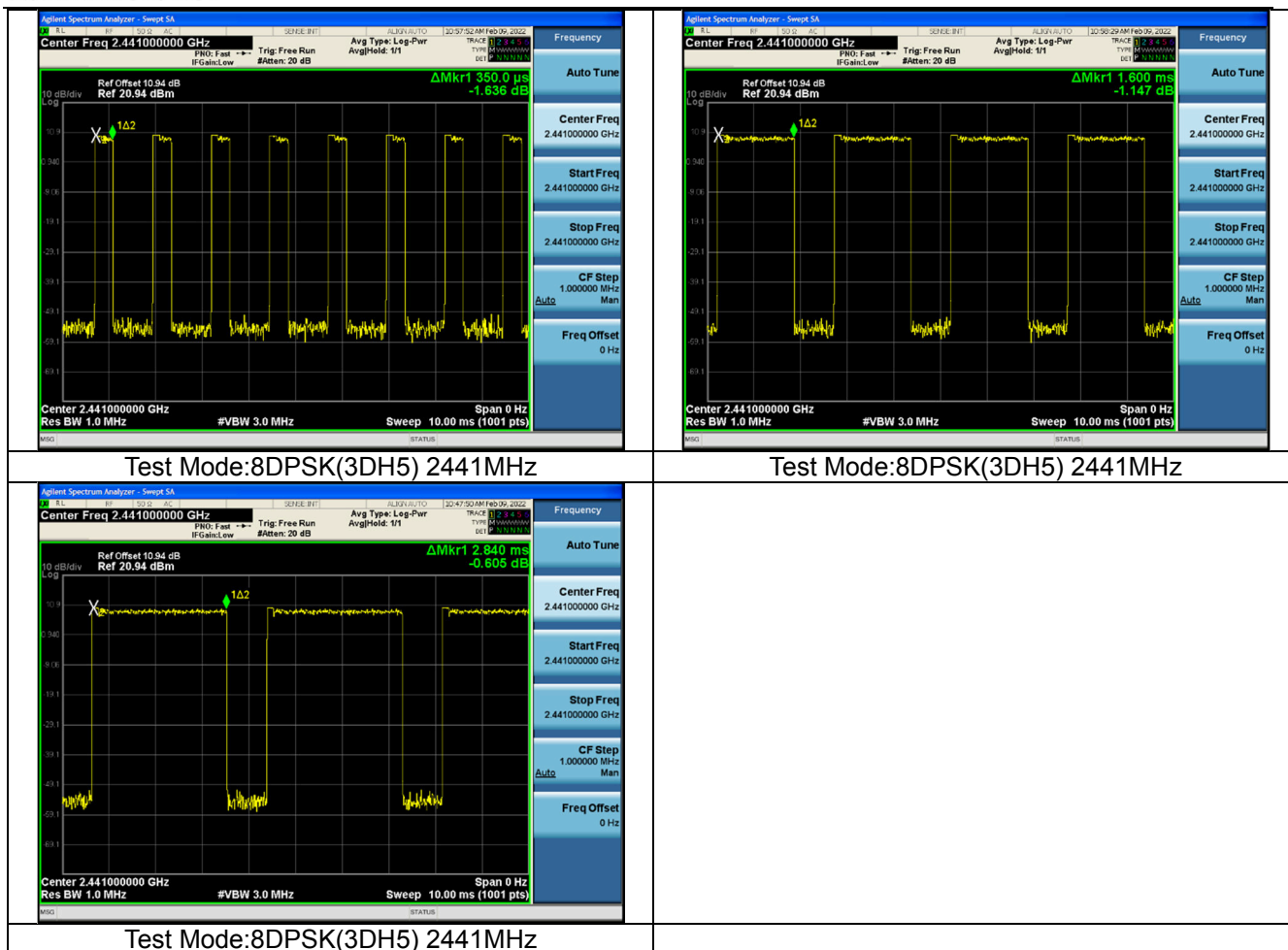
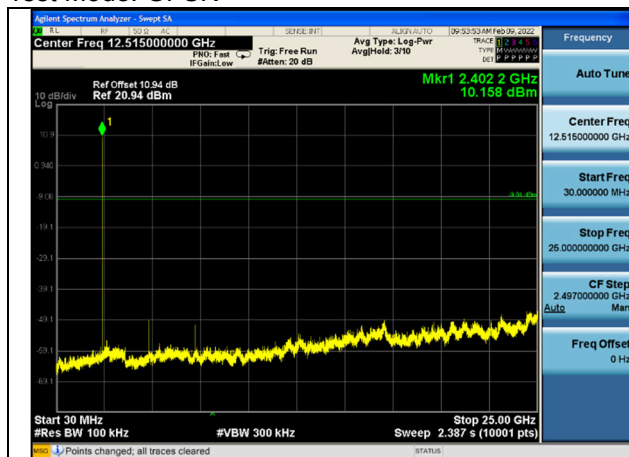


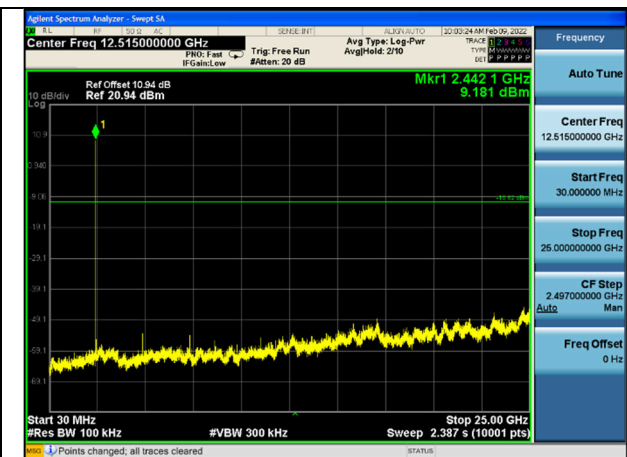


6 Conducted Out of band emission measurement

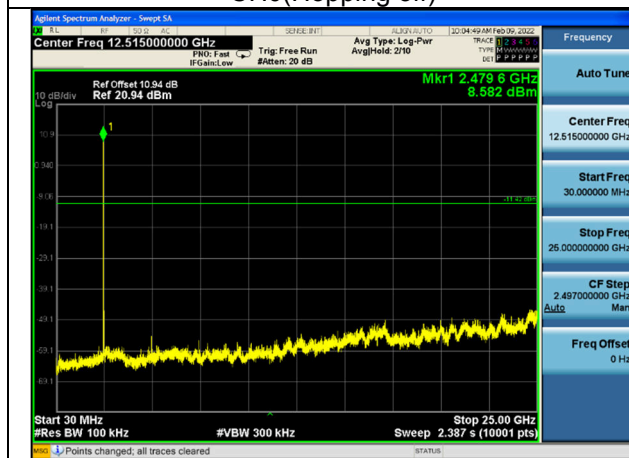
Test Mode: GFSK



CH0(Hopping off)

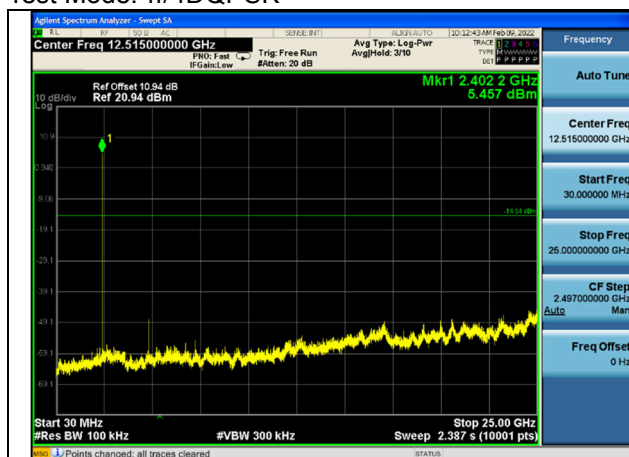


CH39(Hopping off)

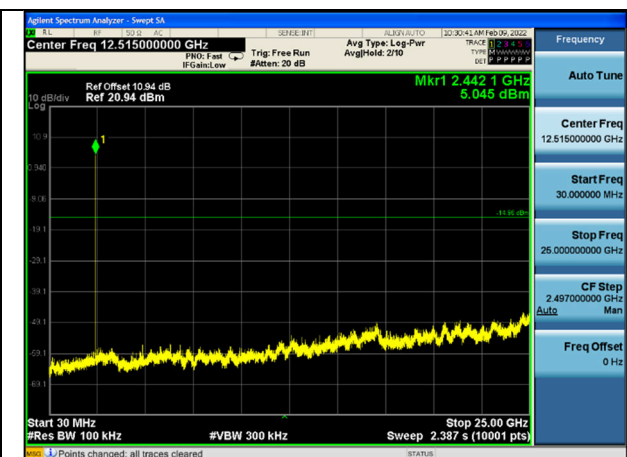


CH78(Hopping off)

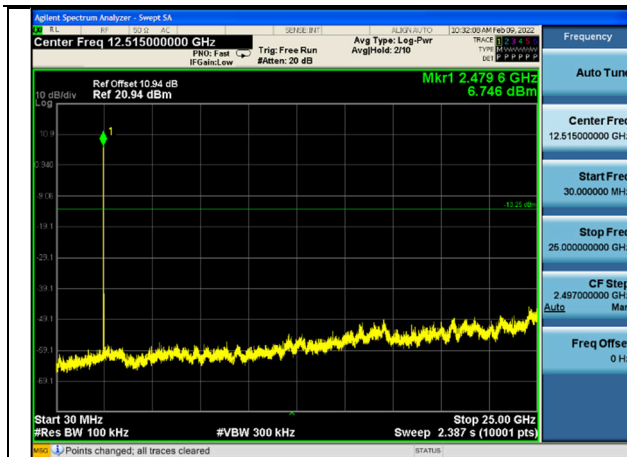
Test Mode: π /4DQPSK



CH0(Hopping off)

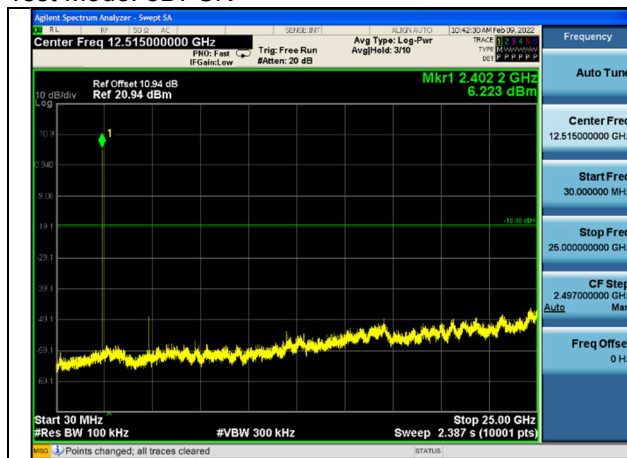


CH39(Hopping off)

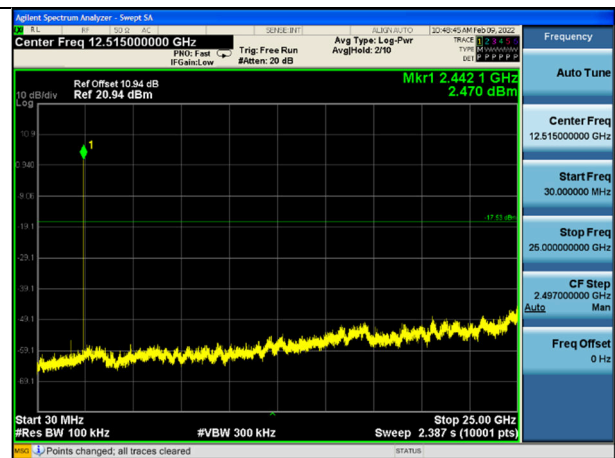


CH78(Hopping off)

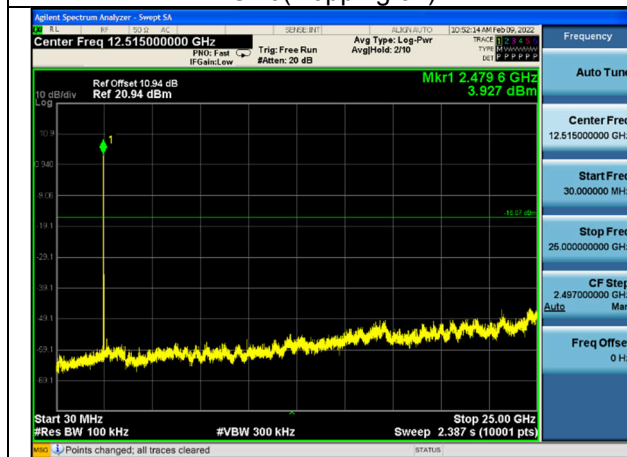
Test Mode: 8DPSK



CH0(Hopping off)



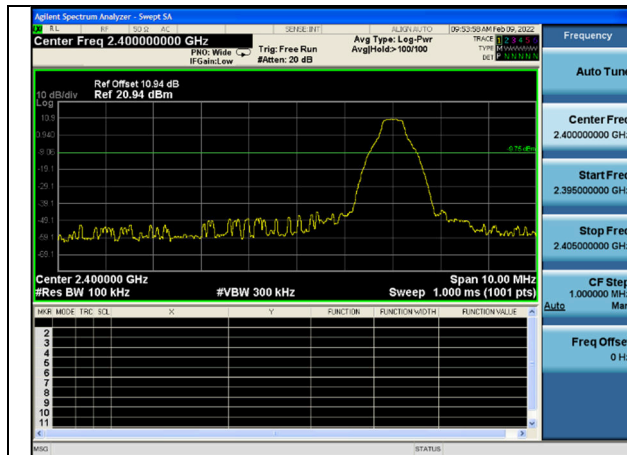
CH39(Hopping off)



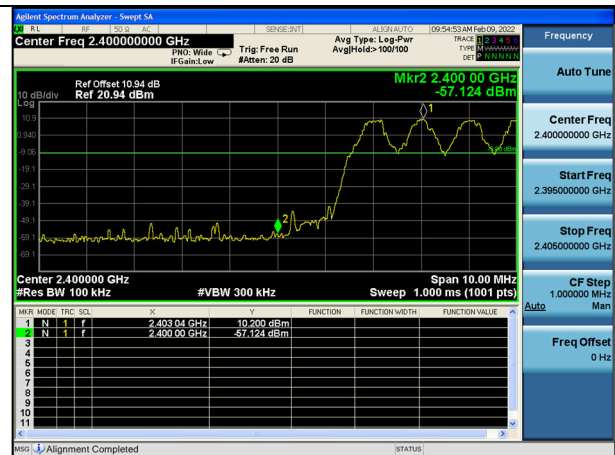
CH78(Hopping off)

7 Band Edge measurement

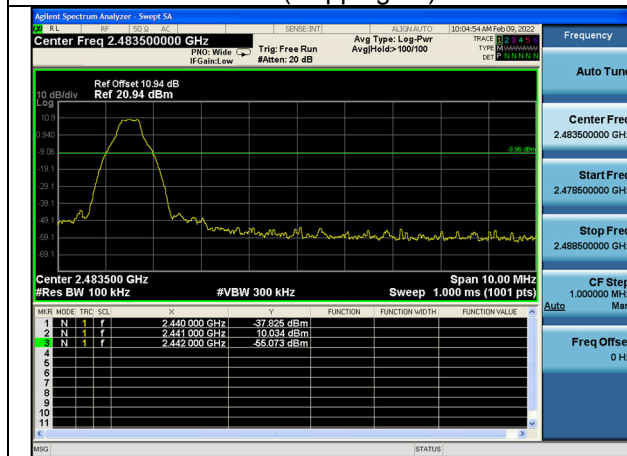
Test Mode: GFSK



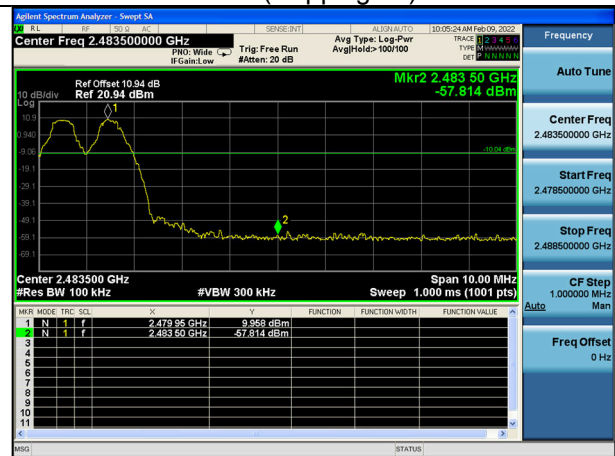
CH0(Hopping off)



CH0(Hopping on)

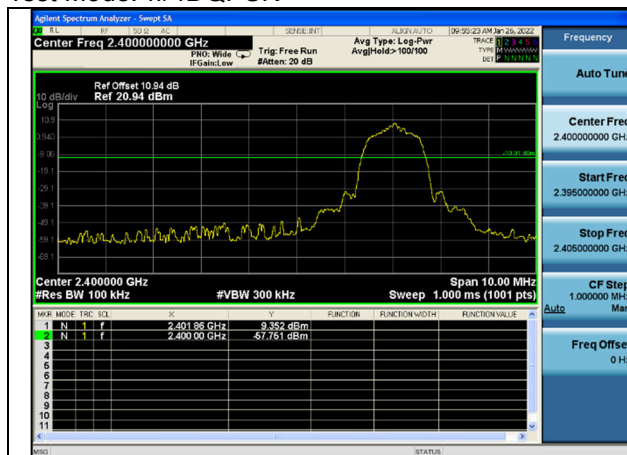


CH78(Hopping off)

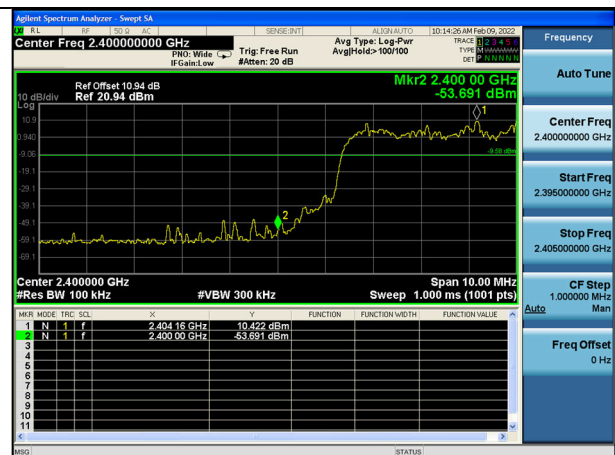


CH78(Hopping on)

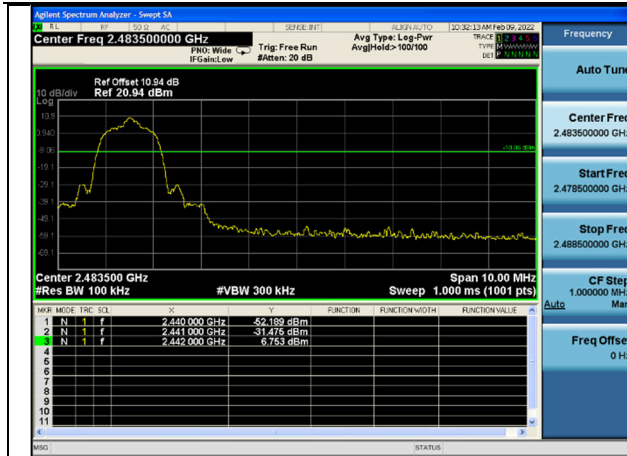
Test Mode: $\pi/4$ DQPSK



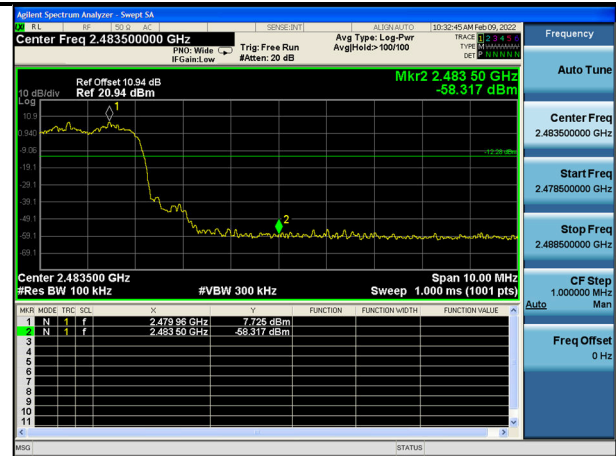
CH0(Hopping off)



CH0(Hopping on)

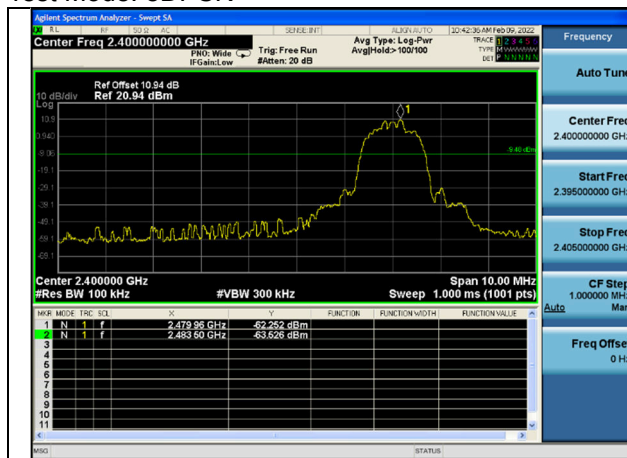


CH78(Hopping off)

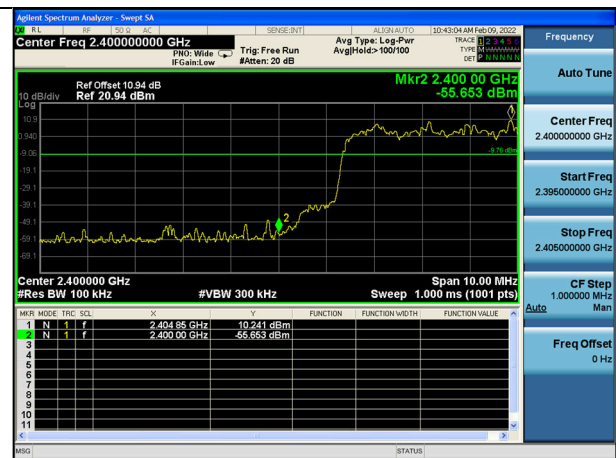


CH78(Hopping on)

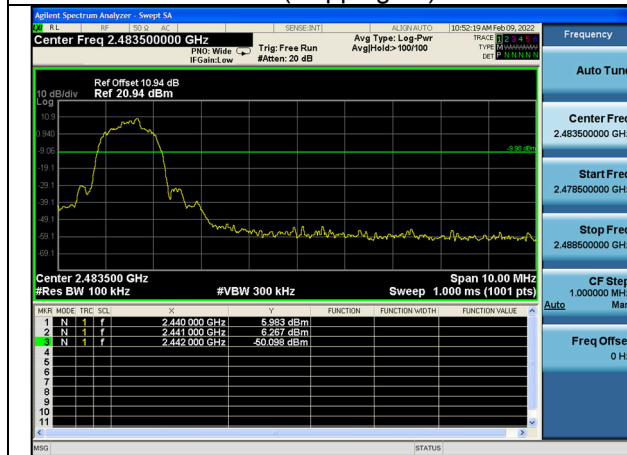
Test Mode: 8DPSK



CH0(Hopping off)



CH0(Hopping on)



CH78(Hopping off)



CH78(Hopping on)

APPENDIX B – TEST DATA OF RADIATED EMISSION

Radiated Emission Band Edge

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

Note : There were no emissions above 18GHz found within 20dB of the limit. Thus the test result was not reported according to §15.31 (o)

The measurement results are obtained as described below:

Measure Level = Reading Level + Cable loss + Antenna factor Sample calculation: (93.01 dBuV/m) = (59.10 dBμV) + (8.90 dB) + (25.10 dB), the corresponding frequency is 2402MHz.

BR-1Mbps

Carrier Frequency (MHz): 2402

Channel No.: 0

Test Mode: GFSK

Detector: Peak

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2402.0	59.10	93.10	N/A	N/A	8.90	25.10
2	2390.0	9.10	43.10	-30.90	74.00	8.90	25.10

Detector: Average

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2402.0	55.90	89.90	N/A	N/A	8.90	25.10
2	2390.0	-6.70	27.30	-26.70	54.00	8.90	25.10

Carrier Frequency (MHz): 2480

Channel No.: 78

Test Mode: GFSK

Detector: Peak

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2480.0	60.60	94.60	N/A	N/A	8.90	25.10
2	2483.5	11.60	45.60	-28.40	74.00	8.90	25.10

Detector: Average

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2480.0	57.70	91.70	N/A	N/A	8.90	25.10
2	2483.5	-7.00	27.00	-27.00	54.00	8.90	25.10

EDR-2Mbps

Carrier Frequency (MHz): 2402

Channel No.: 0

Test Mode: $\pi/4$ DQPSK

Detector: Peak

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2402.0	56.80	90.80	N/A	N/A	8.90	25.10
2	2390.0	8.10	42.10	-31.90	74.00	8.90	25.10

Detector: Average

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2402.0	55.50	89.50	N/A	N/A	8.90	25.10
2	2390.0	-7.10	26.90	-27.10	54.00	8.90	25.10

Carrier Frequency (MHz): 2480

Channel No.: 78

Test Mode: $\pi/4$ DQPSK

Detector: Peak

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2480.0	56.20	90.20	N/A	N/A	8.90	25.10
2	2483.5	9.10	43.10	-30.90	74.00	8.90	25.10

Detector: Average

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2480.0	54.50	88.50	N/A	N/A	8.90	25.10
2	2483.5	-6.30	27.70	-26.30	54.00	8.90	25.10

EDR-3Mbps

Carrier Frequency (MHz): 2402

Channel No.: 0

Test Mode: 8DPSK

Detector: Peak

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2402.0	58.60	92.60	N/A	N/A	8.90	25.10
2	2390.0	9.10	43.10	-30.90	74.00	8.90	25.10

Detector: Average

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2402.0	52.50	86.50	N/A	N/A	8.90	25.10
2	2390.0	-7.10	26.90	-27.10	54.00	8.90	25.10

Carrier Frequency (MHz): 2480

Channel No.: 78

Test Mode: 8DPSK

Detector: Peak

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2480.0	57.80	91.80	N/A	N/A	8.90	25.10
2	2483.5	8.50	42.50	-31.50	74.00	8.90	25.10

Detector: Average

No	Frequency (MHz)	Reading Level (dBuV)	Measure Level (dBuV/m)	Over Limit (dB)	Limit (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB)
1	2480.0	51.90	85.90	N/A	N/A	8.90	25.10
2	2483.5	-8.20	25.80	-28.20	54.00	8.90	25.10

Sample Calculations

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:

Below 1GHz:

QuasiPeak=Reading Value + A_{Rpl}

Above 1GHz:

MaxPeak=Reading MaxPeak + A_{Rpl}

OR

Average=Reading Average + A_{Rpl}

Sample calculation: $(17.26 \text{ dB}\mu\text{V/m}) = (37.46 \text{ dB}\mu\text{V}) + (-20.20 \text{ dB/m})$, the corresponding frequency is 215.949MHz.

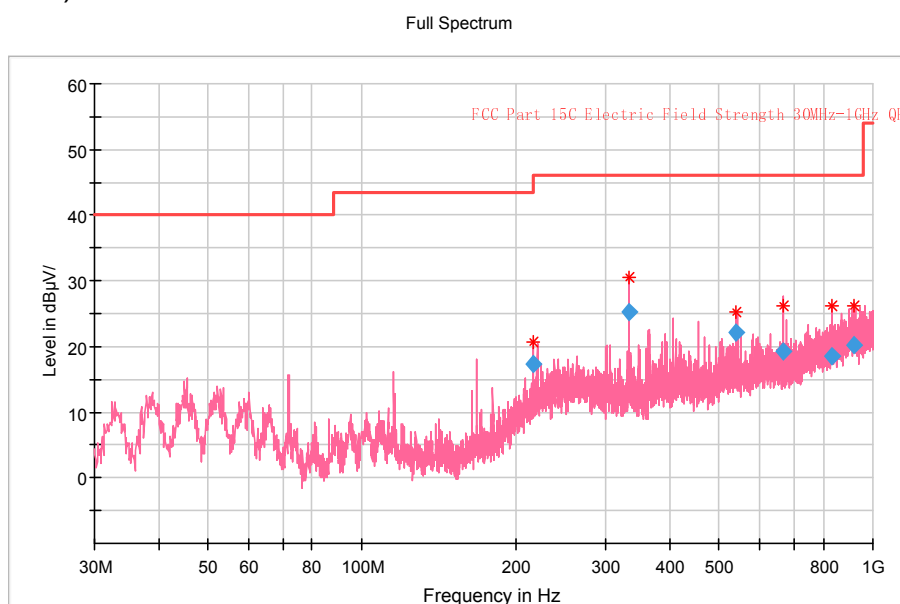
The worst case attitude: The mobile lay down.

BR-1Mbps

Spurious Radiated Emissions from 30MHz to 1GHz:

GFSK:

CH Middle (No.39)



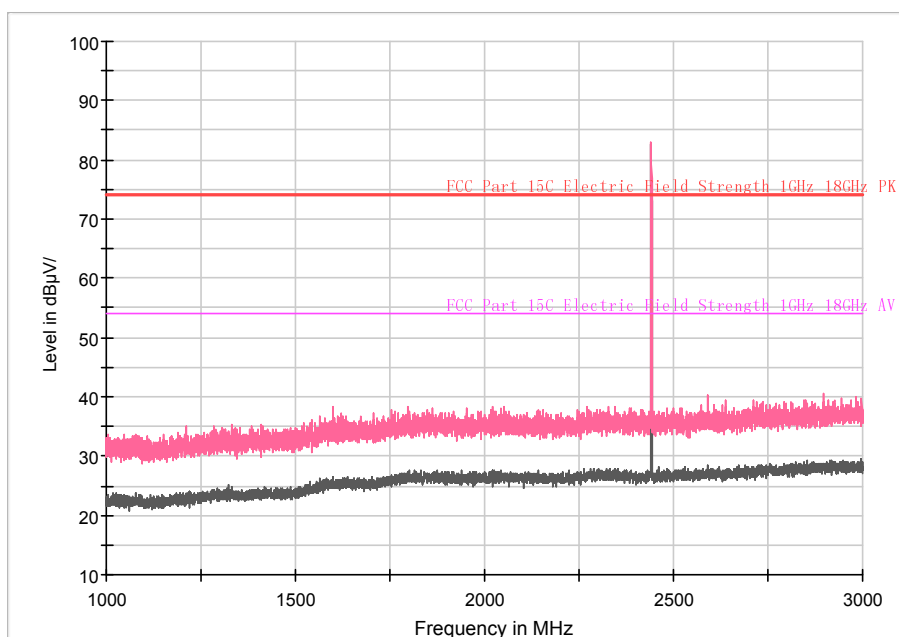
Frequency (MHz)	Reading (dBuV)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	A_{Rpl} (dB)	Polarity
215.949	37.46	17.26	43.50	26.24	-20.20	Vertical
332.931	40.76	25.16	46.00	20.84	-15.60	Vertical
541.578	32.58	22.18	46.00	23.82	-10.40	Vertical
666.611	26.86	19.36	46.00	26.64	-7.50	Vertical
831.705	22.94	18.44	46.00	27.56	-4.50	Vertical
916.289	22.73	20.13	46.00	25.87	-2.60	Vertical

Spurious Radiated Emissions from 1GHz to 18GHz:

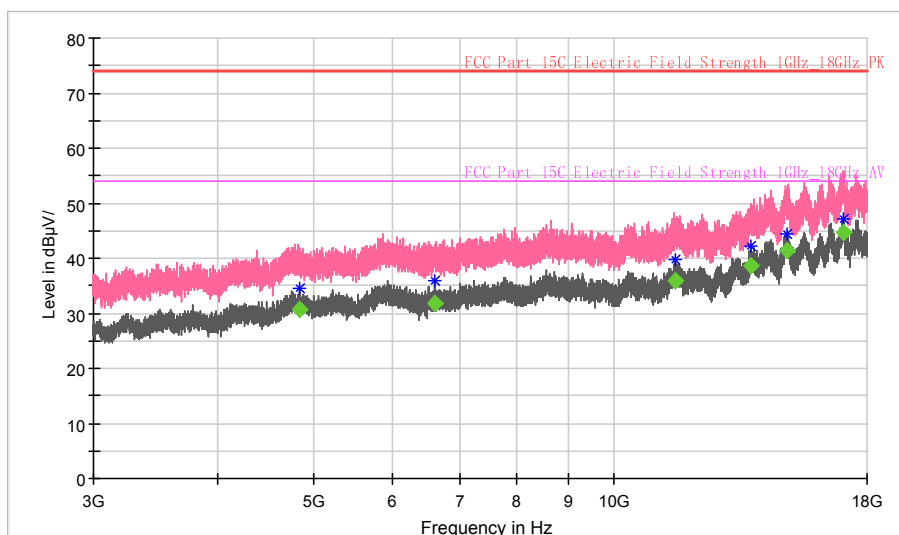
GFSK:

CH Middle (No.39)

Full Spectrum



Full Spectrum



Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4839.500	---	52.08	---	30.78	54.00	23.22
6614.000	---	53.05	---	31.65	54.00	22.35
11535.500	---	52.42	---	35.92	54.00	18.08
13740.000	---	52.84	---	38.64	54.00	15.36
14937.500	---	54.77	---	41.37	54.00	12.63
17030.000	---	56.61	---	44.61	54.00	9.39

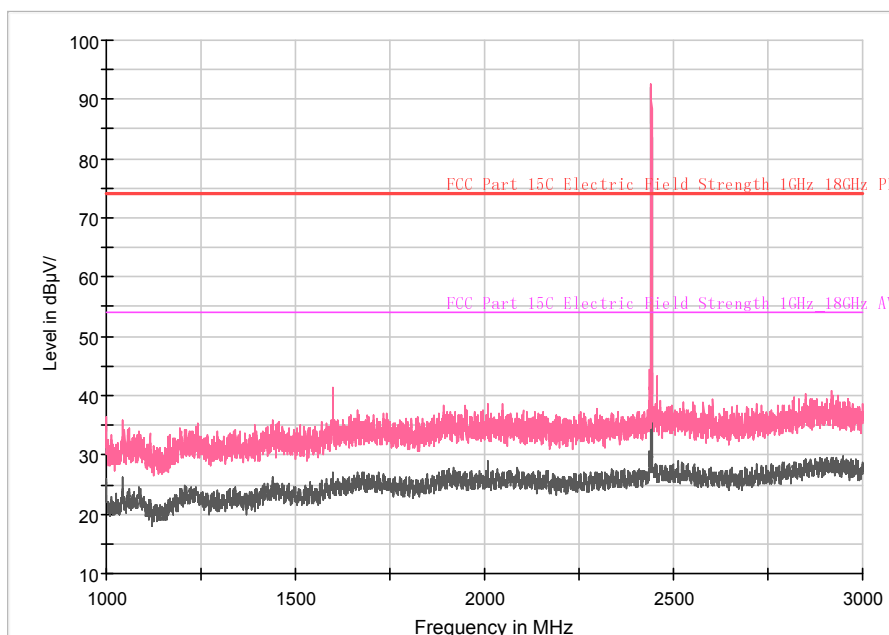
EDR-2Mbps

Spurious Radiated Emissions from 1GHz to 18GHz:

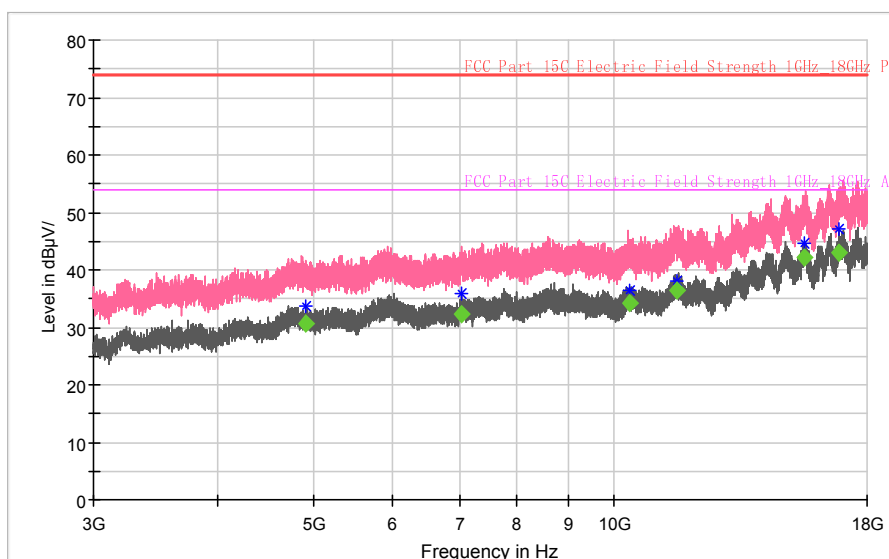
$\pi/4$ DQPSK:

CH Middle (No.39)

Full Spectrum



Full Spectrum



Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4900.500	---	52.41	---	30.61	54.00	23.39
7034.000	---	53.76	---	32.46	54.00	21.54
10390.000	---	53.12	---	34.22	54.00	19.78
11604.000	---	52.90	---	36.40	54.00	17.60
15582.000	---	55.69	---	42.09	54.00	11.91
16877.000	---	55.53	---	43.13	54.00	10.87

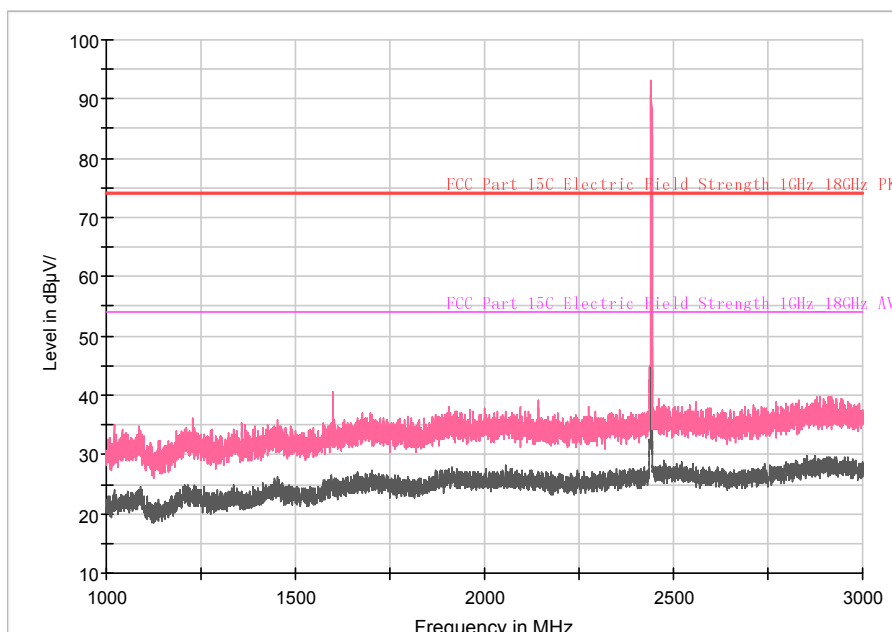
EDR-3Mbps

Spurious Radiated Emissions from 1GHz to 18GHz:

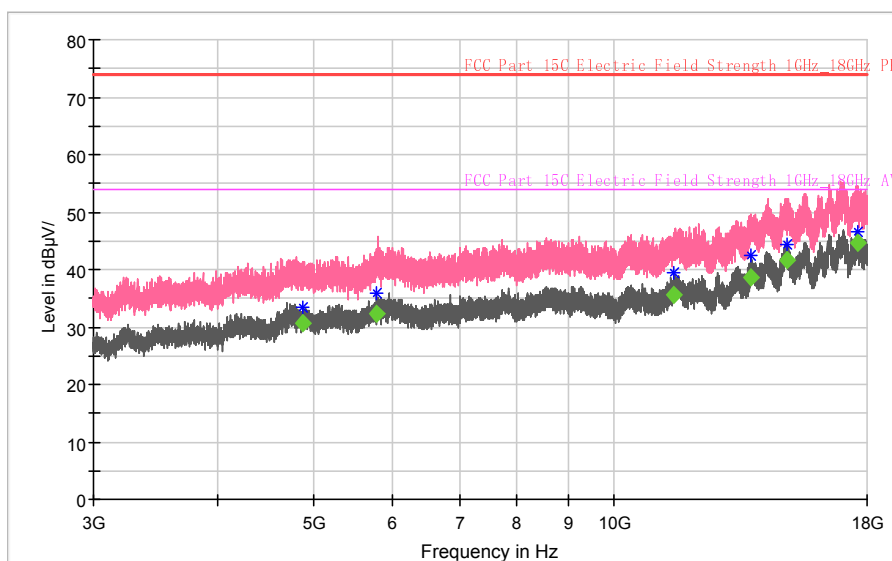
8DPSK:

CH Middle (No.39)

Full Spectrum

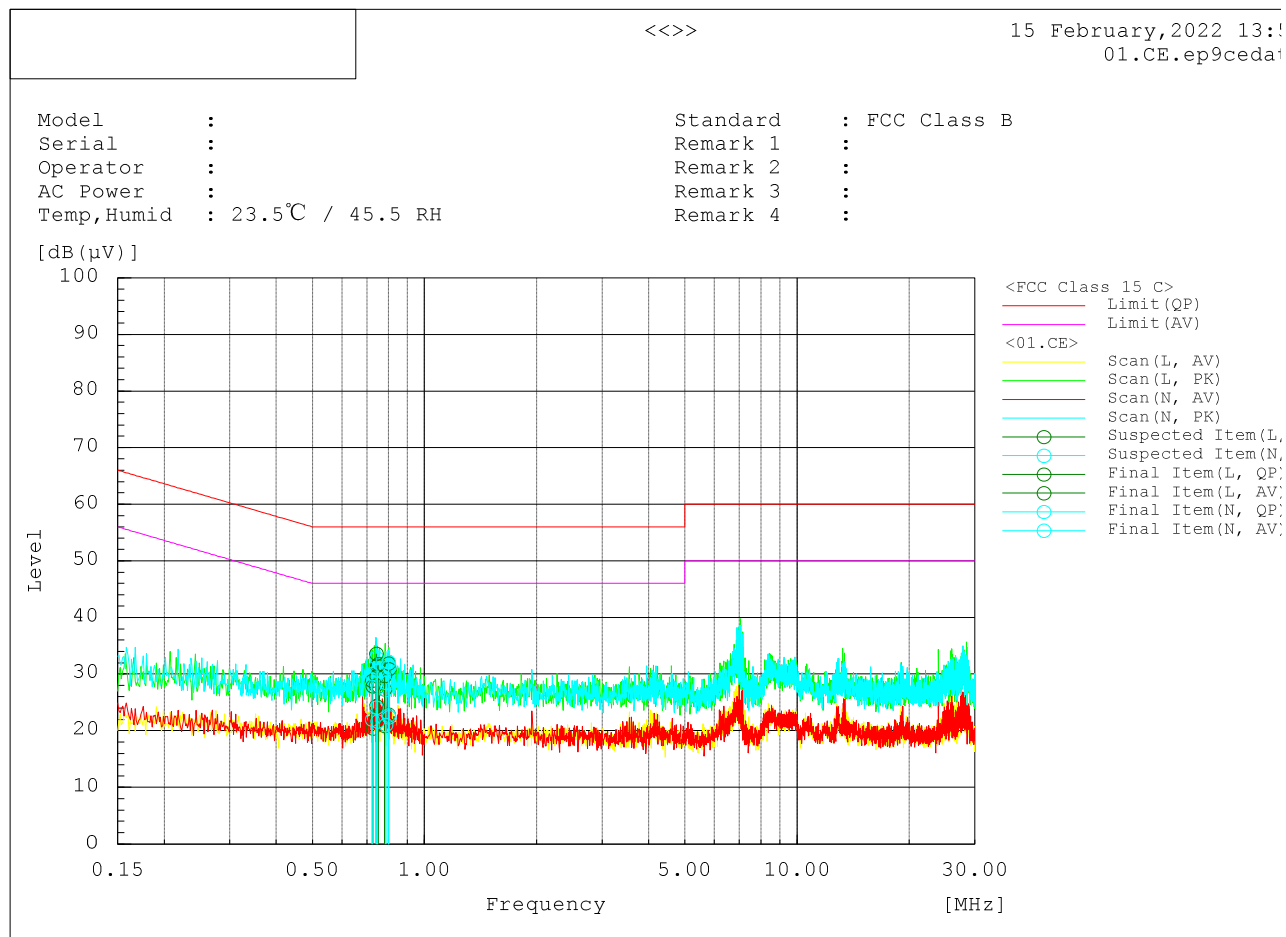


Full Spectrum



Frequency (MHz)	Reading MaxPeak (dBuV)	Reading Average (dBuV)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)
4871.500	---	52.23	---	30.63	54.00	23.37
5770.000	---	52.55	---	32.35	54.00	21.65
11516.500	---	51.99	---	35.49	54.00	18.51
13751.500	---	52.85	---	38.75	54.00	15.25
14949.000	---	55.13	---	41.73	54.00	12.27
17579.000	---	55.87	---	44.67	54.00	9.33

AC Power line Conducted Emission



Range	Frequency	Line	Reading			Factor	Level			Limit	Limit			Margin			Pass/Fail
	MHz		dB(μV)			dB	dB(μV)			dB(μV)	dB(μV)			dB			
			QP	AV	PK		QP	AV	PK		QP	AV	PK	QP	AV	PK	
Band1	0.727	L	8.1	0.6		19.8	27.9	20.4			56	46		28.1	25.6		Pass
Band1	0.742	L	13.8	4.5		19.8	33.6	24.3			56	46		22.4	21.7		Pass
Band1	0.746	L	11.7	2.7		19.8	31.5	22.5			56	46		24.5	23.5		Pass
Band1	0.751	L	12	2.1		19.8	31.8	21.9			56	46		24.2	24.1		Pass
Band1	0.781	L	9.9	1.1		19.8	29.7	20.9			56	46		26.3	25.1		Pass
Band1	0.8	L	12.1	3		19.8	31.9	22.8			56	46		24.1	23.2		Pass
Band1	0.723	N	10.2	2.2		19.8	30	22			56	46		26	24		Pass
Band1	0.743	N	13.1	4.3		19.8	32.9	24.1			56	46		23.1	21.9		Pass
Band1	0.748	N	10.9	1.9		19.8	30.7	21.7			56	46		25.3	24.3		Pass
Band1	0.788	N	8.6	1.2		19.8	28.4	21			56	46		27.6	25		Pass
Band1	0.803	N	11.6	2.6		19.8	31.4	22.4			56	46		24.6	23.6		Pass
Band1	0.8	N	12.3	2.9		19.8	32.1	22.7			56	46		23.9	23.3		Pass

---End of Test Report---