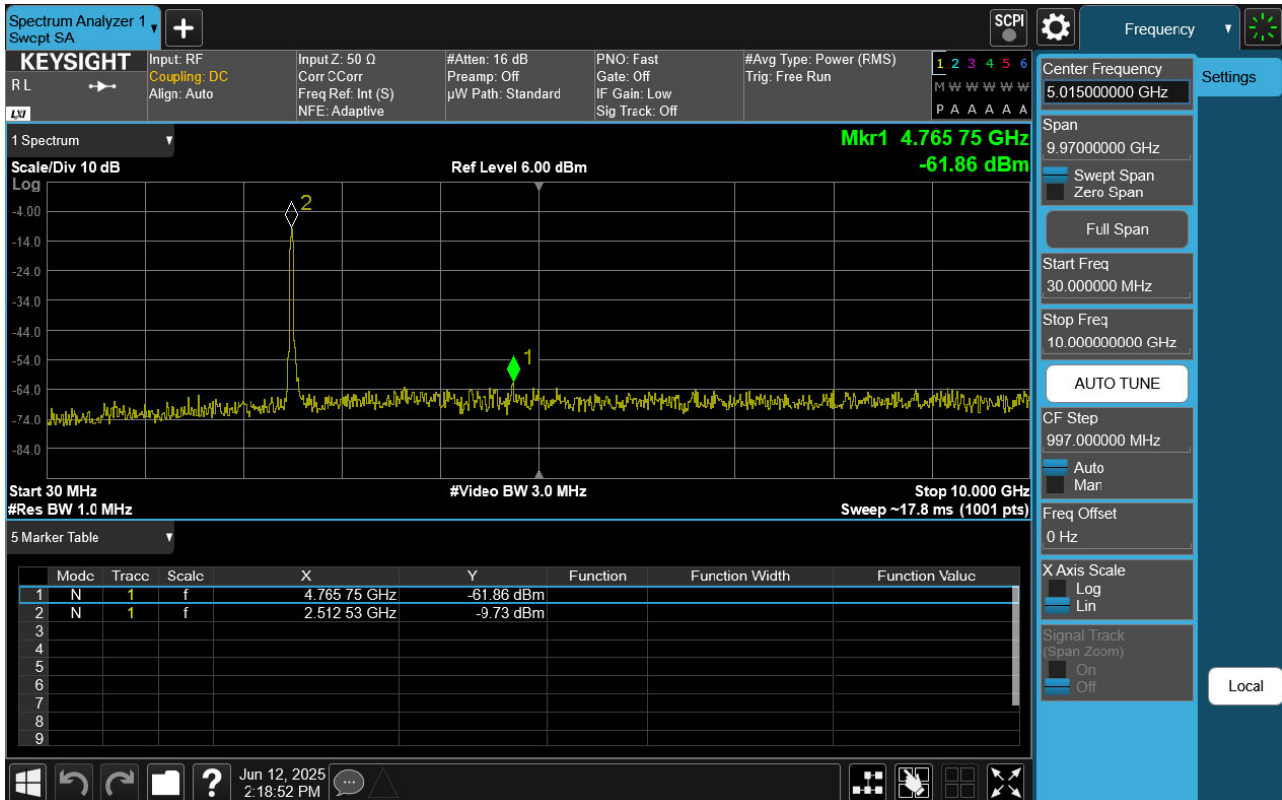
PCC 20MHz Ch39750 RB1 Offset0 SCC 20MHz Ch39948 RB1 Offset99



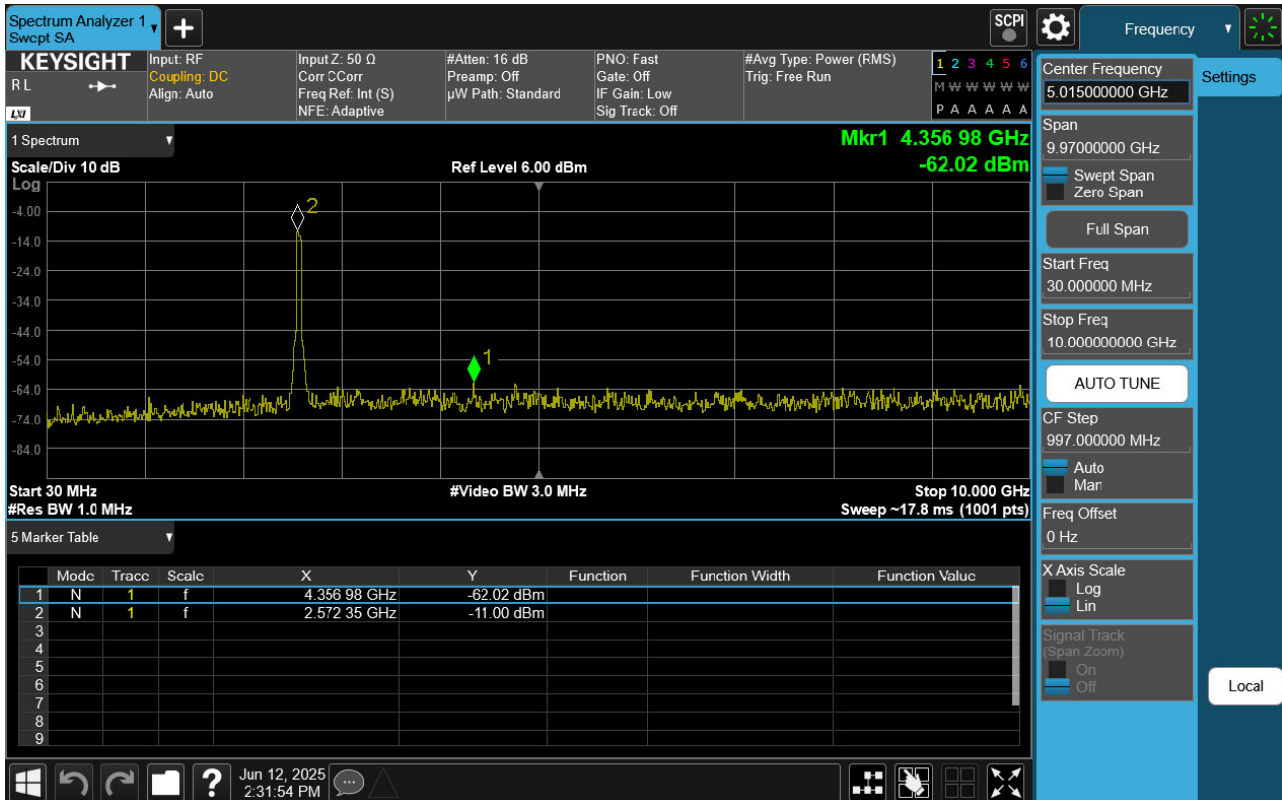
PCC 20MHz Ch39750 RB1 Offset99 SCC 20MHz Ch39948 RB1 Offset0



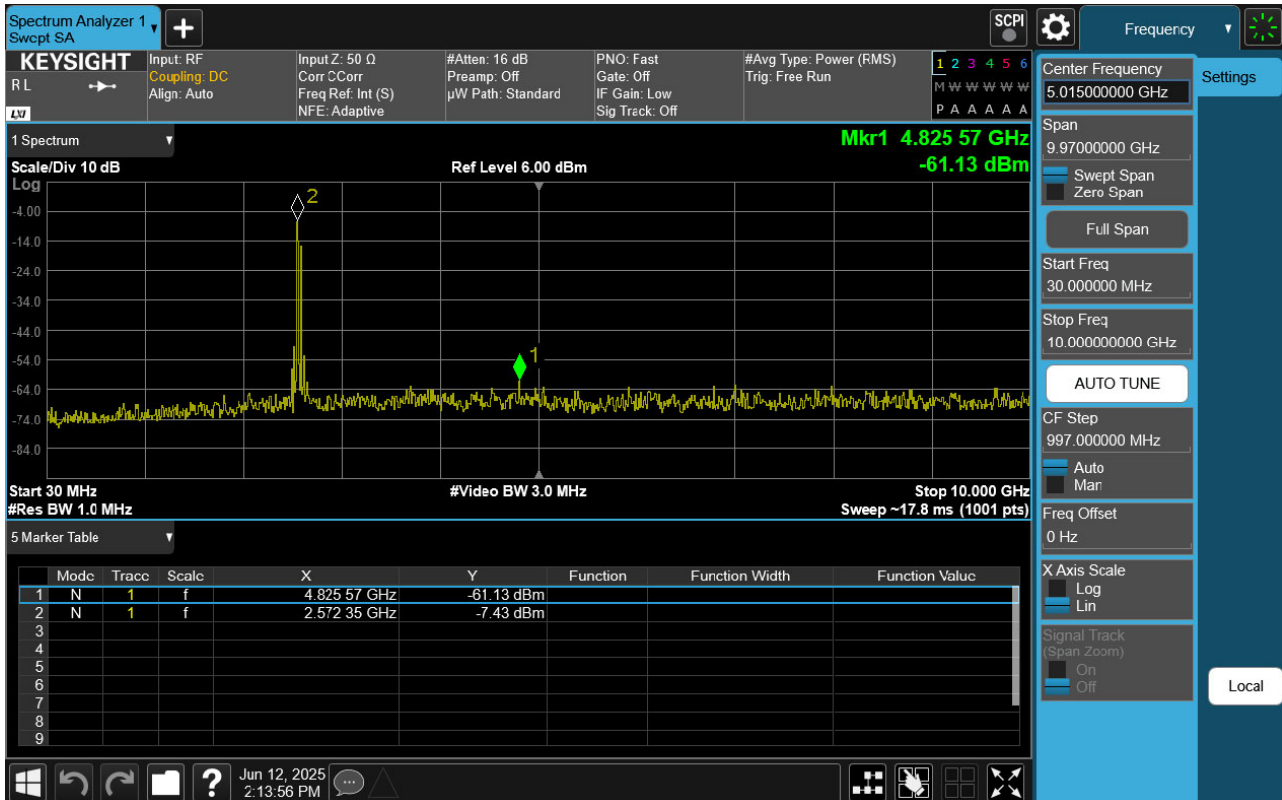
PCC 20MHz Ch39750 RB100 Offset0 SCC 20MHz Ch39948 RB100 Offset0



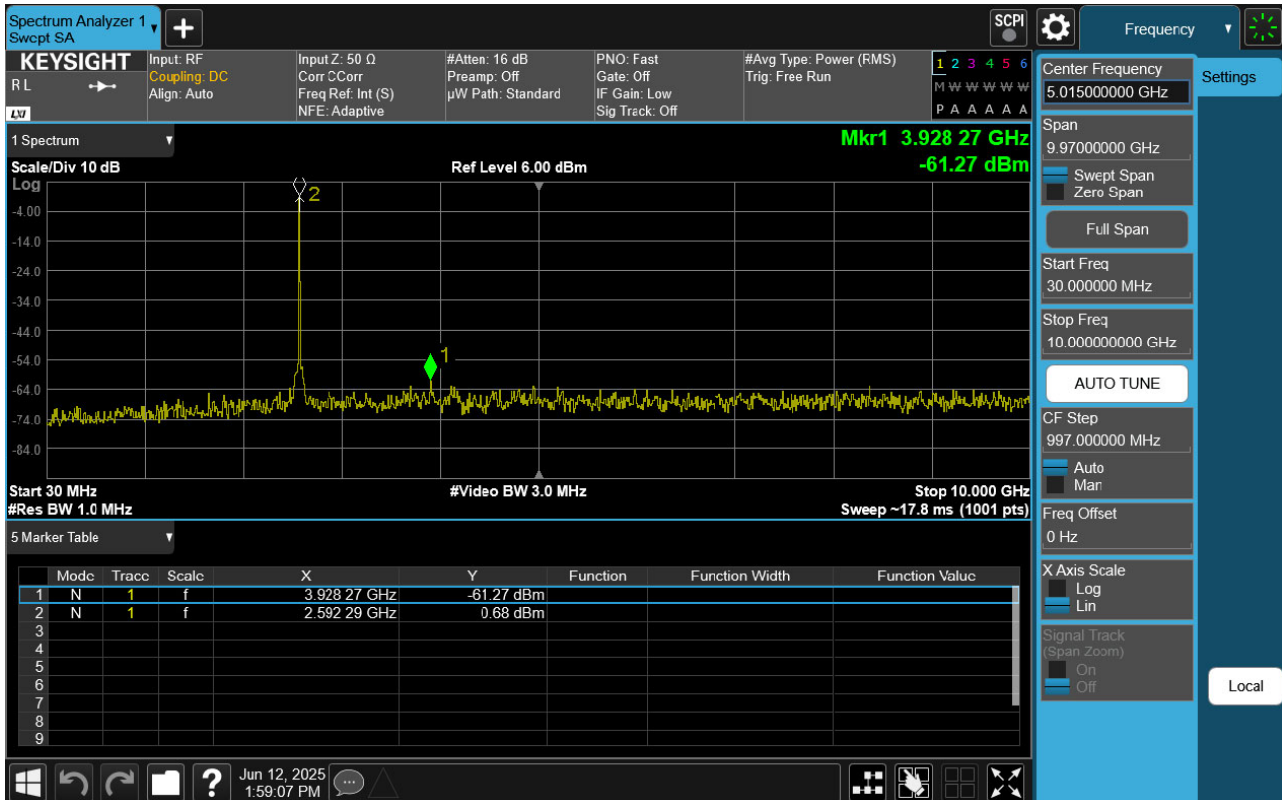
PCC 20MHz Ch40521 RB100 Offset0 SCC 20MHz Ch40719 RB100 Offset0



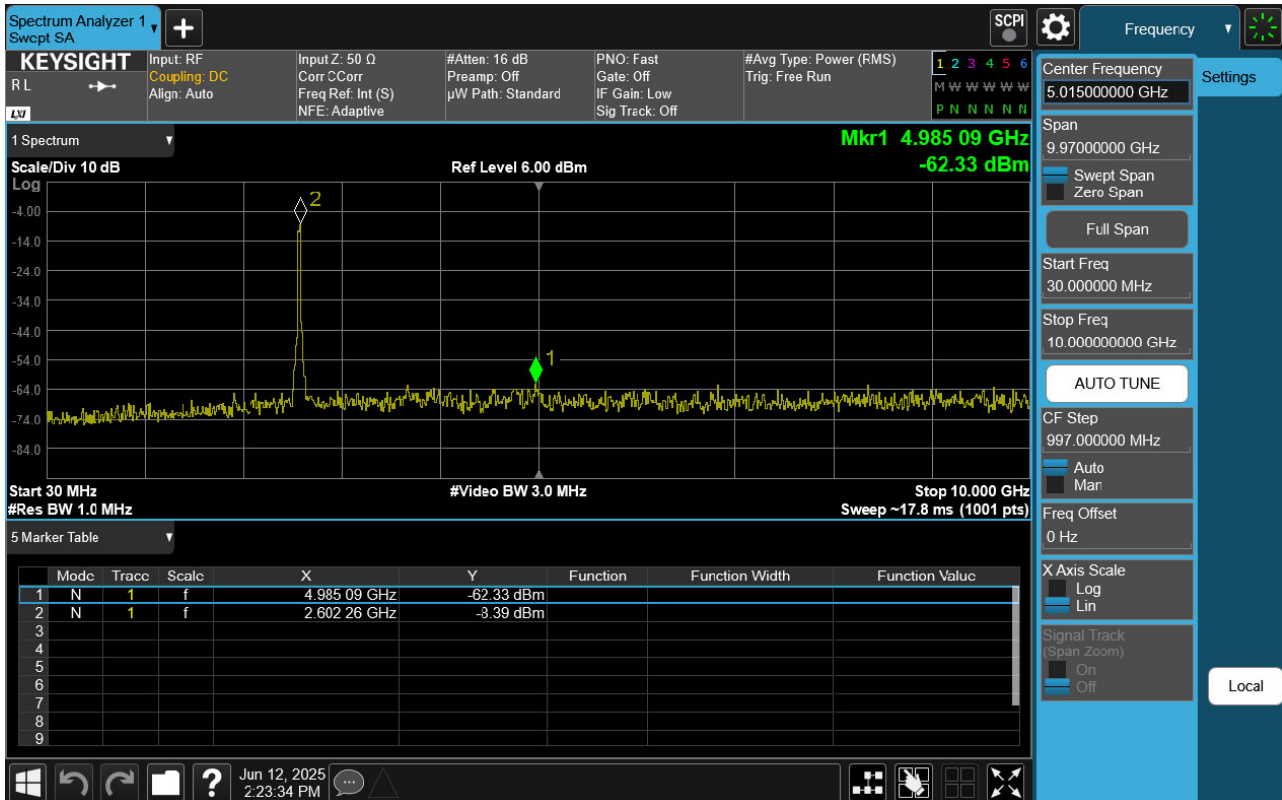
PCC 20MHz Ch40546 RB1 Offset0 SCC 15MHz Ch40717 RB1 Offset74



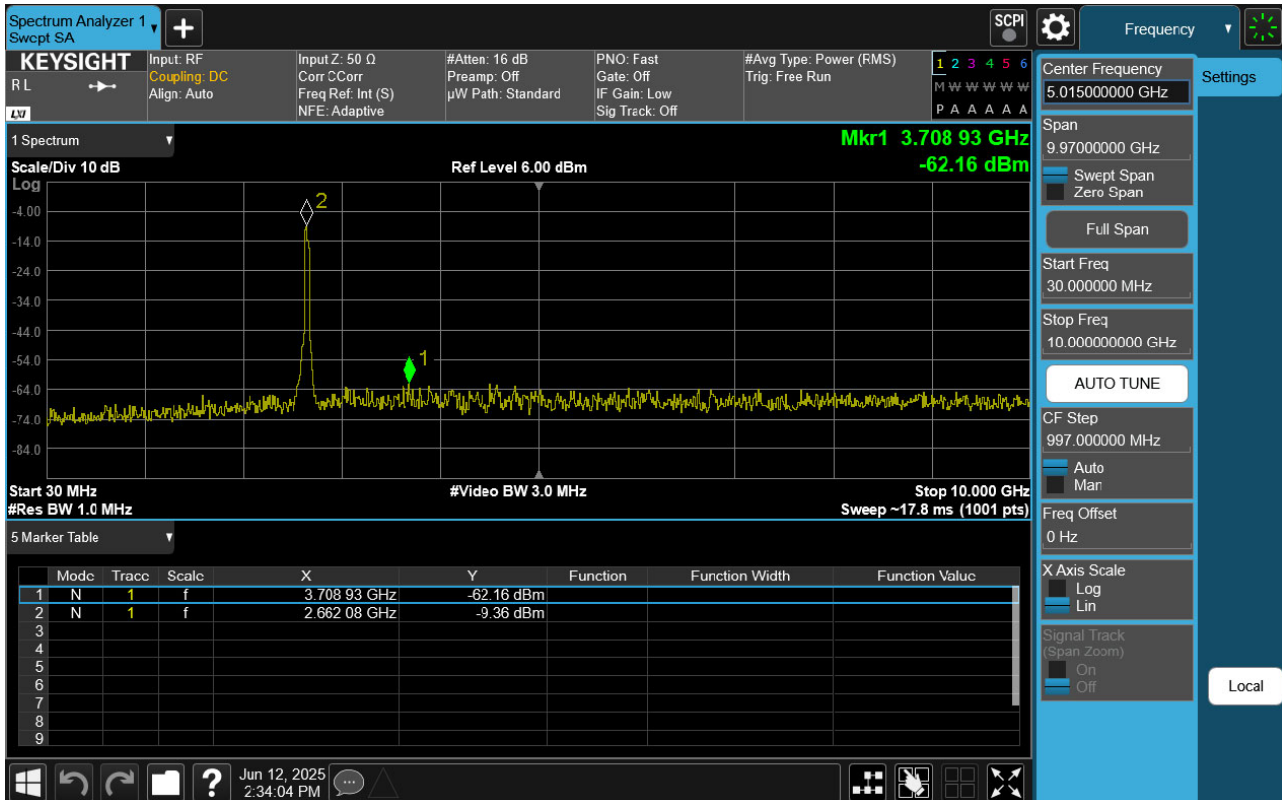
PCC 20MHz Ch40546 RB1 Offset99 SCC 15MHz Ch40717 RB1 Offset0



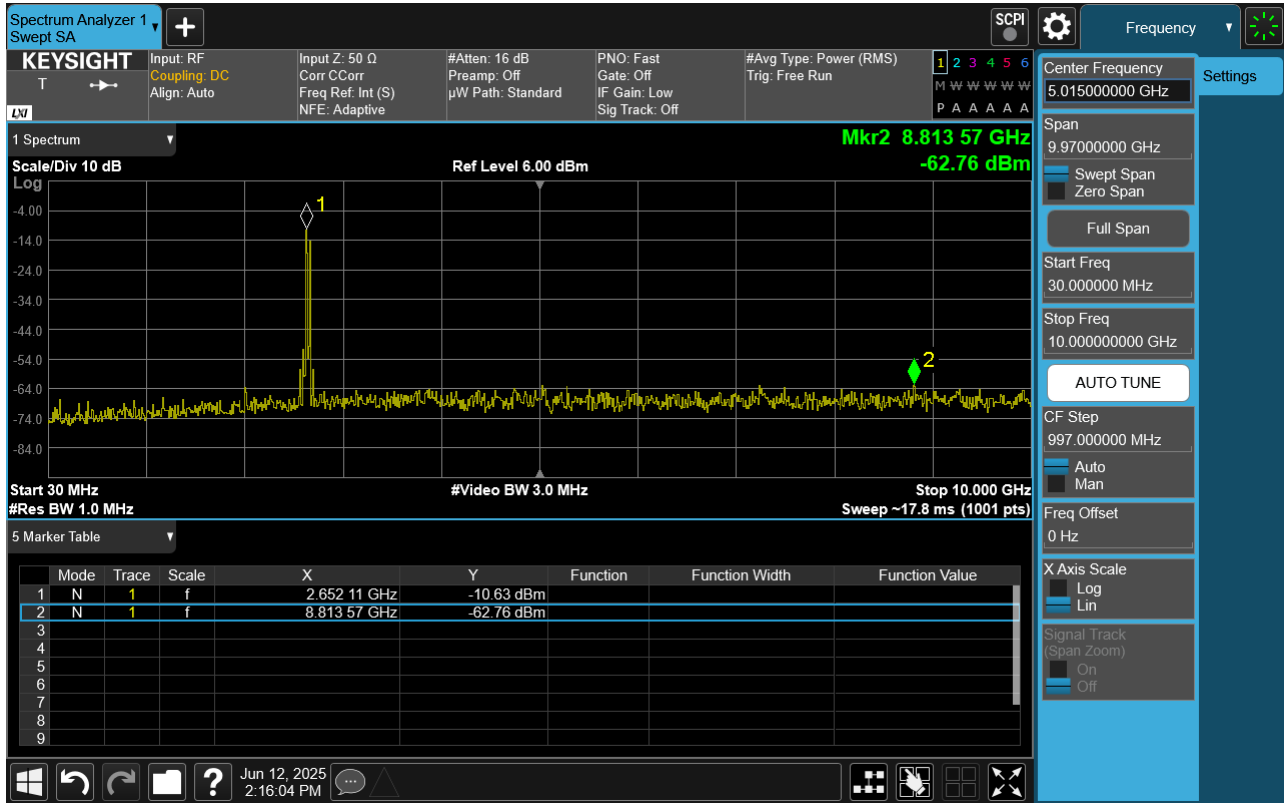
PCC 20MHz Ch40595 RB100 Offset0 SCC 5MHz Ch40712 RB25 Offset0



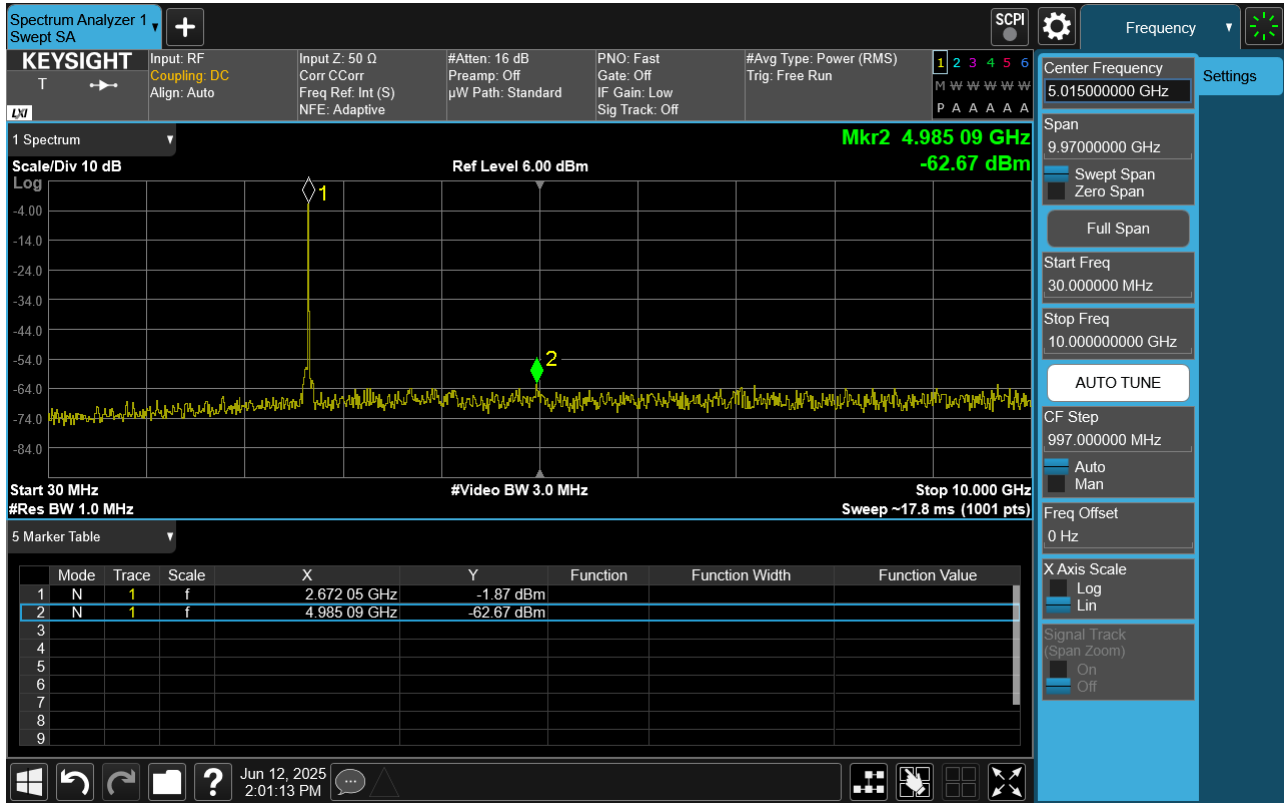
PCC 20MHz Ch41292 RB100 Offset0 SCC 20MHz Ch41490 RB100 Offset0



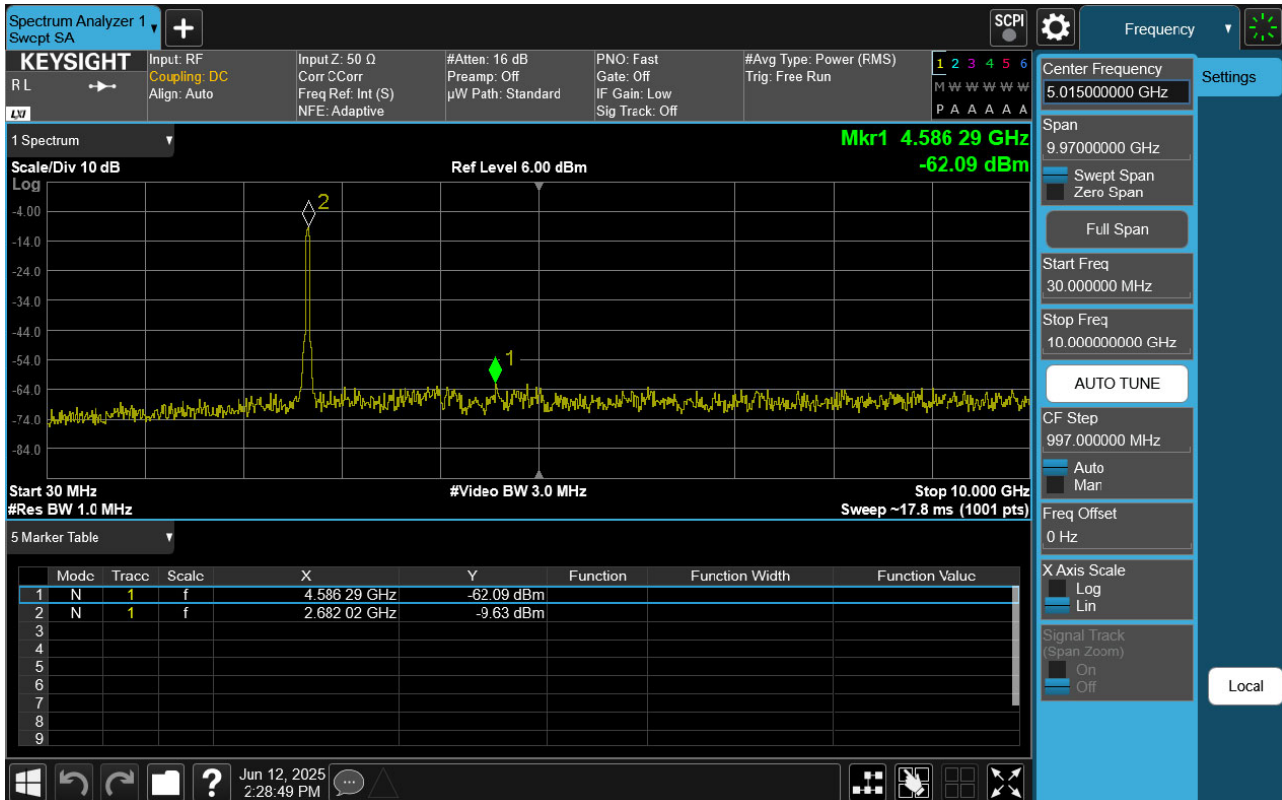
PCC 20MHz Ch41341 RB1 Offset0 SCC 15MHz Ch41512 RB1 Offset74



PCC 20MHz Ch41341 RB1 Offset99 SCC 15MHz Ch41512 RB1 Offset0

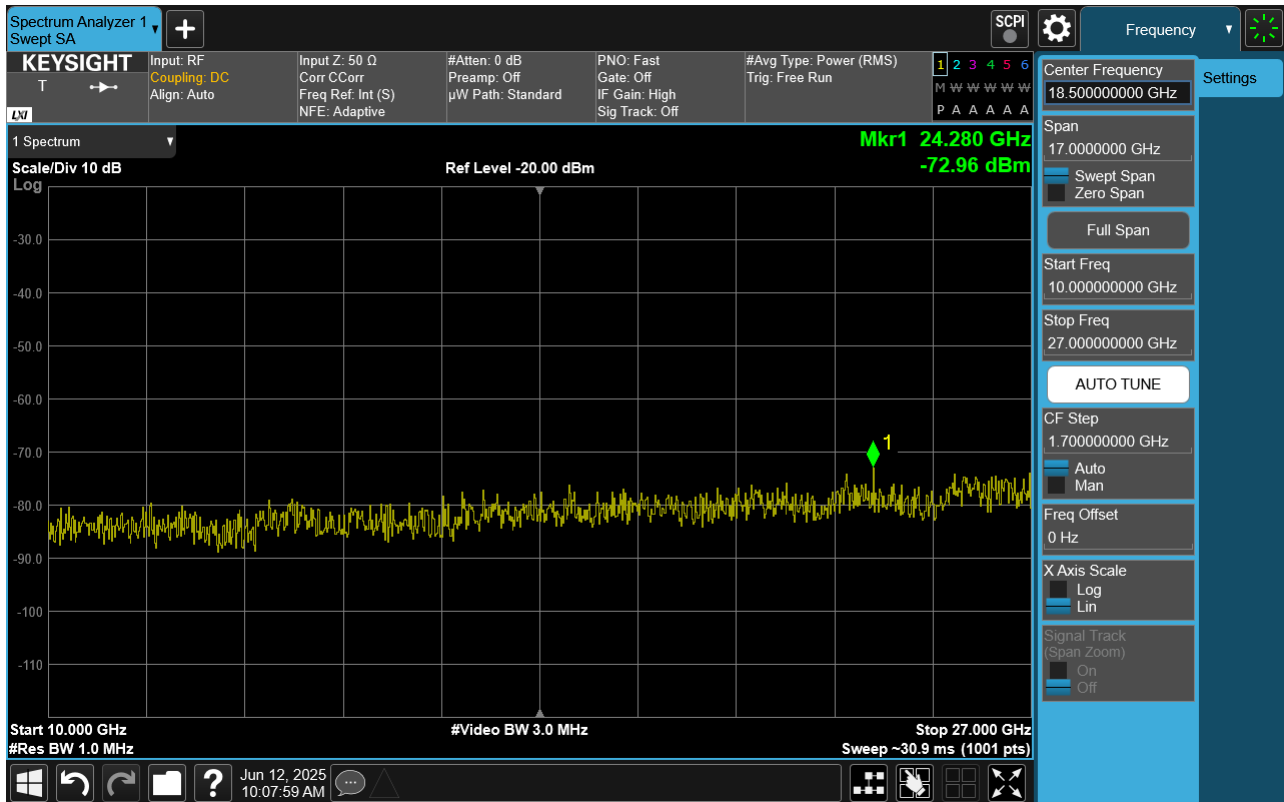


PCC 20MHz Ch41391 RB100 Offset0 SCC 10MHz Ch41535 RB50 Offset0

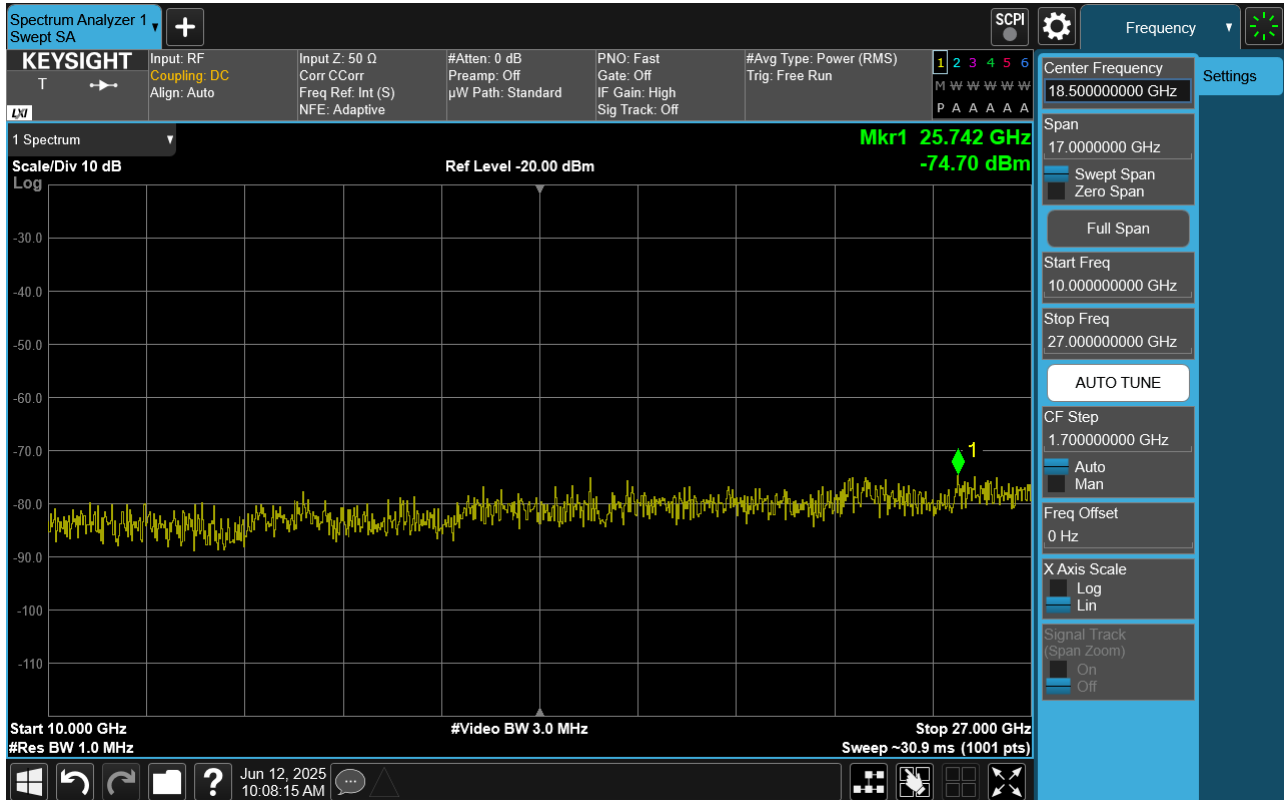


Frequency Range : above 10 GHz

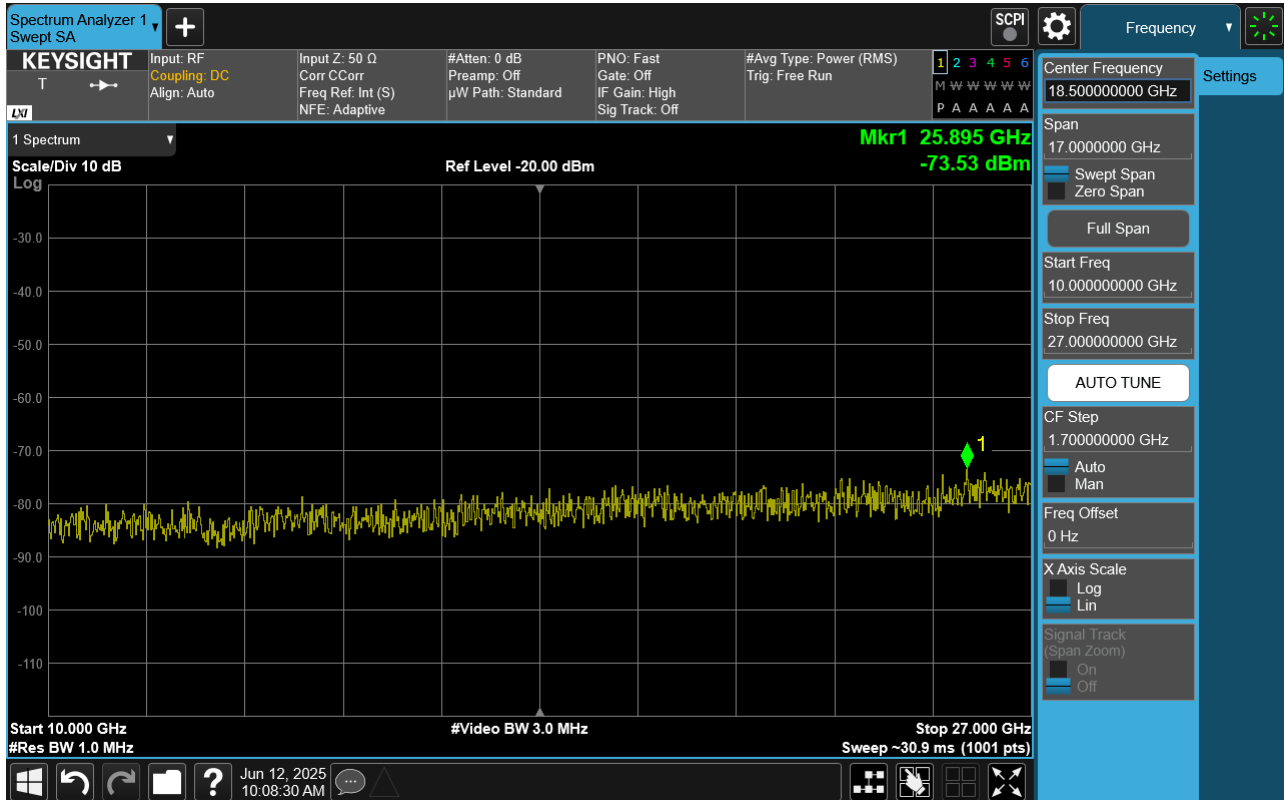
PCC 20MHz Ch39750 RB1 Offset0, SCC 20MHz Ch39948 RB1 Offset99



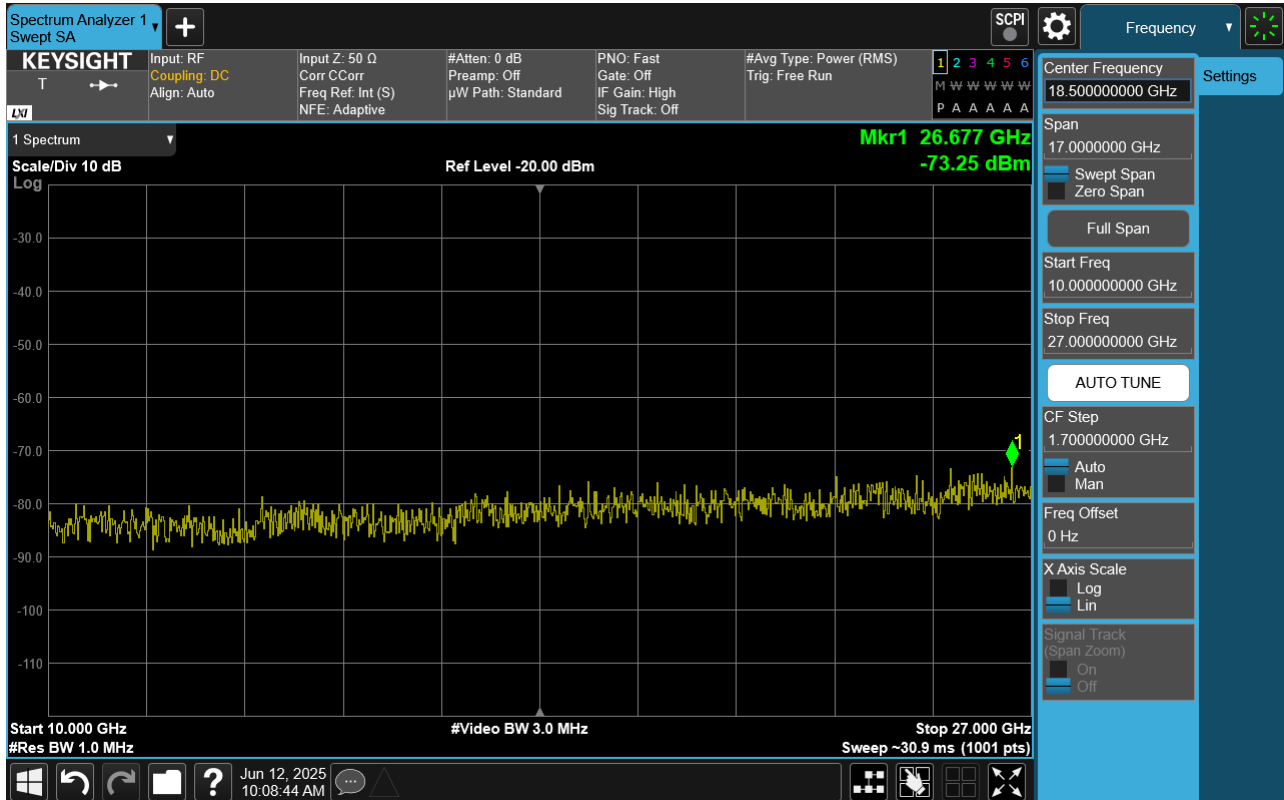
PCC 20MHz Ch39750 RB1 Offset99, SCC 20MHz Ch39948 RB1 Offset0



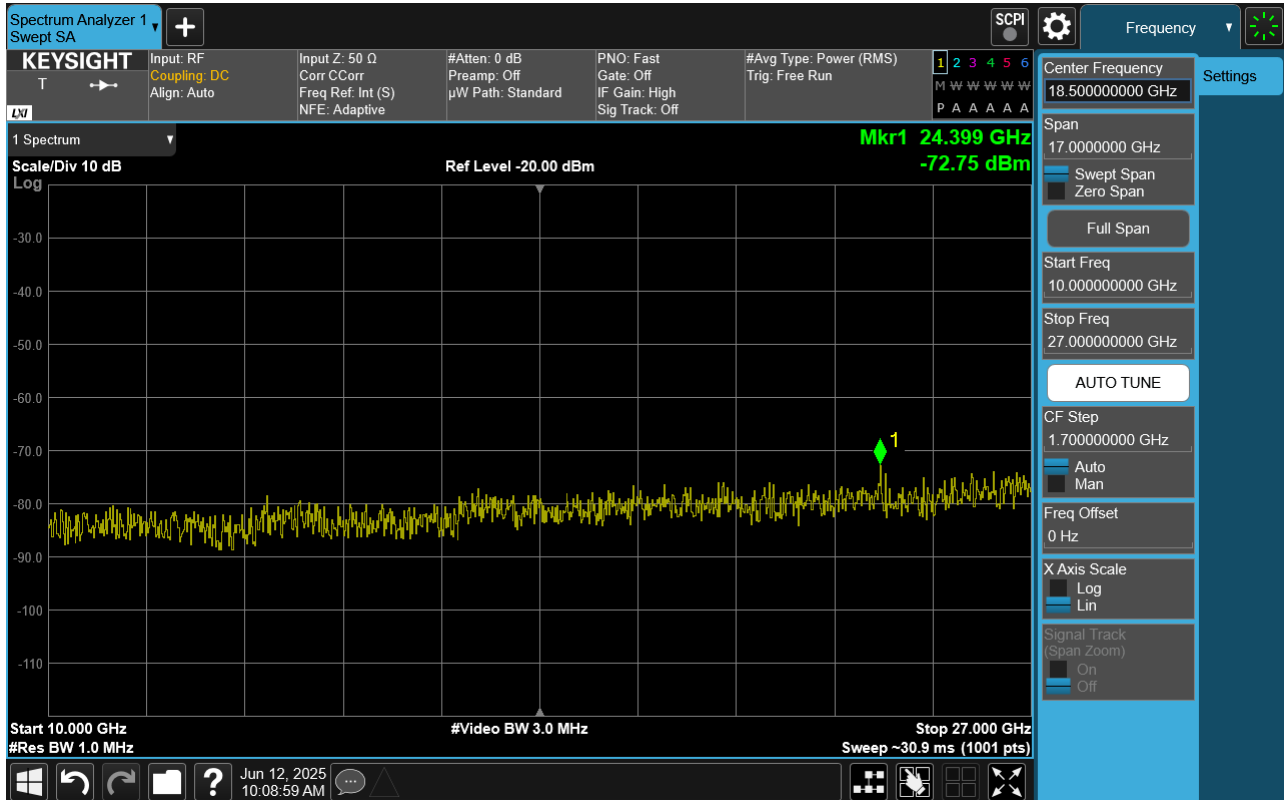
PCC 20MHz Ch39750 RB100 Offset0, SCC 20MHz Ch39948 RB100 Offset0



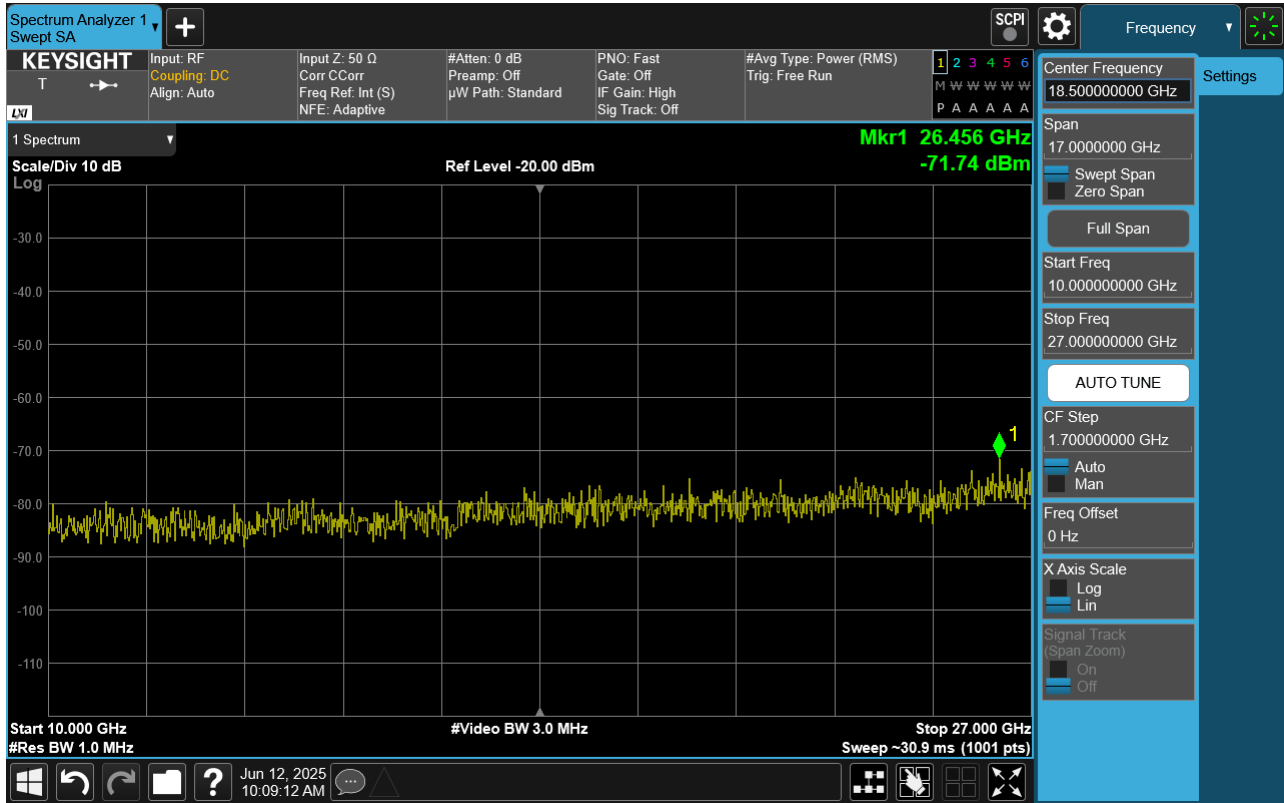
PCC 20MHz Ch40521 RB100 Offset0, SCC 20MHz Ch40719 RB100 Offset0



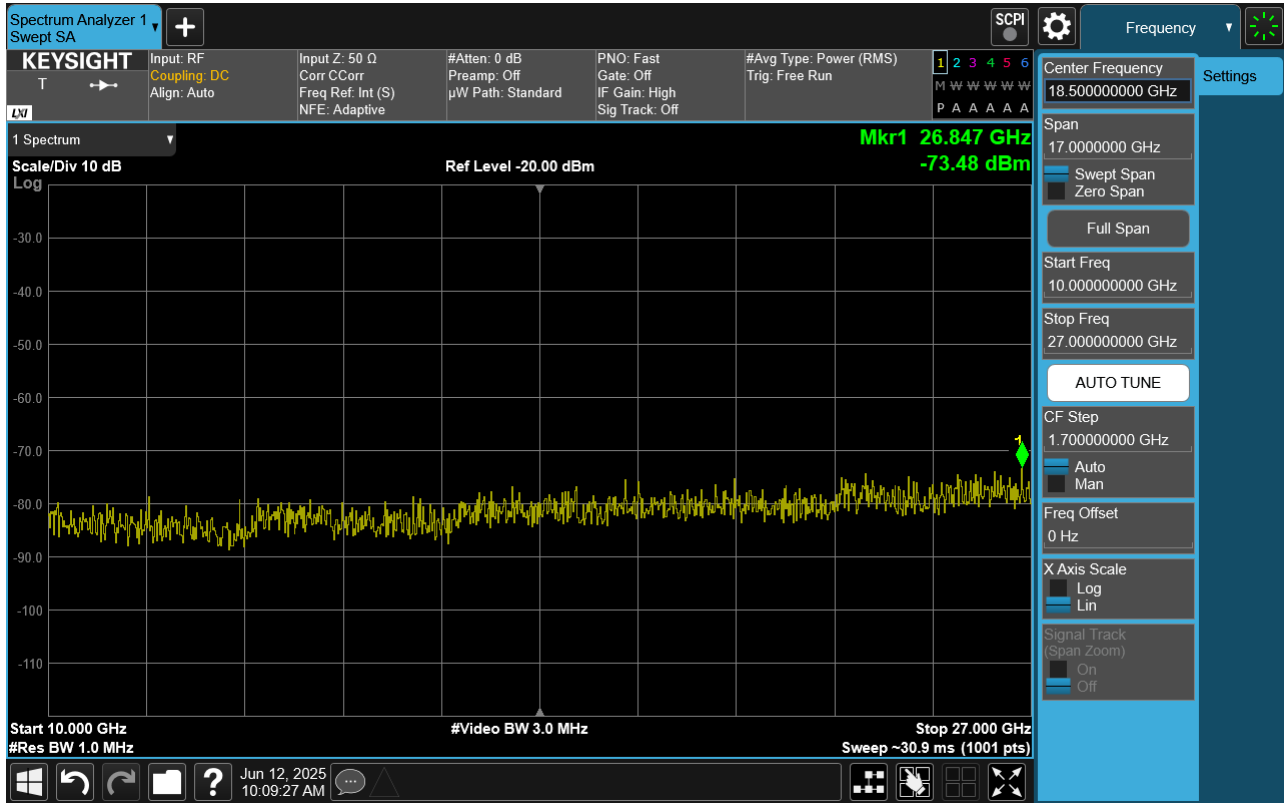
PCC 20MHz Ch40546 RB1 Offset0, SCC 15MHz Ch40717 RB1 Offset74



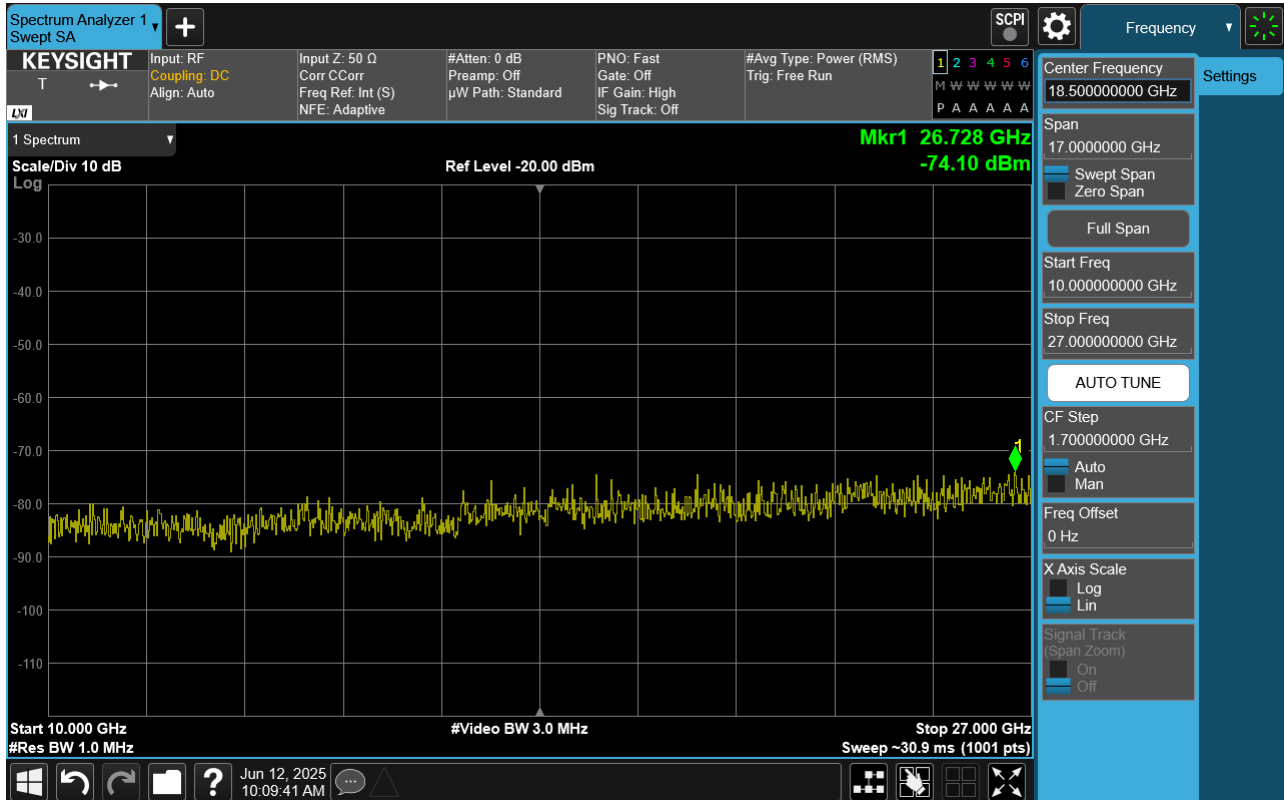
PCC 20MHz Ch40546 RB1 Offset99, SCC 15MHz Ch40717 RB1 Offset0



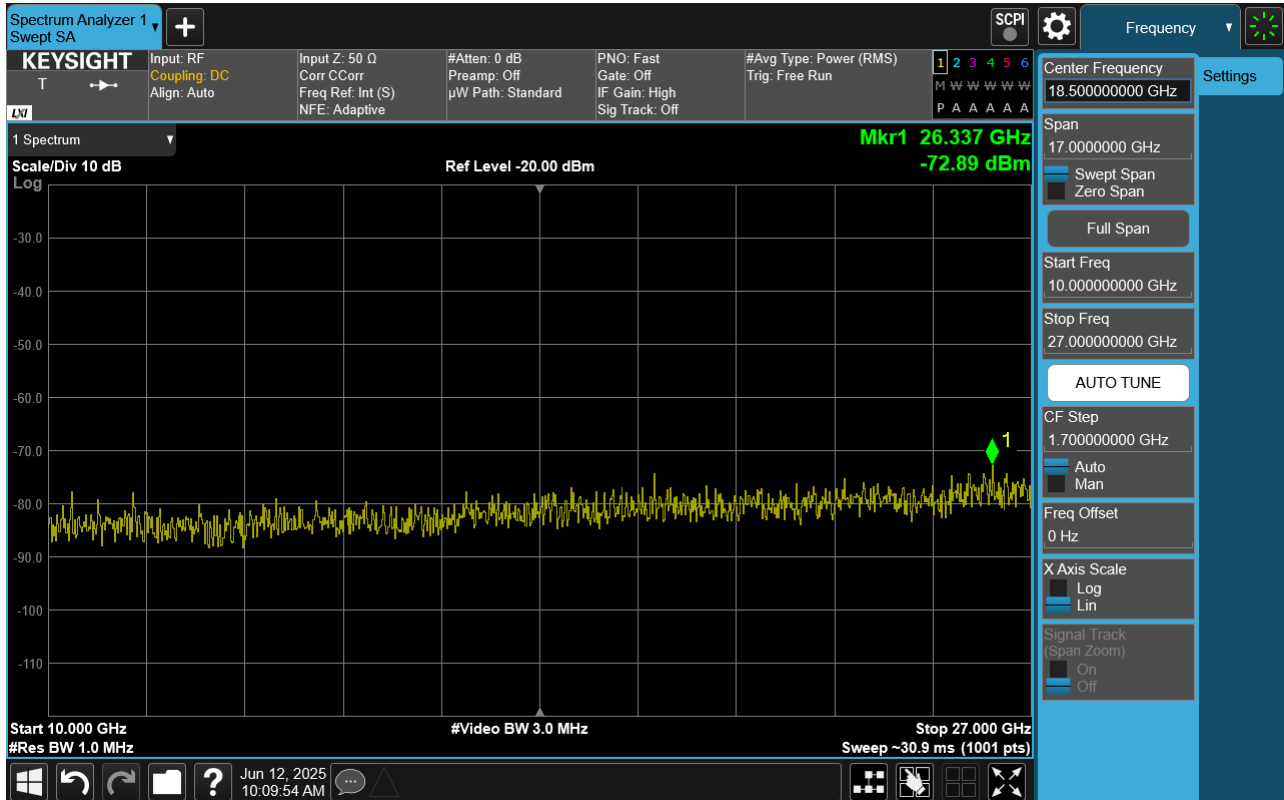
PCC 20MHz Ch40595 RB100 Offset0, SCC 5MHz Ch40712 RB25 Offset0



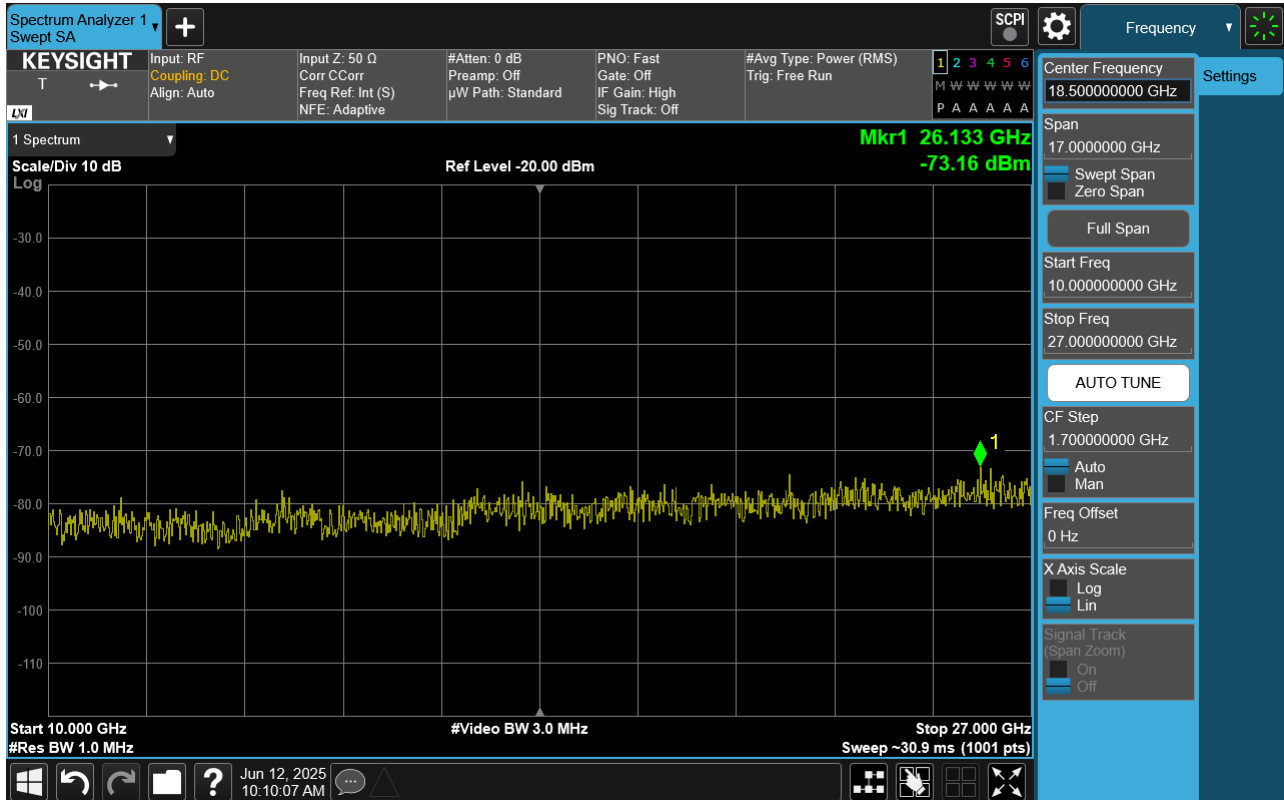
PCC 20MHz Ch41292 RB100 Offset0, SCC 20MHz Ch41490 RB100 Offset0



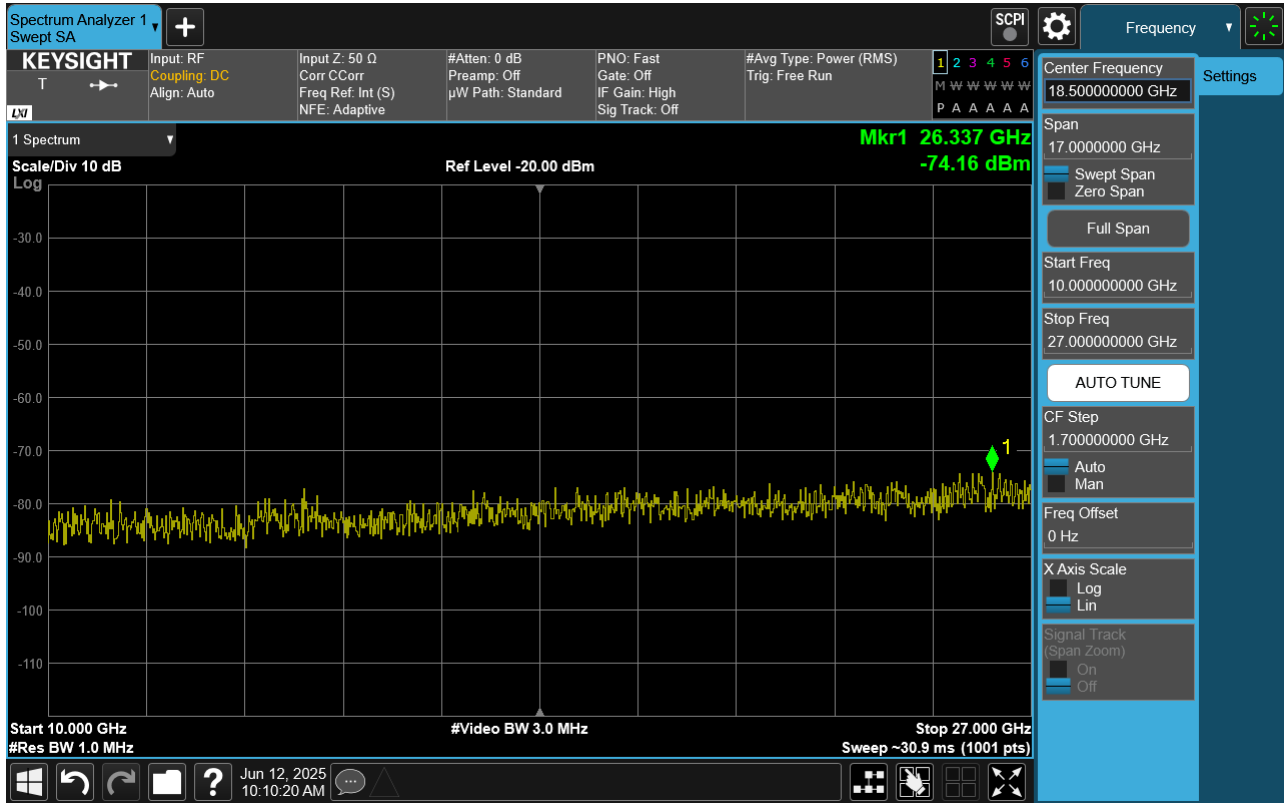
PCC 20MHz Ch41341 RB1 Offset0, SCC 15MHz Ch41512 RB1 Offset74



PCC 20MHz Ch41341 RB1 Offset99, SCC 15MHz Ch41512 RB1 Offset0

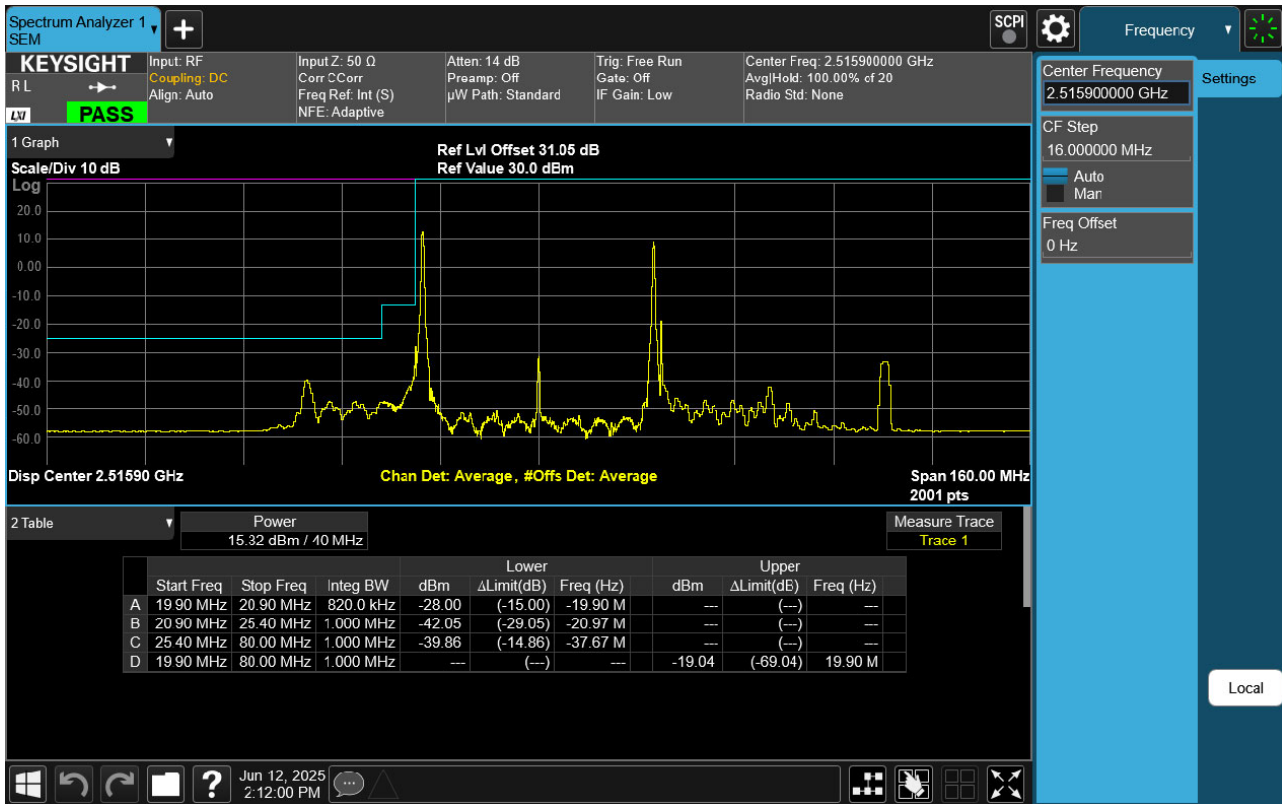


PCC 20MHz Ch41391 RB100 Offset0, SCC 10MHz Ch41535 RB50 Offset0

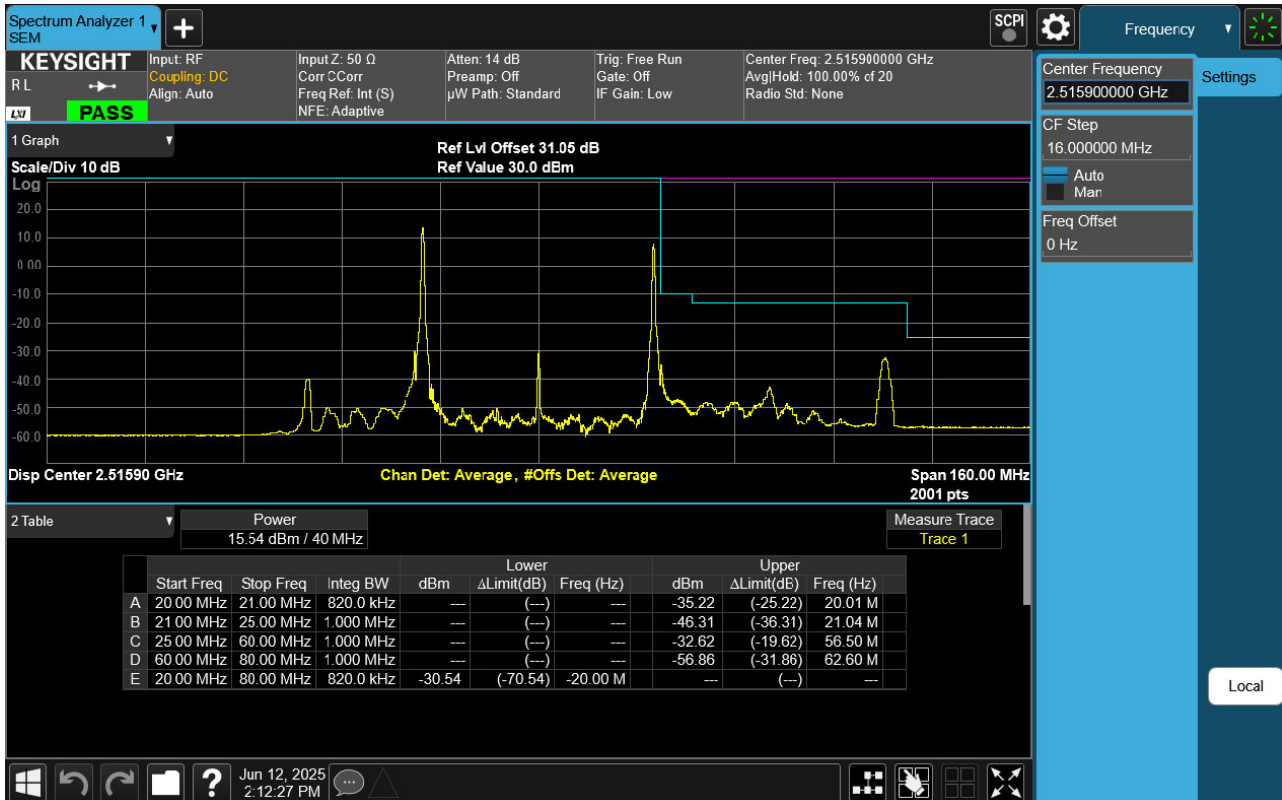


9.4 Channel Edge

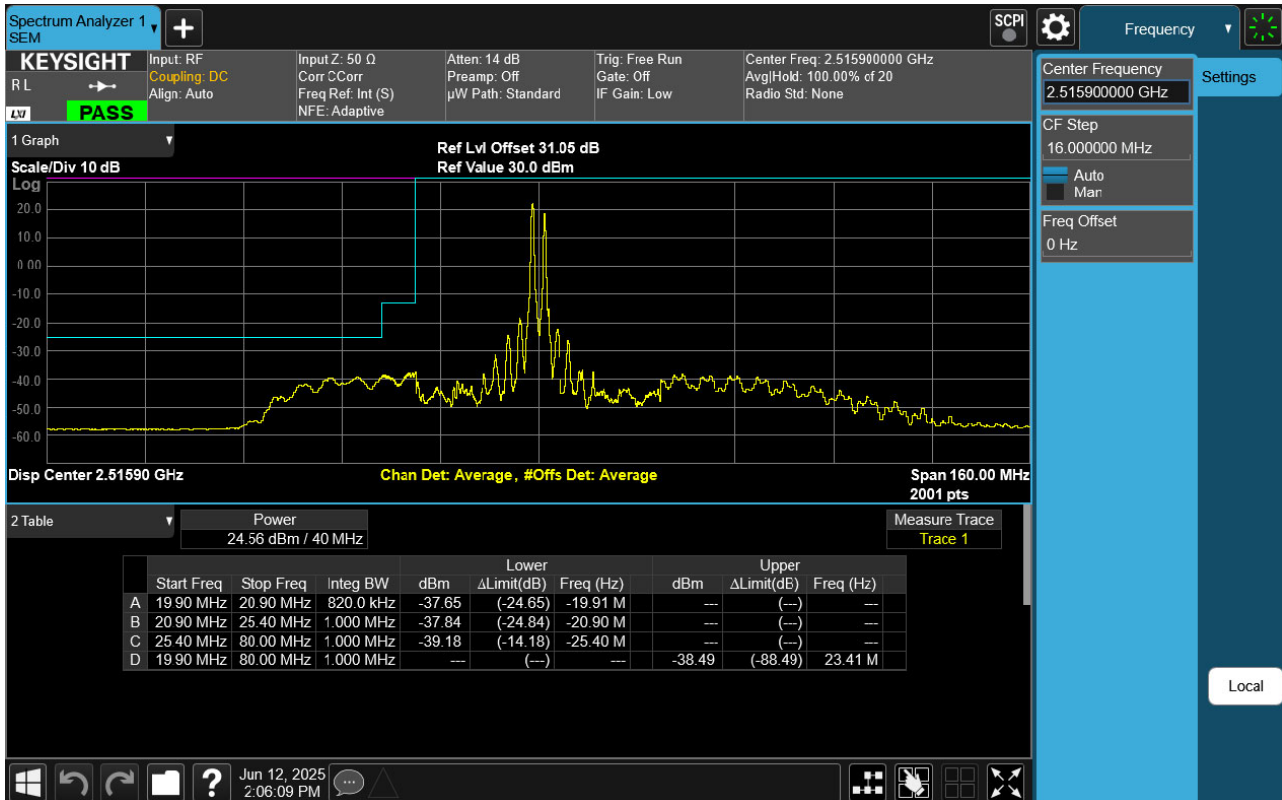
PCC 20MHz Ch39750 RB1 Offset0, SCC 20MHz Ch39948 RB1 Offset99-1



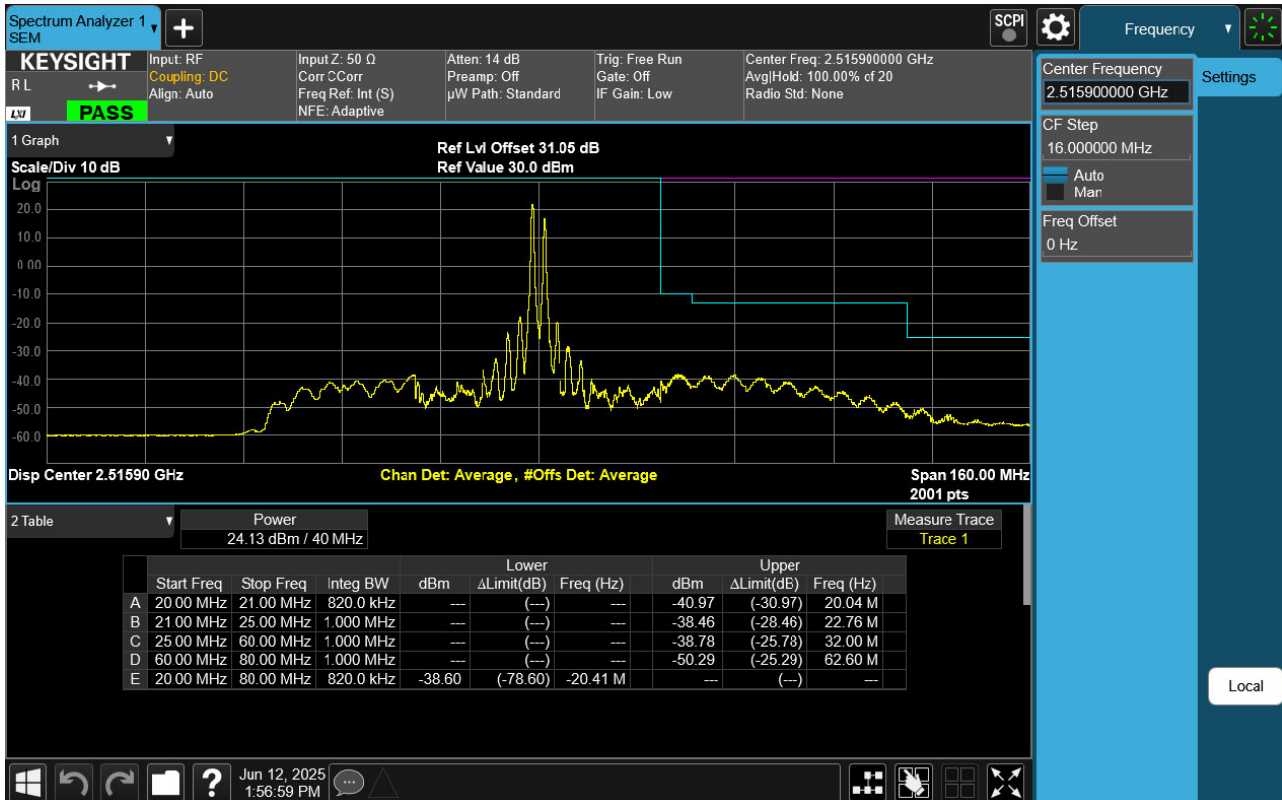
PCC 20MHz Ch39750 RB1 Offset0, SCC 20MHz Ch39948 RB1 Offset99-2



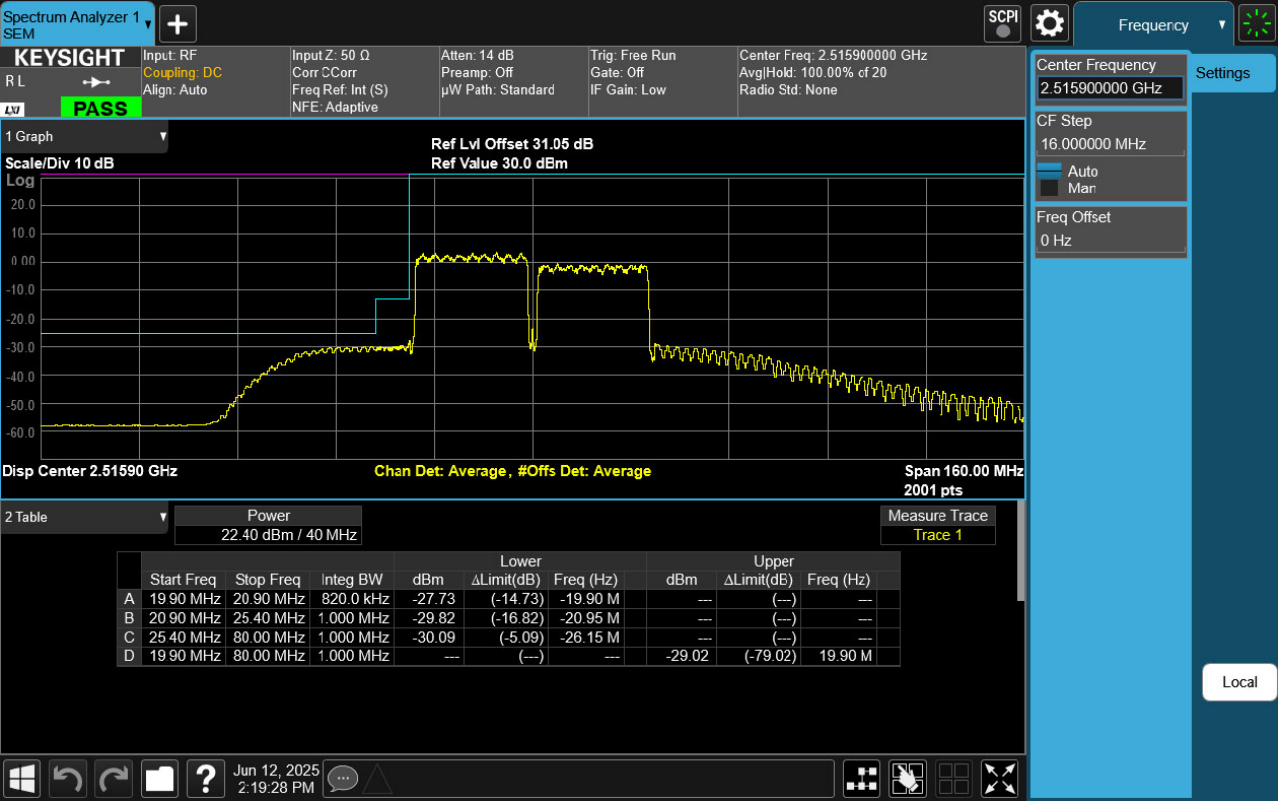
PCC 20MHz Ch39750 RB1 Offset99, SCC 20MHz Ch39948 RB1 Offset0-1



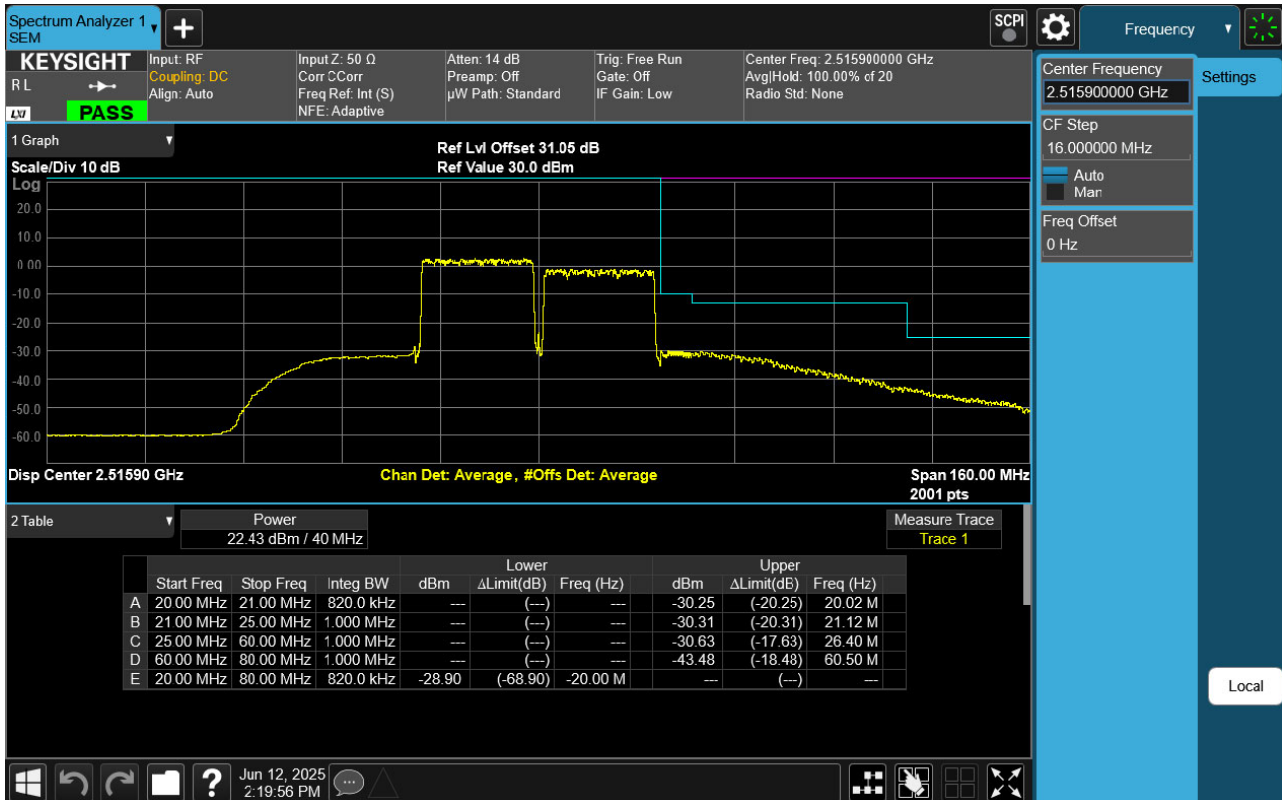
PCC 20MHz Ch39750 RB1 Offset99, SCC 20MHz Ch39948 RB1 Offset0-2



PCC 20MHz Ch39750 RB100 Offset0, SCC 20MHz Ch39948 RB100 Offset0-1



PCC 20MHz Ch39750 RB100 Offset0, SCC 20MHz Ch39948 RB100 Offset0-2



PCC 20MHz Ch40521 RB100 Offset0, SCC 20MHz Ch40719 RB100 Offset0

