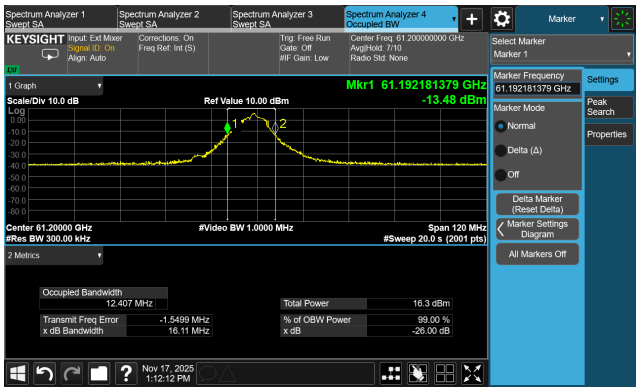
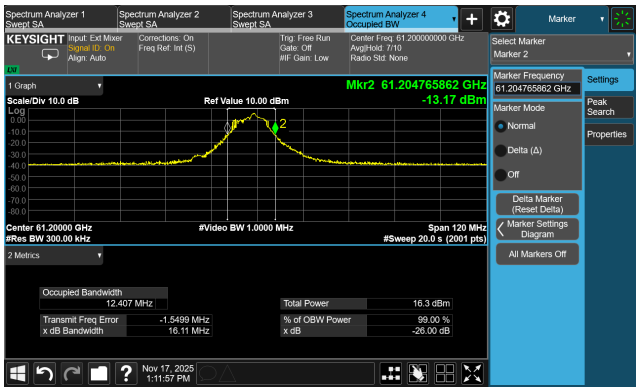
Appendix A. Test Result of AC Power Line Conducted Emission

Owing to the EUT use DC-Powered, the test item is not performed.

Appendix B. Test Result of Occupied Bandwidth

Test Frequency (GHz)	Measurement Value (fL) (GHz)	Measurement Value (fH) (GHz)	Measurement Level (MHz)	Limit (dBm)
61.2	61.192	61.204	12.407	<500MHz





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

Peak Output Power

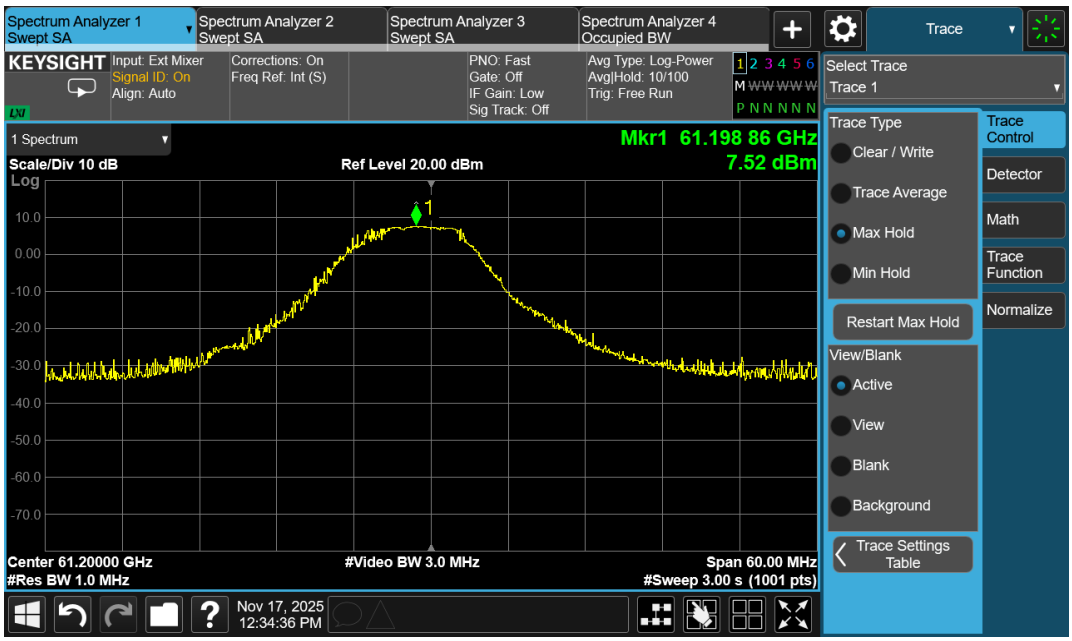
Test Frequency (GHz)	Measurement Level (dBm)	FMCW Desensitization factor (dB)	EIRP (dBm)	EIRP Limit (dBm)
61.2	7.52	-0.27	7.79	43

Note: EIRP= Measurement Level - FMCW Desensitization factor.

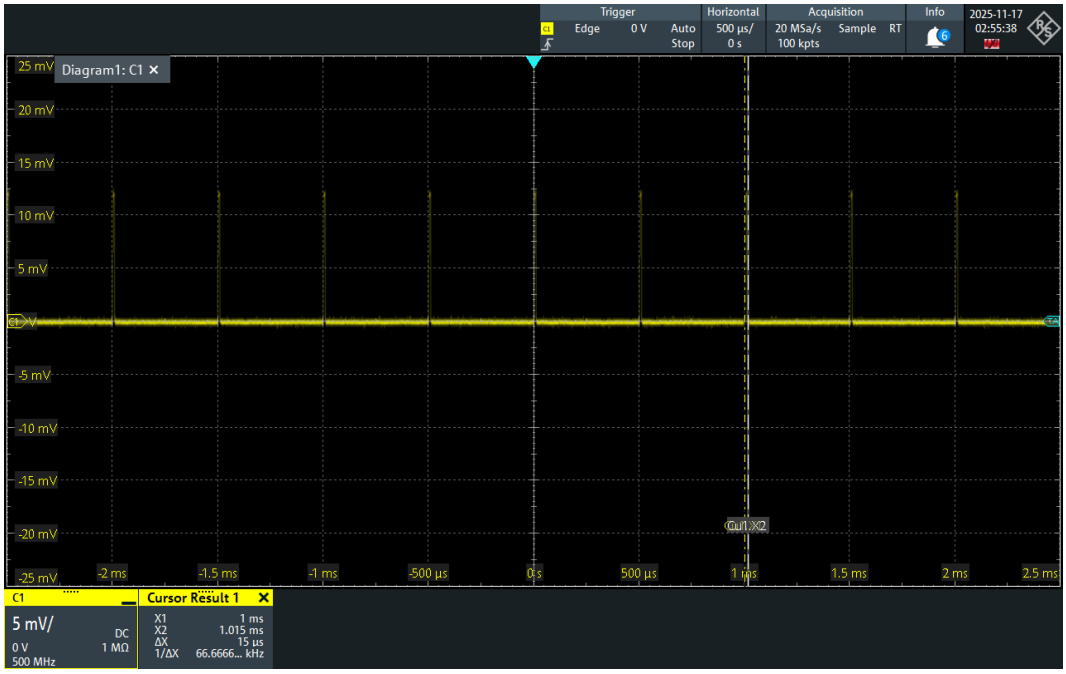
Average Output Power

Test Frequency (GHz)	Measurement Level (dBm)	Limit (dBm)
61.2	-11.84	40

Measurement Level



FMCW Desensitization factor (Chirp Time= 15us)



BWchirp (MHz)	Tchirp (us)	B (MHz)	α (dB)	FMCW Desensitization factor (dB)
12.407	15.000	1.000	0.969	-0.27

Note:

Desensitization factor was calculated from follow equation;

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

and

FMCW Desensitization factor = 20 Log (α)

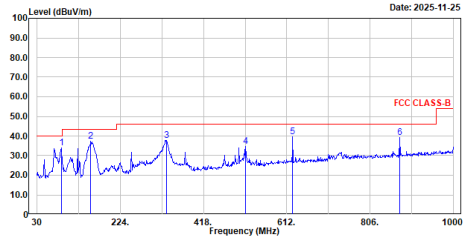
where

$\alpha\ BW_{Chirp}$	is the reduction in amplitudes the FMCW Chirp Bandwidth
T_{Chirp}	is the FMCW Chirp Time
B	is the 3 dB IF Bandwidth = RBW

Appendix D. Test Result of Radiated Emissions

TX_30M-1GHz_61.2GHz_H

Site :HY-CB02
Condition :3m ,HORIZONTAL
mode :TX_60.5GHz
Test by :Nova

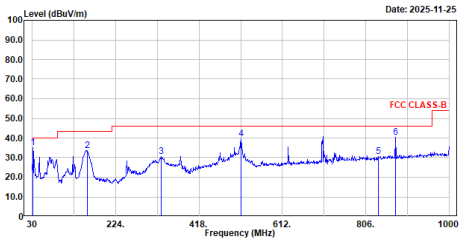


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
1	86.260	33.98	40.00	-6.02	50.76	-16.78	QP
2	155.130	37.23	43.50	-6.27	47.82	-10.59	QP
3	332.640	37.91	46.00	-8.09	47.06	-9.15	QP
4	515.970	34.69	46.00	-11.31	39.76	-5.07	QP
5	625.580	39.60	46.00	-6.40	42.49	-2.89	QP
6	875.840	39.21	46.00	-6.79	39.06	0.15	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.

TX_30M-1GHz_61.2GHz_V

Site :HY-CB02
Condition :3m ,VERTICAL
mode :TX_60.5GHz
Test by :Nova

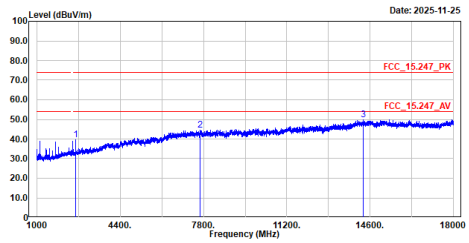


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
1	31.940	35.27	40.00	-4.73	46.51	-11.24	QP
2	159.010	33.73	43.50	-9.77	44.41	-10.68	QP
3	329.730	30.47	46.00	-15.53	39.64	-9.17	QP
4	515.970	39.64	46.00	-6.36	44.71	-5.07	QP
5	835.100	30.71	46.00	-15.29	31.05	-0.34	QP
6	875.840	40.51	46.00	-5.49	40.36	0.15	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.

TX_1G-18GHz_61.2GHz_H

Site :HY-CB02
Condition :3m ,HORIZONTAL
mode :TX_60.5GHz
Test by :Nova

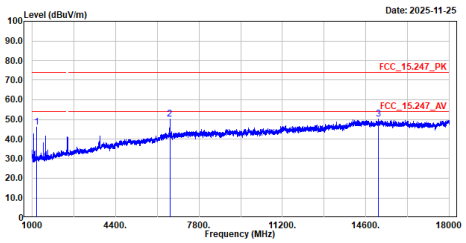


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
1	2567.400	39.71	74.00	-34.29	60.31	-20.60	Peak
2	7670.800	44.45	74.00	-29.55	49.72	-5.27	Peak
3	14316.100	49.79	74.00	-24.21	48.82	0.97	Peak

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.

TX_1G-18GHz_61.2GHz_V

Site :HY-CB02
Condition :3m ,VERTICAL
mode :TX_60.5GHz
Test by :Nova

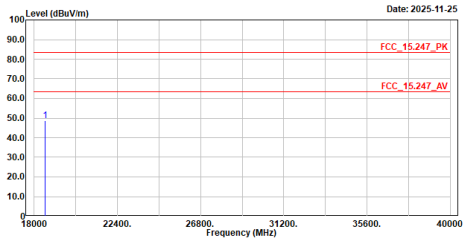


No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
1	1183.600	46.04	74.00	-27.96	69.55	-23.51	Peak
2	6610.000	50.14	74.00	-23.86	55.40	-5.26	Peak
3	15103.200	50.28	74.00	-23.72	48.96	1.32	Peak

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.

TX_18G-40GHz_61.2GHz_H	TX_18G-40GHz_61.2GHz_V

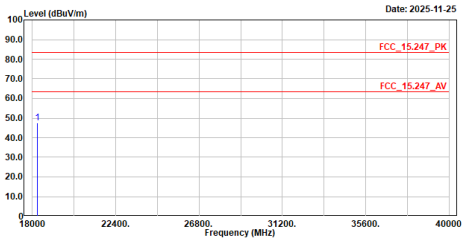
Site :HY-CB02
Condition :1m ,Horizontal
mode :TX_60.5GHz
Test by :Nova



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
1	18588.500	48.78	83.54	-34.76	43.54	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.

Site :HY-CB02
Condition :1m ,Vertical
mode :TX_60.5GHz
Test by :Nova



No.	Frequency	Level	Limit Line	Over Limit	Read Level	Factor	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB/m	
1	18265.800	47.60	83.54	-35.94	42.61	4.99	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 / m2)	Power Density (pW / cm²)	Limit (pW / cm²)
40-50	48.382	-47.57	0.00000002	3	1.5484E-10	0.02	90
50-75	70.6	-31.36	0.000001	3	6.4734E-09	0.65	90
75-110	76.8495	-30.11	0.000001	3	8.6260E-09	0.86	90
110-140	121.5116	-27.70	0.000002	3	1.5015E-08	1.50	90
140-200	142.6381	-25.29	0.000003	3	2.6159E-08	2.62	90

Note: Power densiny was calculated from follow equation;

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

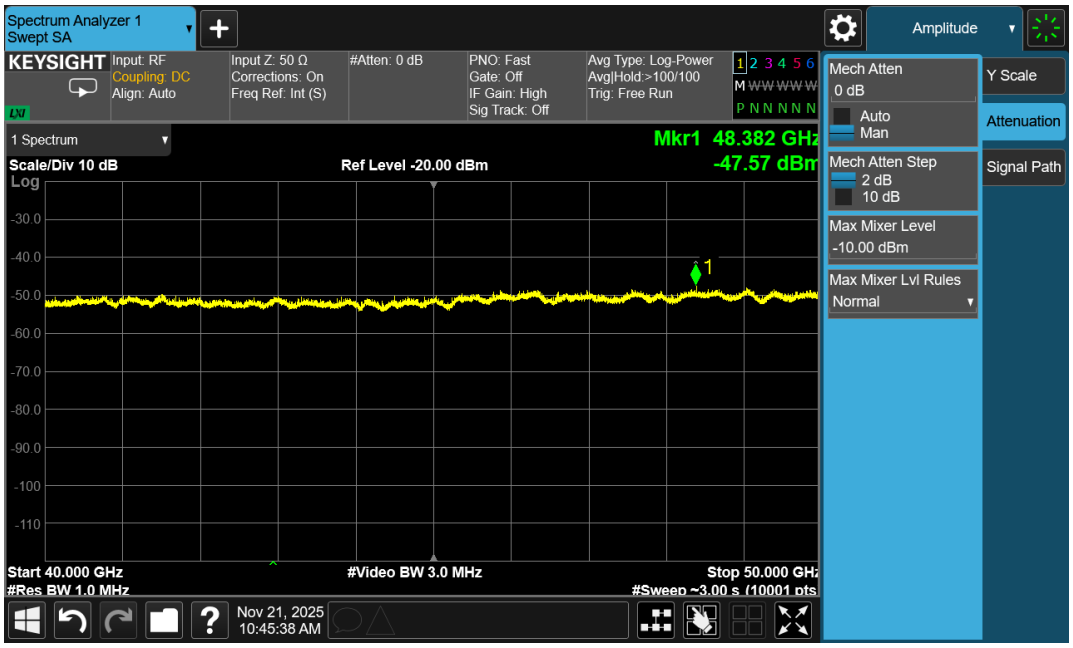
where

PD is the power density at the distance specified by the limit, in W/m^2

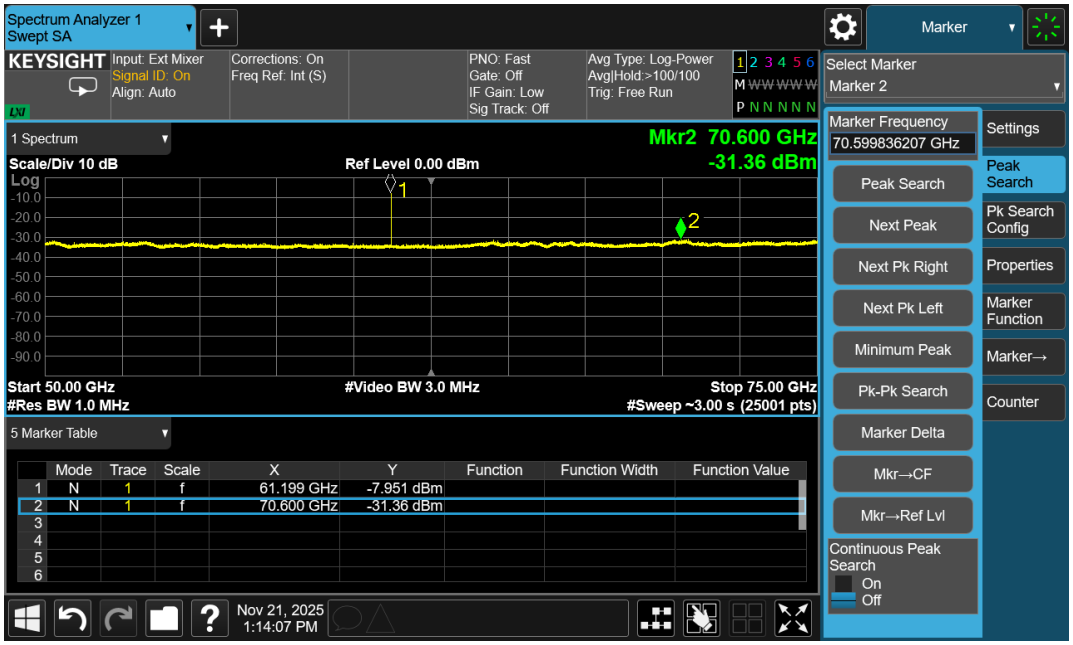
EIRPLinear is the equivalent isotropically radiated power, in watts

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

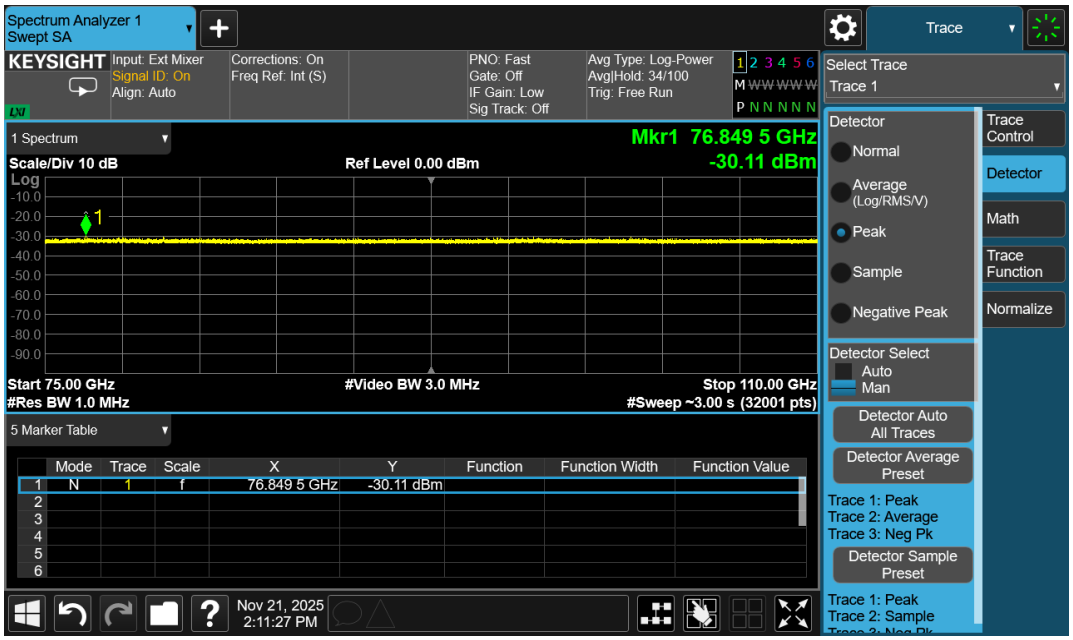
40~50GHz



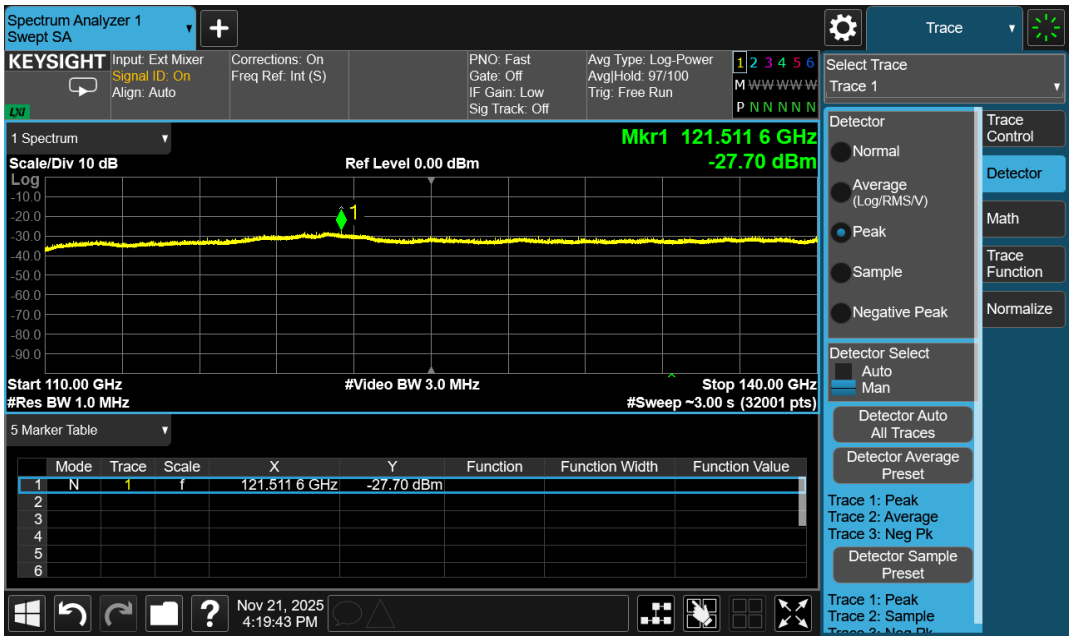
50~75GHz



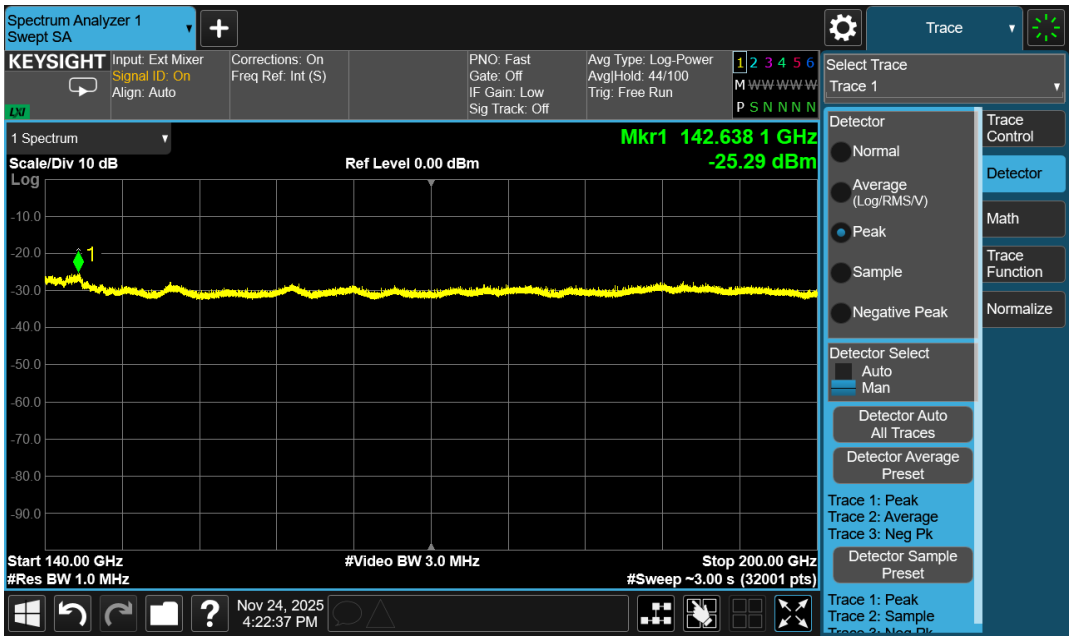
75~110GHz



110-140GHz



140-200GHz



Appendix E. Test Result of Frequency Stability

Voltage (V)	Measurement Frequency (fL) (GHz)	Measurement Frequency (fH) (GHz)	Limit fL ≥ 61.0 GHz fH ≤ 61.5 GHz
138	61.191	61.2053	Within band
120	61.191	61.2053	Within band
102	61.191	61.2053	Within band

Temperature (°C)	Observe Time	Measurement Frequency (fL) (GHz)	Measurement Frequency (fH) (GHz)	Limit fL ≥ 61.0 GHz fH ≤ 61.5 GHz
50	start	61.1912	61.206	Within band
	2 mins	61.1912	61.206	Within band
	5 mins	61.1912	61.206	Within band
	10 mins	61.1912	61.206	Within band
40	start	61.1912	61.206	Within band
	2 mins	61.1912	61.206	Within band
	5 mins	61.1912	61.206	Within band
	10 mins	61.1912	61.206	Within band
30	start	61.1914	61.2057	Within band
	2 mins	61.1914	61.2057	Within band
	5 mins	61.1914	61.2057	Within band
	10 mins	61.1914	61.2057	Within band
20	start	61.1914	61.2057	Within band
	2 mins	61.1914	61.2057	Within band
	5 mins	61.1914	61.2057	Within band
	10 mins	61.1914	61.2057	Within band
10	start	61.1914	61.2057	Within band
	2 mins	61.1914	61.2057	Within band
	5 mins	61.1914	61.2057	Within band
	10 mins	61.1914	61.2057	Within band
0	start	61.1929	61.2062	Within band
	2 mins	61.1929	61.2062	Within band
	5 mins	61.1929	61.2062	Within band
	10 mins	61.1929	61.2062	Within band
-10	start	61.1929	61.2062	Within band
	2 mins	61.1929	61.2062	Within band
	5 mins	61.1929	61.2062	Within band
	10 mins	61.1929	61.2062	Within band
-20	start	61.1929	61.2062	Within band
	2 mins	61.1929	61.2062	Within band
	5 mins	61.1929	61.2062	Within band
	10 mins	61.1929	61.2062	Within band