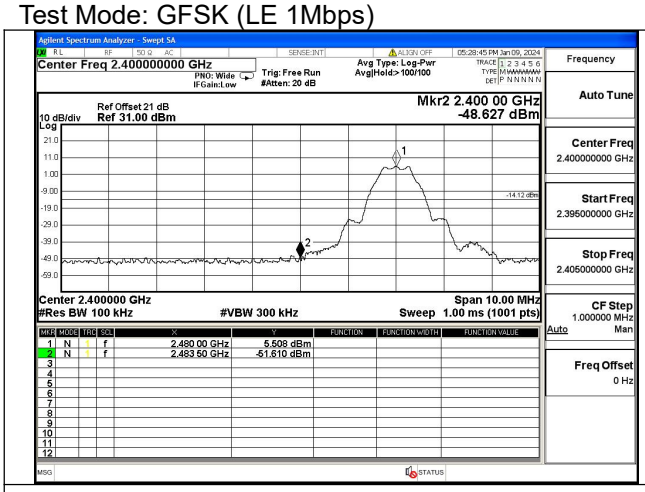
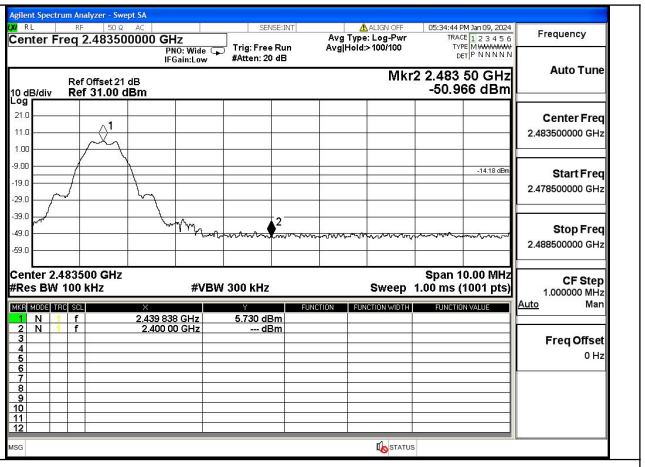
6 Band Edge measurement

Test Mode: GFSK (LE 1Mbps)

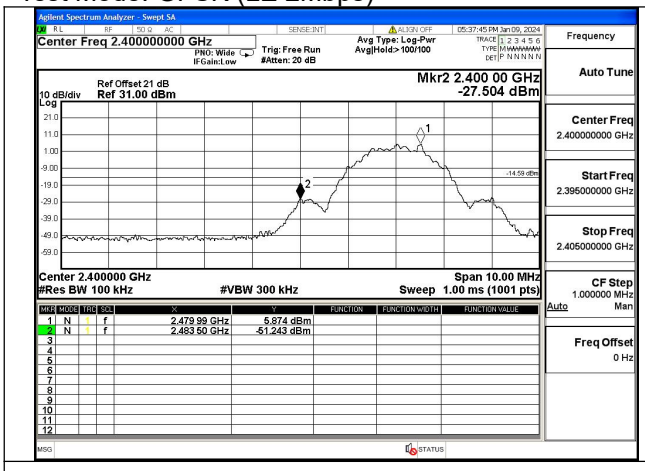


CH0

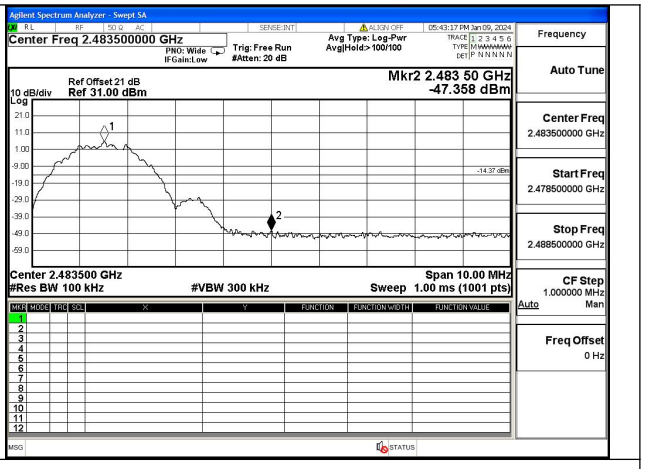


CH39

Test Mode: GFSK (LE 2Mbps)

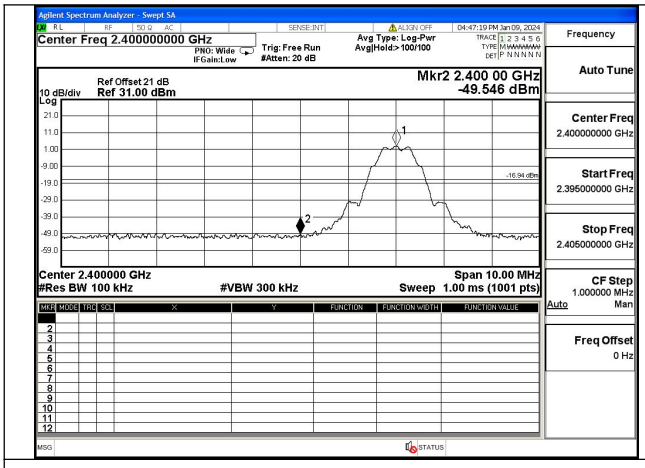


CH0

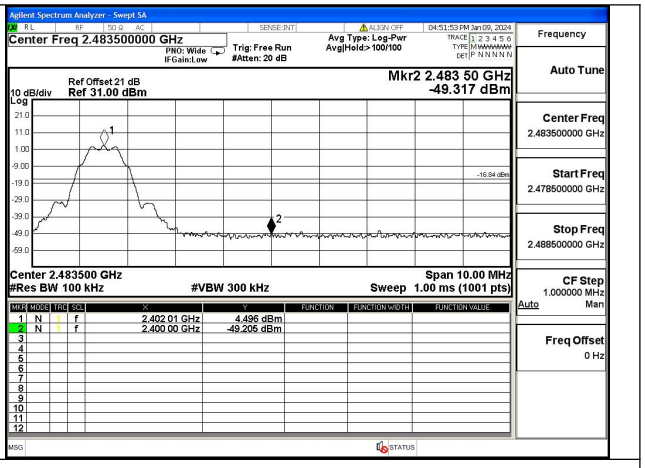


CH39

Test Mode: Coded 125K

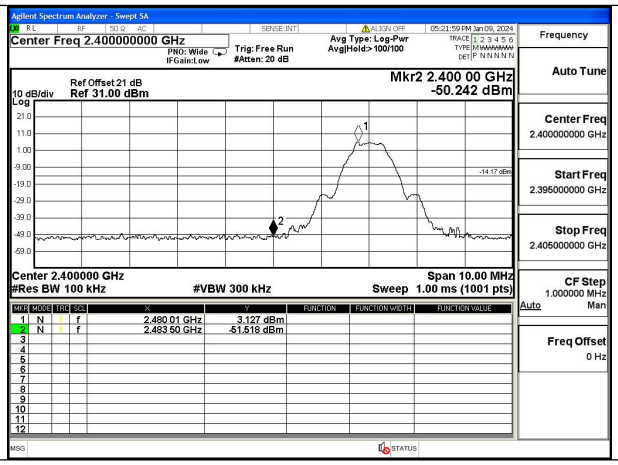


CH0

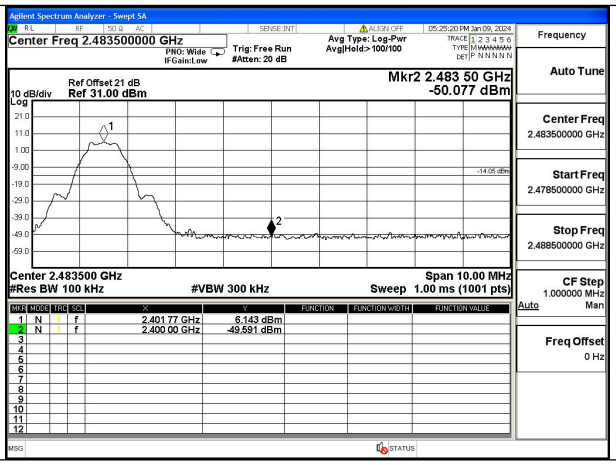


CH39

Test Mode: Coded 500K



CH0



CH39

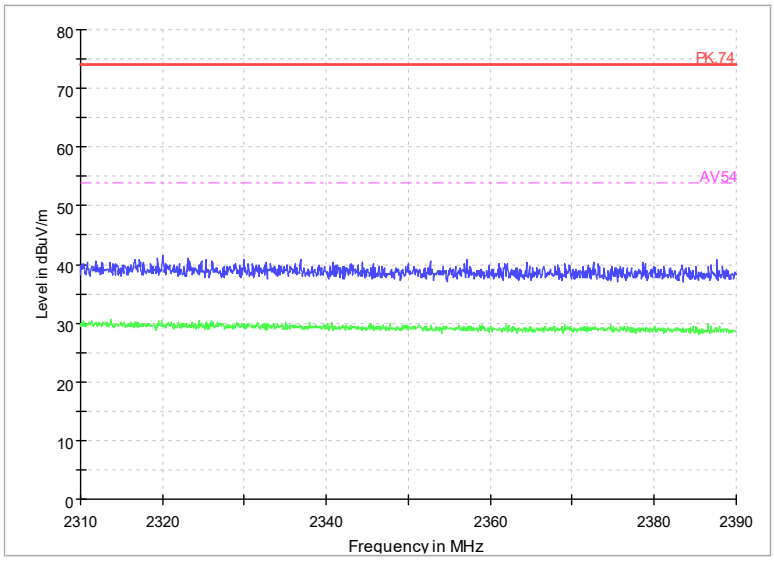
APPENDIX B – TEST DATA OF RADIATED EMISSION

Note1： The worst channel results are reflected in the report.

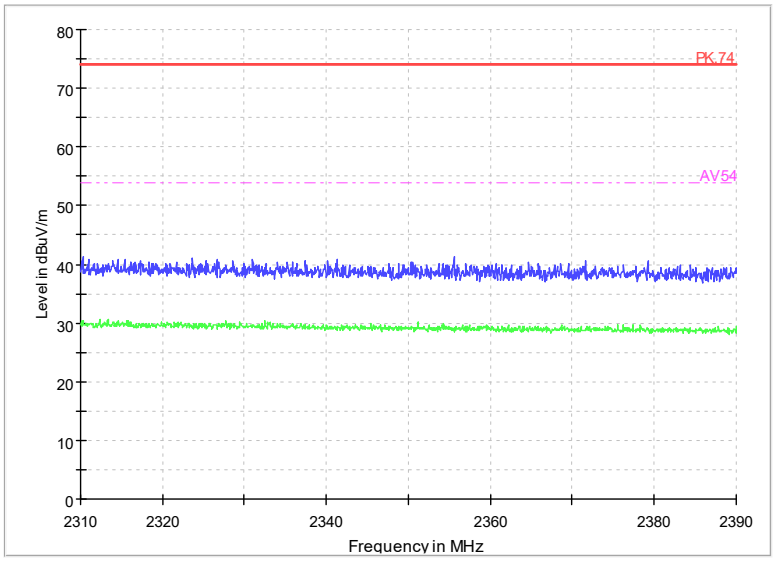
Note2: The scanned graph represents the maximum of both horizontal and vertical polarizations and is not a single horizontal or vertical polarization scan.

Radiated Emission Band Edge

After comparison,the worst case attitude is EUT lay down.

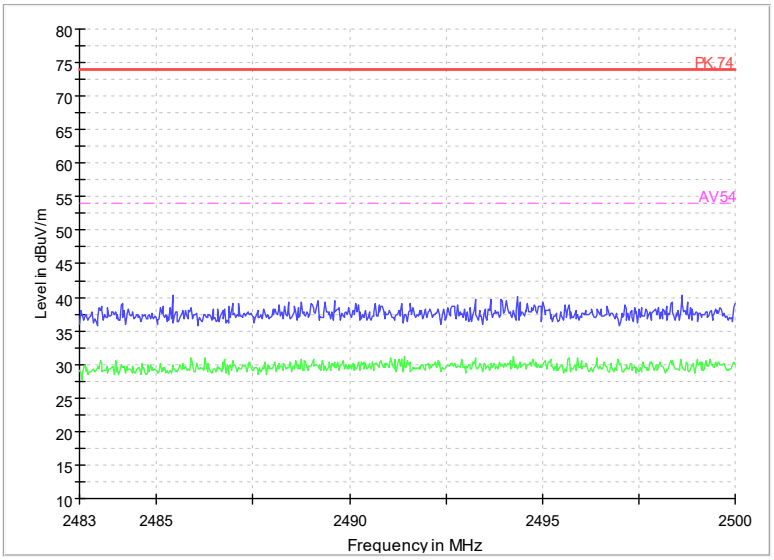


Carrier frequency (MHz): 2402
Channel No.:0
Test Mode: GFSK (LE 1Mbps)
Polarity: Vertical

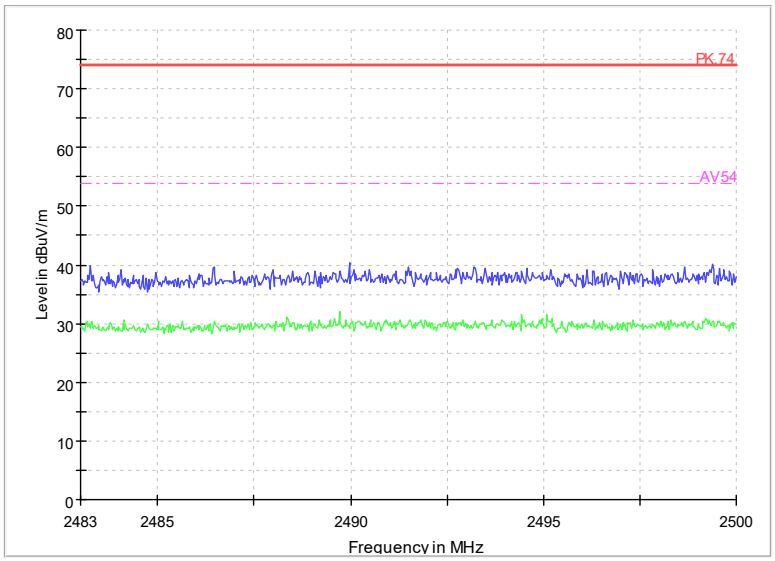


Carrier frequency (MHz): 2402

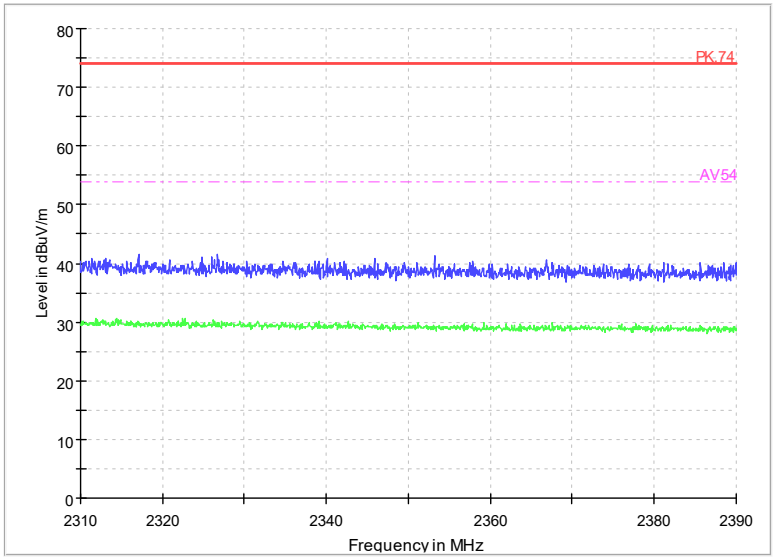
Channel No.:0
Test Mode: GFSK (LE 1Mbps)
Polarity: Horizontal



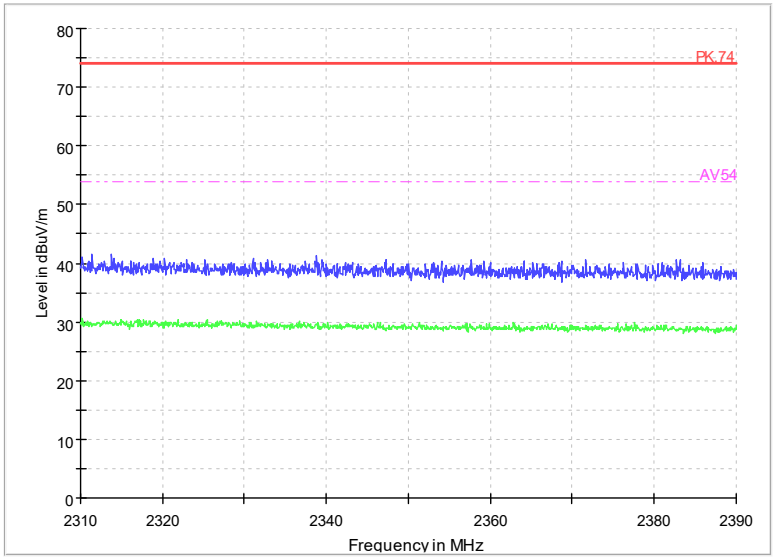
Carrier frequency (MHz): 2480
Channel No.:39
Test Mode: GFSK (LE 1Mbps)
Polarity: Vertical



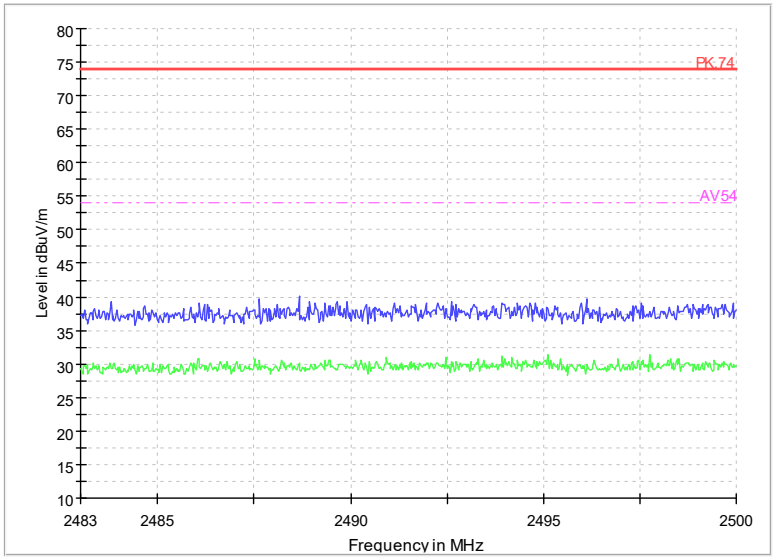
Carrier frequency (MHz): 2480
Channel No.:39
Test Mode: GFSK (LE 1Mbps)
Polarity: Horizontal



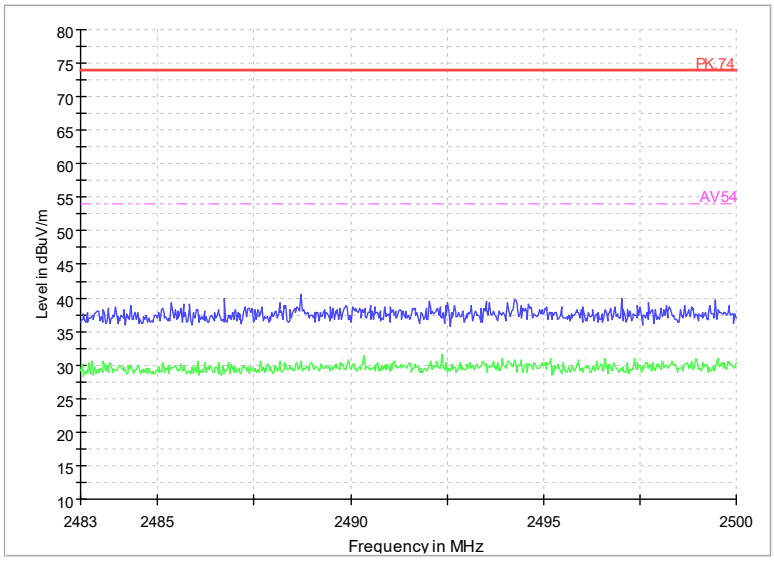
Carrier frequency (MHz): 2402
Channel No.:0
Test Mode: GFSK (LE 2Mbps)
Polarity: Vertical



Carrier frequency (MHz): 2402
Channel No.:0
Test Mode: GFSK (LE 2Mbps)
Polarity: Horizontal



Carrier frequency (MHz): 2480
Channel No.:39
Test Mode: GFSK (LE 2Mbps)
Polarity: Vertical



Carrier frequency (MHz): 2480
Channel No.:39
Test Mode: GFSK (LE 2Mbps)
Polarity: Horizontal

Radiated Emission

Sample Calculations

After comparison,the worst case attitude is EUT lay down.

Determining Spurious Emissions Levels

A “reference path loss” is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

The measurement results are obtained as described below:

Result= P_{mea} + A_{Rpl}

Sample calculation: (6.57 dBμV/m) = (24.97 dBuV) + (-18.4 dB/m), the corresponding frequency is 50.9035MHz.

For GFSK (LE 1Mbps)

Channel No.:0

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
50.9035	6.57	-18.4	24.97	Vertical	40	33.43
58.2755	6.18	-19.1	25.28	Vertical	40	33.82
110.51	5.9	-18.9	24.8	Vertical	43.5	37.6
195.1425	4.7	-19.1	23.8	Vertical	43.5	38.8
529.259	12.57	-9.9	22.47	Vertical	46	33.43
902.1755	17.59	-3.3	20.89	Vertical	46	28.41

Channel No.:19

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
39.021	6.42	-18.8	25.22	Vertical	40	33.58
56.966	5.66	-18.9	24.56	Vertical	40	34.34
110.607	5.85	-18.9	24.75	Vertical	43.5	37.65
214.6395	5.2	-18.4	23.6	Vertical	43.5	38.3
551.084	12.72	-9.4	22.12	Vertical	46	33.28
907.85	17.67	-3.2	20.87	Vertical	46	28.33

Channel No.:39

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
41.543	4.62	-18.5	23.12	Vertical	40	35.38
65.502	4.32	-20.6	24.92	Vertical	40	35.68
103.332	5.59	-18.7	24.29	Vertical	43.5	37.91
310.33	7.9	-15.5	23.4	Vertical	46	38.1
548.6105	12.77	-9.4	22.17	Vertical	46	33.23
950.336	18.08	-2.8	20.88	Vertical	46	27.92

For GFSK (LE 2Mbps)

Channel No.:0

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)

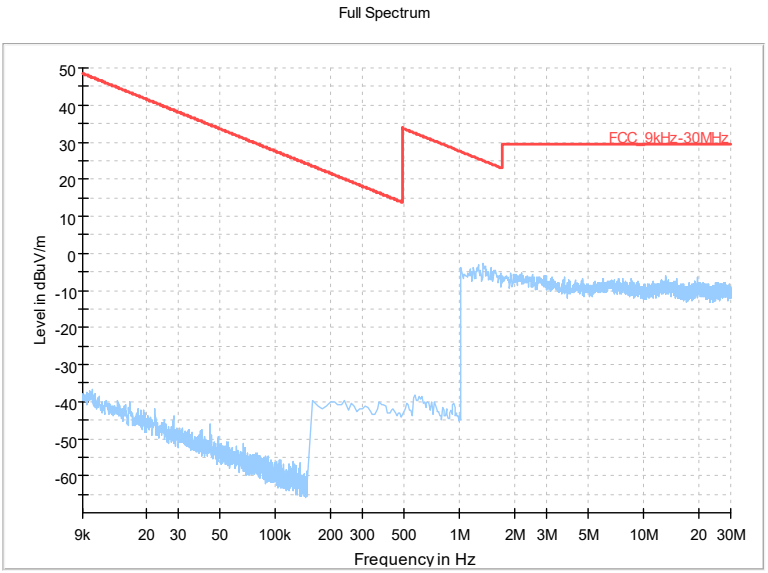
45.1805	6.53	-18.4	24.93	Vertical	40	33.47
56.7235	5.16	-18.9	24.06	Vertical	40	34.84
97.318	5.54	-18.8	24.34	Vertical	43.5	37.96
294.034	6.88	-16	22.88	Vertical	46	39.12
511.8475	12.16	-10.3	22.46	Vertical	46	33.84
927.056	17.75	-3	20.75	Vertical	46	28.25

Channel No.:19

Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
46.0535	6.6	-18.4	25	Vertical	40	33.4
83.835	4.1	-20.6	24.7	Vertical	40	35.9
110.3645	5.8	-18.9	24.7	Vertical	43.5	37.7
212.1175	5.1	-18.4	23.5	Vertical	43.5	38.4
554.091	12.66	-9.3	21.96	Vertical	46	33.34
953.2945	17.92	-2.8	20.72	Vertical	46	28.08

Channel No.:39

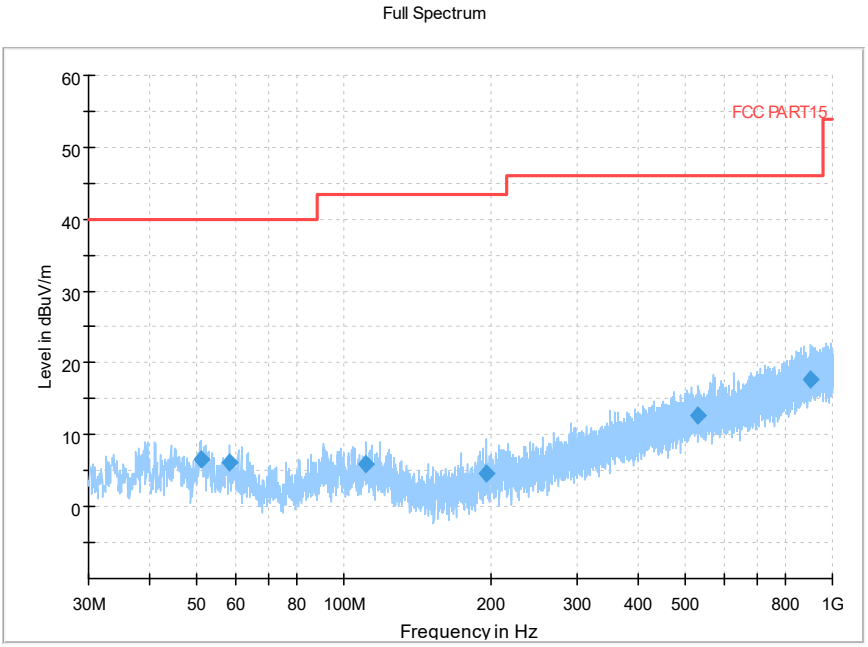
Frequency (MHz)	Result (dBuV/m)	ARpl (dB)	Pmea (dBuV/m)	Polarity	Limit (dBuV/m)	Margin (dB)
44.55	6.61	-18.4	25.01	Vertical	40	33.39
57.354	5.93	-19	24.93	Vertical	40	34.07
99.5975	5.37	-18.7	24.07	Vertical	43.5	38.13
286.2255	7.12	-16.2	23.32	Vertical	46	38.88
528.58	12.57	-10	22.57	Vertical	46	33.43
916.968	17.81	-3.1	20.91	Vertical	46	28.19



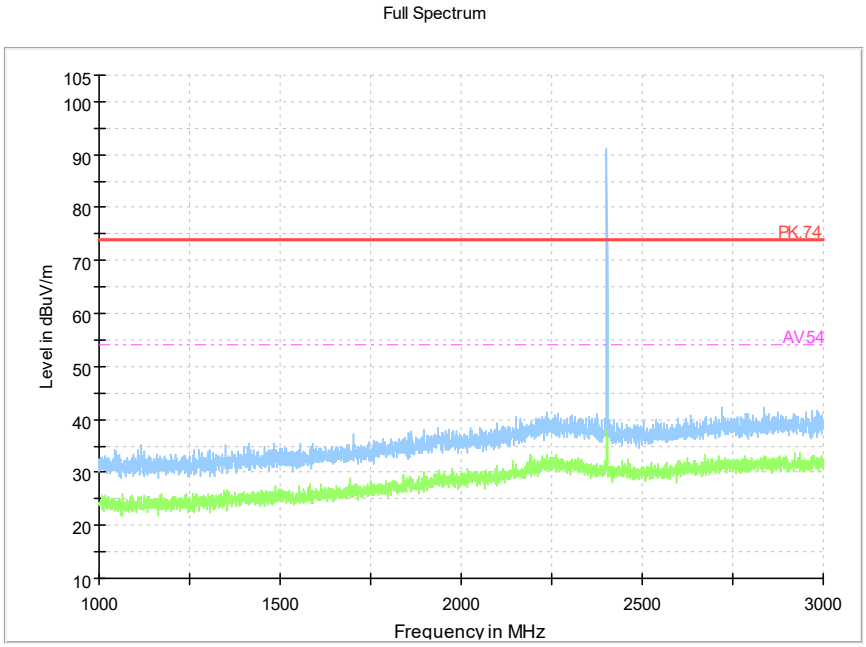
Frequency Range: 9kHz -30MHz
Detector: QP mode

Note：The relevant tests have been performed in order to verify in which mode would have the worst features, the result show above is the worst case.

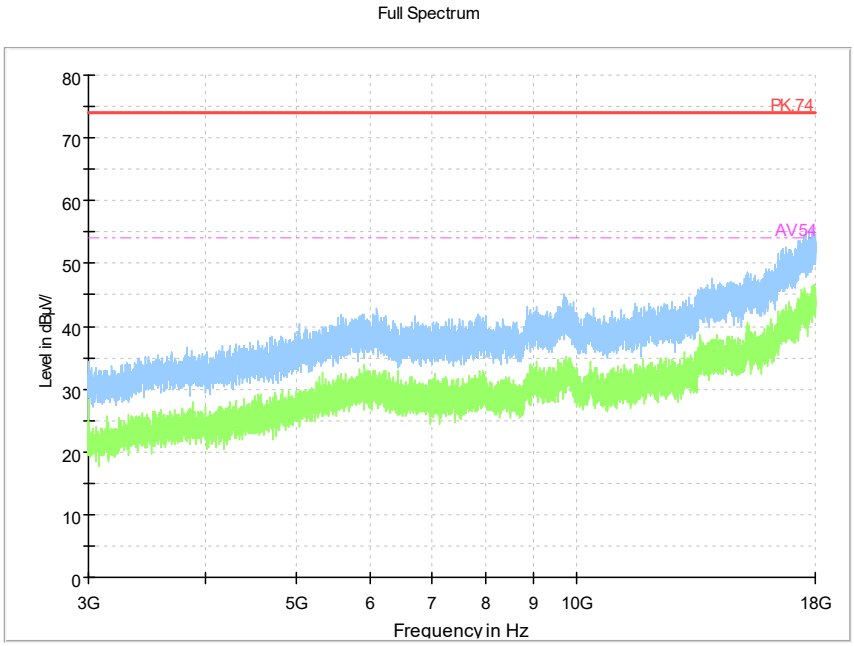
Channel No.:0



Frequency Range: 30MHz-1GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)

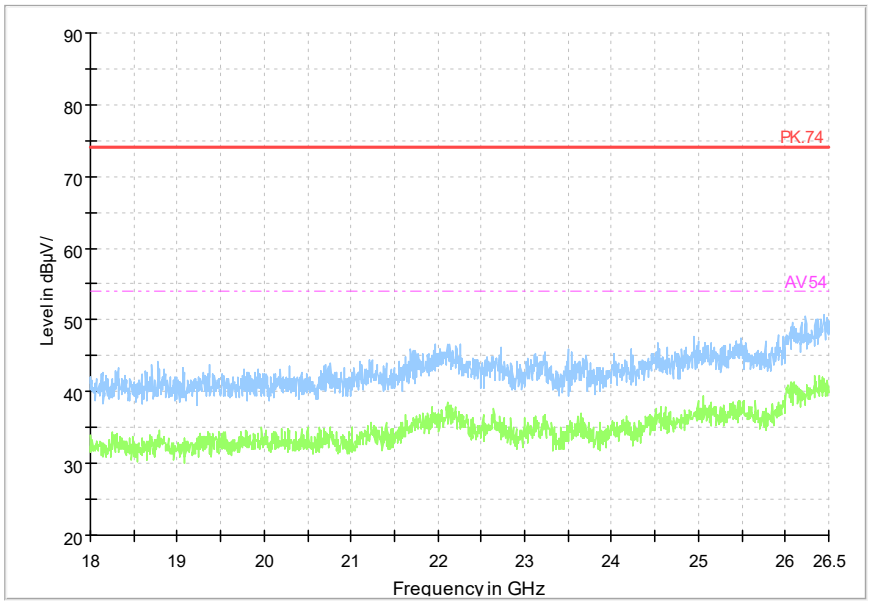


Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)



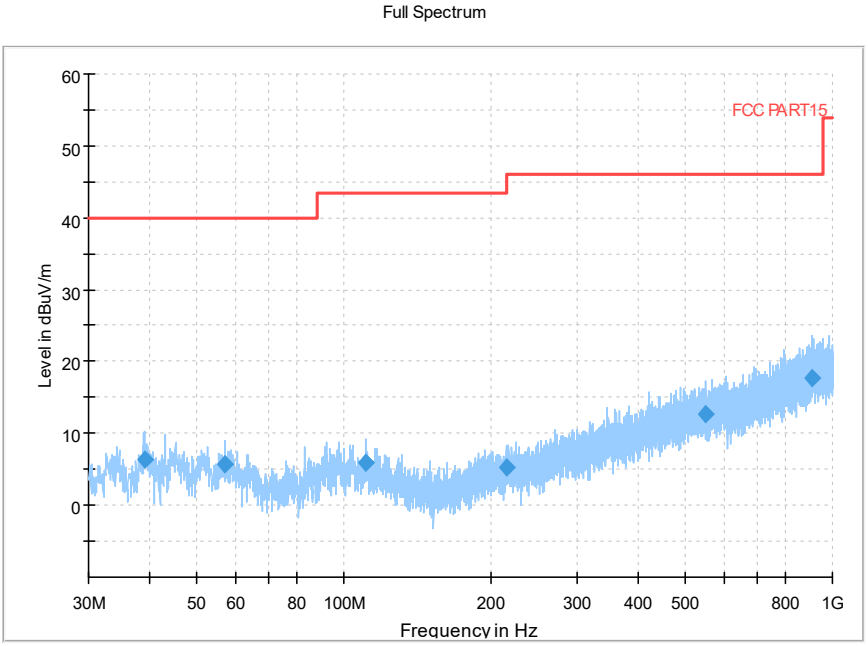
Frequency Range: 3GHz-18GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)

Full Spectrum

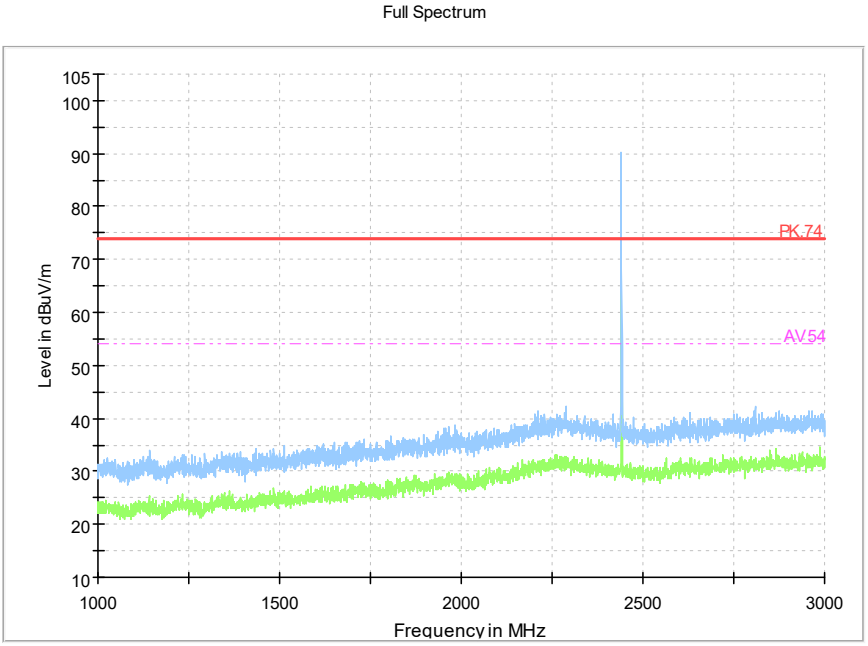


Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)

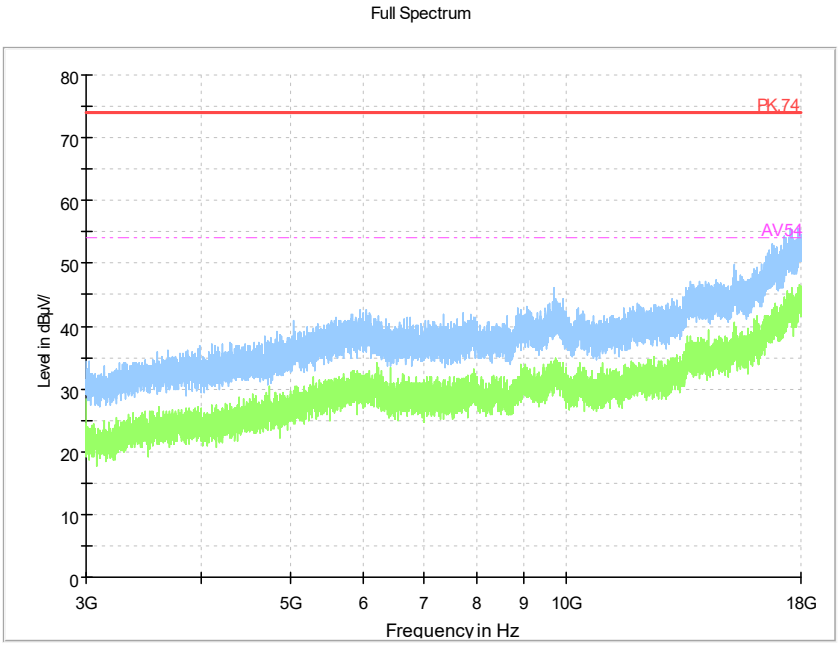
Channel No.:19



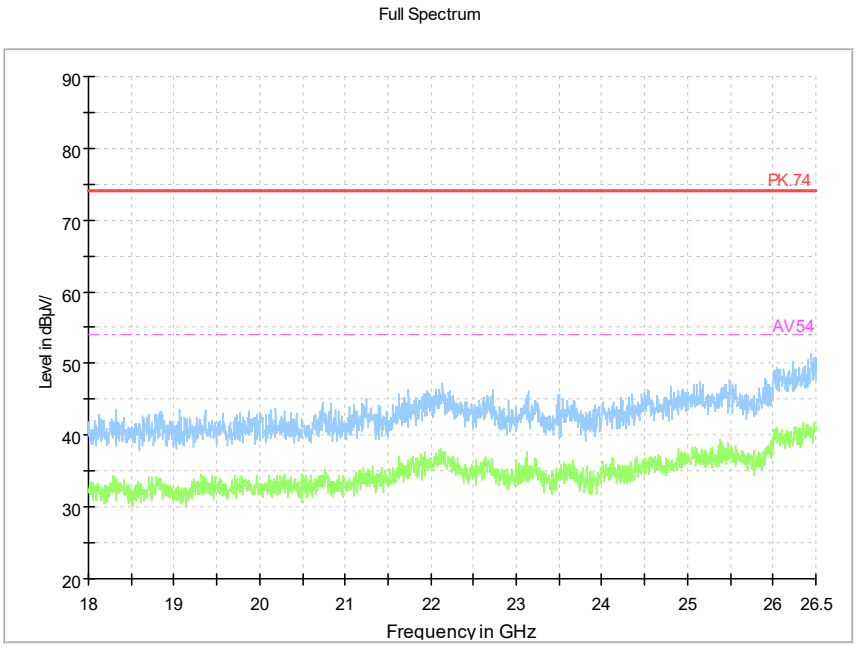
Frequency Range: 30MHz-1GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)



Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)

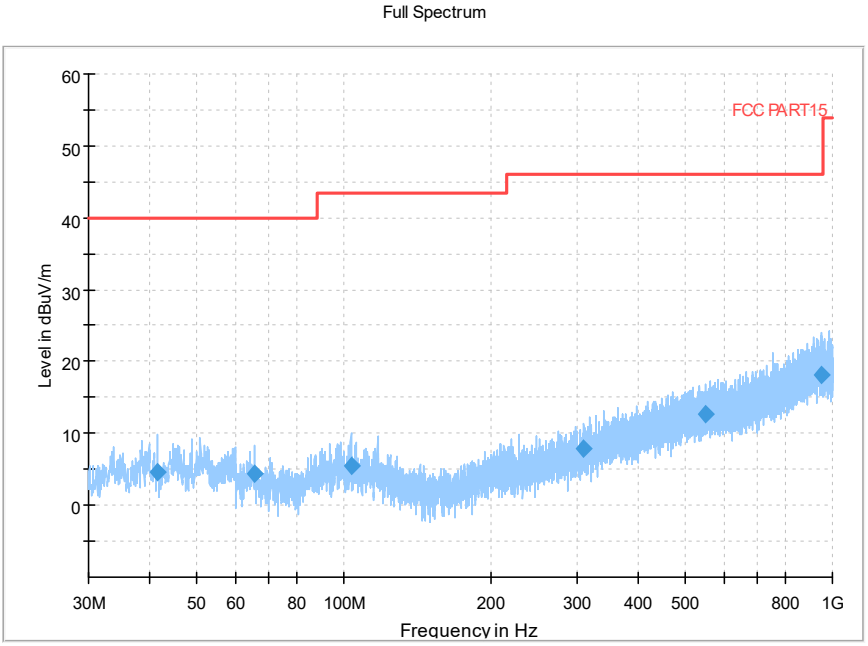


Frequency Range: 3GHz-18GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)

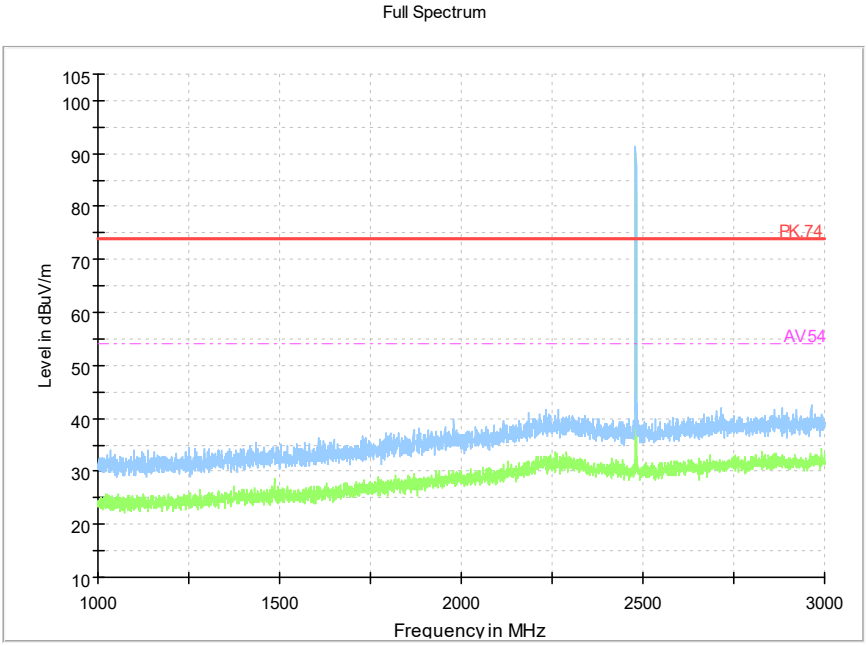


Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)

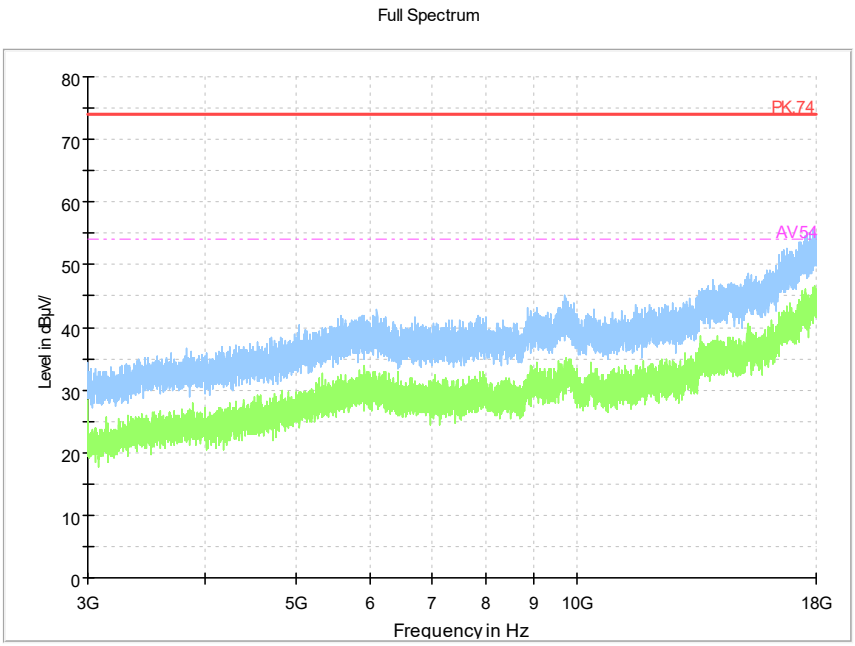
Channel No.:39



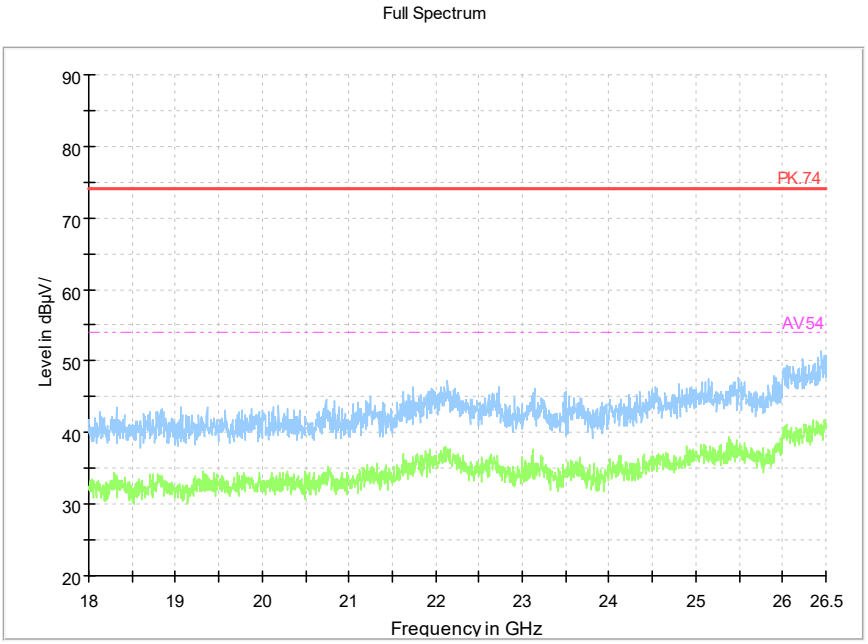
Frequency Range: 30MHz-1GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)



Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)

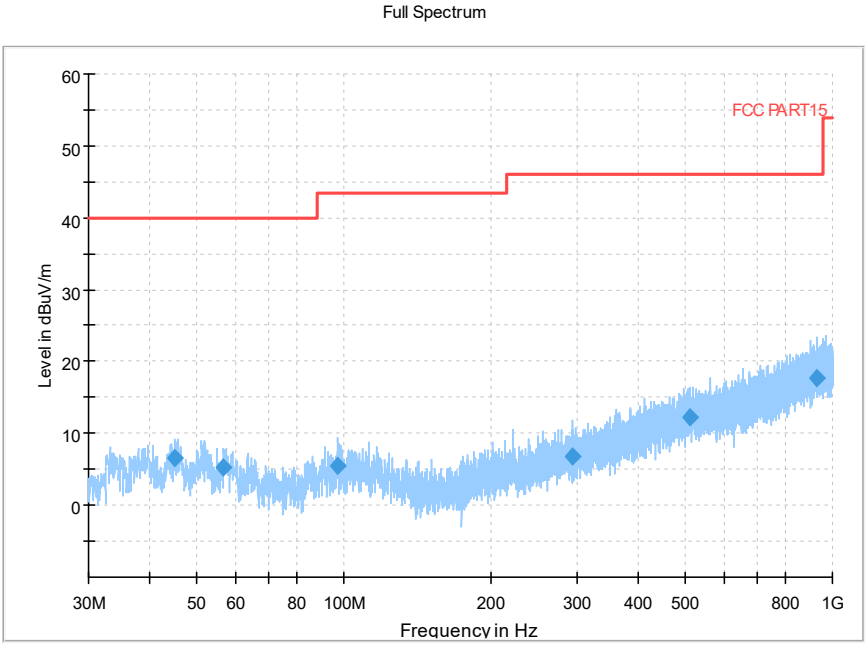


Frequency Range: 3GHz-18GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)

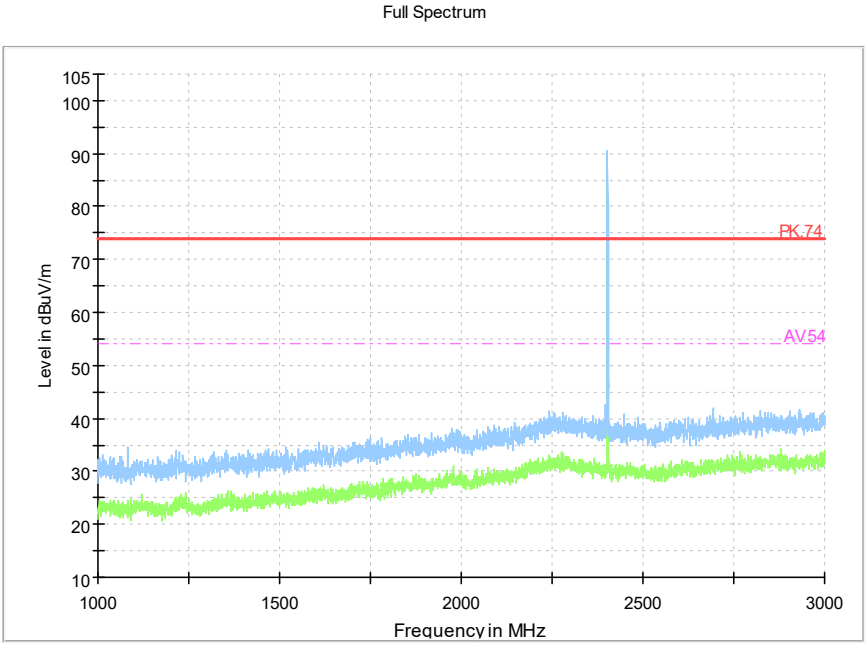


Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 1Mbps)

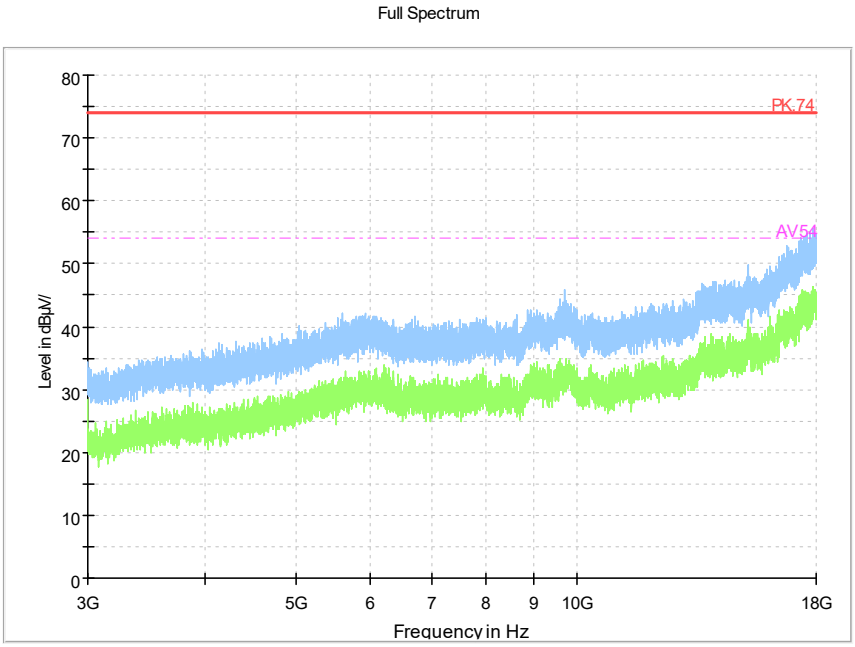
Channel No.:0



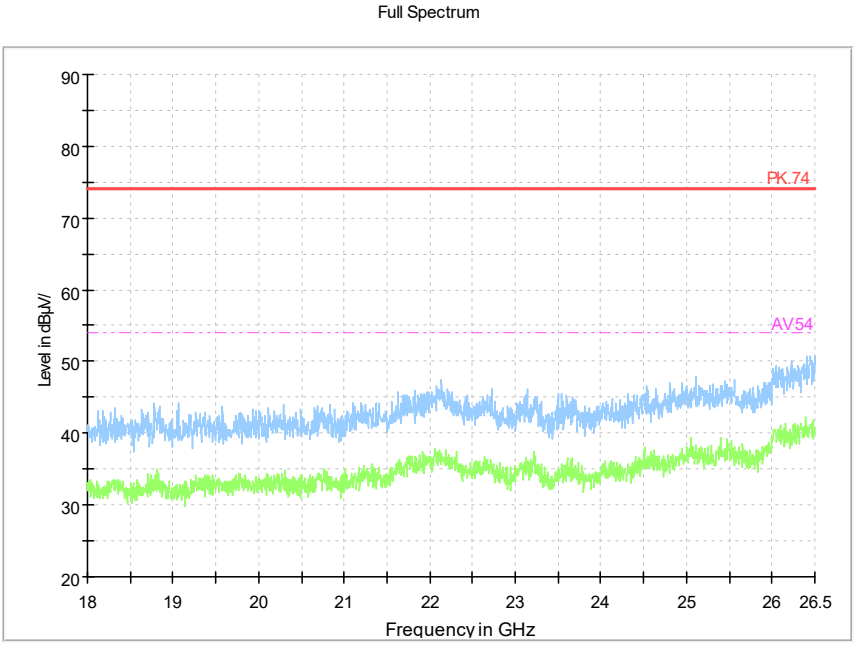
Frequency Range: 30MHz-1GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)



Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)

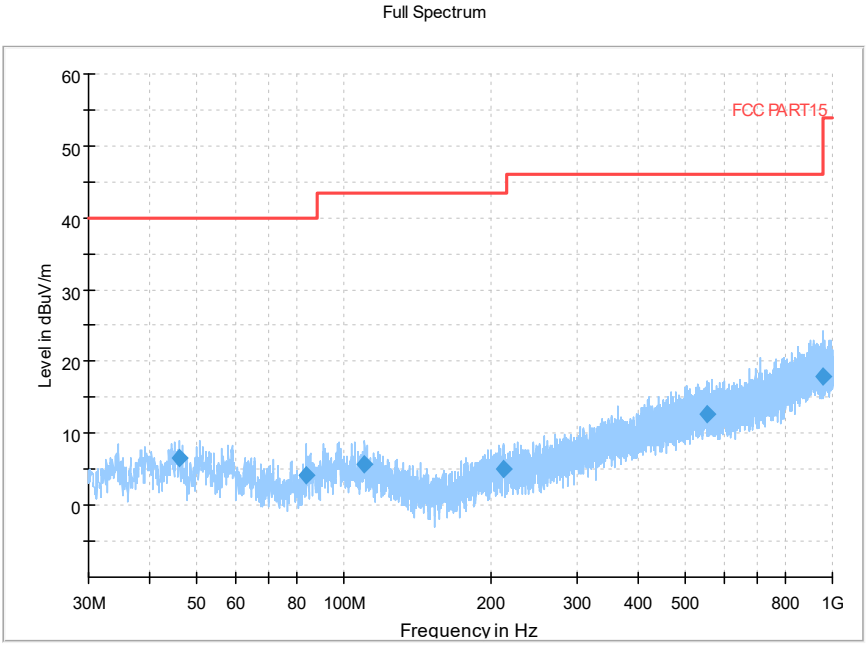


Frequency Range: 3GHz-18GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)

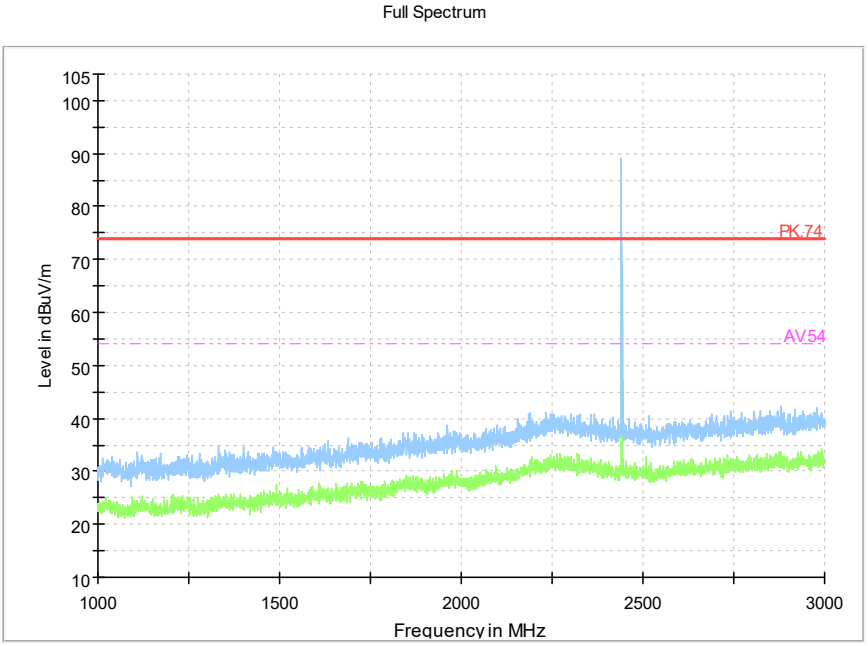


Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)

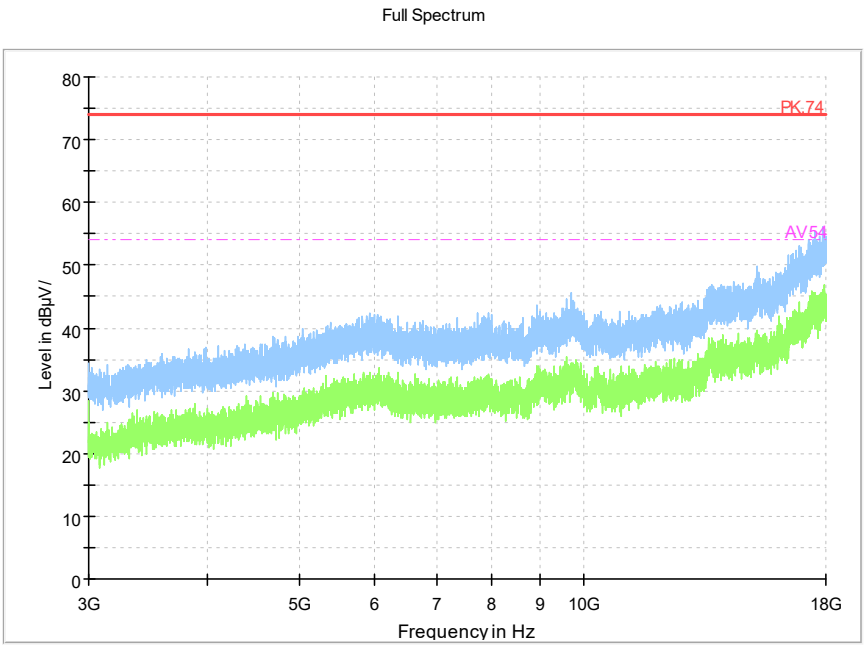
Channel No.:19



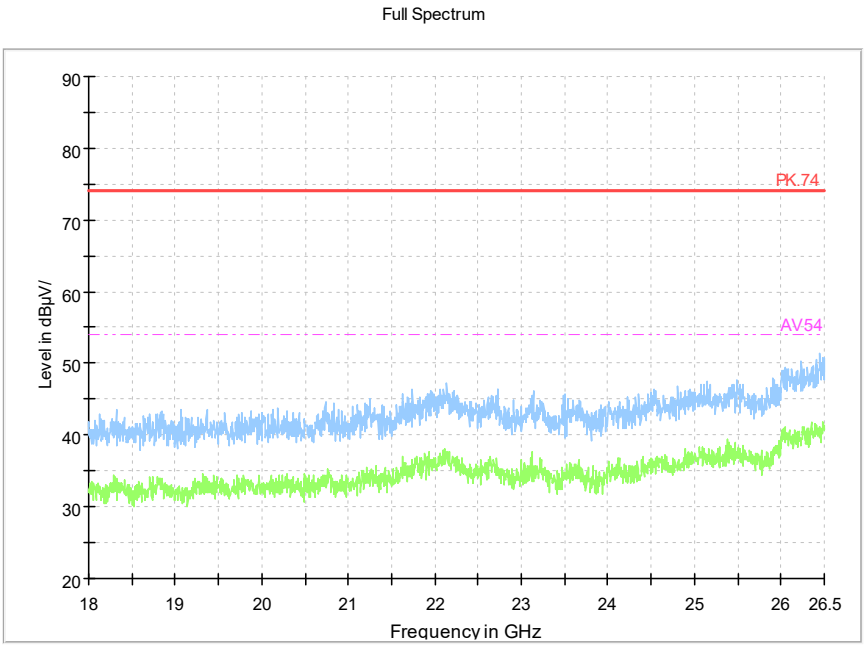
Frequency Range: 30MHz-1GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)



Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)

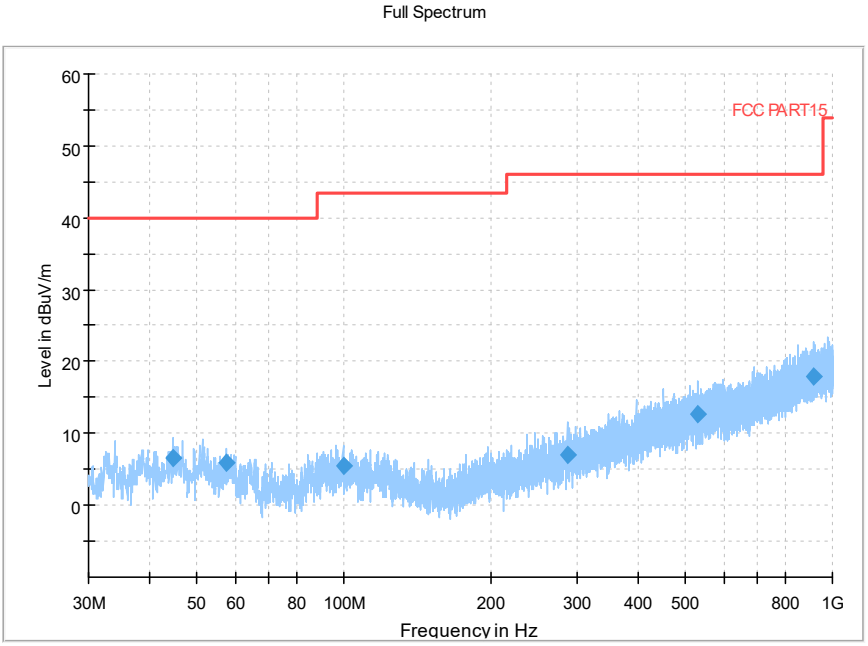


Frequency Range: 3GHz-18GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)

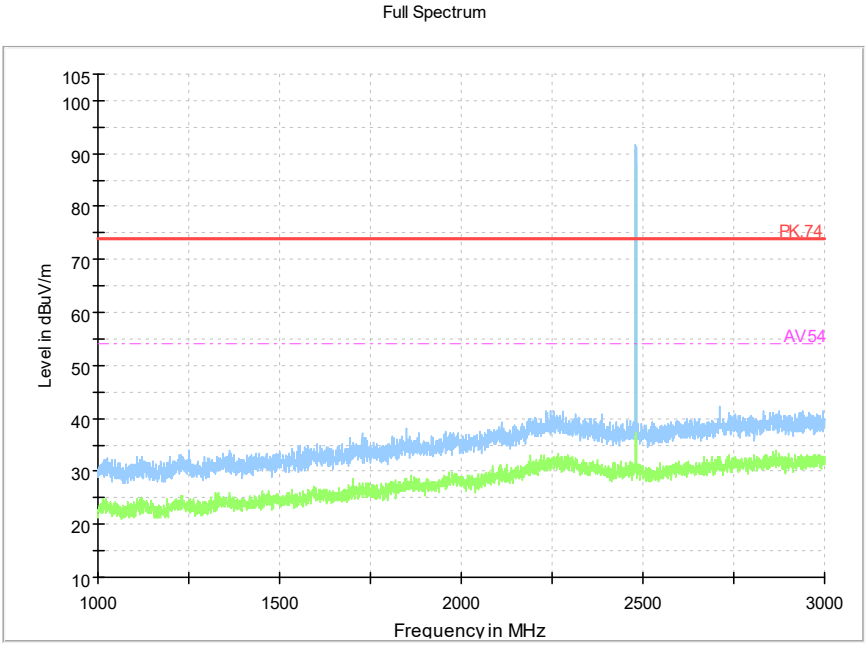


Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)

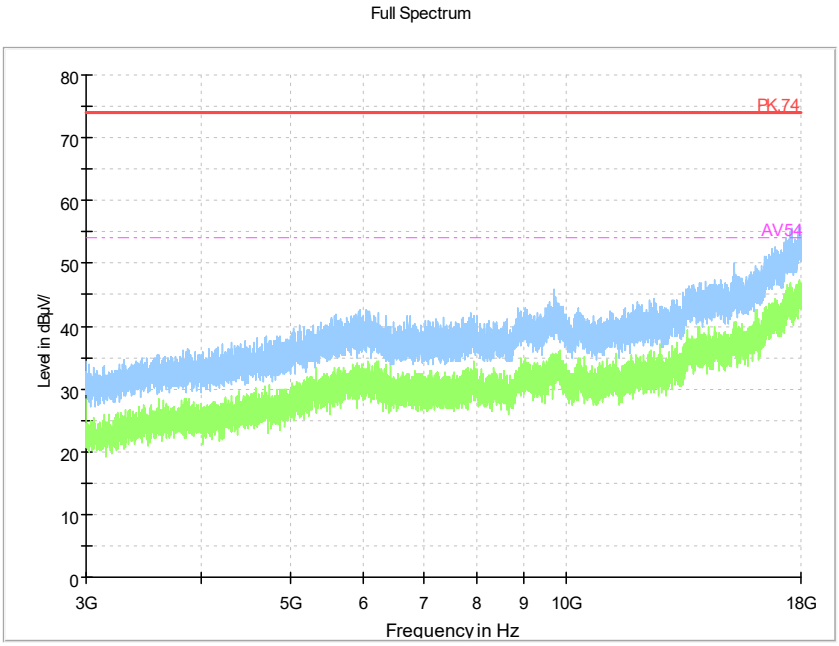
Channel No.:39



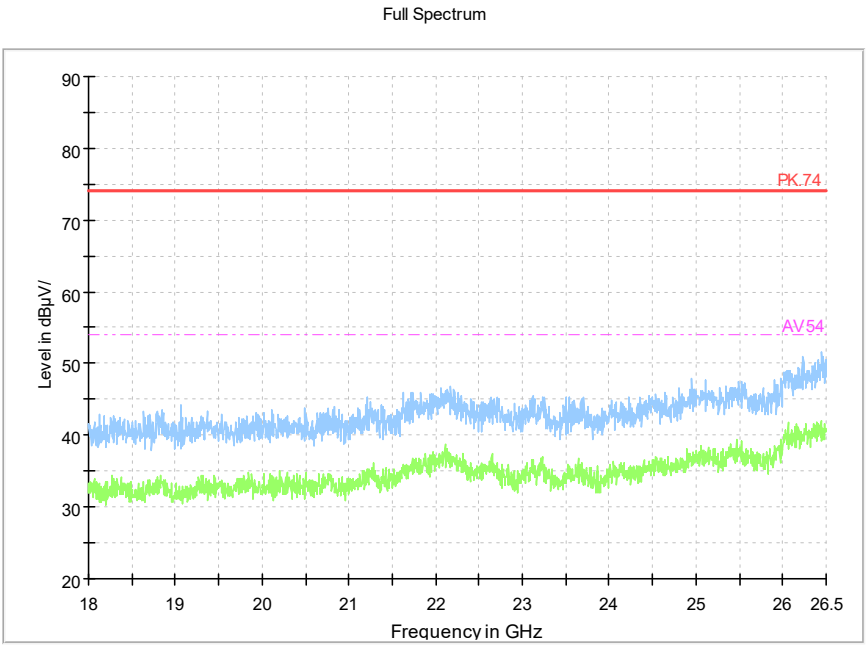
Frequency Range: 30MHz-1GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)



Frequency Range: 1GHz-3GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)



Frequency Range: 3GHz-18GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)



Frequency Range: 18GHz-26GHz
Detector: Av mode and PK mode
Modulation type: GFSK (LE 2Mbps)

AC Power line Conducted Emission

A “reference path loss” Corr.(dB) is established and the L_{cable}+ATT+VDF is the attenuation of ” reference path loss”, and including the cable loss, the attenuation of the attenuator, the voltage division factor of AMN.

The measurement results are obtained as described below:

$P_{result}=P_{mea}$+ Corr.(dB)

Sample calculation: (39.98 dBμV) = (10.28 dBμV) + (29.7dB), the corresponding frequency is 0.17132MHz.

L+N Line

MEASUREMENT RESULT:

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	Pmea QuasiPeak (dBμV)	Pmea Average (dBμV)
0.17132	39.98	---	64.9	24.91	N	29.7	10.28	---
0.17132	---	31.76	54.9	23.14	N	29.7	---	2.06
0.61907	---	34.48	46	11.52	N	29.7	---	4.78
0.67024	36.72	---	56	19.28	N	29.7	7.02	---
1.74058	44.28	---	56	11.72	L1	29.8	14.48	---
1.75337	---	34.79	46	11.21	N	29.7	---	5.09
2.16701	34.99	---	56	21.01	L1	29.8	5.19	---
2.28214	---	29.12	46	16.88	N	29.7	---	-0.58
11.0154	---	20.03	50	29.97	L1	30	---	-9.97
11.557	21.65	---	60	38.35	L1	30	-8.35	---
14.7808	---	19.06	50	30.94	L1	30	---	-10.94
23.6462	19.96	---	60	40.04	L1	30	-10.04	---

---End of Test Report---