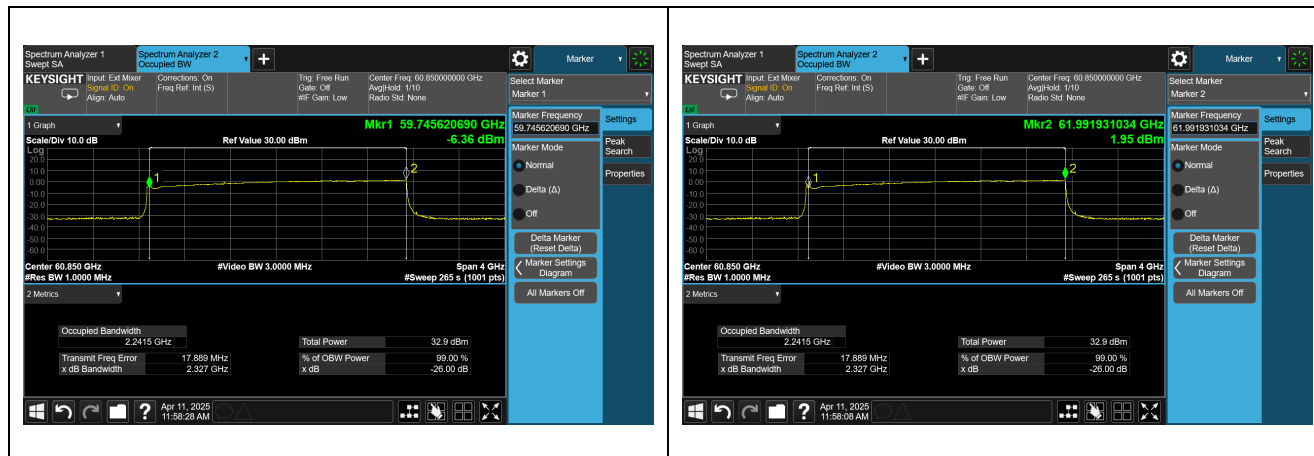

Appendix A. Test Result of AC Power Line Conducted Emission

The EUT was powered by battery. It's not necessary to apply to AC Power Line Conducted Emission test.

Appendix B. Test Result of Occupied Bandwidth

Test Frequency (GHz)	Occupied Bandwidth (GHz)	Measurement Value (fL) (GHz)	Measurement Value (fH) (GHz)	Limit
60.85	2.24	59.74	61.99	fL ≥ 57 GHz, fH ≤ 64 GHz

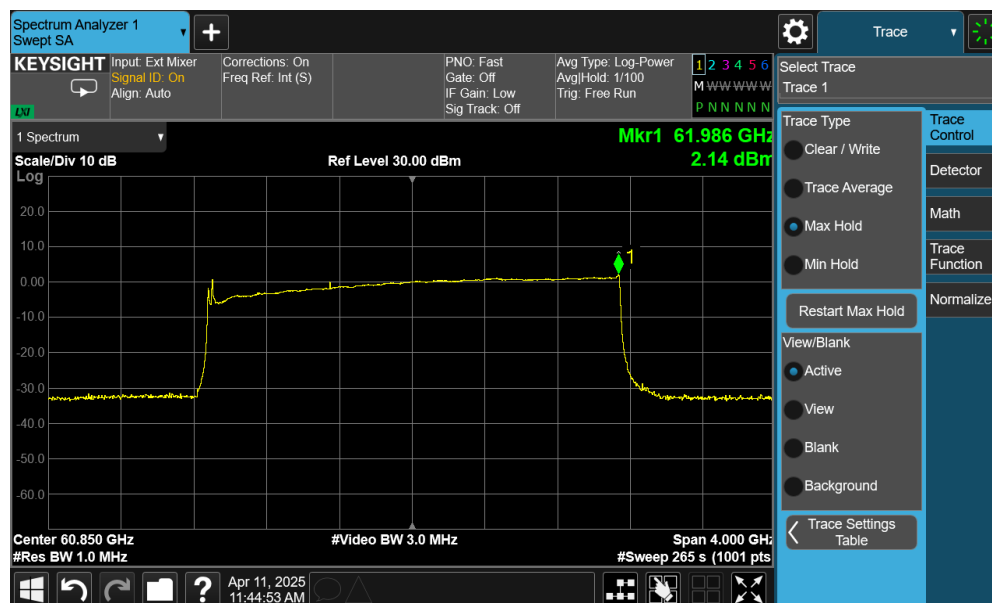


Appendix C. Test Result of Maximum output power (EIRP)

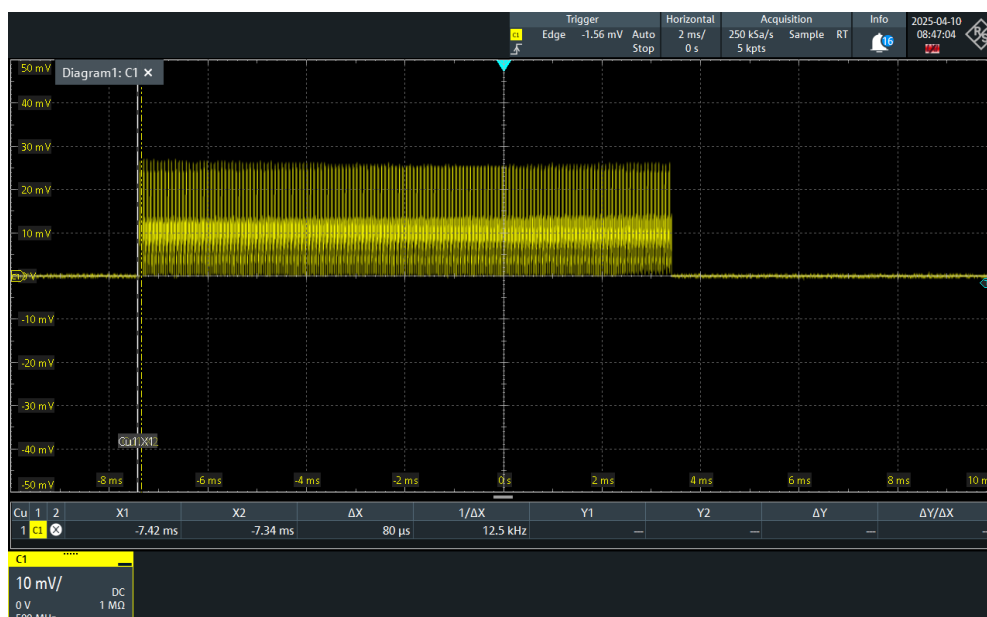
Test Frequency (GHz)	Measurement Level (dBm)	FMCW Desensitization factor (dB)	EIRP (dBm)	EIRP Limit (dBm)
60.85	2.14	-10.93	13.07	20

Note: EIRP= Measurement Level - FMCW Desensitization factor.

Measurement Level



FMCW Desensitization factor (Chirp Time= 80us)



BWchirp (MHz)	Tchirp (us)	B (MHz)	α (dB)	FMCW Desensitization factor (dB)
2240.000	80.000	1.000	0.284	-10.93

Note:

Desensitization factor was calculated from follow equation;

$$\alpha = \frac{1}{\left(1 + \left[\left(\frac{2 \times \ln(2)}{\pi}\right)^2 \times \left(\frac{BW_{\text{Chirp}}}{T_{\text{Chirp}} \times RBW^2}\right)^2\right]\right)^{0.25}}$$

and

FMCW Desensitization factor = 20 Log (α)

where

αBW_{Chirp} is the reduction in amplitudes the FMCW Chirp Bandwidth

T_{Chirp} is the FMCW Chirp Time

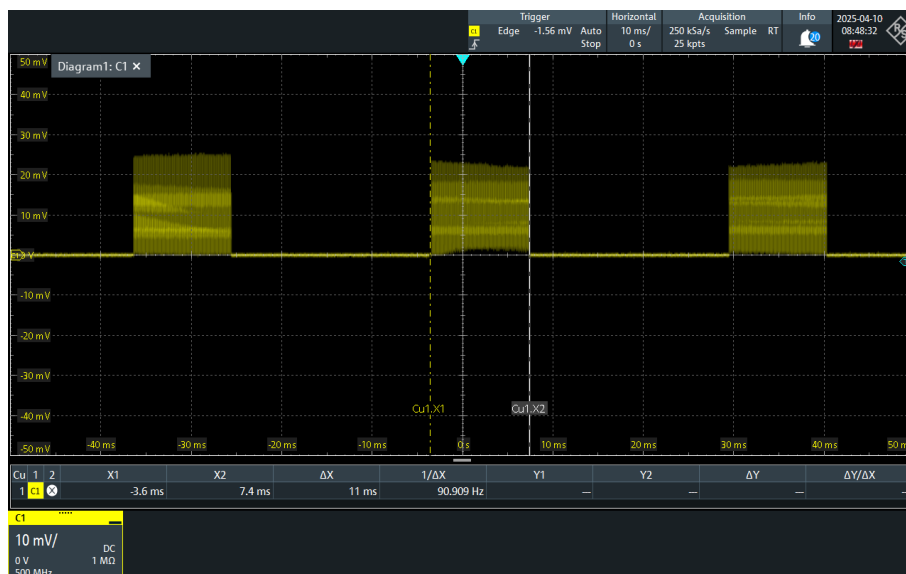
B is the 3 dB IF Bandwidth = RBW

Sum of continuous transmitter off-times in 33ms

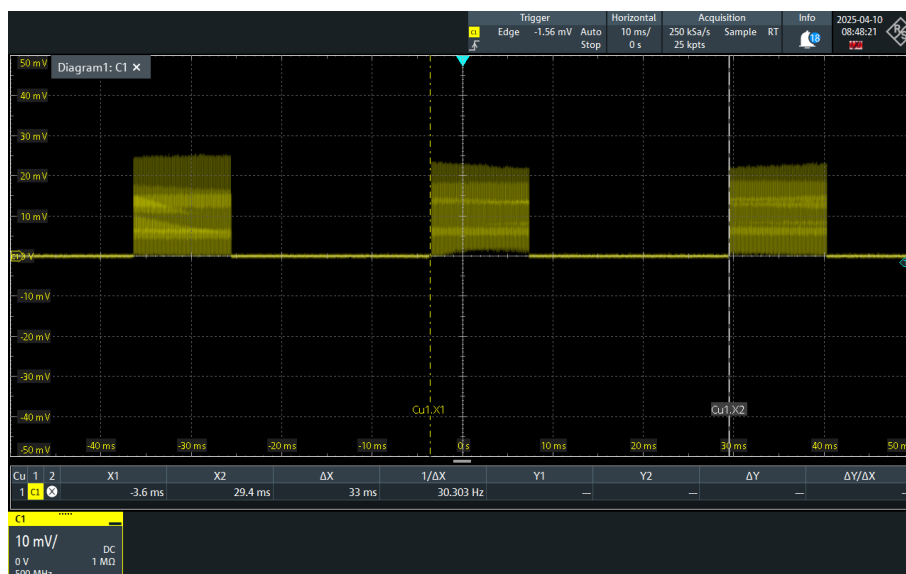
Burst Period (ms)	On Time (ms)	Off Time (ms)	Off Time Limit (ms)
33	11	22	>16.5

Note: Off Time(ms)= Burst Period(ms)- On Time(ms)

On time (ms)

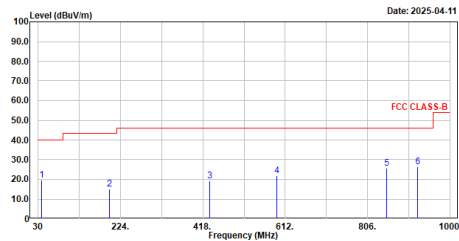


within any contiguous interval of 33 milliseconds



Appendix D. Test Result of Radiated Emissions

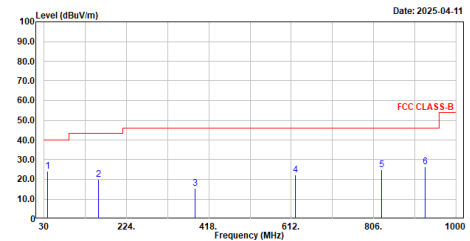
Site :HY-CB02
Condition :3m ,HORIZONTAL
mode :TX_30W-1GHz
Test by :Peter



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB/m	
1	38.730	19.46	40.00	-20.54	44.24	-24.78	QP
2	198.780	15.20	43.50	-28.30	42.64	-27.44	QP
3	433.520	19.18	46.00	-26.82	39.20	-20.82	QP
4	592.600	22.01	46.00	-23.99	38.35	-16.34	QP
5	850.620	25.53	46.00	-20.47	38.22	-12.69	QP
6	923.378	26.58	46.00	-19.42	38.37	-11.79	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

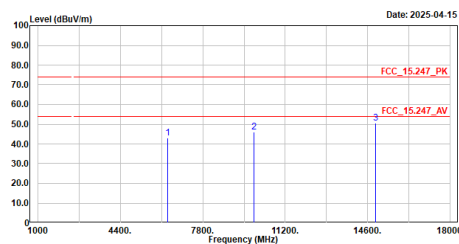
Site :HY-CB02
Condition :3m ,VERTICAL
mode :TX_30W-1GHz
Test by :Peter



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB/m	
1	38.730	24.16	40.00	-15.84	48.94	-24.78	QP
2	159.010	20.01	43.50	-23.49	44.48	-24.47	QP
3	385.990	15.61	46.00	-30.39	36.85	-21.24	QP
4	621.700	22.44	46.00	-23.56	38.43	-15.99	QP
5	824.430	24.90	46.00	-21.10	37.98	-13.08	QP
6	928.220	26.33	46.00	-19.67	38.04	-11.71	QP

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission under 30MHz was not included since the emission levels are very low against the limit.

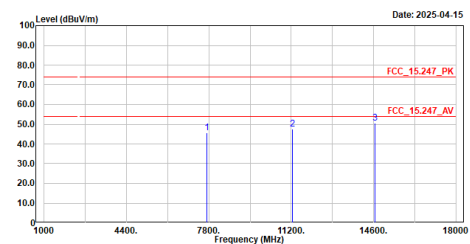
Site :HY-CB02
Condition :3m ,HORIZONTAL
mode :TX_16-18GHz
Test by :Peter



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB/m	
1	6338.000	43.13	74.00	-30.87	46.15	-3.02	Peak
2	9925.000	46.17	74.00	-27.83	43.61	2.56	Peak
3	14940.000	50.41	74.00	-23.59	43.32	7.09	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

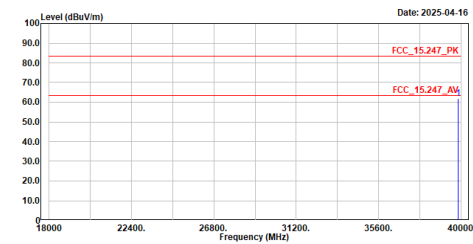
Site :HY-CB02
Condition :3m ,VERTICAL
mode :TX_16-18GHz
Test by :Peter



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	Line	Limit	Level	dB/m	
1	7715.000	45.80	74.00	-28.20	45.93	-0.13	Peak
2	11251.000	47.64	74.00	-26.36	43.46	4.18	Peak
3	14651.000	50.56	74.00	-23.44	43.11	7.45	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

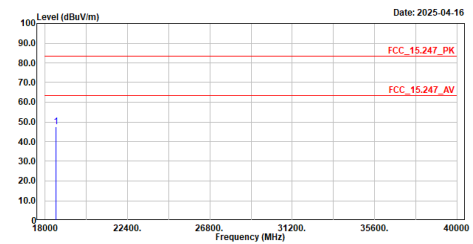
Site :HY-CB02
Condition :1m ,Horizontal
mode :TX_18G~40Ghz
Test by :Peter



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	Limit	Level	dB/m	
1	39846.000	61.96	83.54	-21.58	42.27	19.69	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

Site :HY-CB02
Condition :1m ,Vertical
mode :TX_18G~40Ghz
Test by :Peter



No.	Frequency	Level	Limit	Over	Read	Factor	Remark
	MHz	dBuV/m	dBuV/m	Limit	Level	dB/m	
1	18567.000	47.47	83.54	-36.07	42.23	5.24	Peak

Note:
1. Level = Read Level + Factor
2. Factor = Antenna Factor + Cable Loss - Preamp Factor
3. Over Limit = Level - Limit Line
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

Above 40 GHz

Frequency Range (GHz)	Measurement Frequency (GHz)	EIRP (dBm)	EIRP (W)	Specification Distance (m)	Power Density (W / m ²)	Power Density (pW / cm ²)	Limit (pW / cm ²)
40-50	40.16	-43.55	0.00000004	3	3.9063E-10	0.04	90
50-75	52.8	-20.23	0.00000948	3	8.3906E-08	8.39	90
75-90	75.03	-28.33	0.00000147	3	1.3002E-08	1.30	90
90-140	120.9	-21.86	0.00000601	3	5.7594E-08	5.76	90
140-200	142.64	-18.90	0.00001205	3	1.1392E-07	11.39	90

Note: Power density was calculated from follow equation;

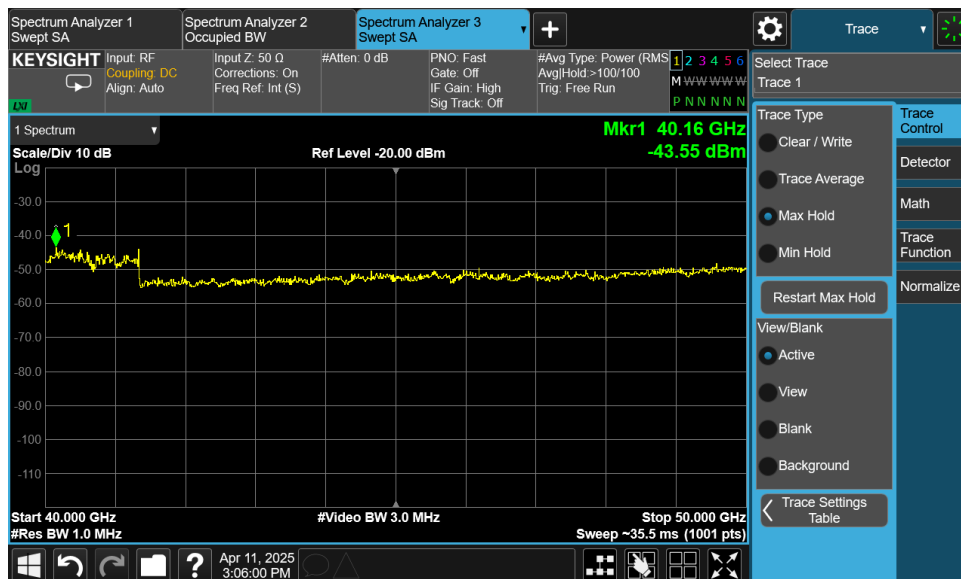
$$PD = \frac{EIRP_{Linear}}{4\pi d^2}$$

where

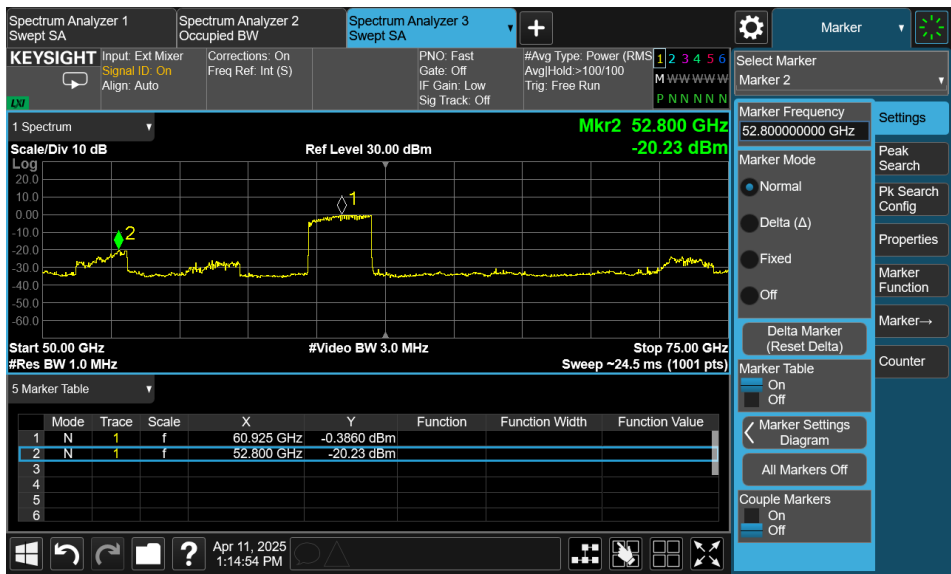
PD is the power density at the distance specified by the limit, in W/m²

EIRPLinear is the equivalent isotropically radiated power, in watts

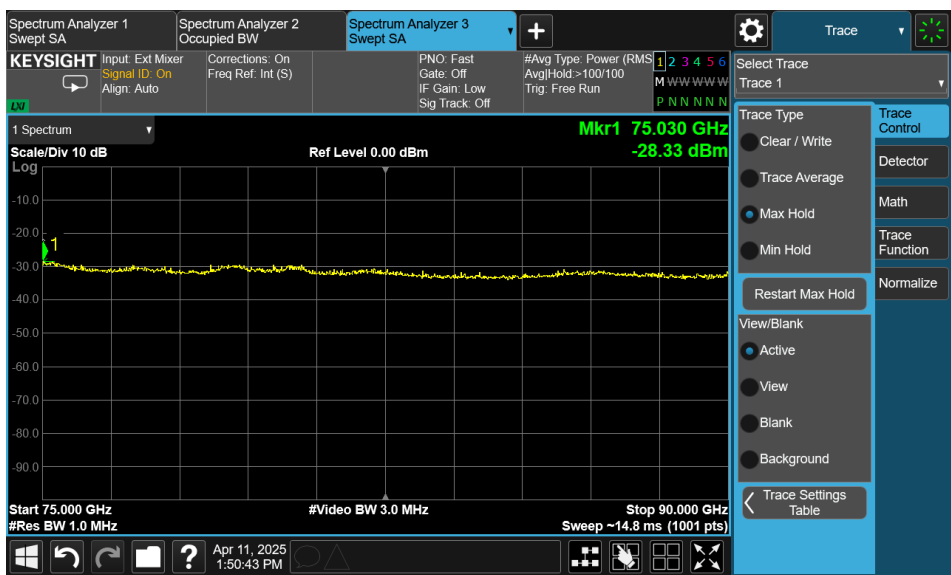
d is the distance at which the power density limit is specified, in m

40~50GHz

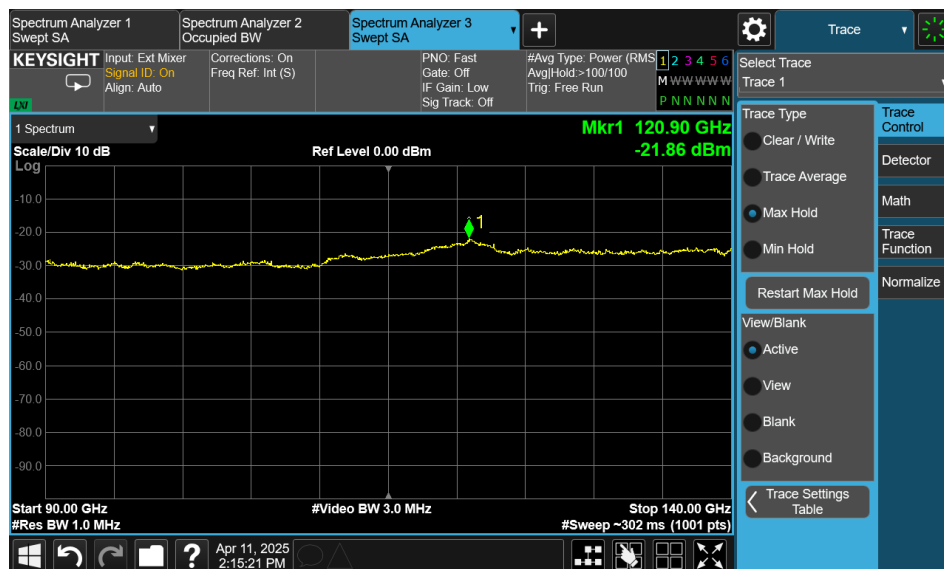
50~75GHz



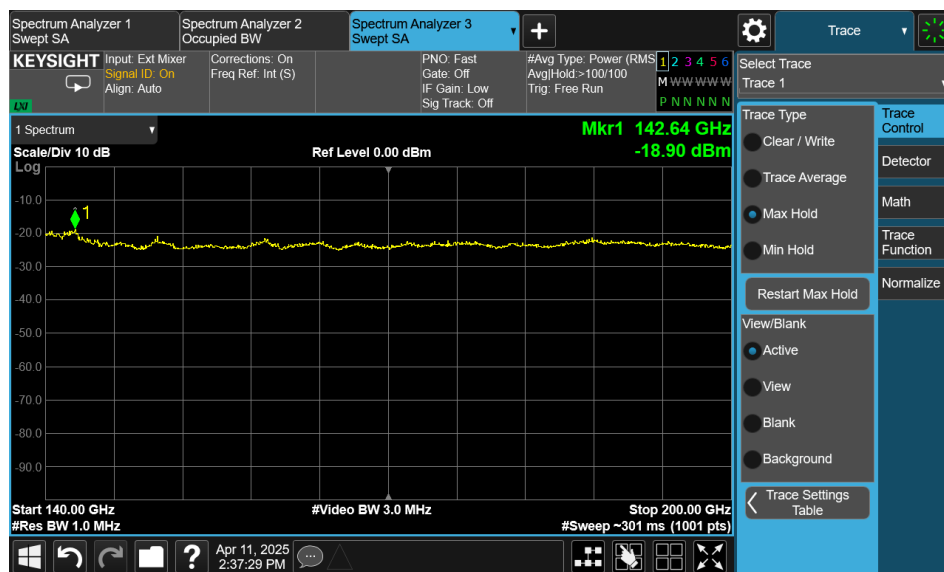
75~90GHz



90-140GHz



140-200GHz



Appendix E. Test Result of Frequency Stability

Voltage (V)	Measurement Frequency (fL) (GHz)	Measurement Frequency (fH) (GHz)	Limit fL ≥ 57 GHz fH ≤ 64 GHz
4.14	59.740	61.990	Within band
3.6	59.736	61.986	Within band
3.06	59.736	61.986	Within band

Temperature (°C)	Observe Time	Measurement Frequency (fL) (GHz)	Measurement Frequency (fH) (GHz)	Limit fL ≥ 57 GHz fH ≤ 64 GHz
50	start	59.736	61.986	Within band
	2 mins	59.736	61.986	Within band
	5 mins	59.736	61.986	Within band
	10 mins	59.736	61.986	Within band
40	start	59.732	61.986	Within band
	2 mins	59.732	61.986	Within band
	5 mins	59.732	61.986	Within band
	10 mins	59.732	61.986	Within band
30	start	59.740	61.986	Within band
	2 mins	59.740	61.986	Within band
	5 mins	59.740	61.986	Within band
	10 mins	59.740	61.986	Within band
20	start	59.740	61.986	Within band
	2 mins	59.740	61.986	Within band
	5 mins	59.740	61.986	Within band
	10 mins	59.740	61.986	Within band
10	start	59.736	61.986	Within band
	2 mins	59.736	61.986	Within band
	5 mins	59.736	61.986	Within band
	10 mins	59.736	61.986	Within band
0	start	59.740	61.986	Within band
	2 mins	59.740	61.986	Within band
	5 mins	59.740	61.986	Within band
	10 mins	59.740	61.986	Within band
-10	start	59.732	61.986	Within band
	2 mins	59.732	61.986	Within band
	5 mins	59.732	61.986	Within band
	10 mins	59.732	61.986	Within band
-20	start	59.732	61.986	Within band
	2 mins	59.732	61.986	Within band
	5 mins	59.732	61.986	Within band
	10 mins	59.732	61.986	Within band