

Appendix A of data

A1.Maximum Peak Conducted Output Power

Test Result

Left ear headphones

Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	-0.43	0.91	≤21	PASS
		39	-1.20	0.76		PASS
		78	-2.25	0.60		PASS
π/4DQPSK	2-DH5	0	-3.07	0.49		PASS
		39	-4.02	0.40		PASS
		78	-5.22	0.30		PASS
8DPSK	3-DH5	0	-2.99	0.50		PASS
		39	-3.94	0.40		PASS
		78	-5.13	0.31		PASS

Right ear headphones

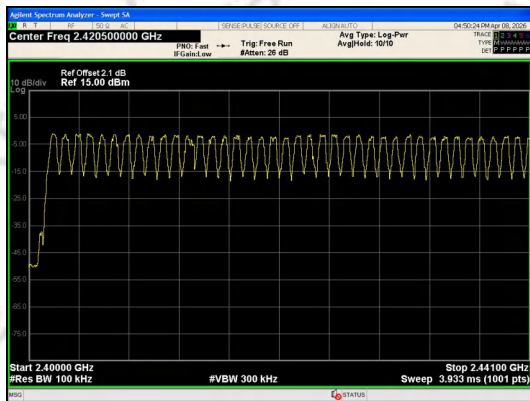
Modulation	Packet Type	Channel	Peak Output Power (dBm)	Peak Output Power (mW)	Limit (dBm)	Result
GFSK	DH5	0	-0.46	0.90	≤21	PASS
		39	-1.28	0.74		PASS
		78	-2.31	0.59		PASS
π/4DQPSK	2-DH5	0	-3.15	0.48		PASS
		39	-4.52	0.35		PASS
		78	-5.38	0.29		PASS
8DPSK	3-DH5	0	-3.54	0.44		PASS
		39	-3.99	0.40		PASS
		78	-5.35	0.29		PASS

A2.Number of Hopping Frequencies

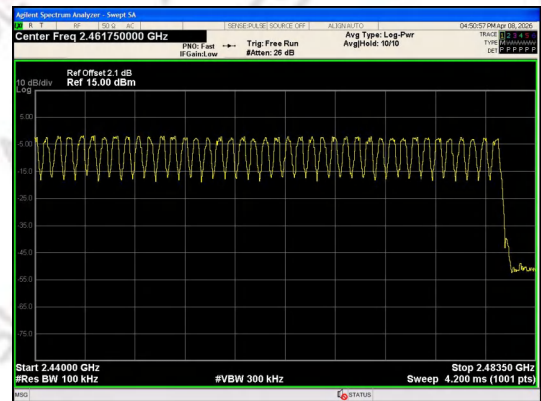
Test Result

Modulation	Packet	Number of Hopping Channel	Limit	Result
GFSK	DH5	79	15	PASS
$\pi/4$ DQPSK	2-DH5	79	15	PASS
8DPSK	3-DH5	79	15	PASS

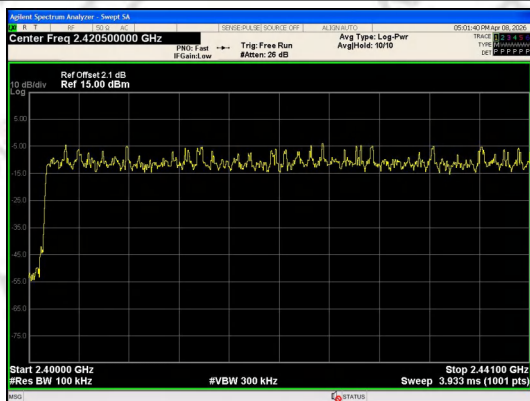
Test Graphs



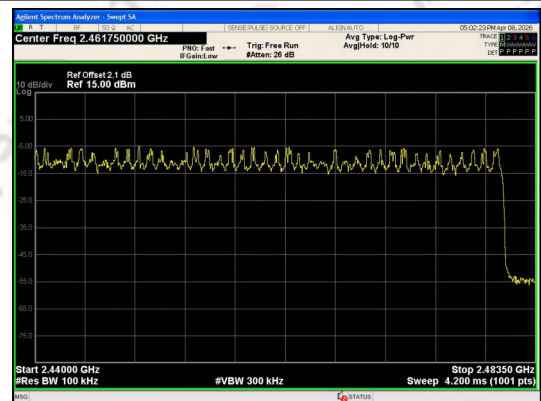
Low End Spectrum Channel Hopping Plot
GFSK



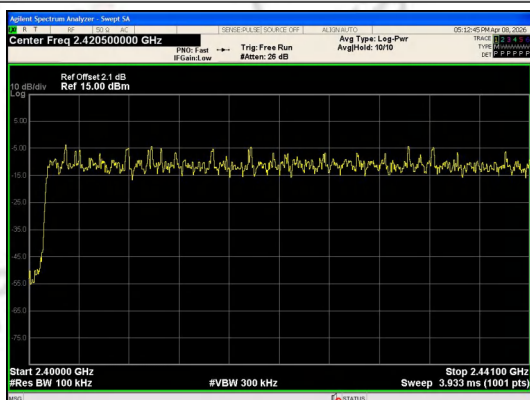
High End Spectrum Channel Hopping Plot
GFSK



Low End Spectrum Channel Hopping Plot
 $\pi/4$ DQPSK



High End Spectrum Channel Hopping Plot
 $\pi/4$ DQPSK



Low End Spectrum Channel Hopping Plot
8DPSK



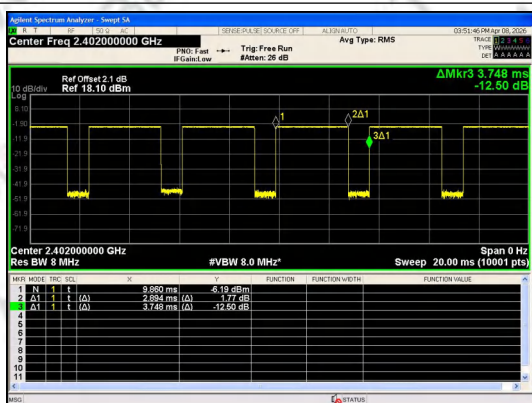
High End Spectrum Channel Hopping Plot
8DPSK

A3.Duty Cycle and Dwell Time

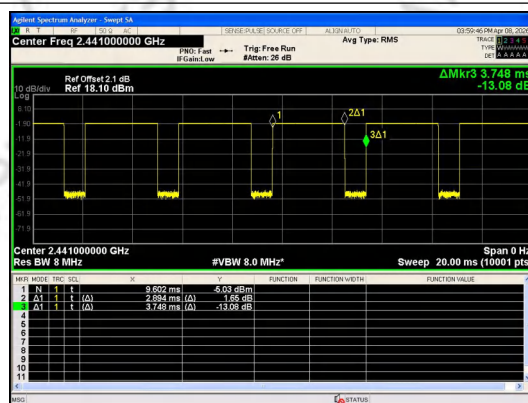
Duty Cycle Test Result

Modulation	Packets	Channel	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle (linear)	Duty Cycle Factor (dB)
GFSK	DH5	0	2.894	3.748	77.21	0.7721	1.1233
		39	2.894	3.748	77.21	0.7721	1.1233
		78	2.896	3.748	77.27	0.7727	1.1199
$\pi/4$ DQPSK	2-DH5	0	2.902	3.748	77.43	0.7743	1.1109
		39	2.900	3.748	77.37	0.7737	1.1143
		78	2.902	3.748	77.43	0.7743	1.1109
8DPSK	3-DH5	0	2.902	3.748	77.43	0.7743	1.1109
		39	2.900	3.748	77.37	0.7737	1.1143
		78	2.902	3.748	77.43	0.7743	1.1109

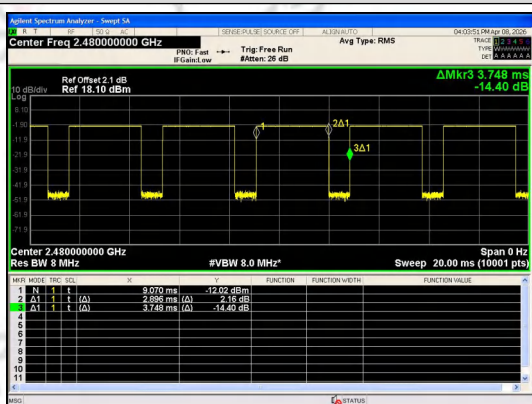
Test Graphs



GFSK(DH5)_Channel 0



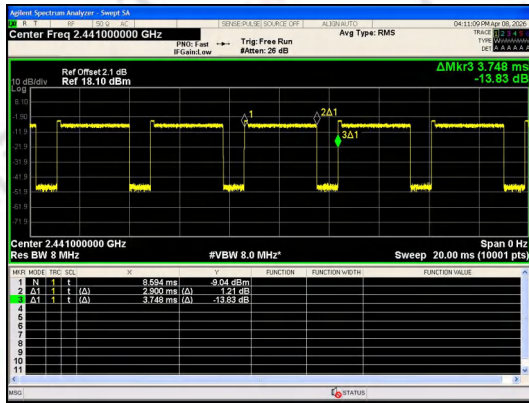
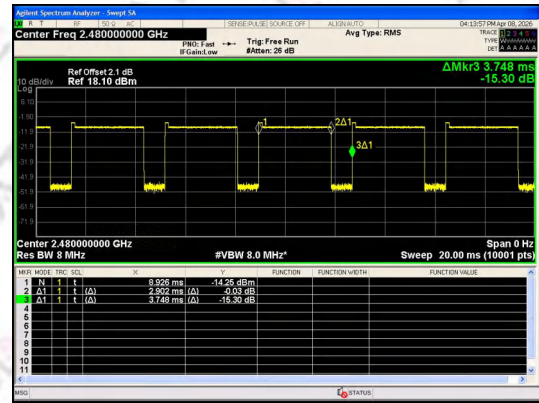
GFSK(DH5)_Channel 39



GFSK(DH5)_Channel 78



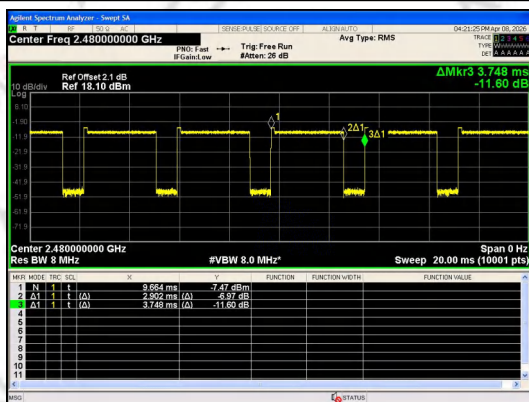
$\pi/4$ DQPSK(2-DH5)_Channel 0


 $\pi/4$ DQPSK(2-DH5)_Channel 39

 $\pi/4$ DQPSK(2-DH5)_Channel 78


8DPSK(3-DH5)_Channel 0



8DPSK(3-DH5)_Channel 39



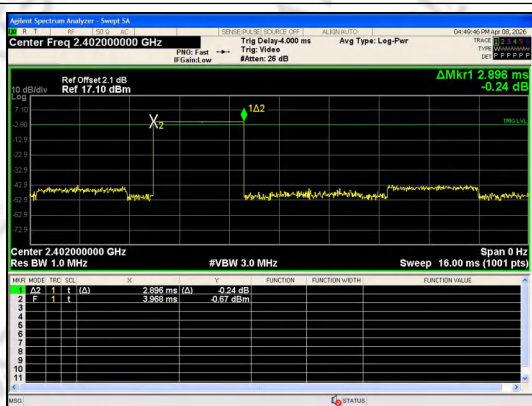
8DPSK(3-DH5)_Channel 78

Dwell Time Test Result

Modulation	Packet	Channel	Pulse Width (ms)	Number of Pulses in 31.6 seconds	Dwell Time (ms)	Limit (ms)	Result
GFSK	DH5	0	2.896	96	278.02	< 400	PASS
$\pi/4$ DQPSK	2-DH5	0	2.896	98	283.81		PASS
8DPSK	3-DH5	0	2.896	104	301.18		PASS

Note: Dwell time=Pulse time(ms)*Number of Pulses in 31.6 seconds

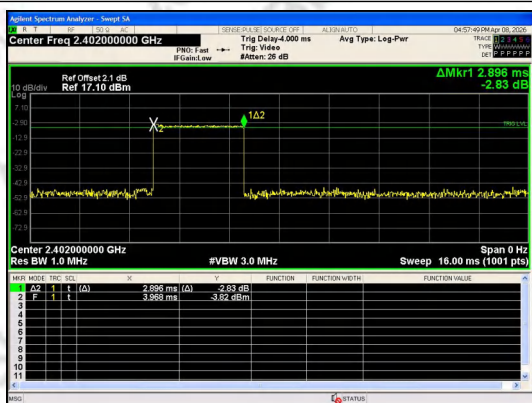
Test Graphs



Pulse Width
GFSK_DH5



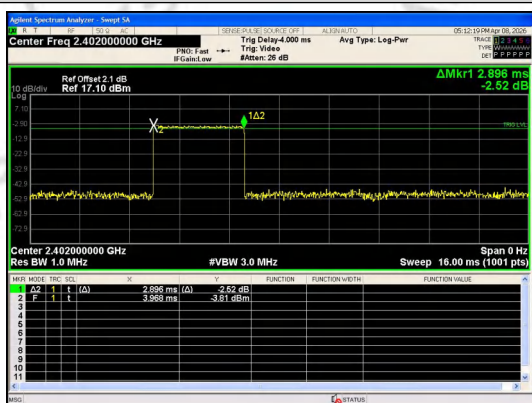
Number of Pulses in 31.6 seconds
GFSK_DH5



Pulse Width
 $\pi/4$ DQPSK_2-DH5



Number of Pulses in 31.6 seconds
 $\pi/4$ DQPSK_2-DH5



Pulse Width



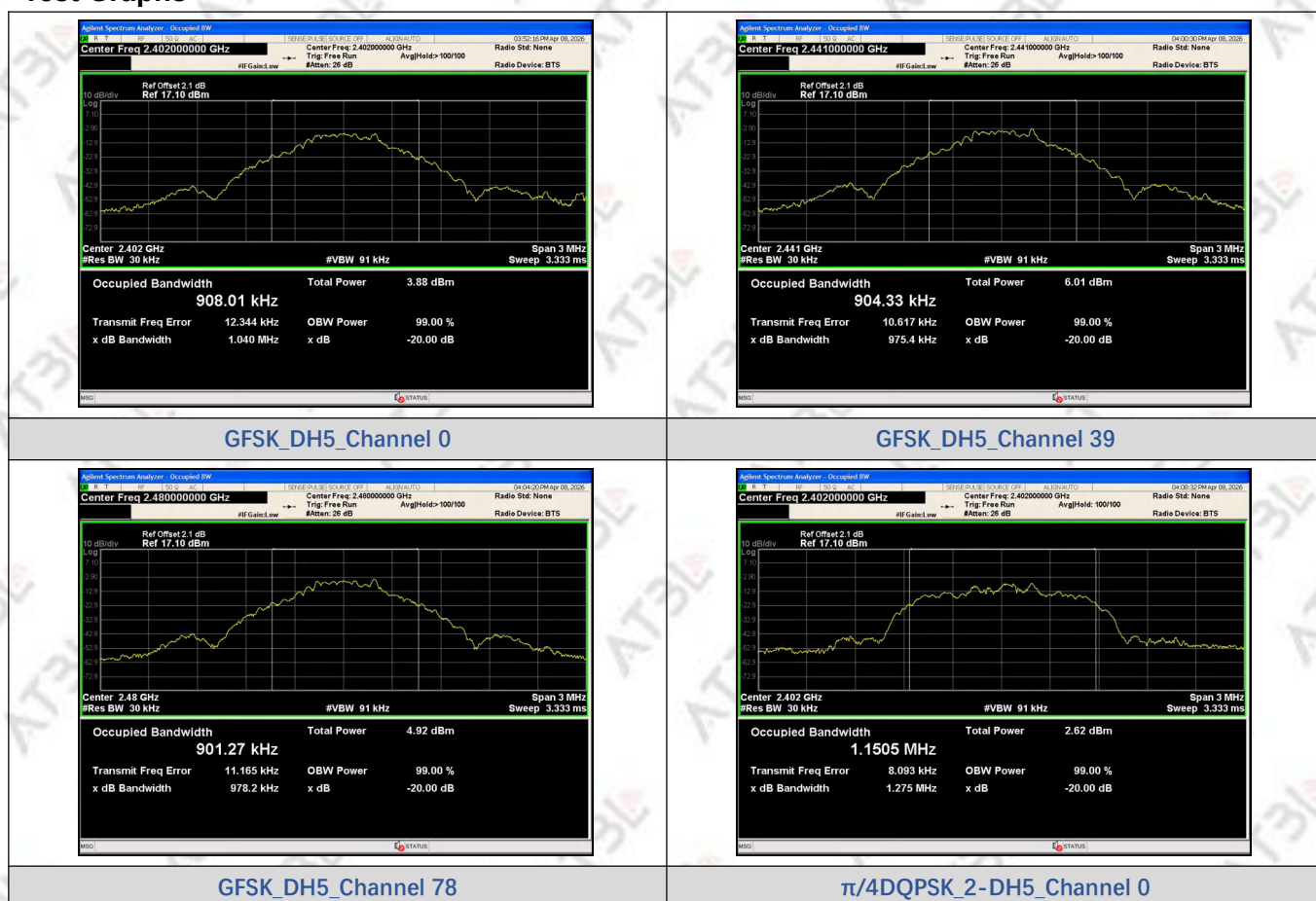
Number of Pulses in 31.6 seconds

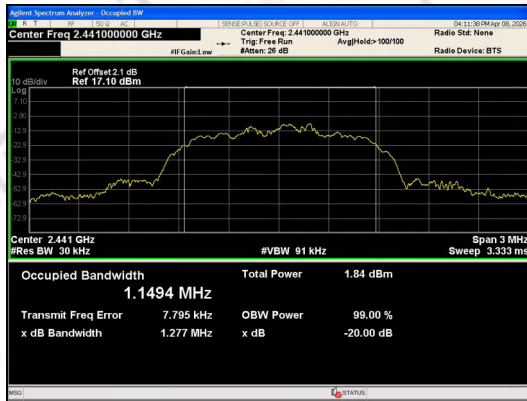
A4.20dB Bandwidth

Test Result

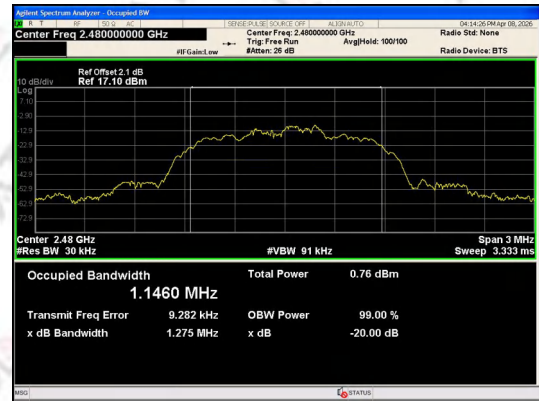
Modulation	Channel	Center Frequency (MHz)	20 dB Bandwidth (MHz)
GFSK	0	2402 MHz	1.040
	39	2441 MHz	0.9754
	78	2480 MHz	0.9782
$\pi/4$ DQPSK	0	2402 MHz	1.275
	39	2441 MHz	1.277
	78	2480 MHz	1.275
8DPSK	0	2402 MHz	1.248
	39	2441 MHz	1.249
	78	2480 MHz	1.279

Test Graphs





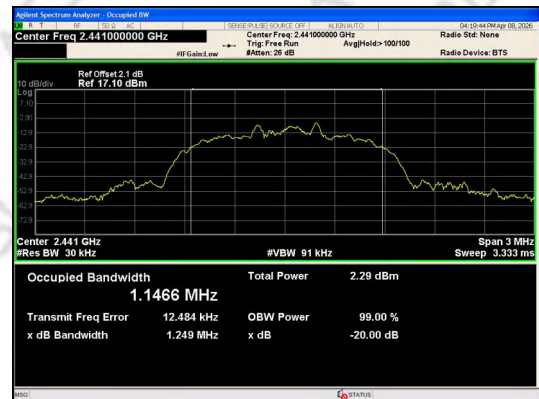
$\pi/4$ DQPSK_2-DH5_Channel 39



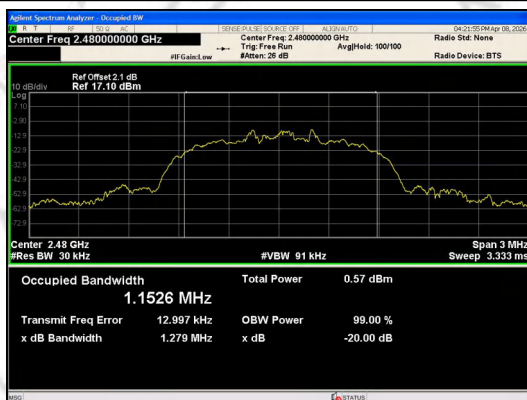
$\pi/4$ DQPSK_2-DH5_Channel 78



8DPSK_3-DH5_Channel 0



8DPSK_3-DH5_Channel 39



8DPSK_3-DH5_Channel 78

A5.Carrier Frequencies Separation

Test Result

Modulation	Channel	Left Center frequency (MHz)	Right Center frequency (MHz)	Hopping Frequency Separation (MHz)	Minimum Limit (MHz)	Result
GFSK	39	2440.0762	2440.9823	0.9061	0.650	PASS
$\pi/4$ DQPSK	39	2440.0282	2441.1677	1.1395	0.851	PASS
8DPSK	39	2440.0282	2441.0825	1.0543	0.832	PASS

Test Graphs



A6.Conducted Spurious & Band Edge Emission

Non-Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	0	48.10	-43.146	-20.77	-22.376	PASS
			2381.90	-47.763	-20.77	-26.993	PASS
			2400.00	-48.245	-20.77	-27.475	PASS
		39	48.10	-43.412	-21.56	-21.852	PASS
		78	48.10	-43.427	-22.63	-20.797	PASS
			2483.50	-53.466	-22.63	-30.836	PASS
$\pi/4$ DQPSK	2-DH5	0	48.10	-42.634	-23.59	-19.044	PASS
			2381.80	-49.036	-23.59	-25.446	PASS
			2400.00	-53.078	-23.59	-29.488	PASS
		39	1926.47	-40.928	-24.57	-16.358	PASS
		78	48.10	-43.227	-25.66	-17.567	PASS
			2483.50	-55.308	-25.66	-29.648	PASS
8DPSK	3-DH5	0	48.10	-42.550	-23.43	-19.120	PASS
			2390.30	-49.661	-23.43	-26.231	PASS
			2400.00	-51.942	-23.43	-28.512	PASS
		39	48.10	-43.550	-24.39	-19.160	PASS
		78	48.10	-42.676	-25.56	-17.116	PASS
			2483.50	-56.083	-25.56	-30.523	PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

Hopping

Modulation	Packet	Channel	OOB Emission Frequency (MHz)	OOB Emission Level (dBm)	Limit (dBm)	Over Limit (dB)	Result
GFSK	DH5	Hopping	2384.84	-47.811	-21.06	-26.751	PASS
			2400.00	-48.593	-21.06	-27.533	PASS
			2483.50	-49.961	-22.33	-27.631	PASS
π/4DQPSK	2-DH5		2385.89	-49.726	-24.57	-25.156	PASS
			2400.00	-52.283	-24.57	-27.713	PASS
8DPSK	3-DH5		2483.50	-54.350	-25.63	-28.720	PASS
			2392.40	-49.402	-23.86	-25.542	PASS

Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs

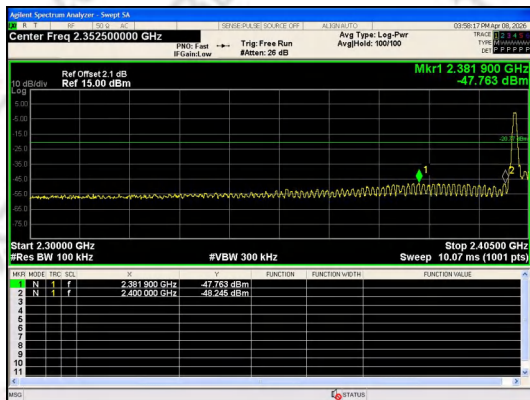
Non-Hopping



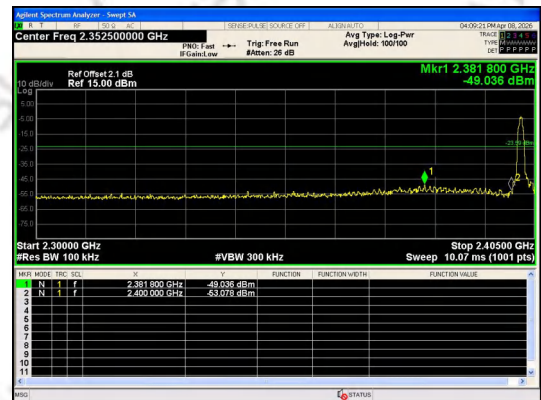
In-Band Reference Level
GFSK_DH5_Channel 0



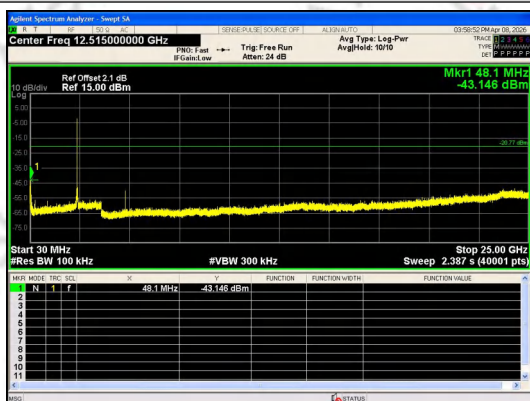
In-Band Reference Level
 $\pi/4$ DQPSK_2-DH5_Channel 0



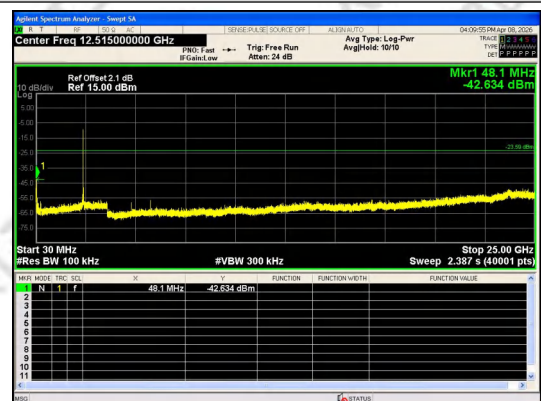
Out Of Band Emission
GFSK_DH5_Channel 0



Out Of Band Emission
 $\pi/4$ DQPSK_2-DH5_Channel 0



30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 0



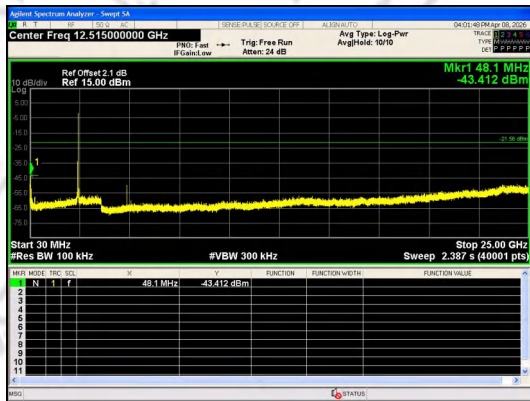
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 0



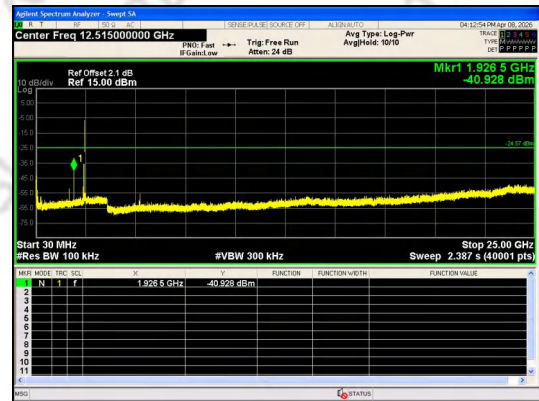
In-Band Reference Level
GFSK_DH5_Channel 39



In-Band Reference Level
 $\pi/4$ DQPSK_2-DH5_Channel 39



30.0 MHz - 25000.0 MHz
GFSK_DH5_Channel 39



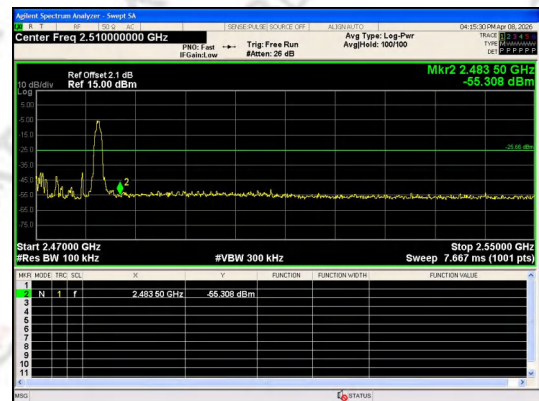
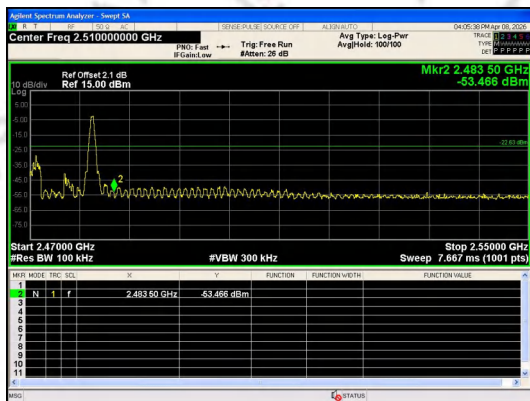
30.0 MHz - 25000.0 MHz
 $\pi/4$ DQPSK_2-DH5_Channel 39



In-Band Reference Level
GFSK_DH5_Channel 78

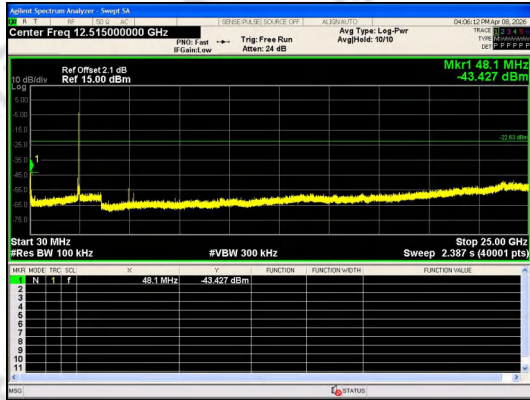


In-Band Reference Level
 $\pi/4$ DQPSK_2-DH5_Channel 78



Out Of Band Emission

GFSK_DH5_Channel 78

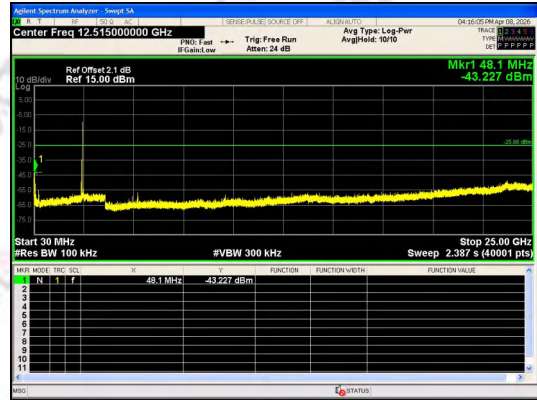


30.0 MHz - 25000.0 MHz

GFSK_DH5_Channel 78

Out Of Band Emission

$\pi/4$ DQPSK_2-DH5_Channel 78



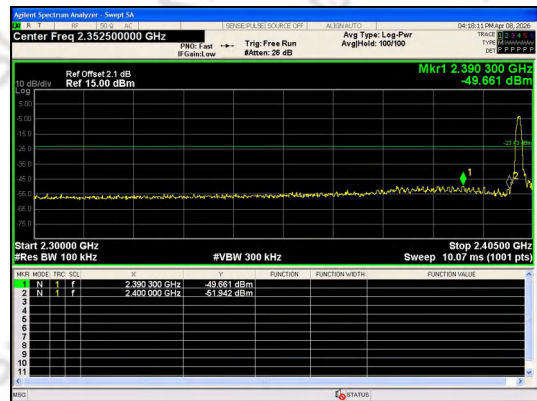
30.0 MHz - 25000.0 MHz

$\pi/4$ DQPSK_2-DH5_Channel 78



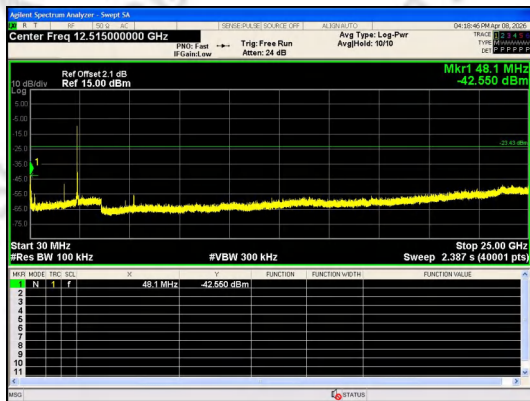
In-Band Reference Level

8DPSK_3-DH5_Channel 0



Out Of Band Emission

8DPSK_3-DH5_Channel 0



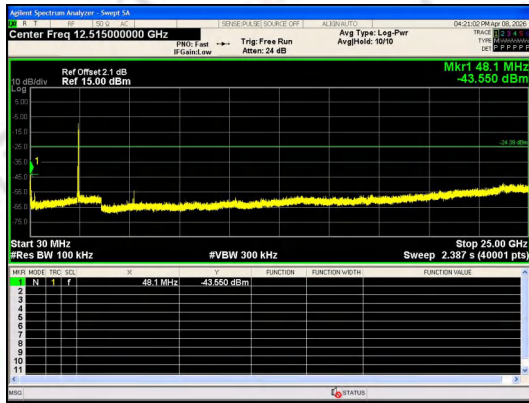
30.0 MHz - 25000.0 MHz

8DPSK_3-DH5_Channel 0



In-Band Reference Level

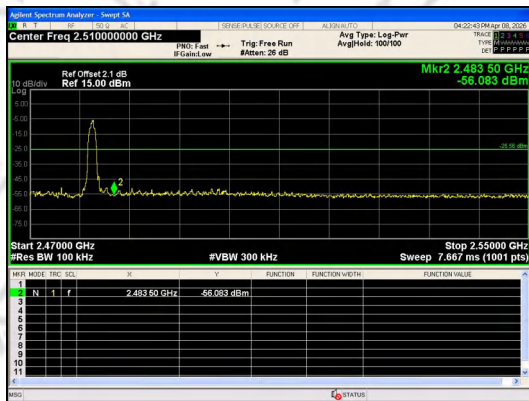
8DPSK_3-DH5_Channel 39



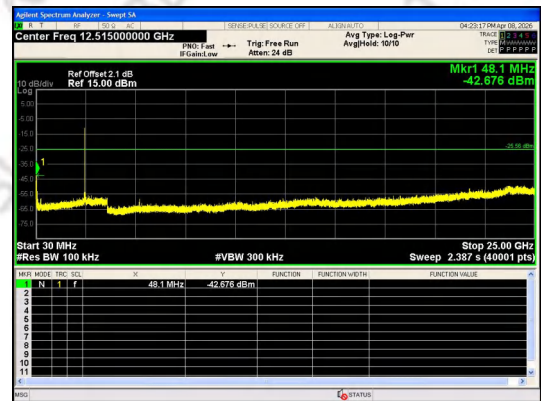
30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 39



In-Band Reference Level
8DPSK_3-DH5_Channel 78

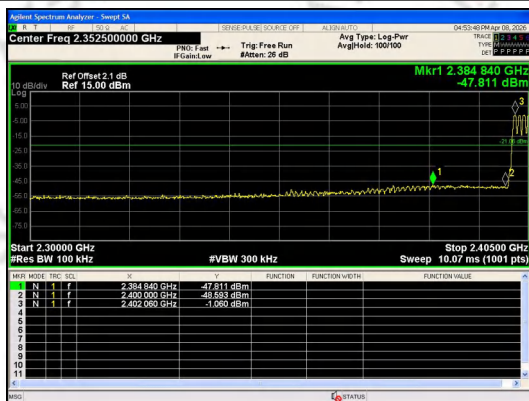


Out Of Band Emission
8DPSK_3-DH5_Channel 78

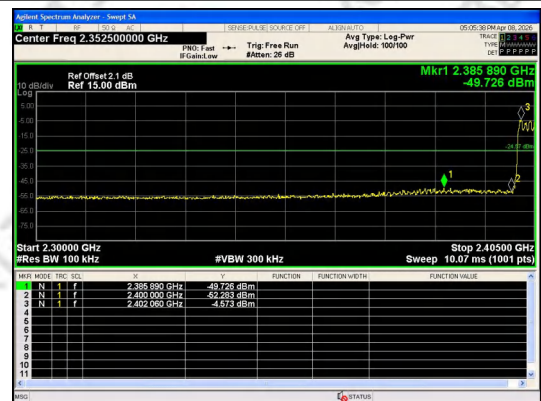


30.0 MHz - 25000.0 MHz
8DPSK_3-DH5_Channel 78

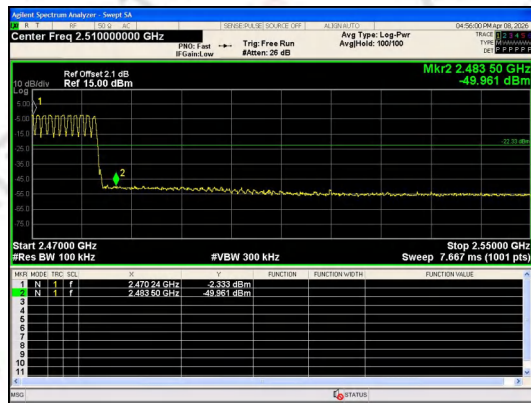
Hopping



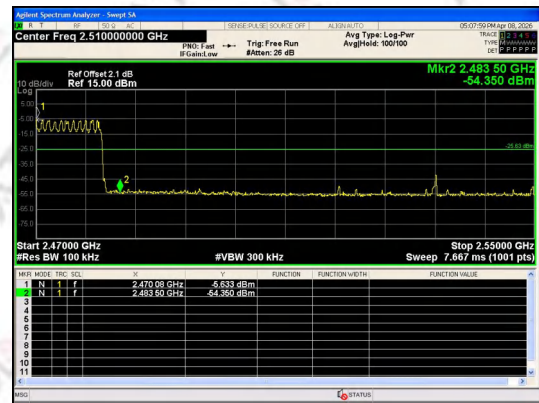
Out Of Band Emission(Left)
GFSK_DH5_Channel Hopping



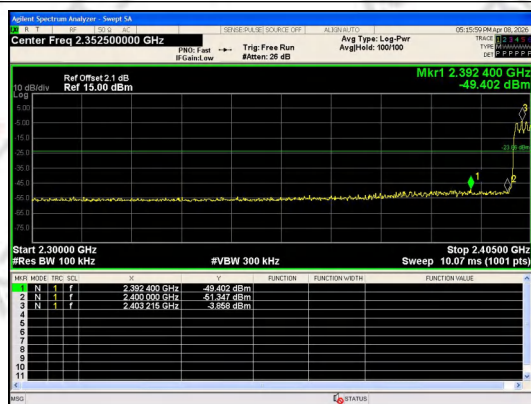
Out Of Band Emission(Left)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



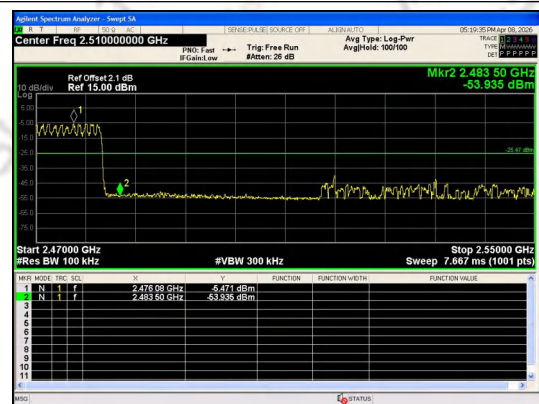
Out Of Band Emission(Right)
GFSK_DH5_Channel Hopping



Out Of Band Emission(Right)
 $\pi/4$ DQPSK_2-DH5_Channel Hopping



Out Of Band Emission(Left)
8DPSK_3-DH5_Channel Hopping



Out Of Band Emission(Right)
8DPSK_3-DH5_Channel Hopping

A6.Radiated Spurious Emission and Restricted Band

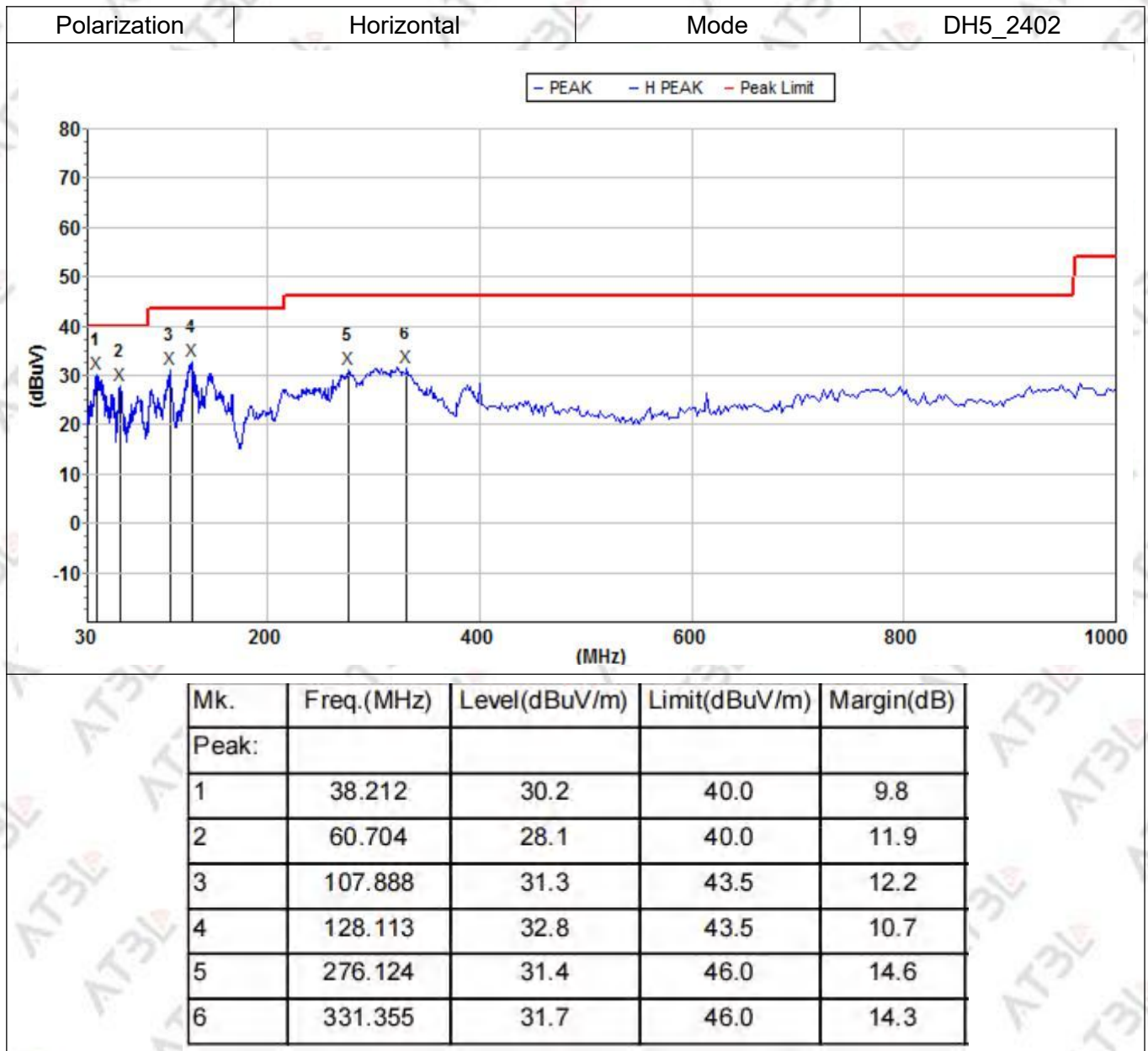
For 9 kHz ~ 30 MHz

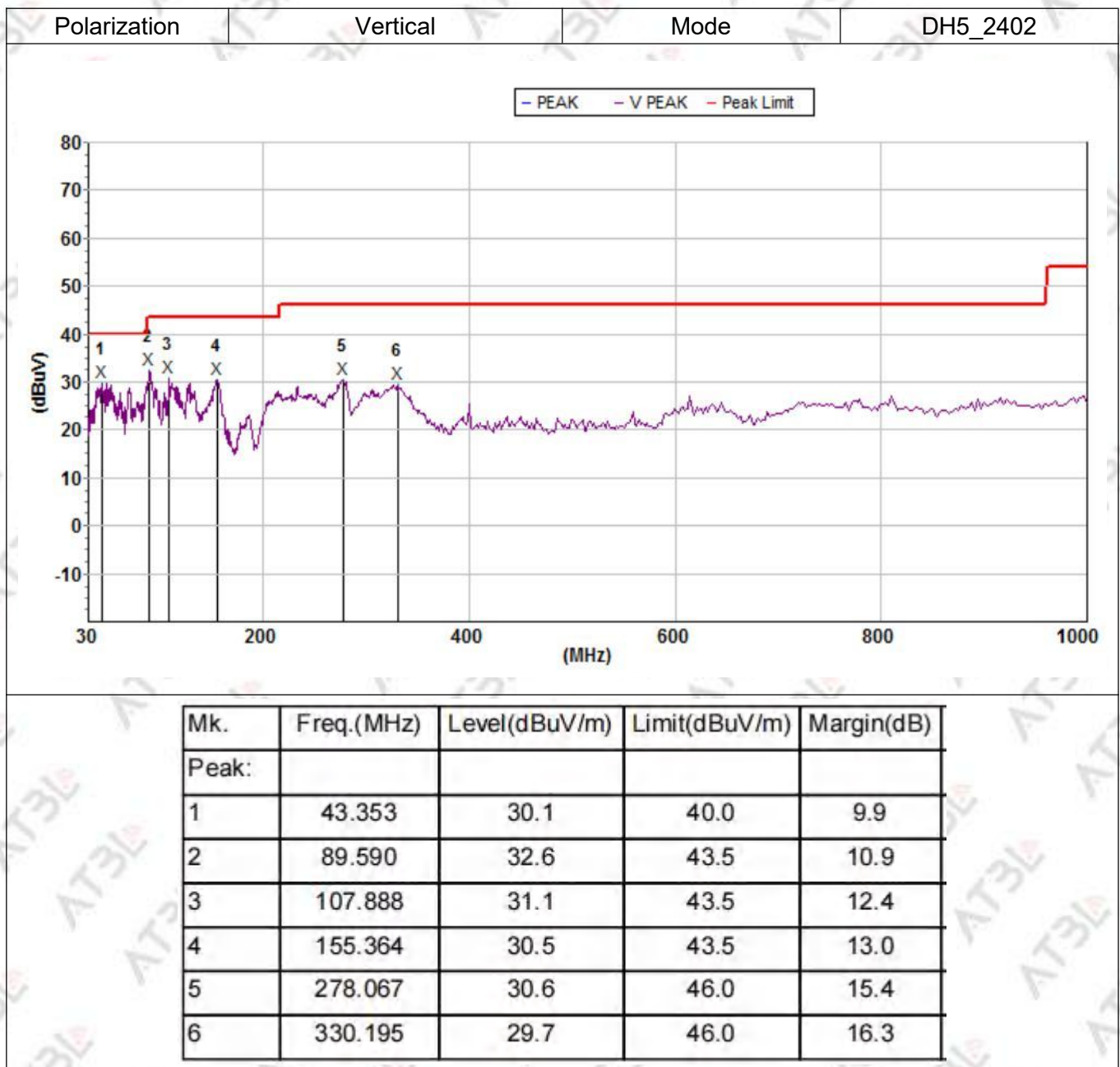
The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

For 30 MHz ~ 1 GHz:

Note:

- 1.All modes have been tested, only worst mode(DH5_2402MHz) was recorded in the test report.
- 2.Emission Level (dBUV/m) = Reading Value (dBUV) + Correction Factor (dB/m).
3. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)-Amplifier Gain.
4. The emission levels of other frequencies were less than 20dB margin against the limit.
5. Margin value = Emission level-Limit value.

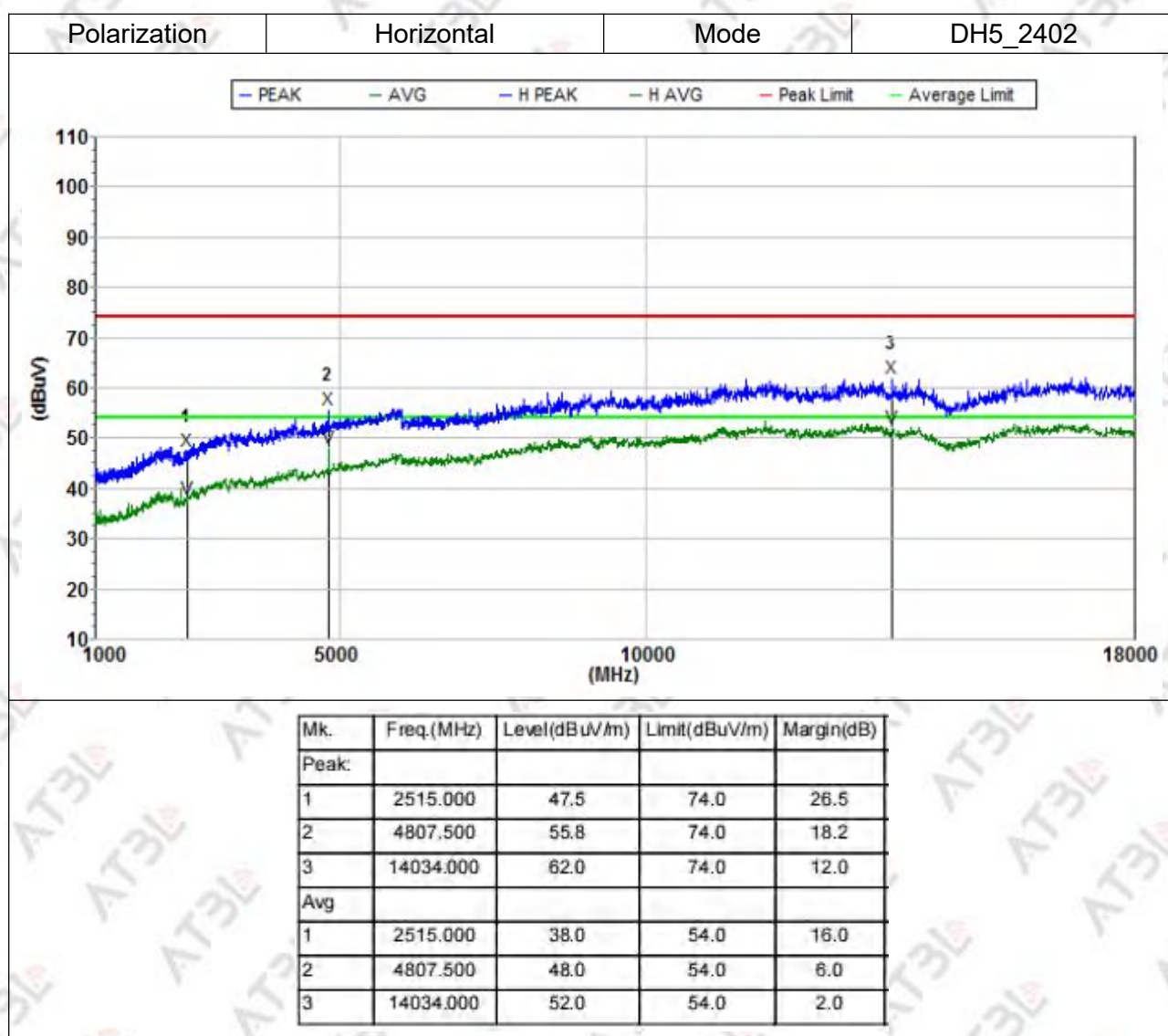


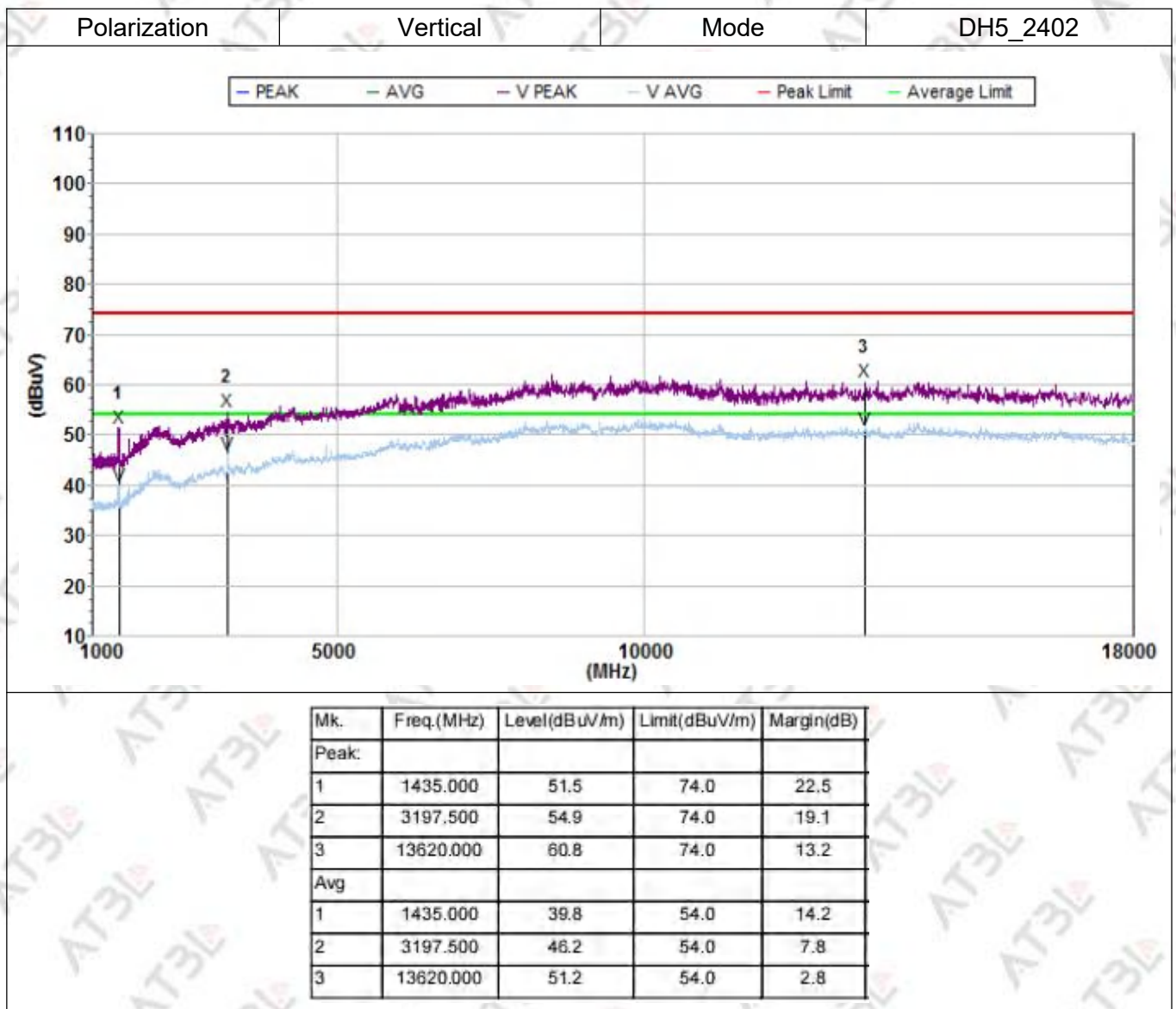


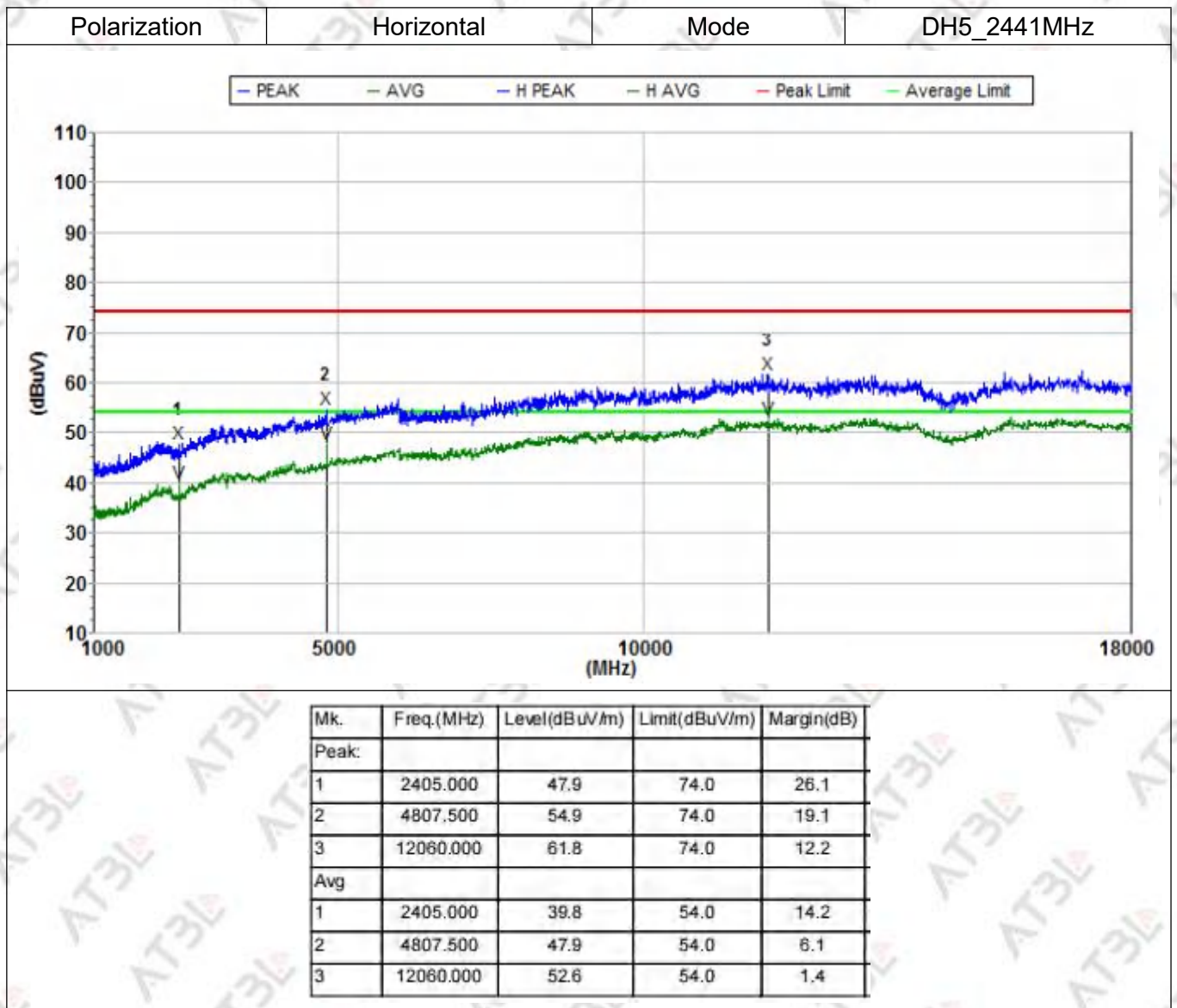
For 1 GHz ~ 18GHz:

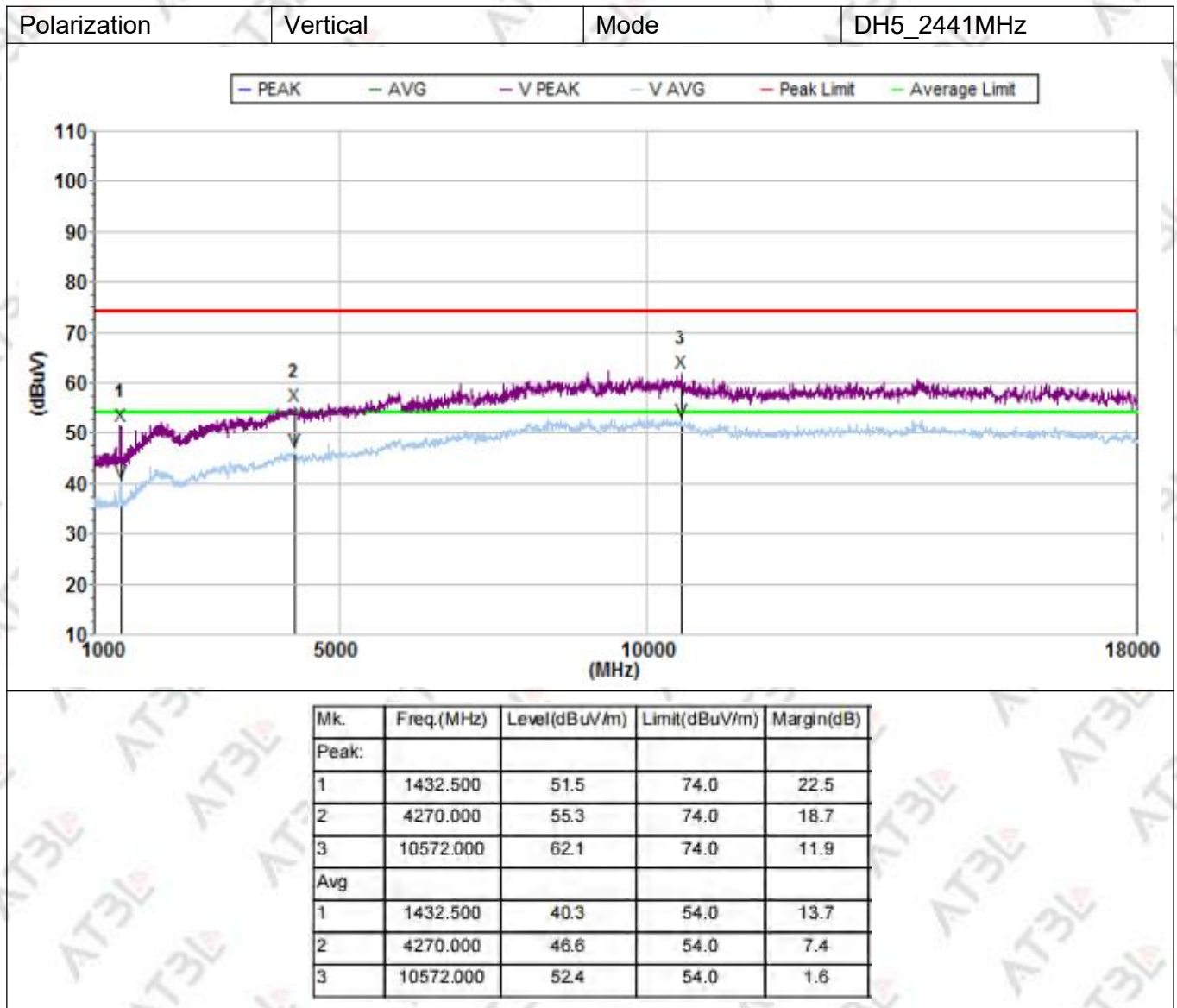
Note:

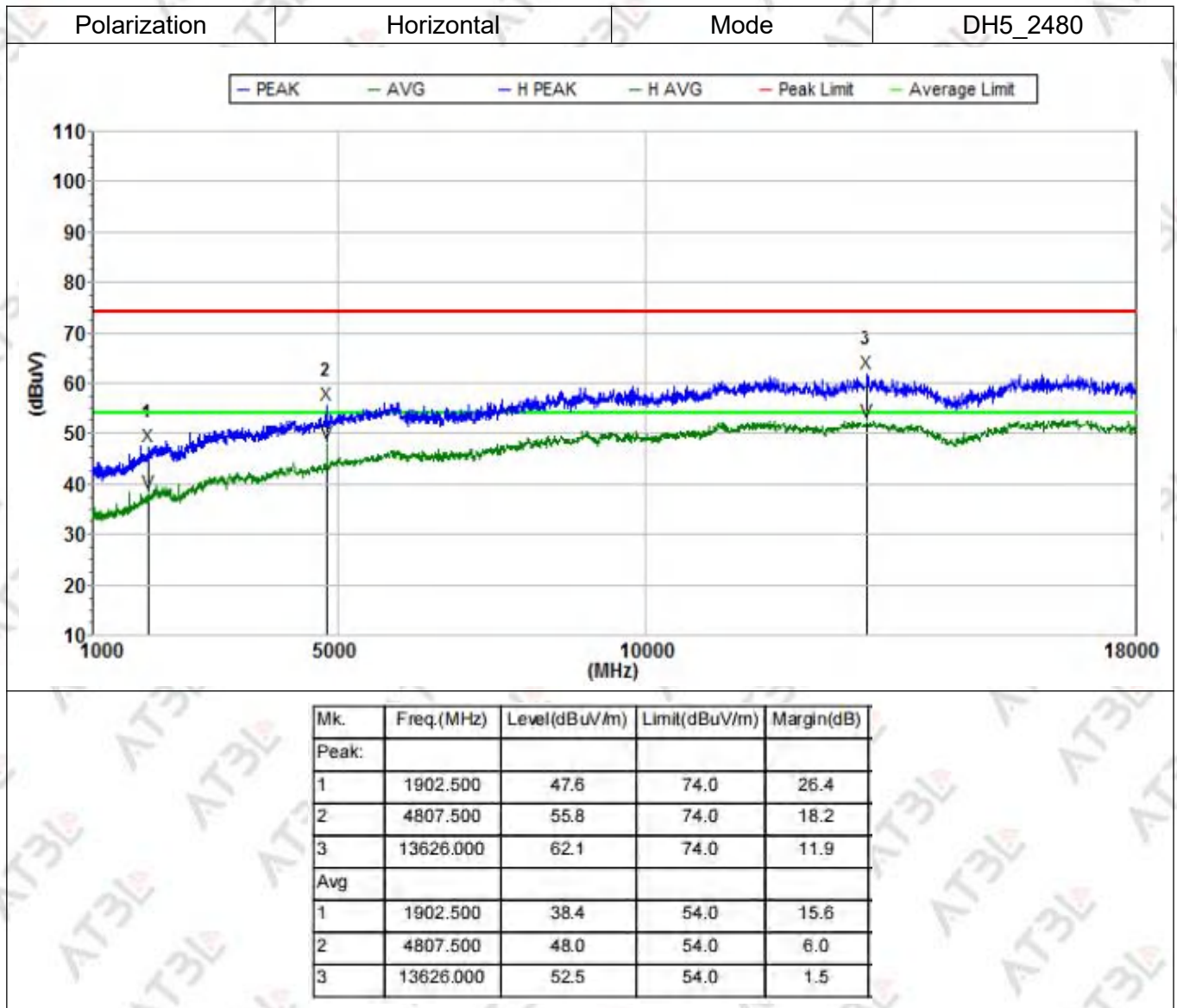
1. In frequency ranges 18 ~25GHz no any other harmonic emissions detected which are tested to compliance with the limit. No recording in the test report. No any other emissions level which are attenuated less than 20dB below the limit. No recording in the test report.
2. We used the filter to test and the main frequency was filtered out.
3. Emission Level (dBuV/m) = Reading Value (dBuV) + Correction Factor (dB/m).
4. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)-Amplifier Gain.
5. The emission levels of other frequencies were less than 20dB margin against the limit.
6. Margin value = Emission level-Limit value.
7. All modes have been tested, only worst mode(DH5) was recorded in the test report.

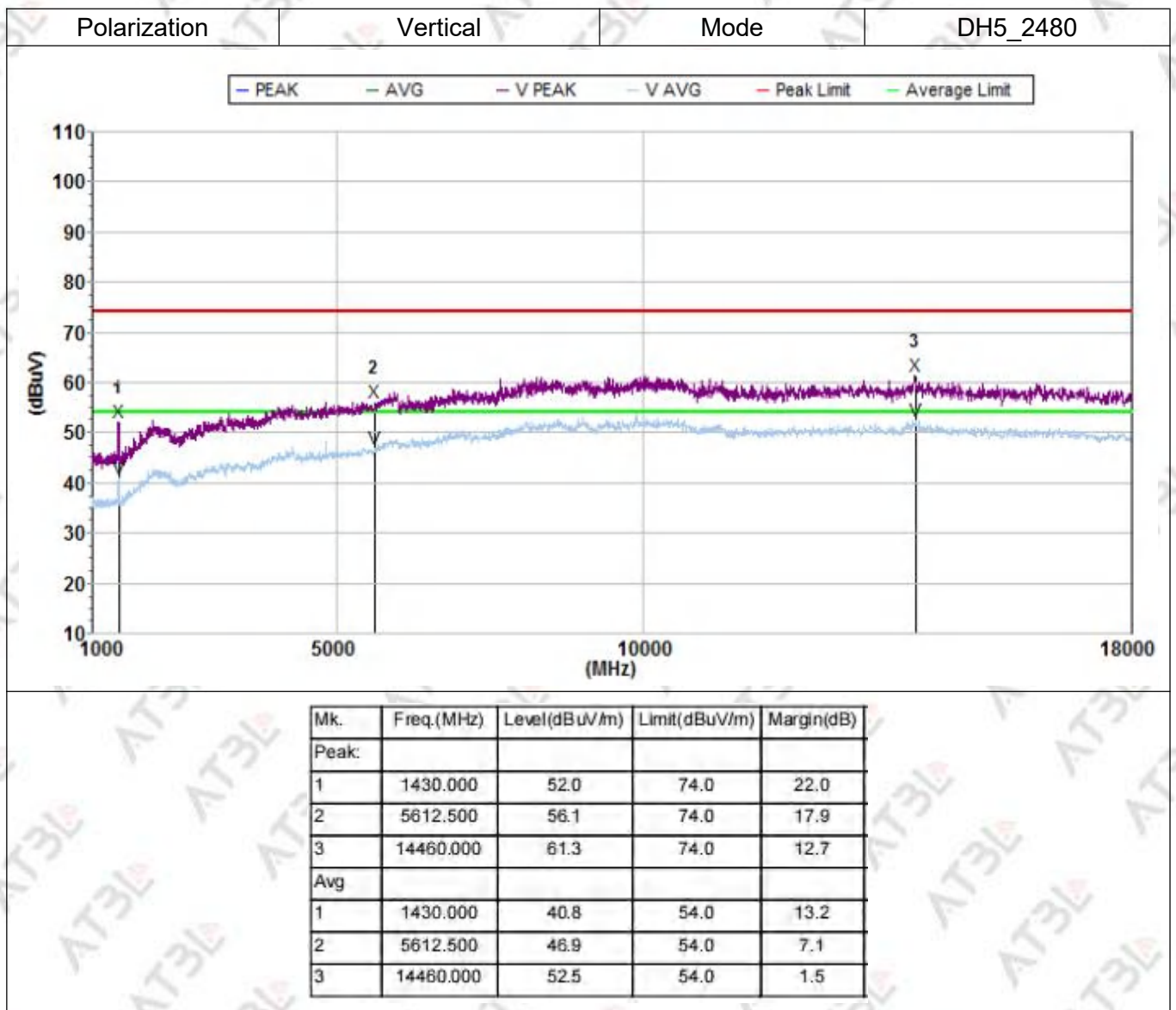








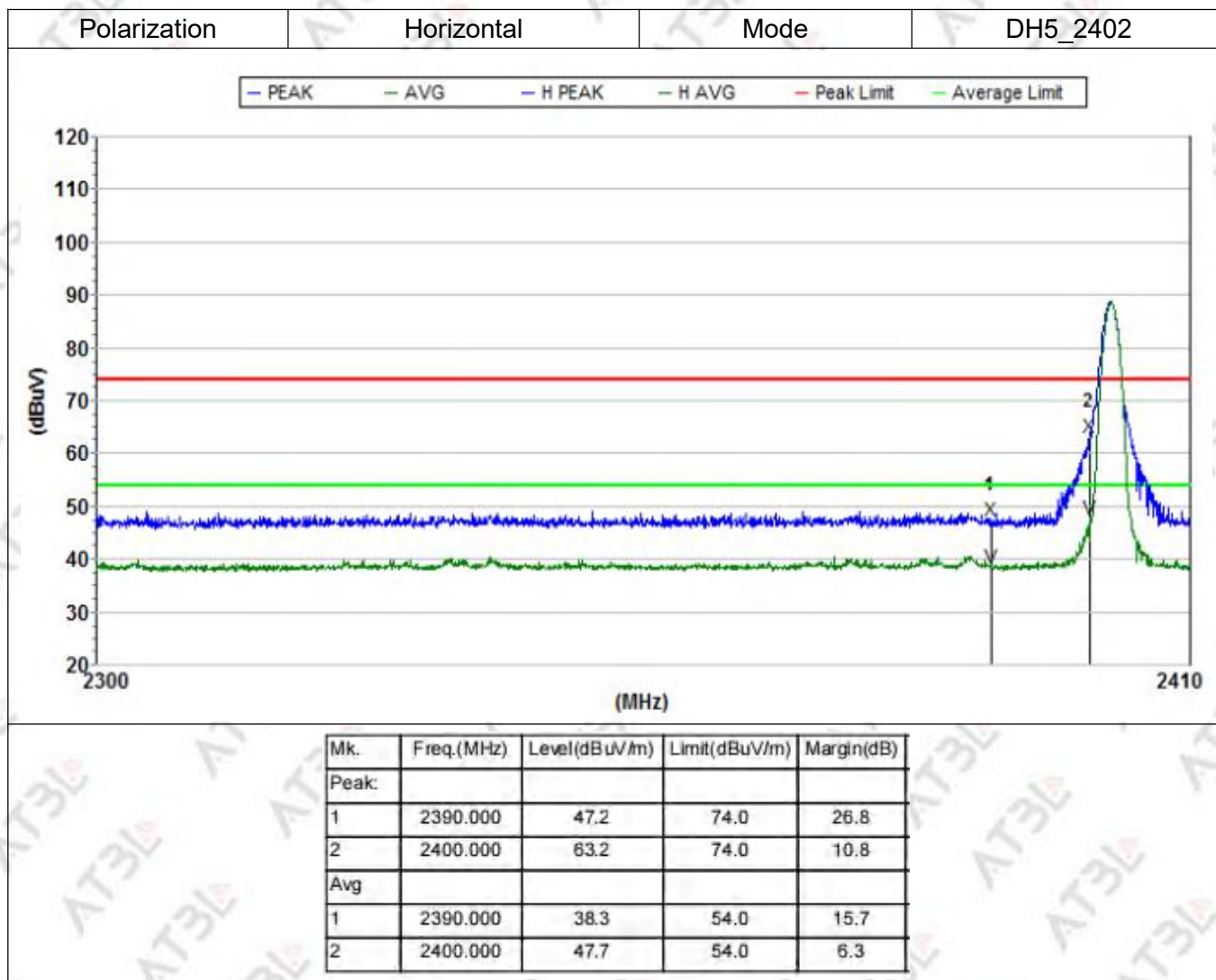


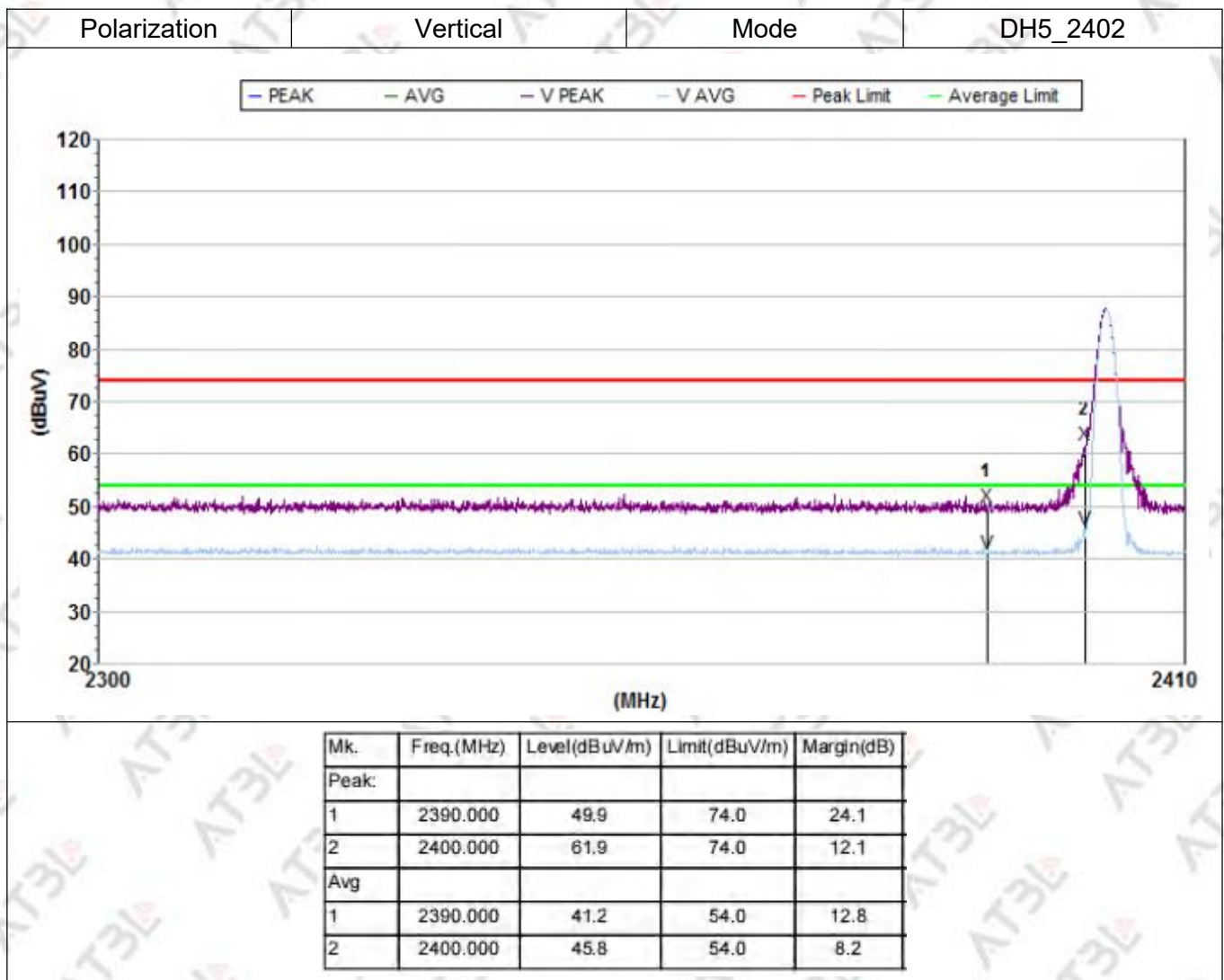


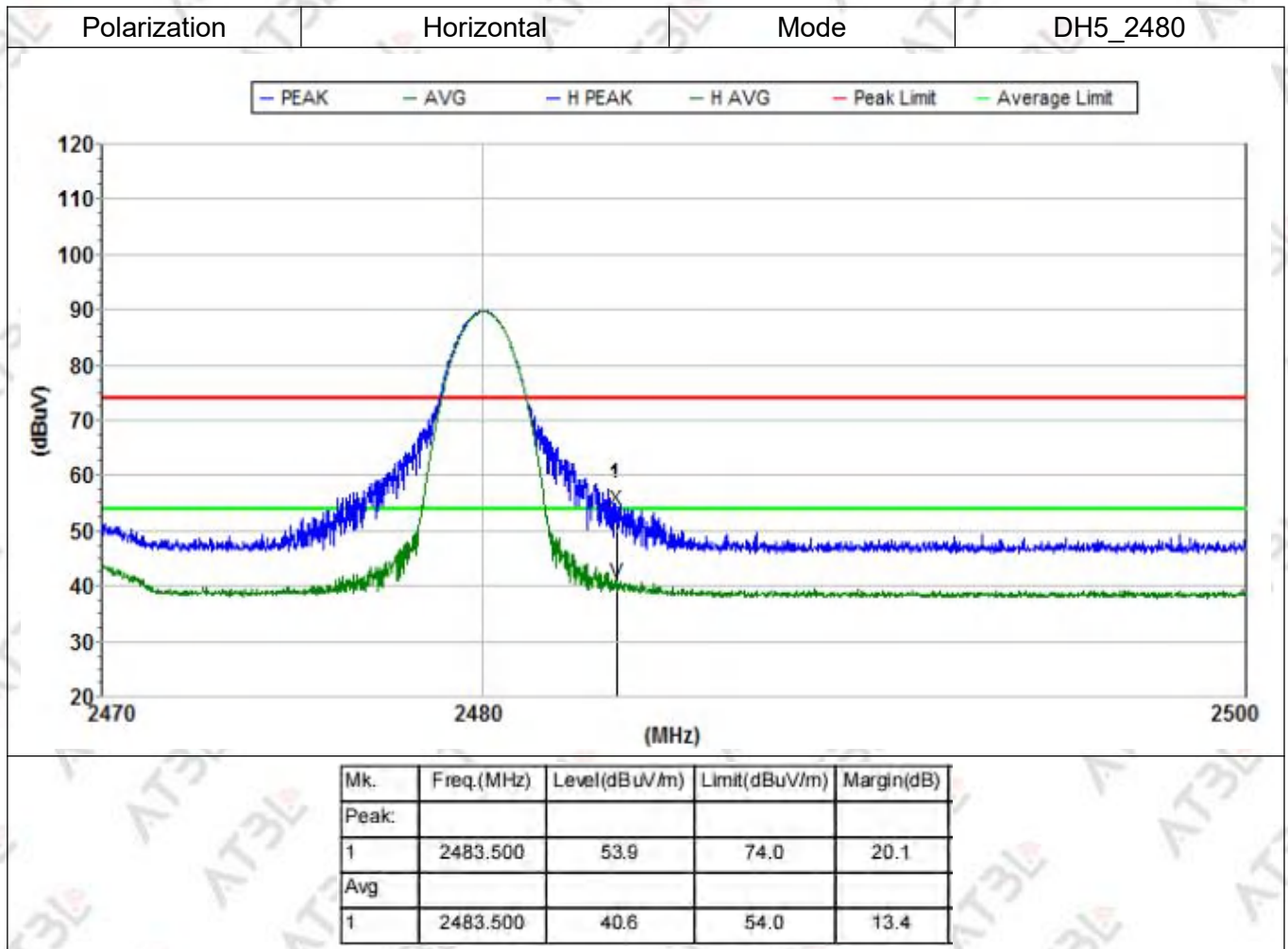
Test Result of Restricted Band

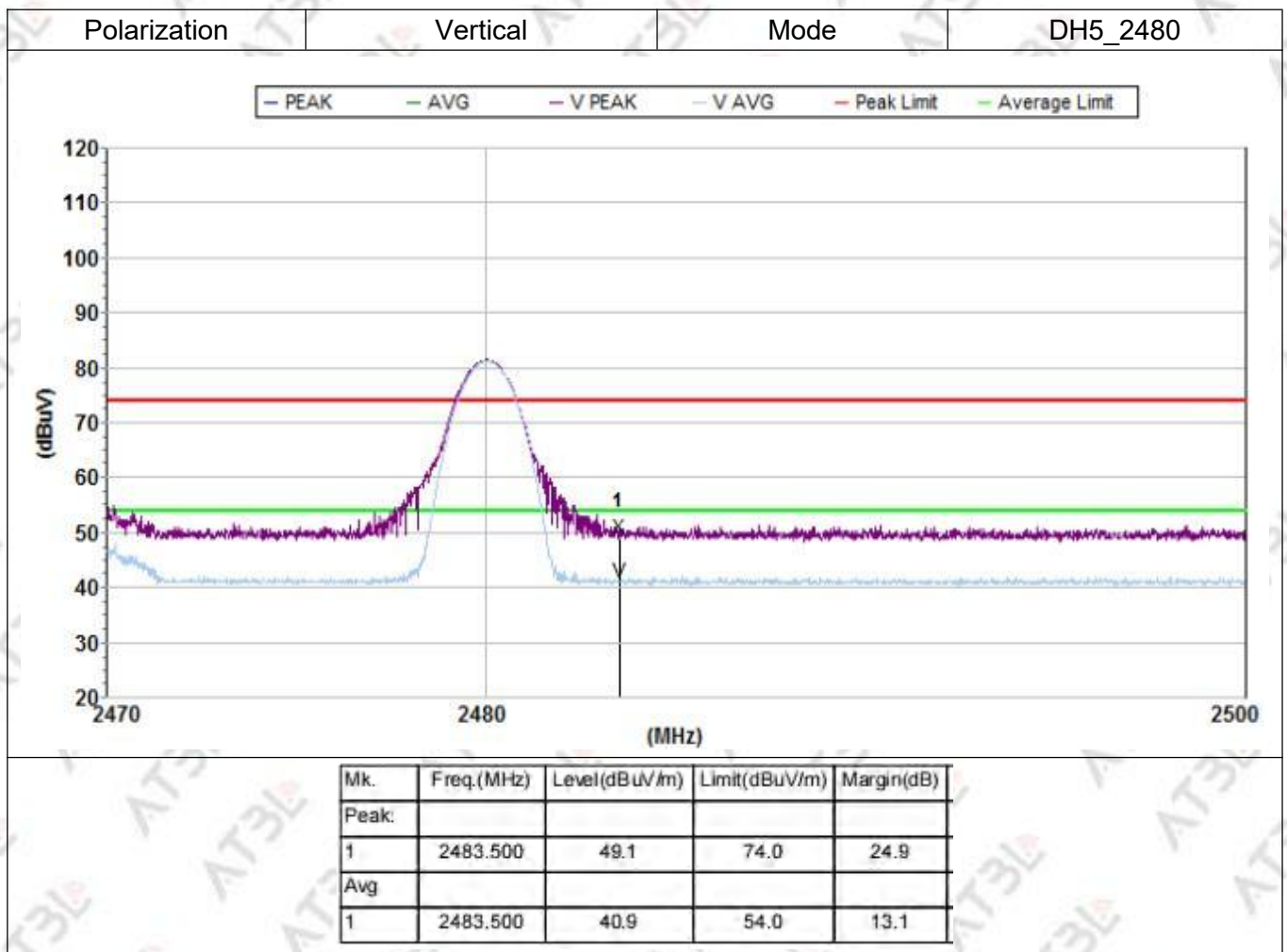
Note:

All modes have been tested, only worst case(DH5)mode was recorded in the test report.









*****END*****