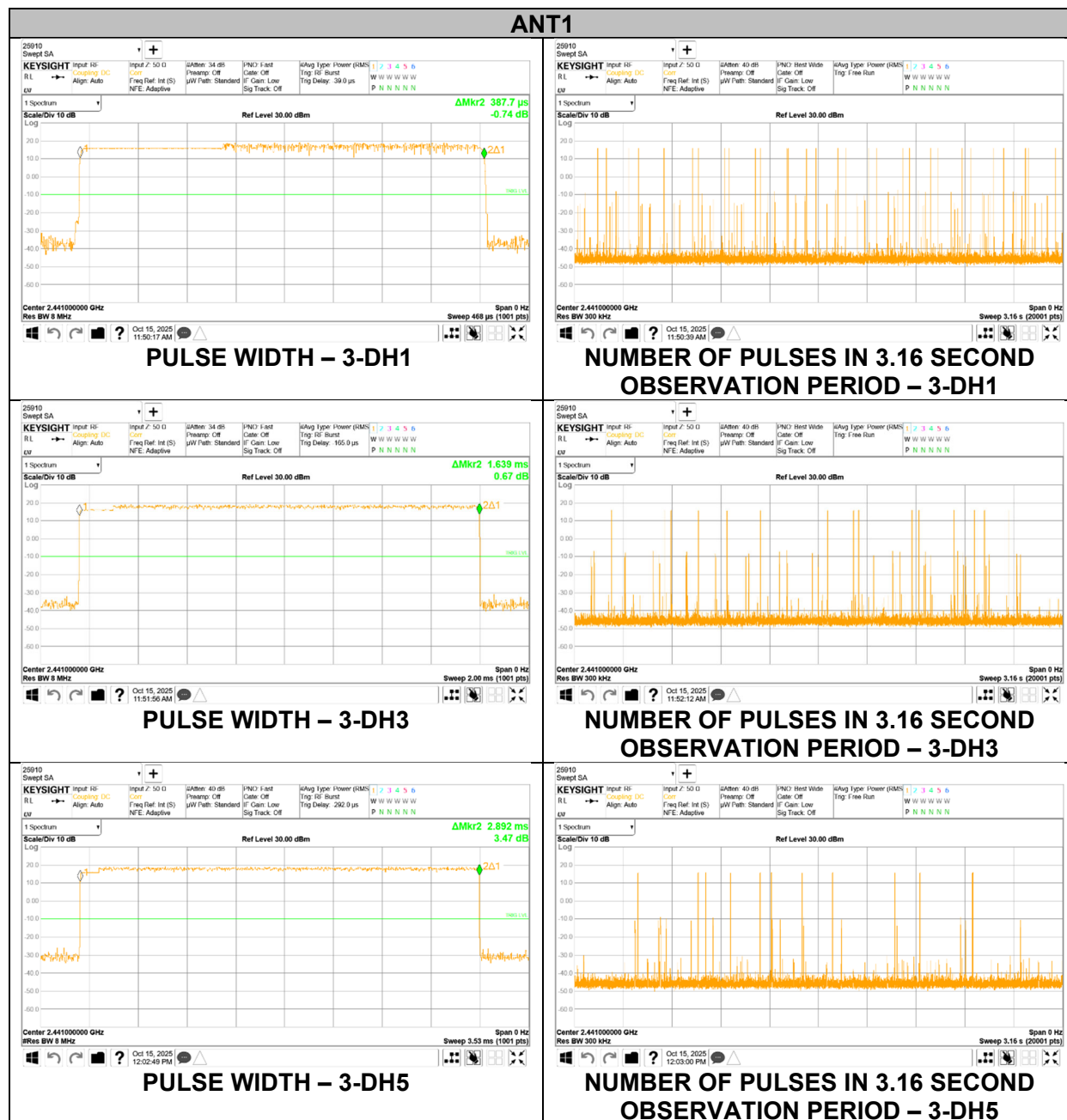
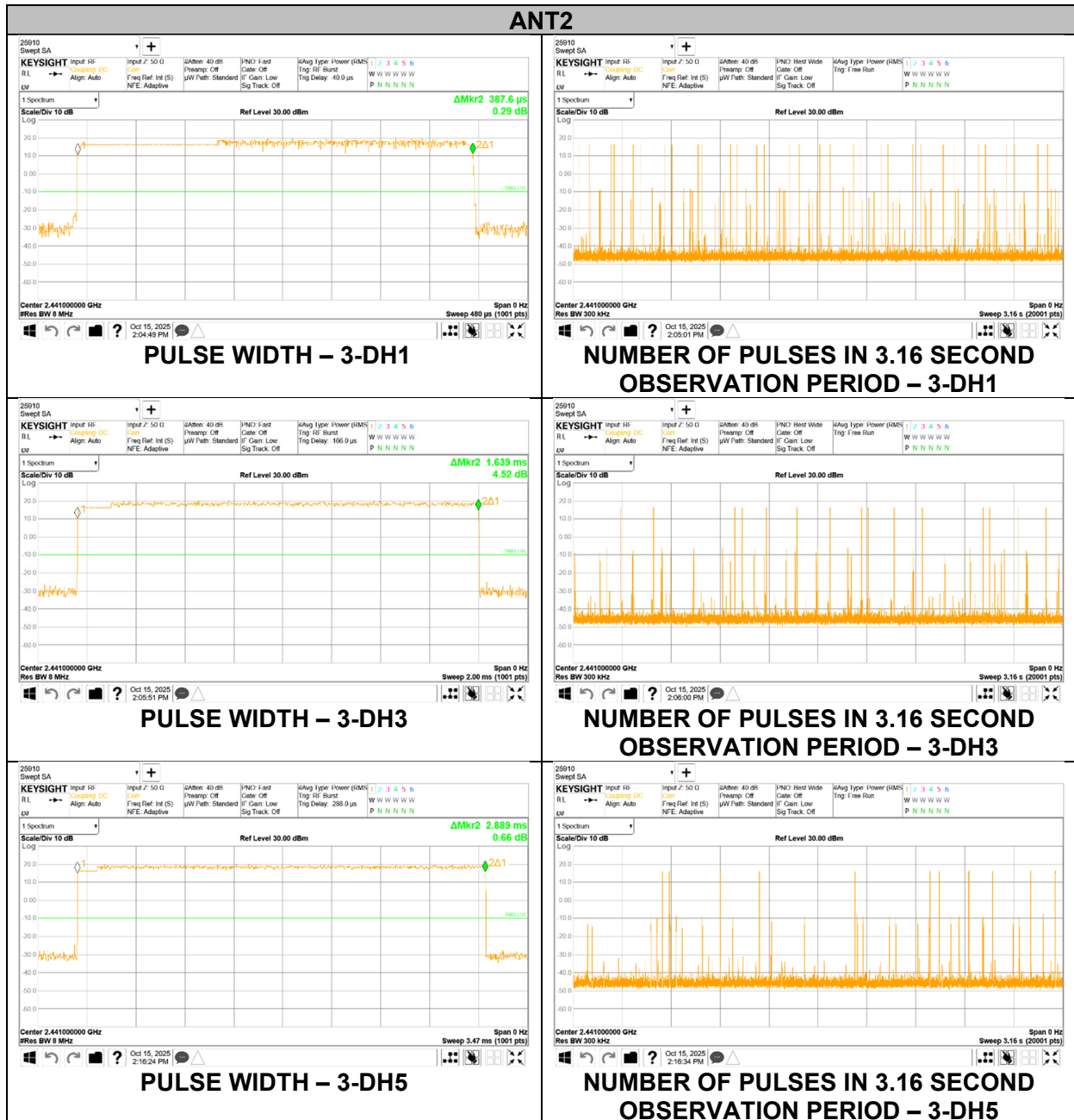




DH Packet	Pulse Width [msec]	Number of Pulses in 3.16 seconds	Average Time of Occupancy [sec]	Limit [sec]	Margin [sec]
8DPSK Normal ANT2					
DH1	0.388	32	0.124	0.4	-0.276
DH3	1.639	15	0.246	0.4	-0.154
DH5	2.889	11	0.318	0.4	-0.082
DH Packet	Pulse Width [msec]	Number of Pulses in 0.8 seconds	Average Time of Occupancy [sec]	Limit [sec]	Margin [sec]
8DPSK AFH ANT2					
DH1	0.388	8	0.031	0.4	-0.369
DH3	1.639	4	0.061	0.4	-0.339
DH5	2.889	3	0.079	0.4	-0.321



9.6. OUTPUT POWER

LIMITS

§15.247 (b) (1)

The peak conducted output power limit is 0.125 W (21 dBm) since Bluetooth AFH mode can be used at least 20 non-overlapping hopping channels.

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer the analyzer bandwidth is set to a value greater than the 20 dB bandwidth of the EUT.

RESULTS

9.6.1. BASIC DATA RATE GFSK MODULATION

Antenna	Channel	Frequency [MHz]	Peak Output Power [dBm]	Limit [dBm]	Margin [dB]
ANT1	0	2 402	20.22	21.00	-0.78
	39	2 441	20.23		-0.77
	78	2 480	20.23		-0.77
ANT2	0	2 402	20.40		-0.60
	39	2 441	20.49		-0.51
	78	2 480	19.60		-1.40
Worst			20.49		-0.51

9.6.2. ENHANCED DATA RATE Pi/4-DQPSK MODULATION

Antenna	Channel	Frequency [MHz]	Peak Output Power [dBm]	Limit [dBm]	Margin [dB]
ANT1	0	2 402	17.78	21.00	-3.22
	39	2 441	18.11		-2.89
	78	2 480	17.63		-3.37
ANT2	0	2 402	18.04		-2.96
	39	2 441	17.34		-3.66
	78	2 480	17.22		-3.78
Worst			18.11		-2.89

9.6.3. ENHANCED DATA RATE 8DPSK MODULATION

Antenna	Channel	Frequency [MHz]	Peak Output Power [dBm]	Limit [dBm]	Margin [dB]
ANT1	0	2 402	18.51	21.00	-2.22
	39	2 441	18.96		-1.96
	78	2 480	19.03		-1.63
ANT2	0	2 402	18.98		-1.49
	39	2 441	19.06		-1.31
	78	2 480	18.41		-2.28
Worst			19.69		-1.31

9.6.4. BASIC DATA RATE GFSK MODULATION (DUAL)

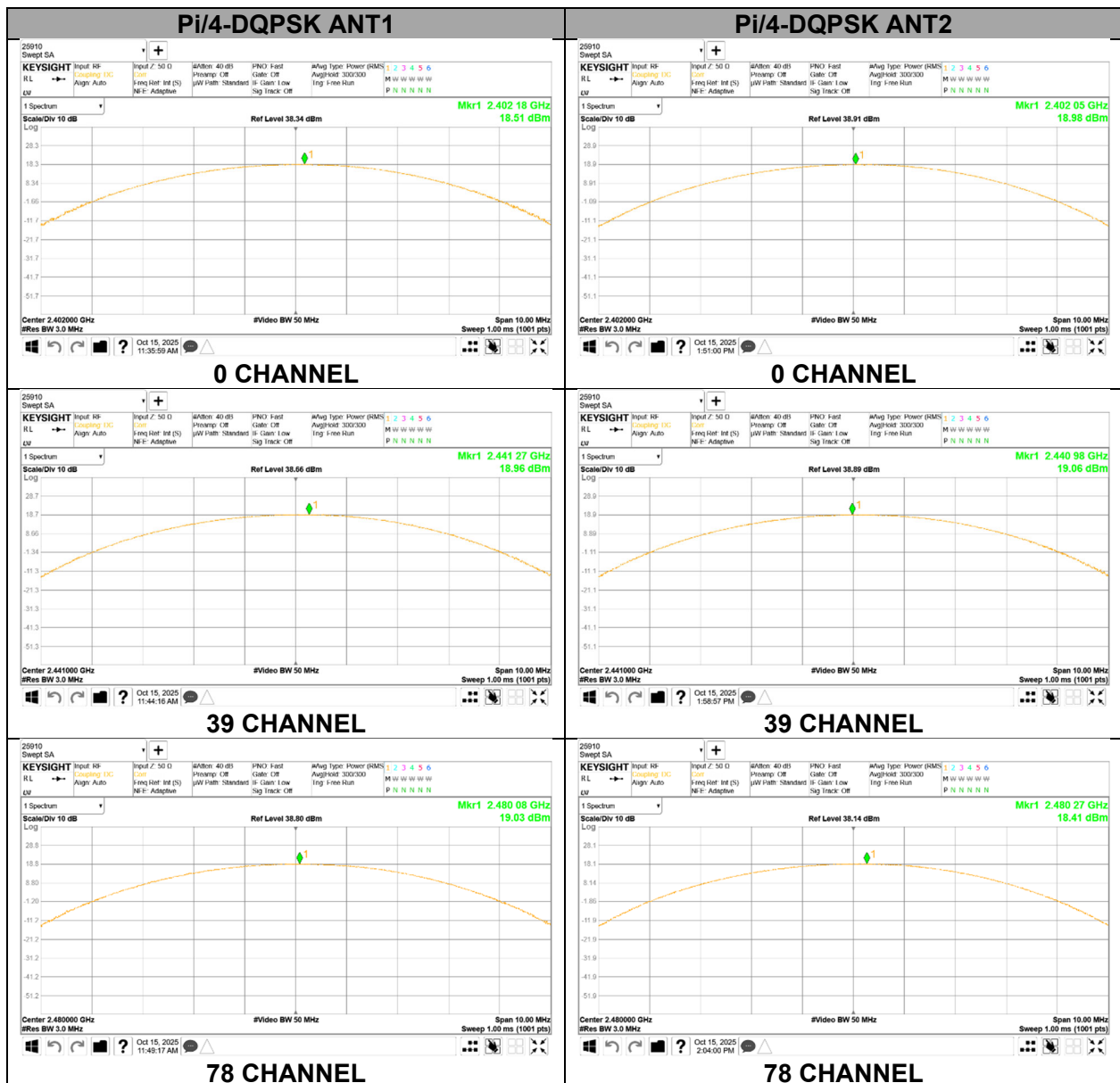
Antenna	Channel	Frequency [MHz]	Peak Output Power [dBm]	Limit [dBm]	Margin [dB]
DUAL ANT1	0	2 402	12.57	21.00	
	39	2 441	13.98		
	78	2 480	14.02		
DUAL ANT2	0	2 402	16.21		
	39	2 441	15.63		
	78	2 480	14.77		
DUAL ANT1+2	0	2 402	17.77		-3.23
	39	2 441	17.89		-3.11
	78	2 480	17.42		-3.58
Worst			17.89		-3.11

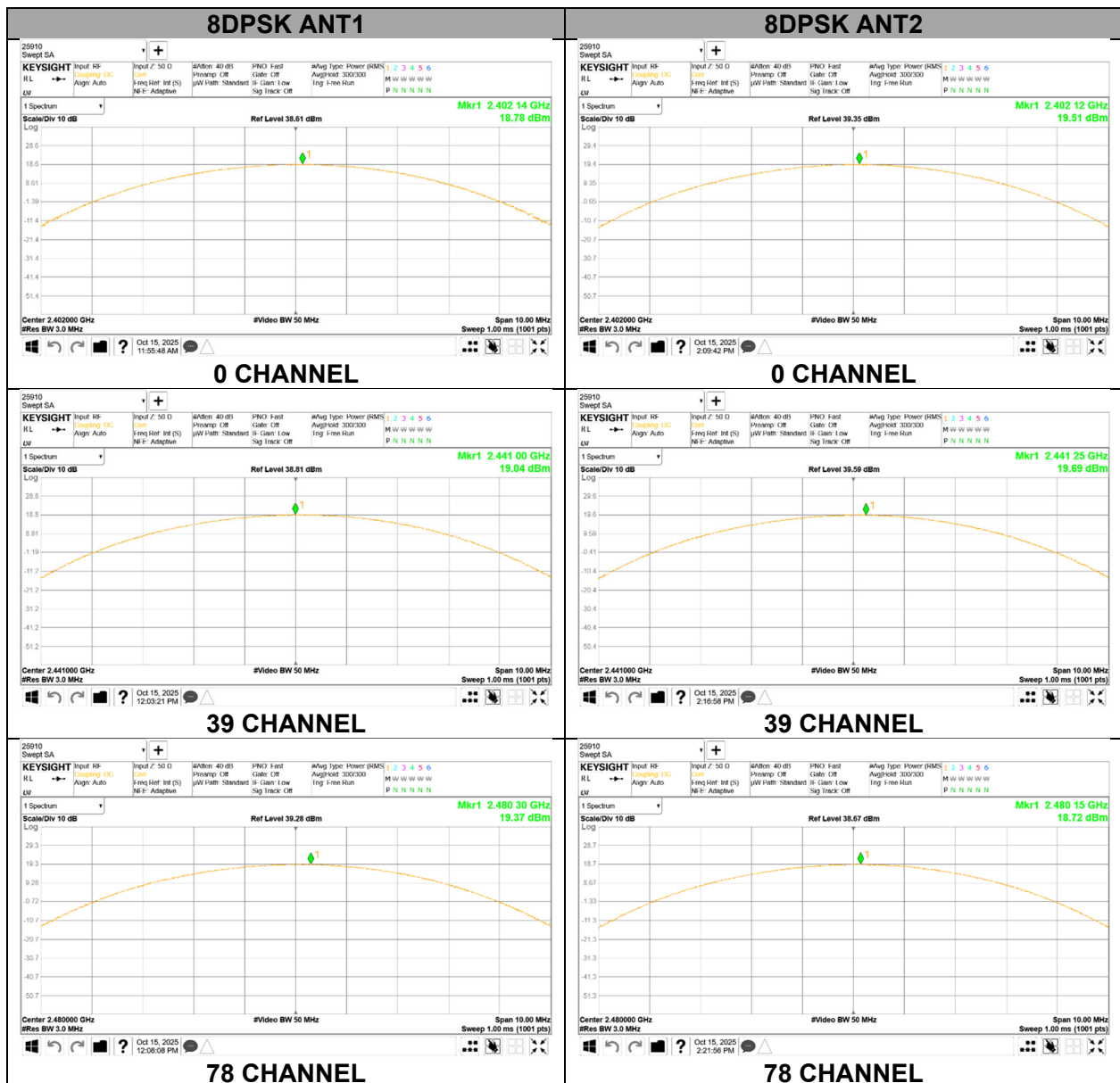
9.6.1. ENHANCED DATA RATE Pi/4-DQPSK MODULATION (DUAL)

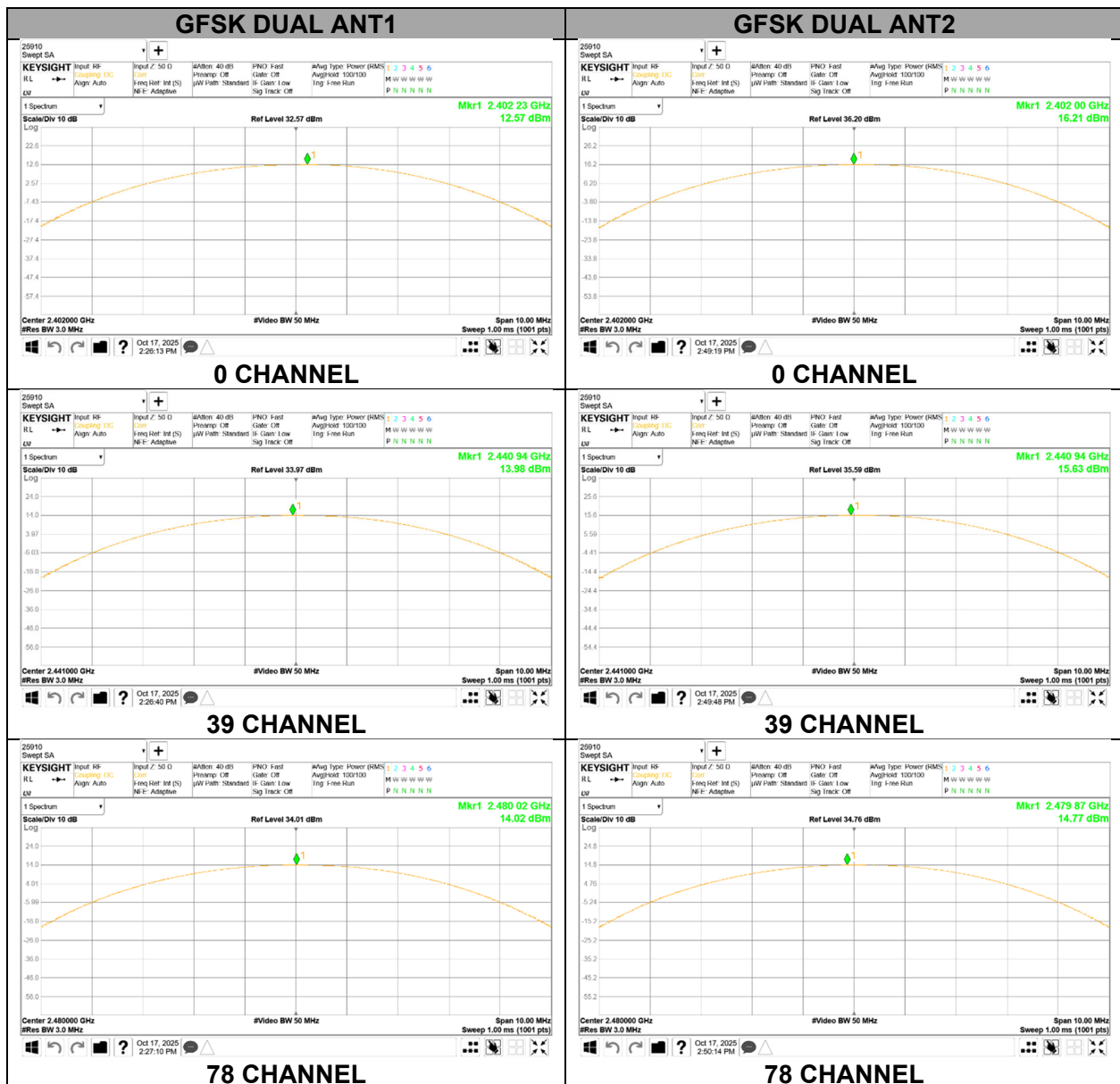
Antenna	Channel	Frequency [MHz]	Peak Output Power [dBm]	Limit [dBm]	Margin [dB]
DUAL ANT1	0	2 402	12.37	21.00	
	39	2 441	13.52		
	78	2 480	13.62		
DUAL ANT2	0	2 402	15.68		
	39	2 441	15.07		
	78	2 480	14.16		
DUAL ANT1+2	0	2 402	17.34		-3.66
	39	2 441	17.37		-3.63
	78	2 480	16.91		-4.09
Worst			17.37		-3.63

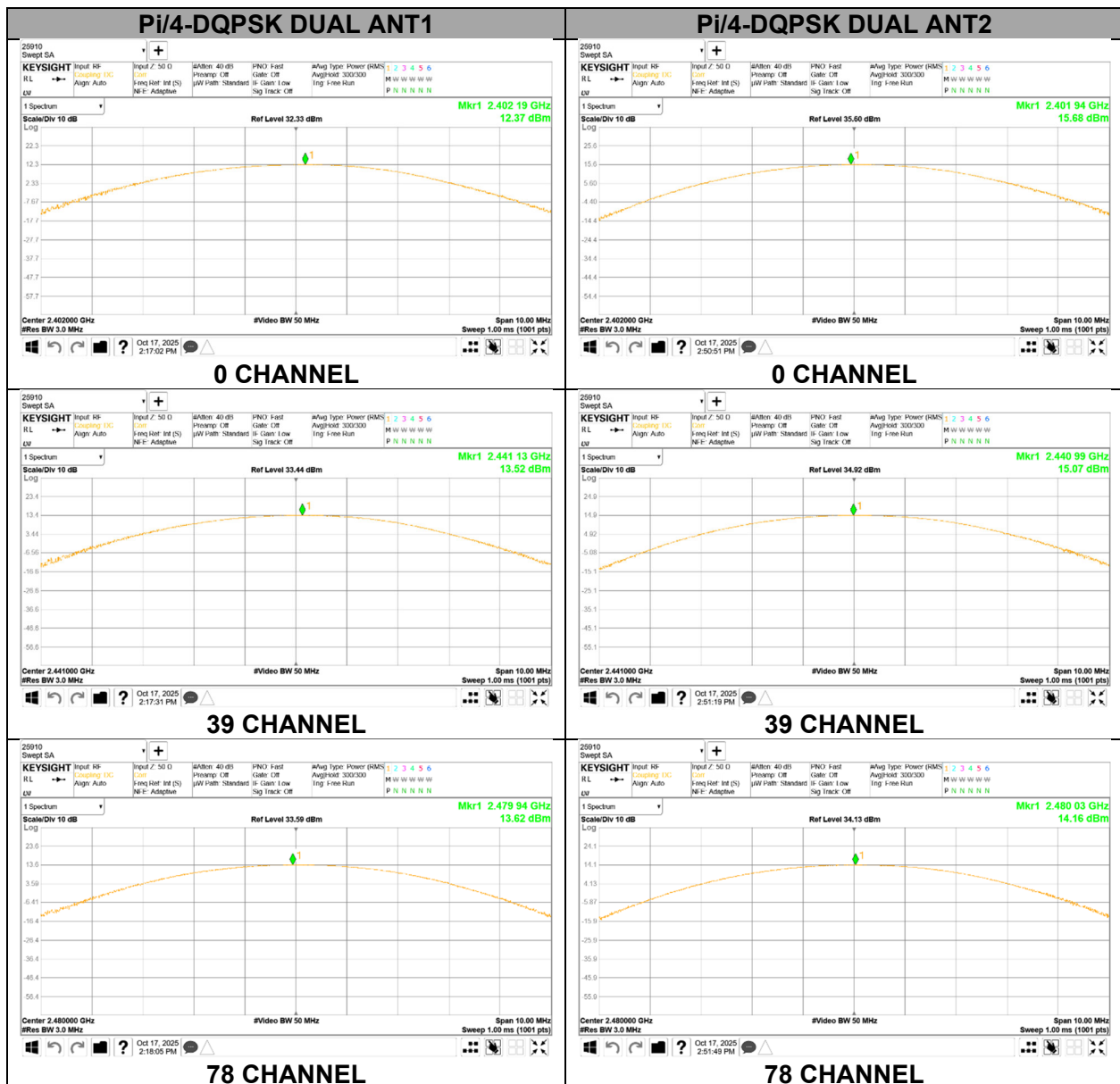
9.6.2. ENHANCED DATA RATE 8DPSK MODULATION (DUAL)

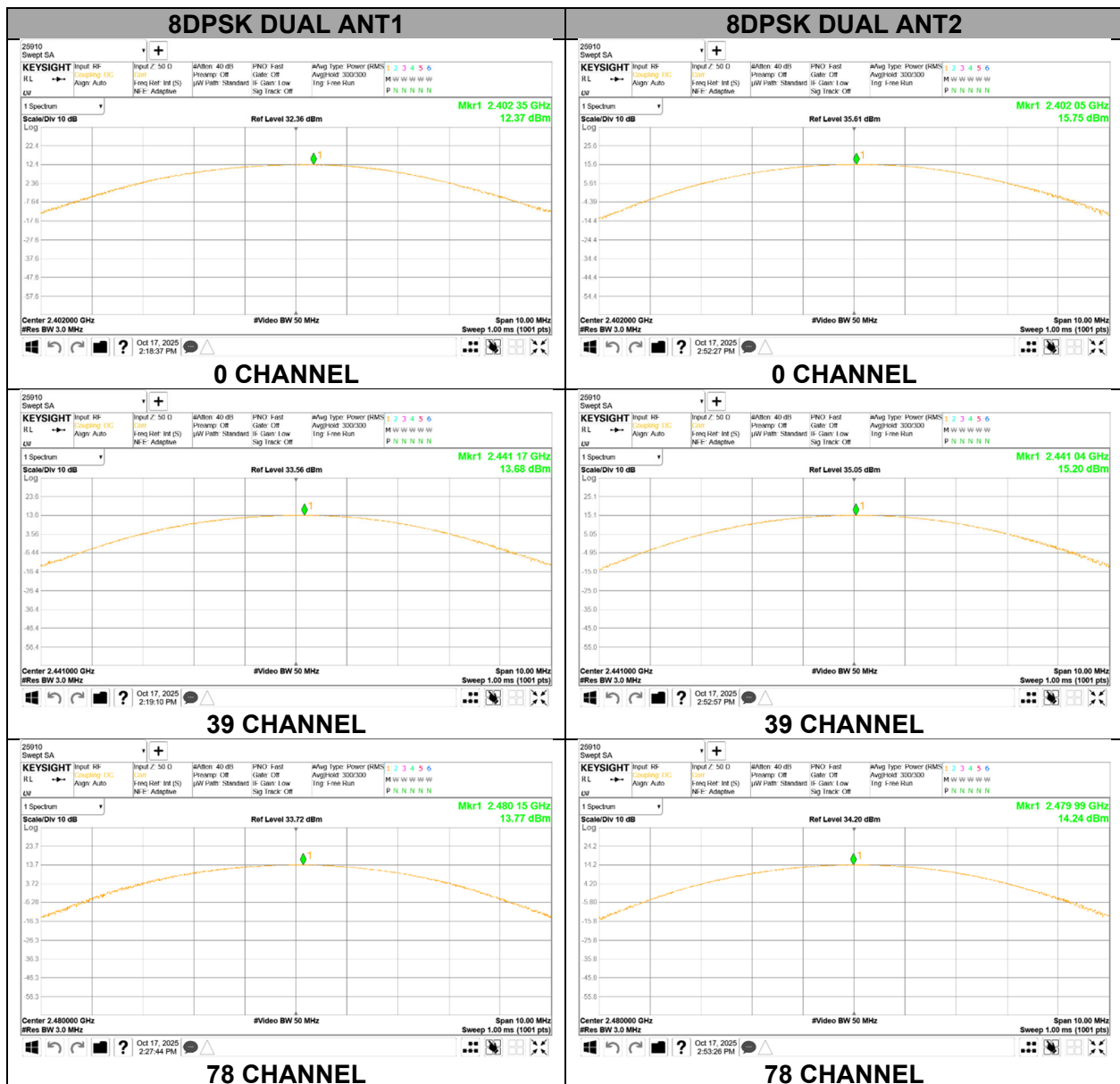
Antenna	Channel	Frequency [MHz]	Peak Output Power [dBm]	Limit [dBm]	Margin [dB]
DUAL ANT1	0	2 402	12.37	21.00	
	39	2 441	13.68		
	78	2 480	13.77		
DUAL ANT2	0	2 402	15.75		
	39	2 441	15.20		
	78	2 480	14.24		
DUAL ANT1+2	0	2 402	17.39		-3.61
	39	2 441	17.52		-3.48
	78	2 480	17.02		-3.98
Worst			17.52		-3.48











9.7. AVERAGE POWER

LIMITS

None; for reporting purposes only

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.
The cable assembly insertion loss was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

9.7.1. BASIC DATA RATE GFSK MODULATION

Antenna	Channel	Frequency [MHz]	Average Output Power [dBm]	Average Output Power [mW]
ANT1	0	2 402	19.566	90.490
	39	2 441	19.805	95.609
	78	2 480	19.532	89.784
ANT2	0	2 402	20.146	103.419
	39	2 441	20.173	104.064
	78	2 480	19.253	84.198

9.7.2. ENHANCED DATA RATE PI/4-DQPSK MODULATION

Antenna	Channel	Frequency [MHz]	Average Output Power [dBm]	Average Output Power [mW]
ANT1	0	2 402	15.515	35.604
	39	2 441	15.852	38.477
	78	2 480	16.012	39.921
ANT2	0	2 402	16.195	41.639
	39	2 441	15.683	37.008
	78	2 480	15.459	35.148

9.7.3. ENHANCED DATA RATE 8DPSK MODULATION

Antenna	Channel	Frequency [MHz]	Average Output Power [dBm]	Average Output Power [mW]
ANT1	0	2 402	15.561	35.983
	39	2 441	15.888	38.797
	78	2 480	16.051	40.281
ANT2	0	2 402	16.240	42.073
	39	2 441	15.698	37.136
	78	2 480	15.501	35.490

9.7.4. BASIC DATA RATE GFSK MODULATION(DUAL)

Antenna	Channel	Frequency [MHz]	Average Output Power [dBm]	Average Output Power [mW]
DUAL ANT1	0	2 402	12.341	
	39	2 441	13.765	
	78	2 480	13.797	
DUAL ANT2	0	2 402	16.043	
	39	2 441	15.430	
	78	2 480	14.577	
DUAL ANT1+2	0	2 402	17.585	57.350
	39	2 441	17.687	58.710
	78	2 480	17.215	52.660

9.7.5. ENHANCED DATA RATE PI/4-DQPSK MODULATION(DUAL)

Antenna	Channel	Frequency [MHz]	Average Output Power [dBm]	Average Output Power [mW]
DUAL ANT1	0	2 402	9.894	
	39	2 441	11.333	
	78	2 480	11.280	
DUAL ANT2	0	2 402	13.214	
	39	2 441	12.512	
	78	2 480	11.741	
DUAL ANT1+2	0	2 402	14.874	30.719
	39	2 441	14.973	31.425
	78	2 480	14.527	28.359

9.7.6. ENHANCED DATA RATE 8DPSK MODULATION(DUAL)

Antenna	Channel	Frequency [MHz]	Average Output Power [dBm]	Average Output Power [mW]
DUAL ANT1	0	2 402	9.854	
	39	2 441	11.316	
	78	2 480	11.295	
DUAL ANT2	0	2 402	13.221	
	39	2 441	12.518	
	78	2 480	11.740	
DUAL ANT1+2	0	2 402	14.866	30.663
	39	2 441	14.969	31.396
	78	2 480	14.533	28.402

9.8. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

Limit = -20 dBc

TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels.

The band-edges at 2.4 and 2.4835 GHz are investigated with the transmitter set to the normal hopping mode.

RESULTS

9.8.1. BLUETOOTH BASIC DATA RATE GFSK MODULATION

SPURIOUS EMISSIONS, NON-HOPPING – ANT1

