



**2.6.6 Test Results**

2.4 GHz Bluetooth - FHSS

Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA GFSK (DH5)	Duty Cycle (%):	100.0
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	2.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	12.73	-	-	-	-	30.00	-17.27
2441	12.87	-	-	-	-	30.00	-17.13
2480	12.71	-	-	-	-	30.00	-17.29

**Table 58 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	12.73	-	-	-	-	30.00	-17.27	14.93	36.00	-21.07
2441	12.87	-	-	-	-	30.00	-17.13	15.07	36.00	-20.93
2480	12.71	-	-	-	-	30.00	-17.29	14.91	36.00	-21.09

**Table 59 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.82

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	12.90	12.80	-	-	15.86	30.00	-14.14
2441	12.61	12.35	-	-	15.49	30.00	-14.51
2480	12.67	12.56	-	-	15.62	30.00	-14.38

**Table 60 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	12.90	12.80	-	-	15.86	30.00	-14.14	20.68	36.00	-15.32
2441	12.61	12.35	-	-	15.49	30.00	-14.51	20.31	36.00	-15.69
2480	12.67	12.56	-	-	15.62	30.00	-14.38	20.44	36.00	-15.56

**Table 61 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	100.0
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	2.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	$\Sigma$		
2402	18.42	-	-	-	-	30.00	-11.58
2441	18.30	-	-	-	-	30.00	-11.70
2480	18.69	-	-	-	-	30.00	-11.31

**Table 62 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	$\Sigma$					
2402	18.42	-	-	-	-	30.00	-11.58	20.62	36.00	-15.38
2441	18.30	-	-	-	-	30.00	-11.70	20.50	36.00	-15.50
2480	18.69	-	-	-	-	30.00	-11.31	20.89	36.00	-15.11

**Table 63 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA 8-DPSK (3-DH5)	Duty Cycle (%):	100.0
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	2.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	19.19	-	-	-	-	30.00	-10.81
2441	19.09	-	-	-	-	30.00	-10.91
2480	18.93	-	-	-	-	30.00	-11.07

**Table 64 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	19.19	-	-	-	-	30.00	-10.81	21.39	36.00	-14.61
2441	19.09	-	-	-	-	30.00	-10.91	21.29	36.00	-14.71
2480	18.93	-	-	-	-	30.00	-11.07	21.13	36.00	-14.87

**Table 65 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.82

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	$\Sigma$		
2402	16.32	16.10	-	-	19.22	30.00	-10.78
2441	16.17	15.87	-	-	19.03	30.00	-10.97
2480	15.86	15.51	-	-	18.70	30.00	-11.30

**Table 66 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	$\Sigma$					
2402	16.32	16.10	-	-	19.22	30.00	-10.78	24.04	36.00	-11.96
2441	16.17	15.87	-	-	19.03	30.00	-10.97	23.85	36.00	-12.15
2480	15.86	15.51	-	-	18.70	30.00	-11.30	23.52	36.00	-12.48

**Table 67 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	ePA 8-DPSK (3-DH5)	Duty Cycle (%):	76.9
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.82

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	16.80	16.65	-	-	19.73	30.00	-10.27
2441	16.75	16.57	-	-	19.67	30.00	-10.33
2480	16.43	15.83	-	-	19.15	30.00	-10.85

**Table 68 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	16.80	16.65	-	-	19.73	30.00	-10.27	24.55	36.00	-11.45
2441	16.75	16.57	-	-	19.67	30.00	-10.33	24.49	36.00	-11.51
2480	16.43	15.83	-	-	19.15	30.00	-10.85	23.97	36.00	-12.03

**Table 69 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	100.0
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	2.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	12.72	-	-	-	-	30.00	-17.28
2441	12.87	-	-	-	-	30.00	-17.13
2480	12.71	-	-	-	-	30.00	-17.29

**Table 70 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	12.72	-	-	-	-	30.00	-17.28	14.92	36.00	-21.08
2441	12.87	-	-	-	-	30.00	-17.13	15.07	36.00	-20.93
2480	12.71	-	-	-	-	30.00	-17.29	14.91	36.00	-21.09

**Table 71 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	100.0
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.70

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	-	12.47	-	-	30.00	-17.53
2441	-	-	12.89	-	-	30.00	-17.11
2480	-	-	12.75	-	-	30.00	-17.25

**Table 72 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	-	-	12.47	-	-	30.00	-17.53	14.17	36.00	-21.83
2441	-	-	12.89	-	-	30.00	-17.11	14.59	36.00	-21.41
2480	-	-	12.75	-	-	30.00	-17.25	14.45	36.00	-21.55

**Table 73 - ISED Maximum Conducted (peak) Output Power Results**





Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA GFSK (DH5)	Duty Cycle (%):	76.7
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.82

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	12.88	12.83	-	-	15.87	30.00	-14.13
2441	12.58	12.33	-	-	15.47	30.00	-14.53
2480	12.65	12.47	-	-	15.57	30.00	-14.43

**Table 74 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	12.88	12.83	-	-	15.87	30.00	-14.13	20.69	36.00	-15.31
2441	12.58	12.33	-	-	15.47	30.00	-14.53	20.29	36.00	-15.71
2480	12.65	12.47	-	-	15.57	30.00	-14.43	20.39	36.00	-15.61

**Table 75 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	100.0
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	2.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	$\Sigma$		
2402	11.18	-	-	-	-	30.00	-18.82
2441	10.90	-	-	-	-	30.00	-19.10
2480	10.89	-	-	-	-	30.00	-19.11

**Table 76 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	$\Sigma$					
2402	11.18	-	-	-	-	30.00	-18.82	13.38	36.00	-22.62
2441	10.90	-	-	-	-	30.00	-19.10	13.10	36.00	-22.90
2480	10.89	-	-	-	-	30.00	-19.11	13.09	36.00	-22.91

**Table 77 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA 8-DPSK (3-DH5)	Duty Cycle (%):	100.0
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	2.20

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	11.65	-	-	-	-	30.00	-18.35
2441	11.36	-	-	-	-	30.00	-18.64
2480	11.53	-	-	-	-	30.00	-18.47

**Table 78 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	11.65	-	-	-	-	30.00	-18.35	13.85	36.00	-22.15
2441	11.36	-	-	-	-	30.00	-18.64	13.56	36.00	-22.44
2480	11.53	-	-	-	-	30.00	-18.47	13.73	36.00	-22.27

**Table 79 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	100.0
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.70

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	$\Sigma$		
2402	-	-	10.73	-	-	30.00	-19.27
2441	-	-	10.84	-	-	30.00	-19.16
2480	-	-	10.66	-	-	30.00	-19.34

**Table 80 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	$\Sigma$					
2402	-	-	10.73	-	-	30.00	-19.27	12.43	36.00	-23.57
2441	-	-	10.84	-	-	30.00	-19.16	12.54	36.00	-23.46
2480	-	-	10.66	-	-	30.00	-19.34	12.36	36.00	-23.64

**Table 81 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	-		

DUT Configuration			
Mode:	iPA 8-DPSK (3-DH5)	Duty Cycle (%):	100.0
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	C (Core 2)	Peak Antenna Gain (dBi):	1.70

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	-	-	11.18	-	-	30.00	-18.82
2441	-	-	11.29	-	-	30.00	-18.71
2480	-	-	11.08	-	-	30.00	-18.92

**Table 82 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	-	-	11.18	-	-	30.00	-18.82	12.88	36.00	-23.12
2441	-	-	11.29	-	-	30.00	-18.71	12.99	36.00	-23.01
2480	-	-	11.08	-	-	30.00	-18.92	12.78	36.00	-23.22

**Table 83 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (2-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.82

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	$\Sigma$		
2402	10.96	11.05	-	-	14.02	30.00	-15.98
2441	11.14	10.94	-	-	14.05	30.00	-15.95
2480	10.87	10.67	-	-	13.79	30.00	-16.21

**Table 84 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	$\Sigma$					
2402	10.96	11.05	-	-	14.02	30.00	-15.98	18.84	36.00	-17.16
2441	11.14	10.94	-	-	14.05	30.00	-15.95	18.87	36.00	-17.13
2480	10.87	10.67	-	-	13.79	30.00	-16.21	18.60	36.00	-17.40

**Table 85 - ISED Maximum Conducted (peak) Output Power Results**



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (b)(1) RSS-247 5.4 b)	Test Method(s):	C63.10 7.8.5
Additional Reference(s):	662911 D01 v02r01 F)2)d)(i), 662911 D01 v02r01 E)1)		

DUT Configuration			
Mode:	iPA 8-DPSK (3-DH5)	Duty Cycle (%):	76.8
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	4.82

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)
	A	B	C	D	Σ		
2402	11.59	11.56	-	-	14.59	30.00	-15.41
2441	11.67	11.49	-	-	14.59	30.00	-15.41
2480	11.43	11.22	-	-	14.34	30.00	-15.66

**Table 86 - FCC Maximum Conducted (peak) Output Power Results**

Test Frequency (MHz)	Maximum Conducted Output Power (dBm)					Limit (dBm)	Margin (dB)	EIRP (dBm)	EIRP Limit (dBm)	EIRP Margin (dB)
	A	B	C	D	Σ					
2402	11.59	11.56	-	-	14.59	30.00	-15.41	19.41	36.00	-16.59
2441	11.67	11.49	-	-	14.59	30.00	-15.41	19.41	36.00	-16.59
2480	11.43	11.22	-	-	14.34	30.00	-15.66	19.16	36.00	-16.84

**Table 87 - ISED Maximum Conducted (peak) Output Power Results**

FCC 47 CFR Part 15, Limit Clause 15.247 (b)(3)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

ISED RSS-247, Limit Clause 5.4 (b)

For DTSS employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e) of the specification.



**2.6.7 Test Location and Test Equipment Used**

This test was carried out in RF Laboratory 1.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Multimeter	Fluke	79 Series II	3057	12	23-Aug-2022
Hygrometer	Rotronic	I-1000	3220	12	05-Nov-2022
Frequency Standard	Spectracom	SecureSync 1200-0408-0601	4393	6	03-Jan-2022
AC Programmable Power Supply	iTech	IT7324	5226	-	O/P Mon
Signal Commissioning Unit	TUV SUD	SCU002	5759	12	30-Jun-2022
USB Power Sensor	Boonton	RTP5008	5830	12	10-May-2022
USB Power Sensor	Boonton	RTP5008	5832	12	10-May-2022
USB Power Sensor	Boonton	RTP5008	5833	12	10-May-2022

**Table 88**

O/P Mon – Output Monitored using calibrated equipment





## **2.7 Spurious Radiated Emissions**

### **2.7.1 Specification Reference**

FCC 47 CFR Part 15C, Clause 15.247 (d) and 15.209  
ISED RSS-247, Clause 3.3 and 5.5  
ISED RSS-GEN, Clause 6.13 and 8.9

### **2.7.2 Equipment Under Test and Modification State**

A2615, S/N: P1F4F29DL4 - Modification State 0

### **2.7.3 Date of Test**

17-November-2021 to 22-November-2021

### **2.7.4 Test Method**

Testing was performed in accordance with ANSI C63.10, clause 6.3, 6.5 and 6.6.

For frequencies > 1 GHz, plots for average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.5 to characterize the EUT. Where emissions were detected, final average measurements were taken in accordance with ANSI C63.10, clause 4.1.4.2.2.

The EUT was placed on the non-conducting platform in a manner typical of a normal installation. As the EUT was considered mobile/portable and therefore reasonable to be used in multiple planes, pre-scans were performed with the EUT orientated in X, Y and Z planes with reference to the ground plane.

In the 30 MHz to 1 GHz range pre-scans were only performed on the main radio mid channel (2440 MHz and 2441 MHz).

The plots shown are the characterization of the EUT. The limits on the plots represent the most stringent case for restricted bands, (54/74 dBuV/m @ 3 m and 64/84 dBuV/m @ 1 m) when compared to 20 dBc (Peak) and 30 dBc (Average) outside restricted bands. The limits shown have been used as a threshold to determine where further measurements are necessary. Where results are within 10 dB of the limits shown on the plots, further investigation was carried out and reported in results tables.

The following conversion can be applied to convert from dB $\mu$ V/m to  $\mu$ V/m:  
 $10^{(\text{Field Strength in dB}\mu\text{V/m} / 20)}$ .

Above 18 GHz, the measurement distance was reduced to 1 m. The limit line was increased by  $20 \cdot \text{LOG}(3/1) = 9.54$  dB.

### 2.7.5 Example Test Setup Diagram

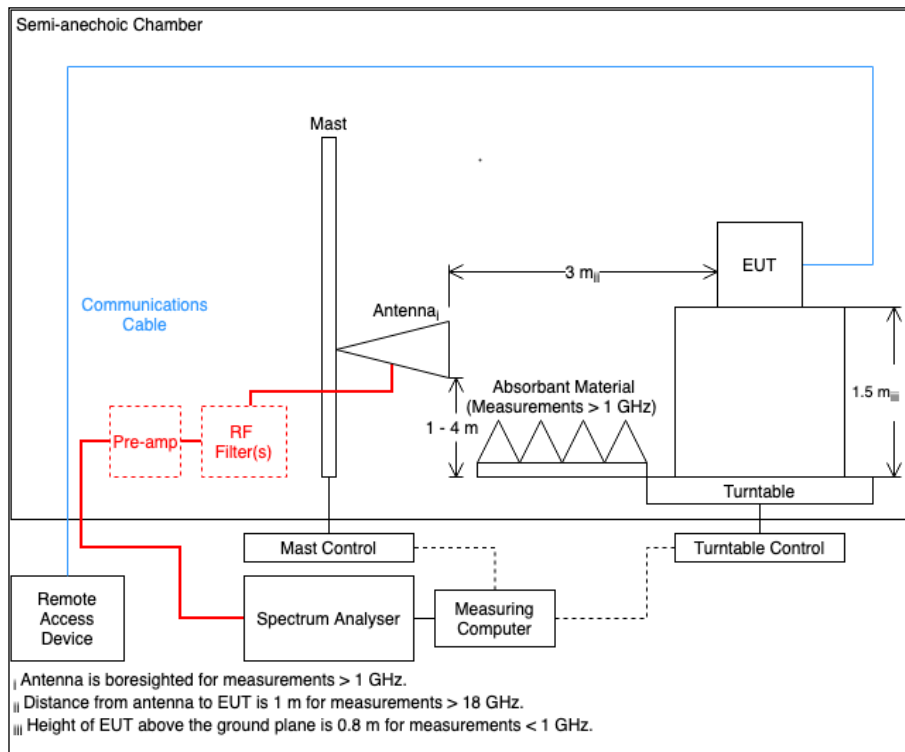


Figure 121

### 2.7.6 Environmental Conditions

Ambient Temperature 20.9 - 22.6 °C  
Relative Humidity 30.5 - 51.1 %



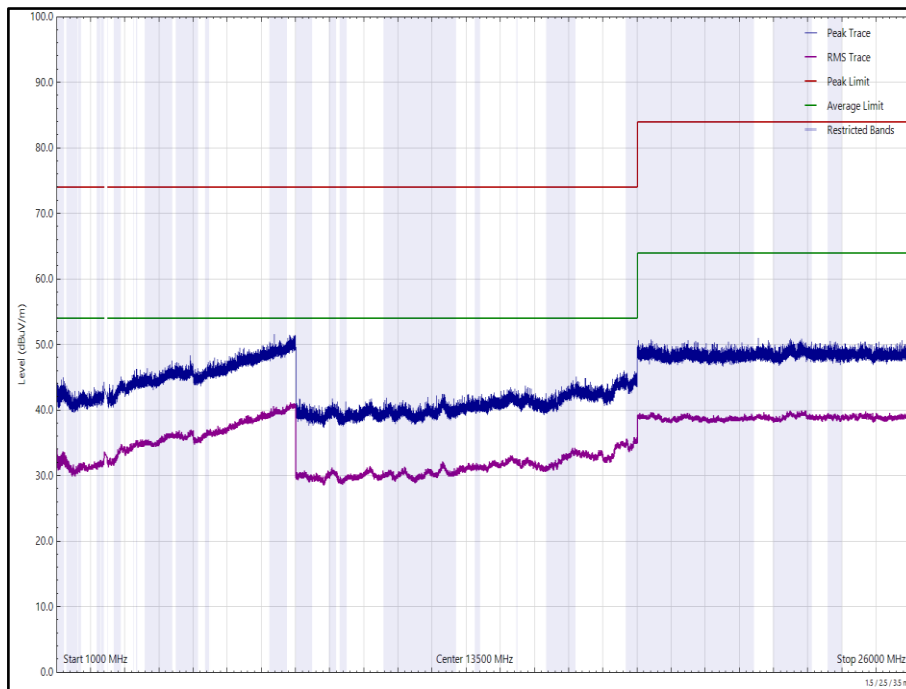
**2.7.7 Test Results**

2.4 GHz Bluetooth - FHSS

Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

**Table 89 - 2402 MHz (CH0), DH5, iPA, Core 0 + Core 1, 1 GHz to 26 GHz**

\*No emissions found within 6 dB of the limit.



**Figure 122 - 2402 MHz (CH0), DH5, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal**

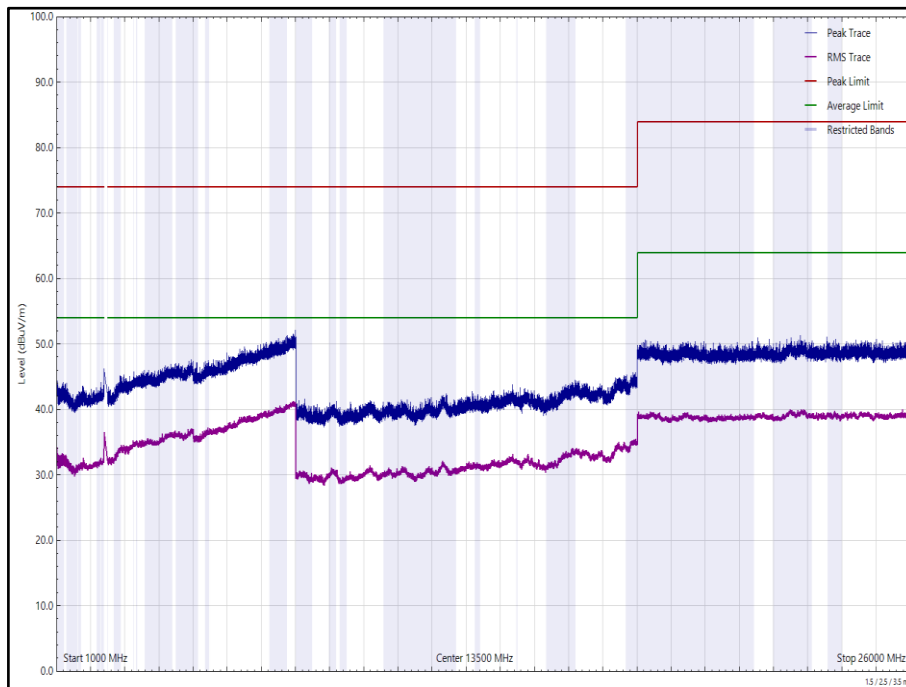


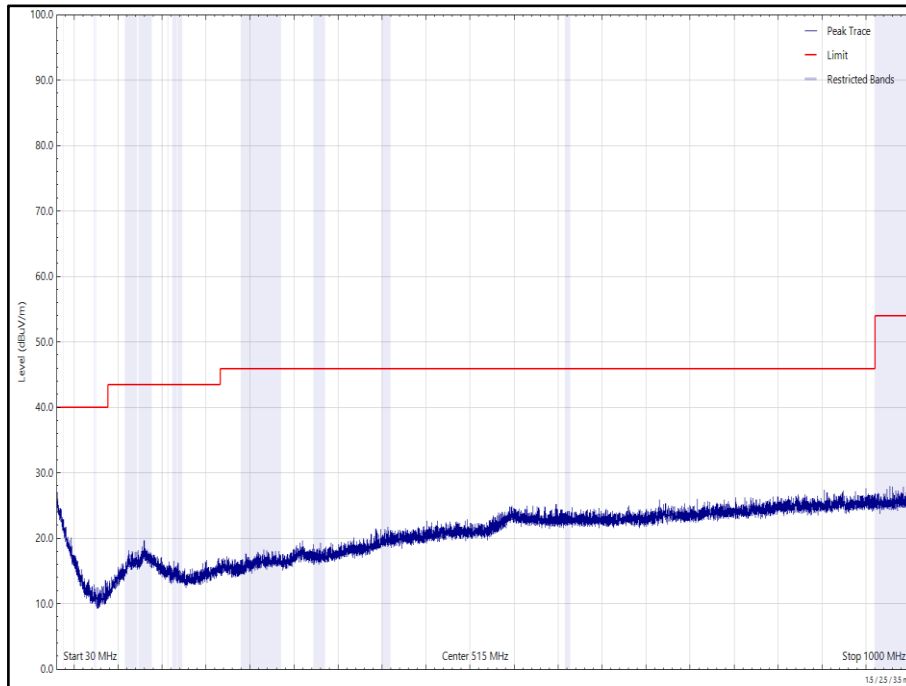
Figure 123 - 2402 MHz (CH0), DH5, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical



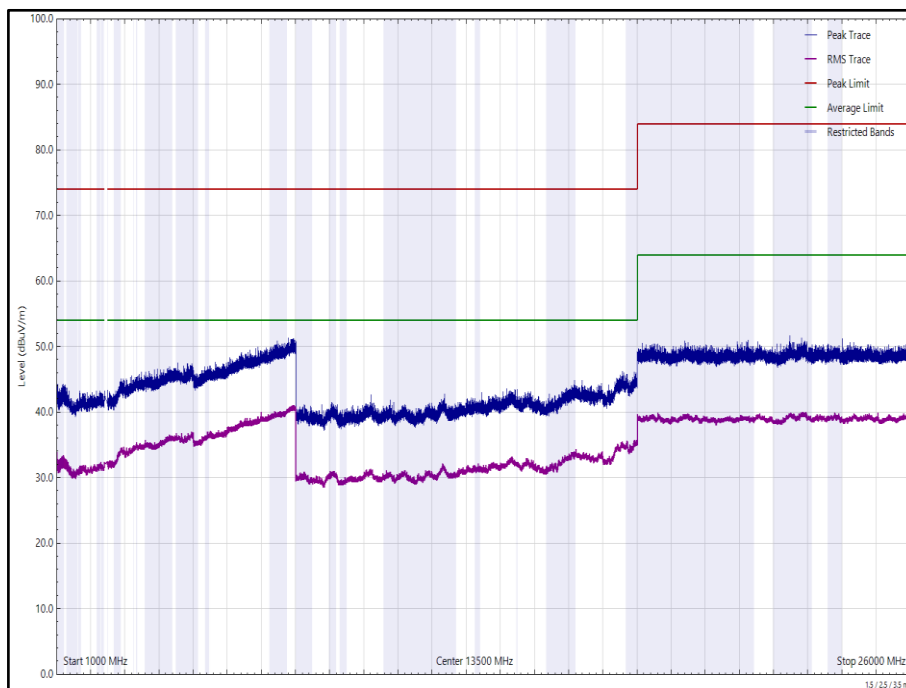
Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

**Table 90 - 2441 MHz (CH39), DH5, iPA, Core 0 + Core 1, 30 MHz to 26 GHz**

\*No emissions found within 6 dB of the limit.



**Figure 124 - 2441 MHz (CH39), DH5, iPA, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)**



**Figure 125 - 2441 MHz (CH39), DH5, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal**

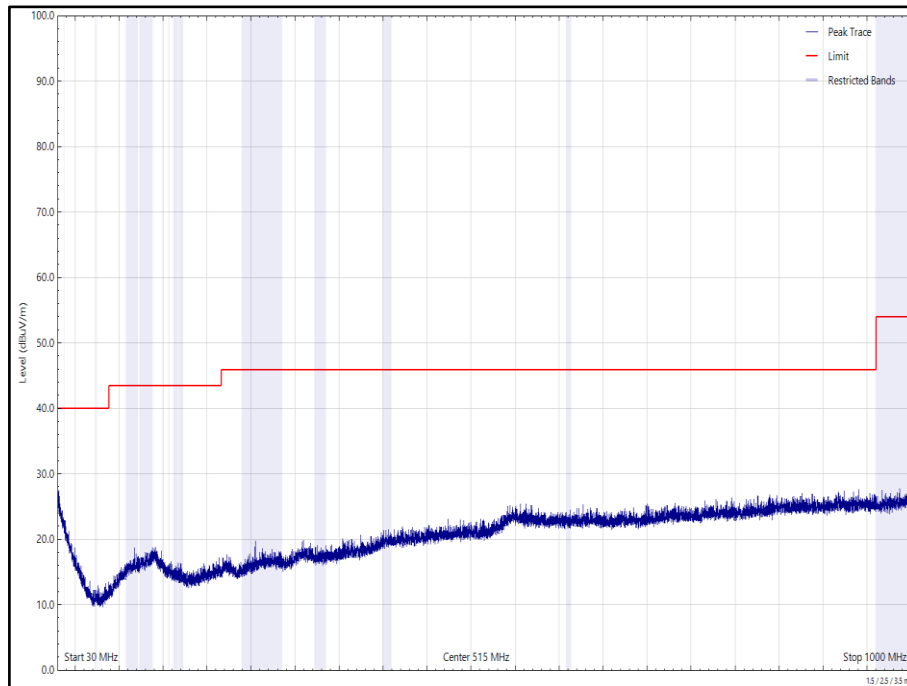


Figure 126 - 2441 MHz (CH39), DH5, iPA, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

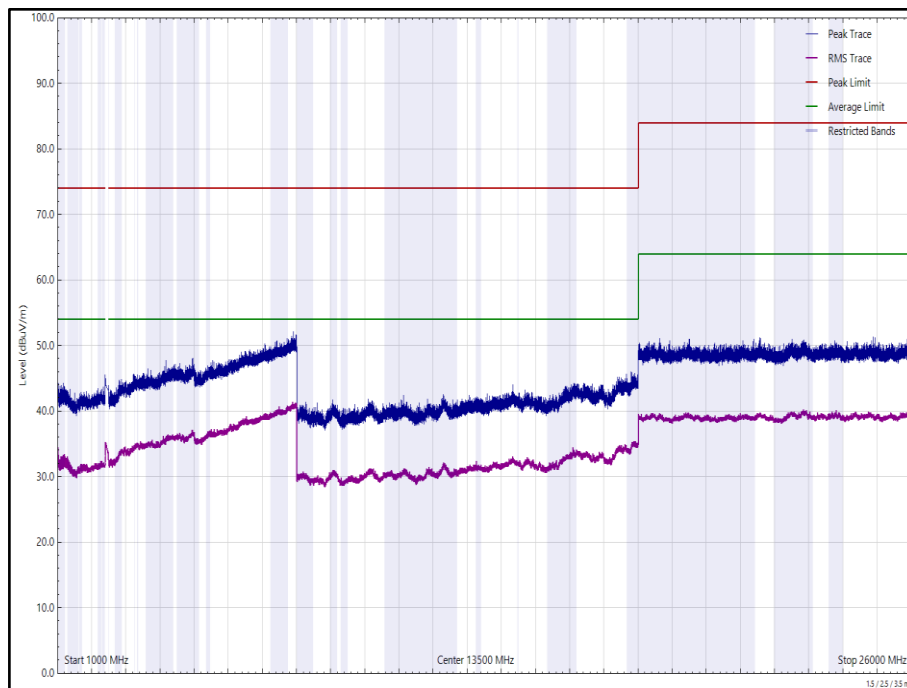


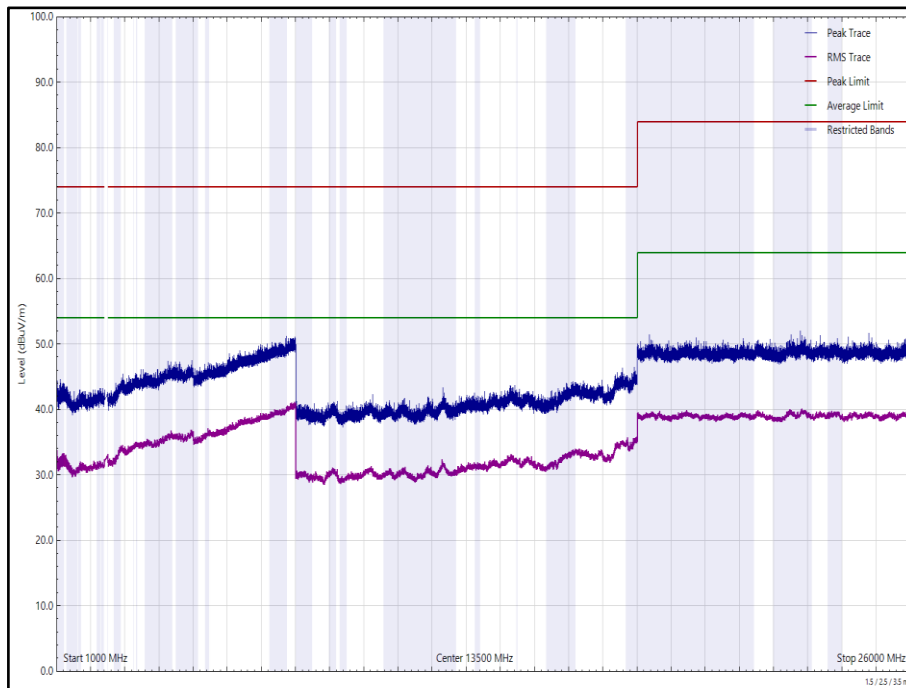
Figure 127 - 2441 MHz (CH39), DH5, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical



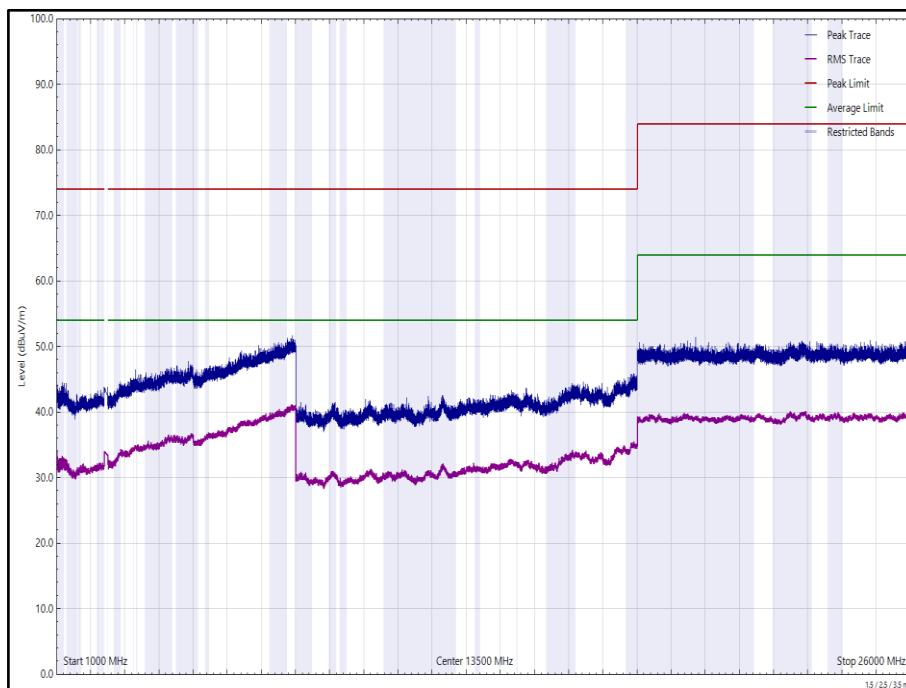
Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

**Table 91 - 2480 MHz (CH78), DH5, iPA, Core 0 + Core 1, 1 GHz to 26 GHz**

\*No emissions found within 6 dB of the limit.



**Figure 128 - 2480 MHz (CH78), DH5, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal**



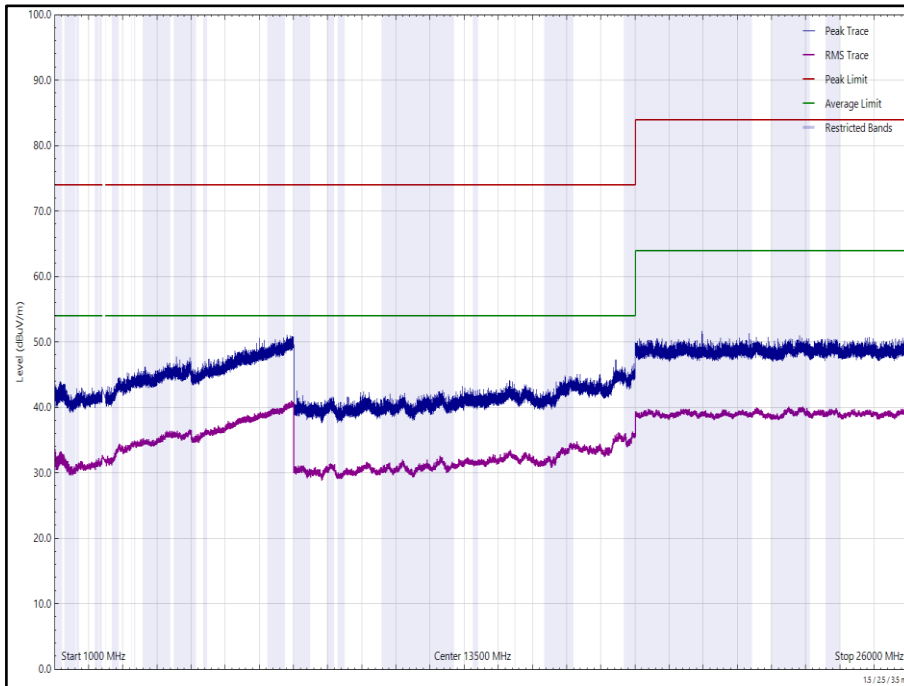
**Figure 129 - 2480 MHz (CH78), DH5, iPA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical**



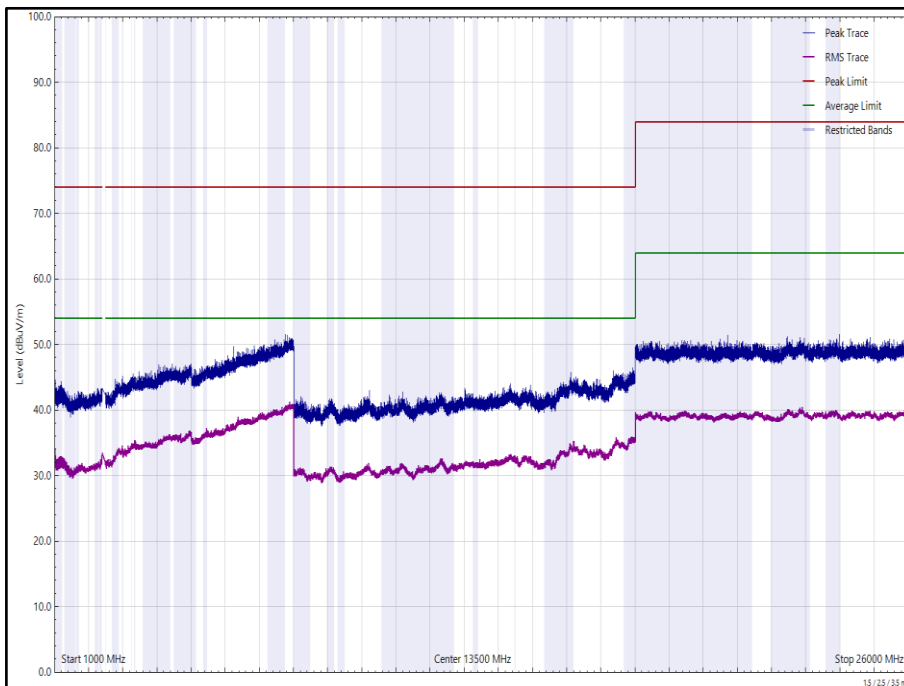
Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

**Table 92 - 2402 MHz (CH0), DH5, iPA, Core 2, 1 GHz to 26 GHz**

\*No emissions found within 6 dB of the limit.



**Figure 130 - 2402 MHz (CH0), DH5, iPA, Core 2, 1 GHz to 26 GHz, Horizontal**



**Figure 131 - 2402 MHz (CH0), DH5, iPA, Core 2, 1 GHz to 26 GHz, Vertical**

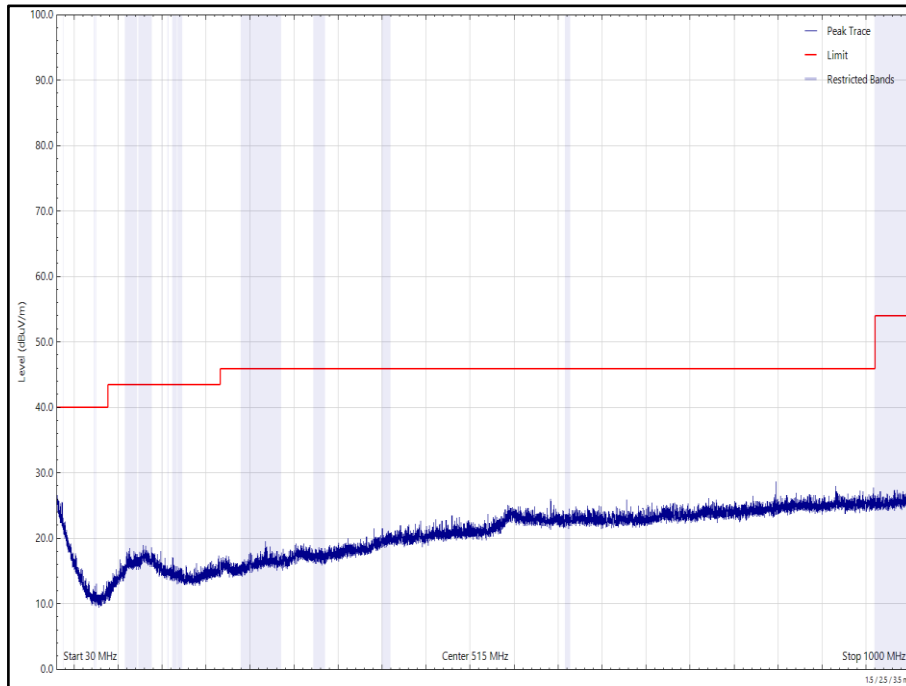




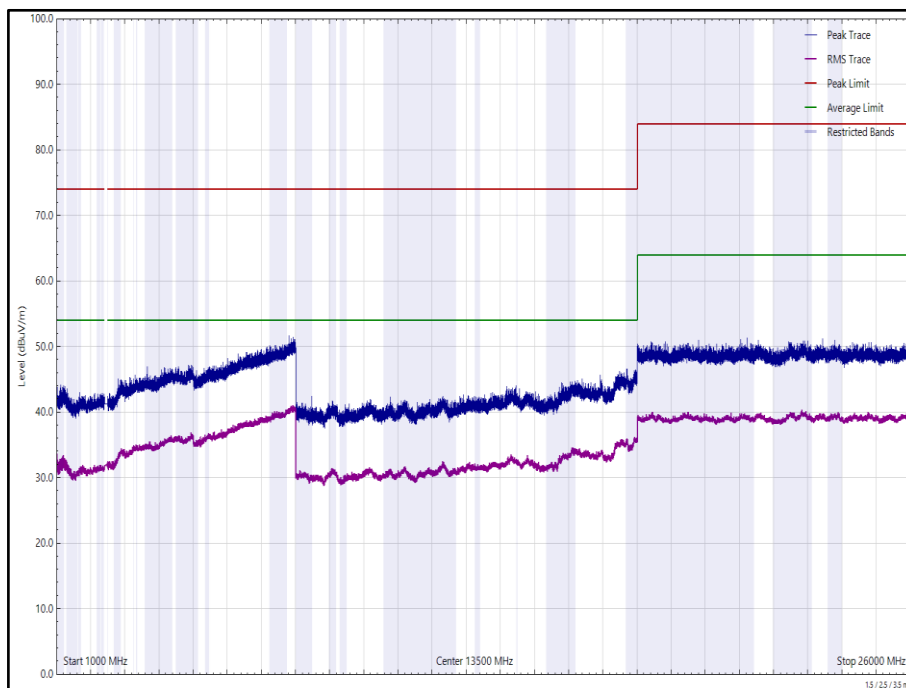
Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

**Table 93 - 2441 MHz (CH39), DH5, iPA, Core 2, 30 MHz to 26 GHz**

\*No emissions found within 6 dB of the limit.



**Figure 132 - 2441 MHz (CH39), DH5, iPA, Core 2, 30 MHz to 1 GHz, Horizontal (Peak)**



**Figure 133 - 2441 MHz (CH39), DH5, iPA, Core 2, 1 GHz to 26 GHz, Horizontal**

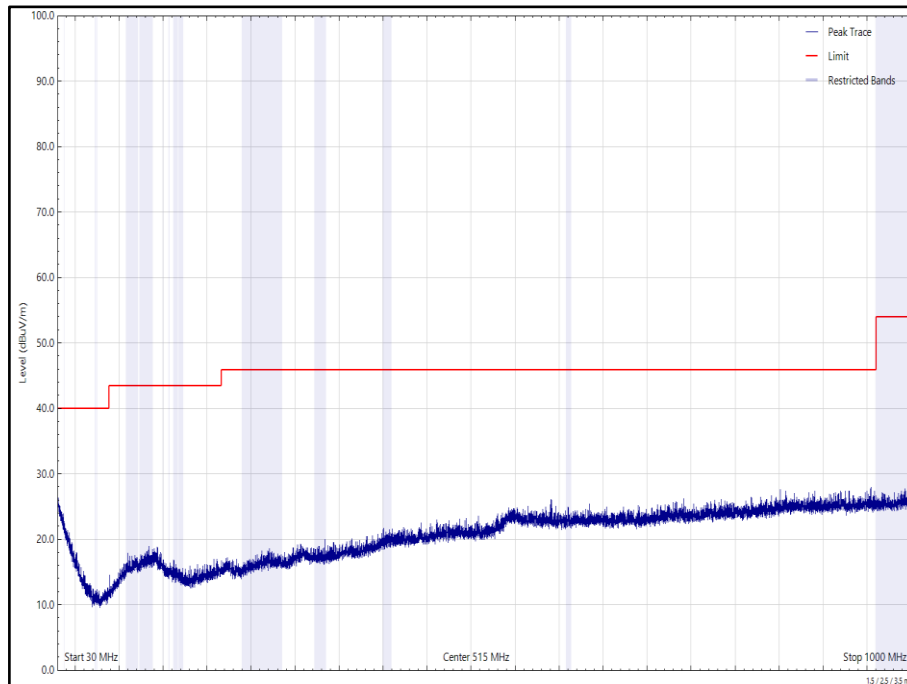


Figure 134 - 2441 MHz (CH39), DH5, iPA, Core 2, 30 MHz to 1 GHz, Vertical (Peak)

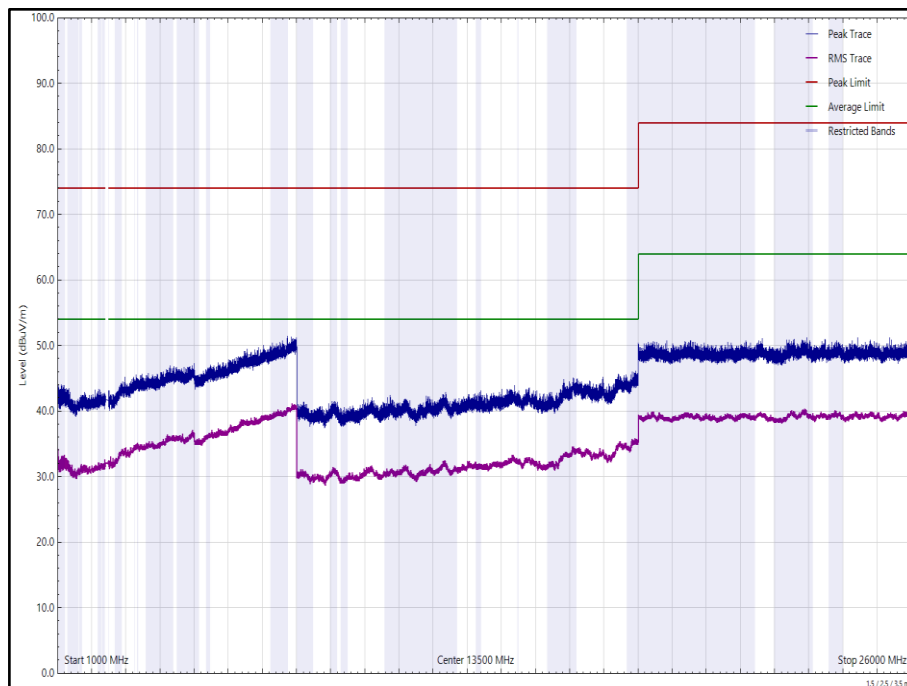


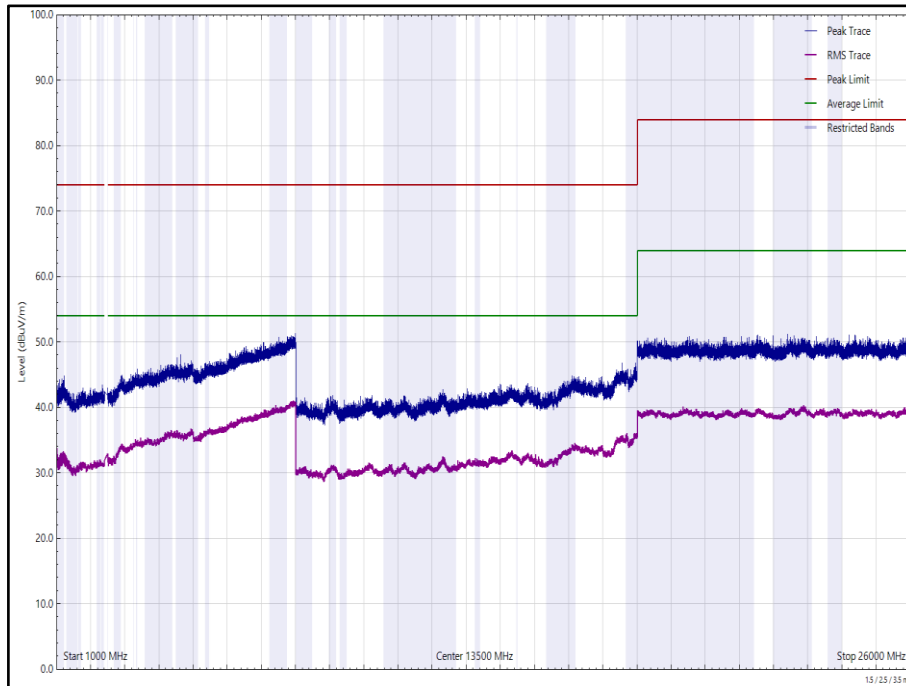
Figure 135 - 2441 MHz (CH39), DH5, iPA, Core 2, 1 GHz to 26 GHz, Vertical



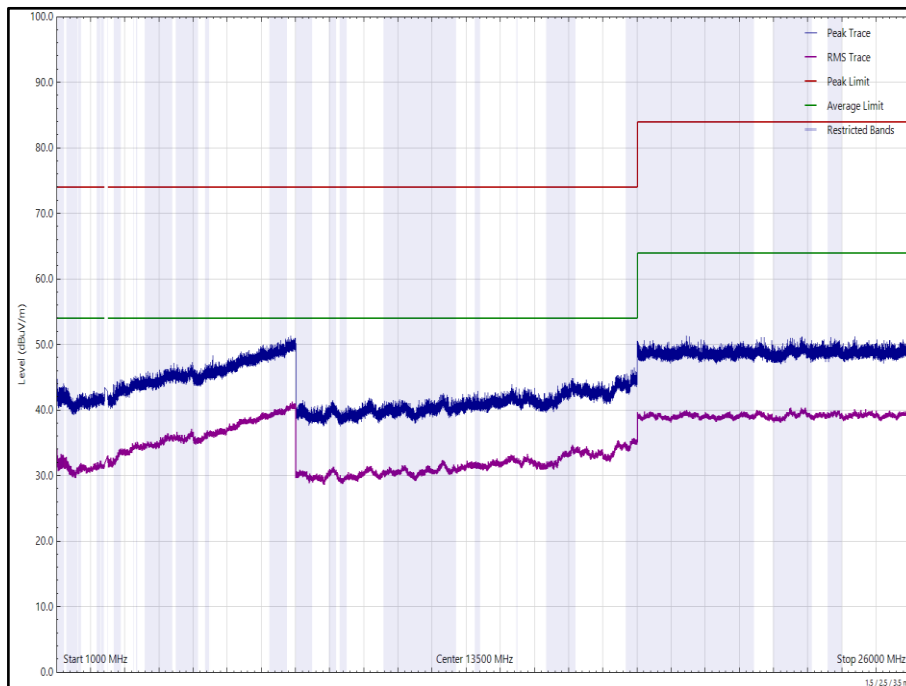
Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

**Table 94 - 2480 MHz (CH78), DH5, iPA, Core 2, 1 GHz to 26 GHz**

\*No emissions found within 6 dB of the limit.



**Figure 136 - 2480 MHz (CH78), DH5, iPA, Core 2, 1 GHz to 26 GHz, Horizontal**



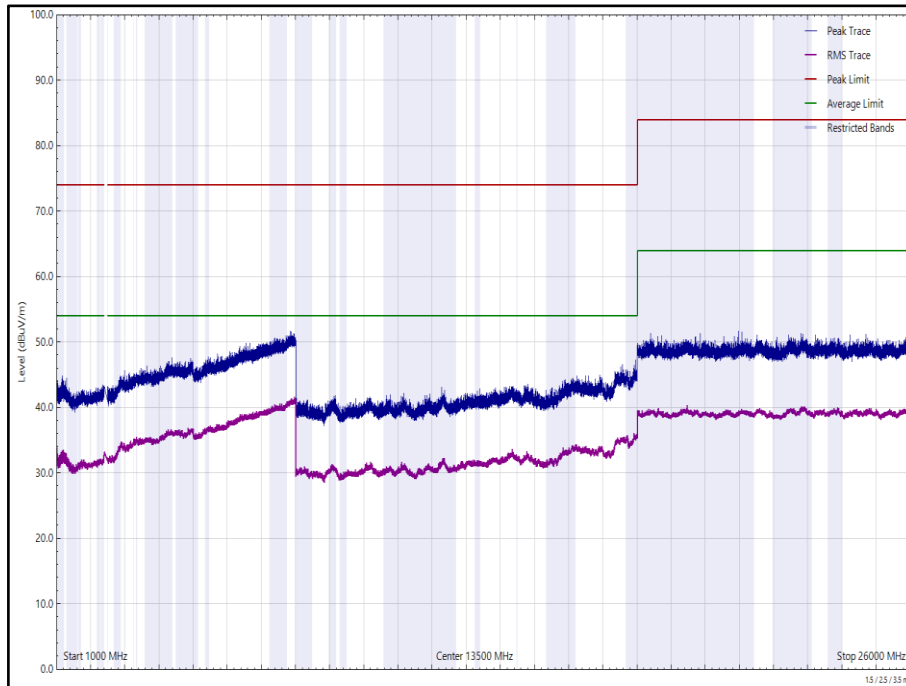
**Figure 137 - 2480 MHz (CH78), DH5, iPA, Core 2, 1 GHz to 26 GHz, Vertical**



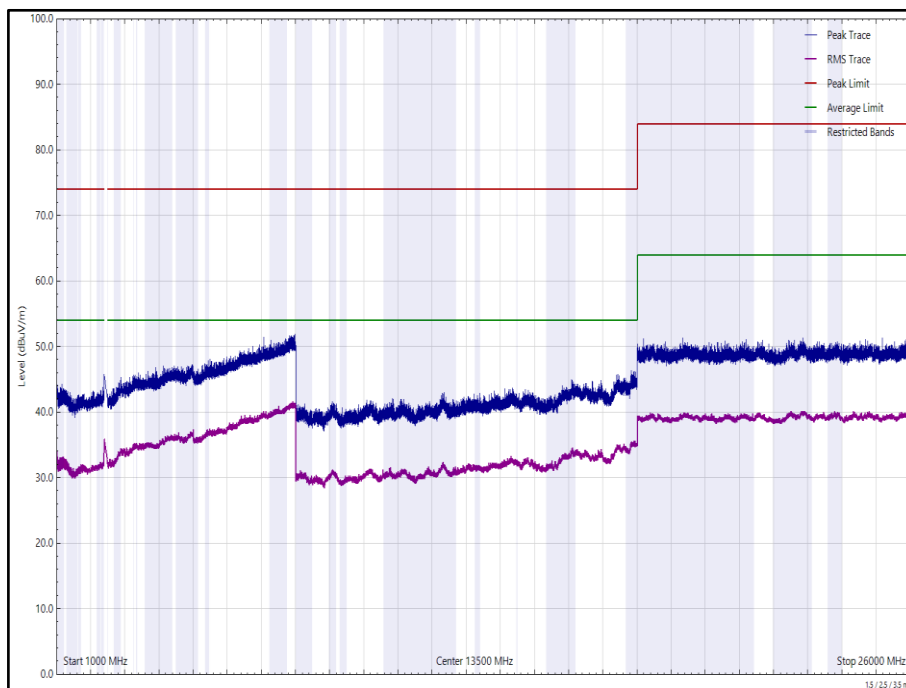
Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

**Table 95 - 2402 MHz (CH0), 2DH5, ePA, Core 0 + Core 1, 1 GHz to 26 GHz**

\*No emissions found within 6 dB of the limit.



**Figure 138 - 2402 MHz (CH0), 2DH5, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal**



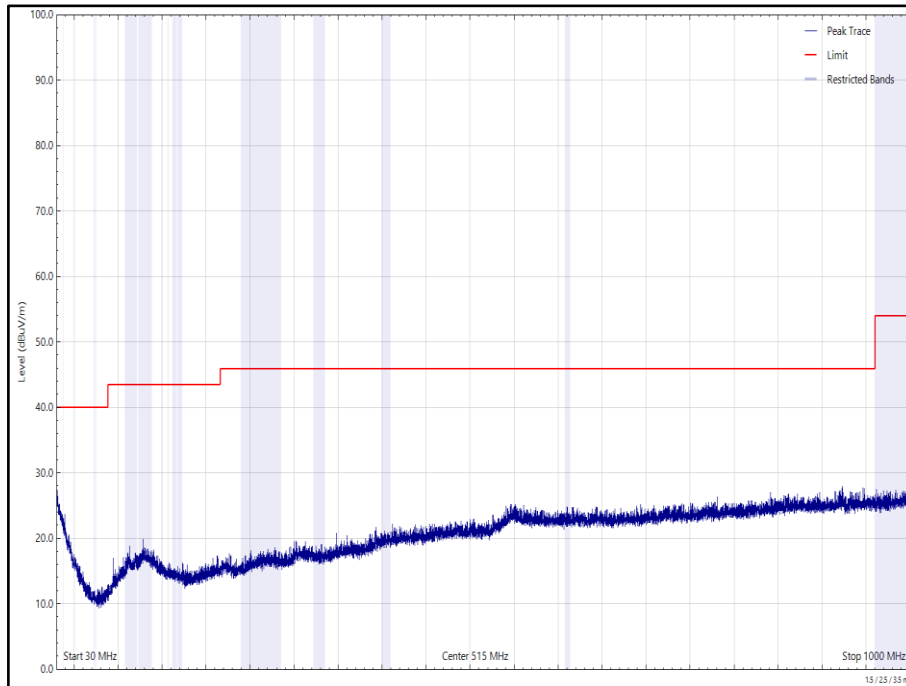
**Figure 139 - 2402 MHz (CH0), 2DH5, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical**



Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

**Table 96 - 2441 MHz (CH39), 2DH5, ePA, Core 0 + Core 1, 30 MHz to 26 GHz**

\*No emissions found within 6 dB of the limit.



**Figure 140 - 2441 MHz (CH39), 2DH5, ePA, Core 0 + Core 1, 30 MHz to 1 GHz, Horizontal (Peak)**

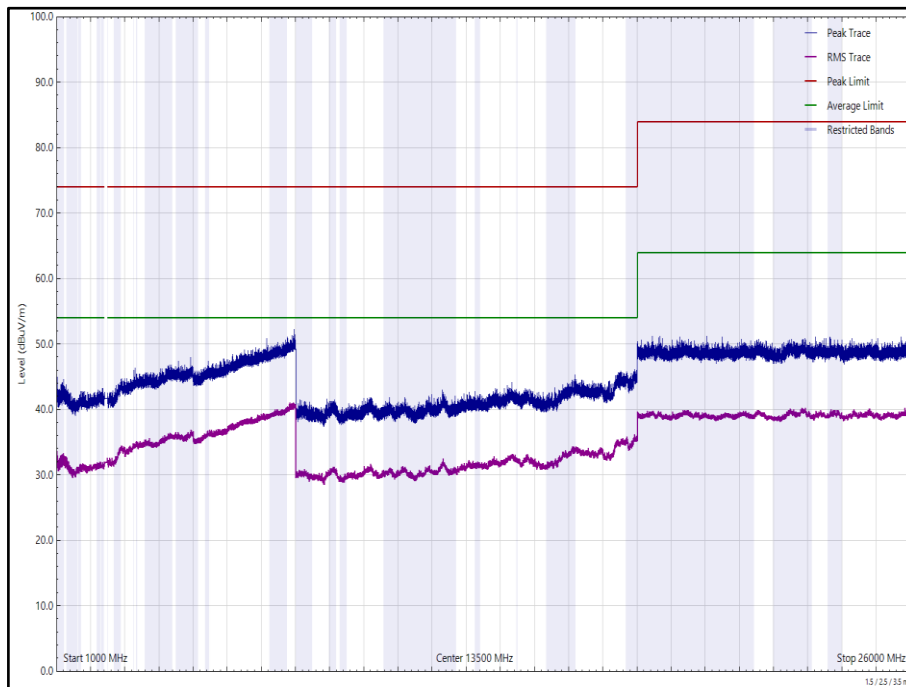


Figure 141 - 2441 MHz (CH39), 2DH5, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal

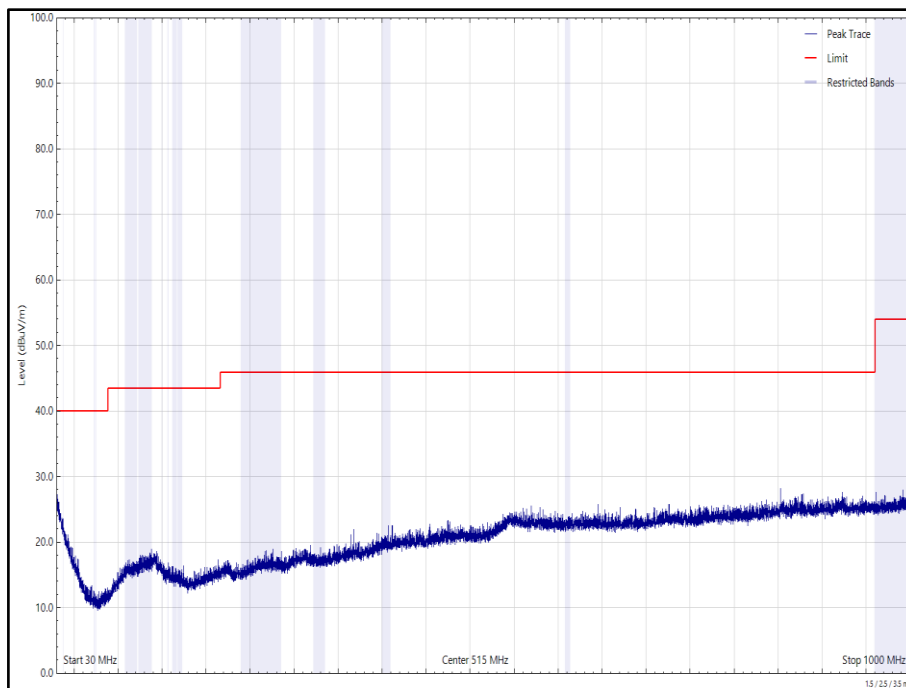


Figure 142 - 2441 MHz (CH39), 2DH5, ePA, Core 0 + Core 1, 30 MHz to 1 GHz, Vertical (Peak)

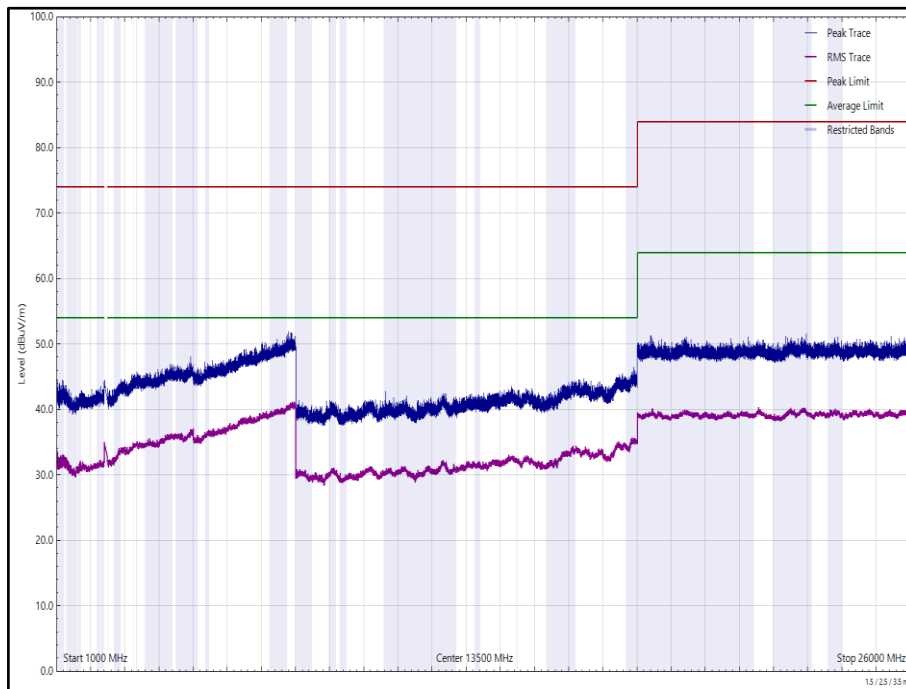


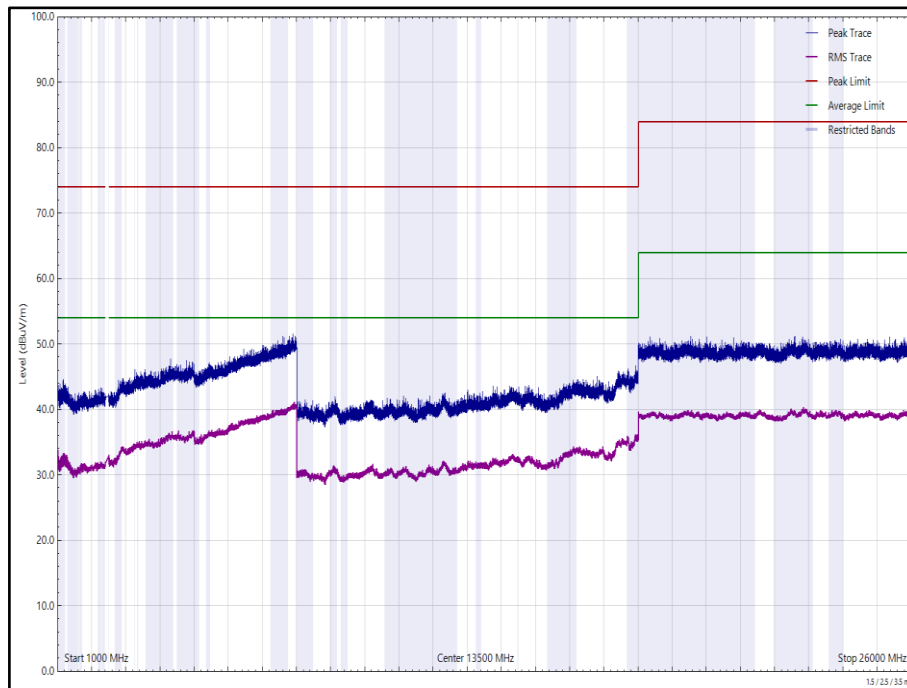
Figure 143 - 2441 MHz (CH39), 2DH5, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical



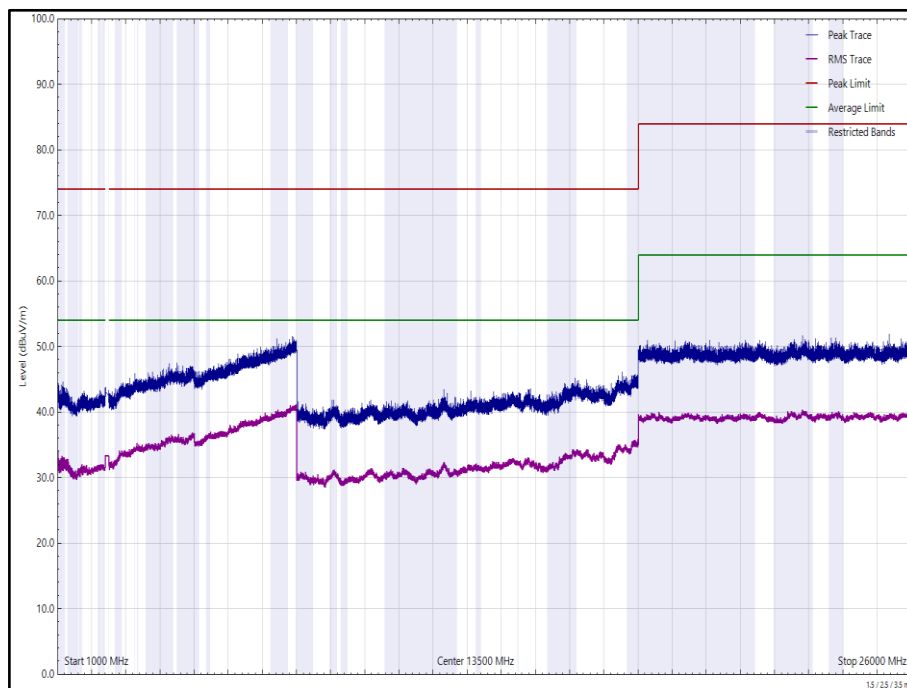
Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Angle (°)	Height (cm)	Polarisation
*							

**Table 97 - 2480 MHz (CH78), 2DH5, ePA, Core 0 + Core 1, 1 GHz to 26 GHz**

\*No emissions found within 6 dB of the limit.



**Figure 144 - 2480 MHz (CH78), 2DH5, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Horizontal**



**Figure 145 - 2480 MHz (CH78), 2DH5, ePA, Core 0 + Core 1, 1 GHz to 26 GHz, Vertical**





FCC 47 CFR Part 15, Limit Clause 15.247 (d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in 15.209(a)

ISED RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in RSS-GEN, clause 8.10, must also comply with the radiated emission limits specified in RSS-GEN clause 8.9.



## 2.7.8 Test Location and Test Equipment Used

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Antenna (DRG, 18 GHz to 40 GHz)	Link Microtek Ltd	AM180HA-K-TU2	230	24	27-Jul-2022
Antenna with attenuator (Bilog, 30 MHz to 3 GHz)	Schaffner	CBL6143	287	24	14-Oct-2022
Pre-Amplifier (18 GHz to 40 GHz)	Phase One	PSO4-0087	1534	12	02-Aug-2022
Screened Room (11)	Rainford	Rainford	5136	36	24-Nov-2024
Band Reject Filter - 2.425 GHz	Wainwright	WRCGV14-2390-2400-2450-2460-50SS	5066	12	11-Oct-2022
Band Reject Filter - 2.4585 GHz	Wainwright	WRCGV14-2423.5-2433.5-2483.5-2493.5-50SS	5068	12	11-Oct-2022
EMI Test Receiver	Rohde & Schwarz	ESW44	5084	12	08-Mar-2022
Cable (18 GHz)	Rosenberger	LU7-071-1000	5102	12	20-Oct-2022
Cable (18 GHz)	Rosenberger	LU7-071-1000	5103	12	17-Nov-2022
Cable (18 GHz)	Rosenberger	LU7-071-1000	5104	12	13-Dec-2022
Cable (18 GHz)	Rosenberger	LU7-071-2000	5107	12	13-Dec-2022
Emissions Software	TUV SUD	EmX V2.1.11	5125	-	Software
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Horn Antenna (1-10GHz)	Schwarzbeck	BBHA 9120 B	5215	12	01-Apr-2022
DRG Horn Antenna (7.5-18GHz)	Schwarzbeck	HWRD750	5216	12	01-Apr-2022
Pre Amp 1 - 26.5 GHz	Agilent Technologies	8449B	5445	12	06-May-2022
Cable (K-Type to K-Type, 1 m)	Junkosha	MWX241-01000KMSKMS/A	5511	12	09-Apr-2022
2m SMA Cable	Junkosha	MWX221-02000AMSAMS/A	5518	12	09-Apr-2022
8m N Type Cable	Junkosha	MWX221-08000NMSNMS/B	5522	12	24-Mar-2022
2m K Type Cable	Junkosha	MWX241-02000KMSKMS/A	5524	12	24-Mar-2022
3 GHz High pass Filter	Wainwright	WHKX12-2580-3000-18000-80SS	5547	12	07-May-2022
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB 40	5604	12	22-Sep-2022

**Table 98**

TU - Traceability Unscheduled



**2.8 Authorised Band Edges**

**2.8.1 Specification Reference**

FCC 47 CFR Part 15C, Clause 15.247 (d)  
ISED RSS-247, Clause 5.5

**2.8.2 Equipment Under Test and Modification State**

A2615, S/N: P1F4F29DL4 - Modification State 0

**2.8.3 Date of Test**

25-October-2021 to 27-October-2021

**2.8.4 Test Method**

The test was performed in accordance with ANSI C63.10, clause 6.10.4.

**2.8.5 Environmental Conditions**

Ambient Temperature	20.8 - 22.8 °C
Relative Humidity	46.9 – 52.5 %



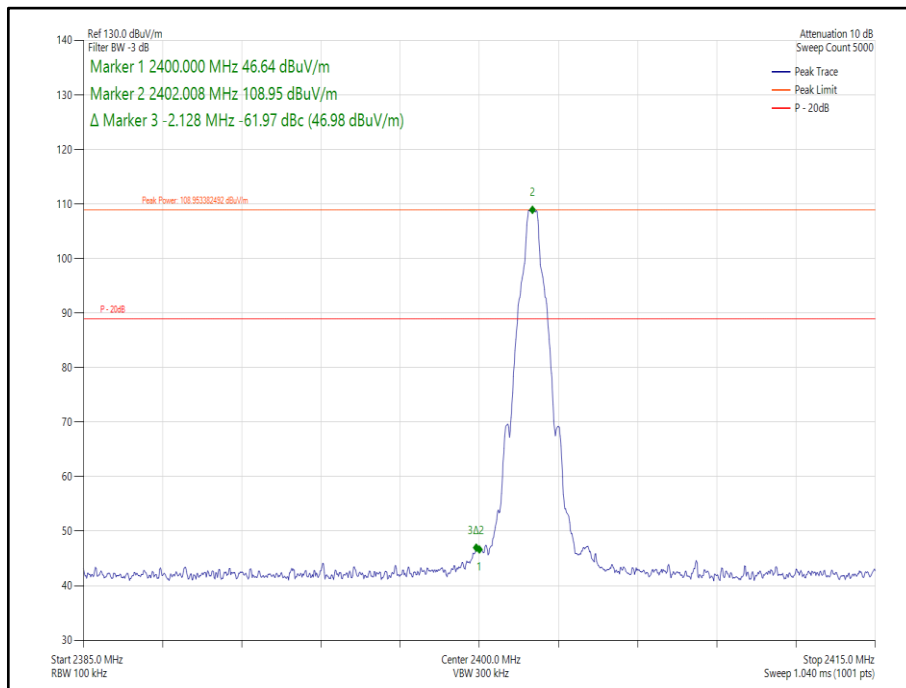
**2.8.6 Test Results**

2.4 GHz Bluetooth (FHSS)

iPA

Mode	Modulation	Core	Packet Type	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	GFSK	0	DH5	2402	2400.0	-61.97
Static	$\pi/4$ DQPSK	0	2DH5	2402	2400.0	-55.51
Static	8-DPSK	0	3DH5	2402	2400.0	-53.21
Hopping	GFSK	0	DH5	2402	2400.0	-62.38
Hopping	$\pi/4$ DQPSK	0	2DH5	2402	2400.0	-56.42
Hopping	8-DPSK	0	3DH5	2402	2400.0	-58.41

**Table 99 - Authorised Band Edge Results**



**Figure 146 Core 0- Static - GFSK/DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz**

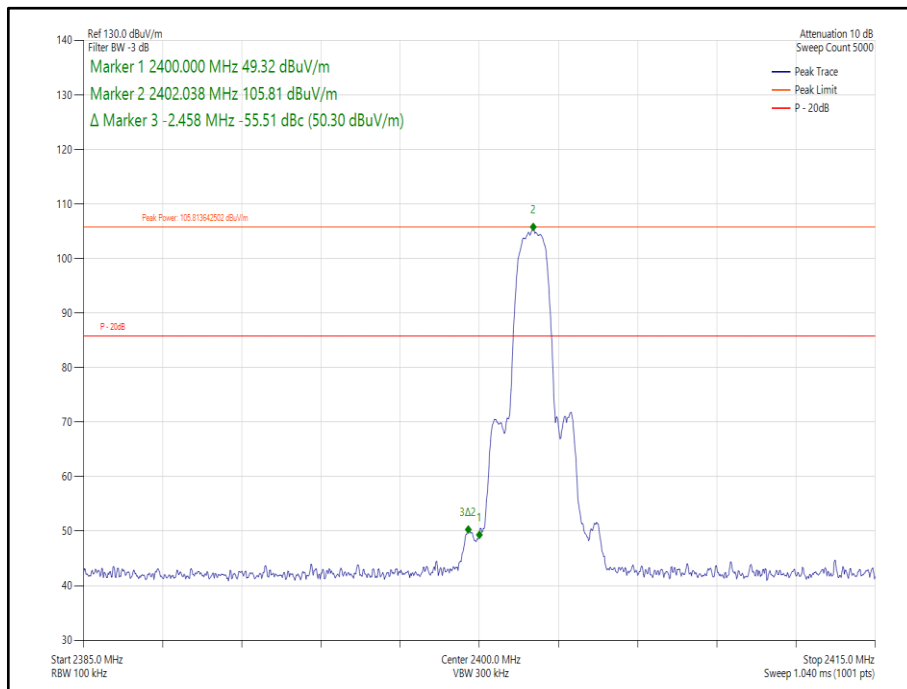


Figure 147 Core 0- Static -  $\pi/4$  DQPSK/2DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz

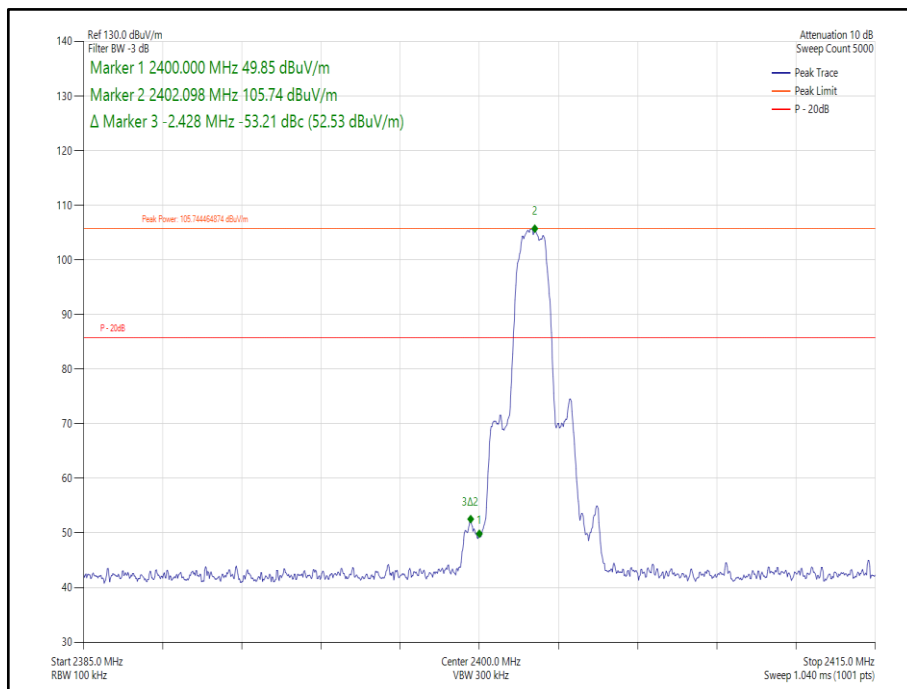


Figure 148 Core 0- Static - 8-DPSK/3DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz

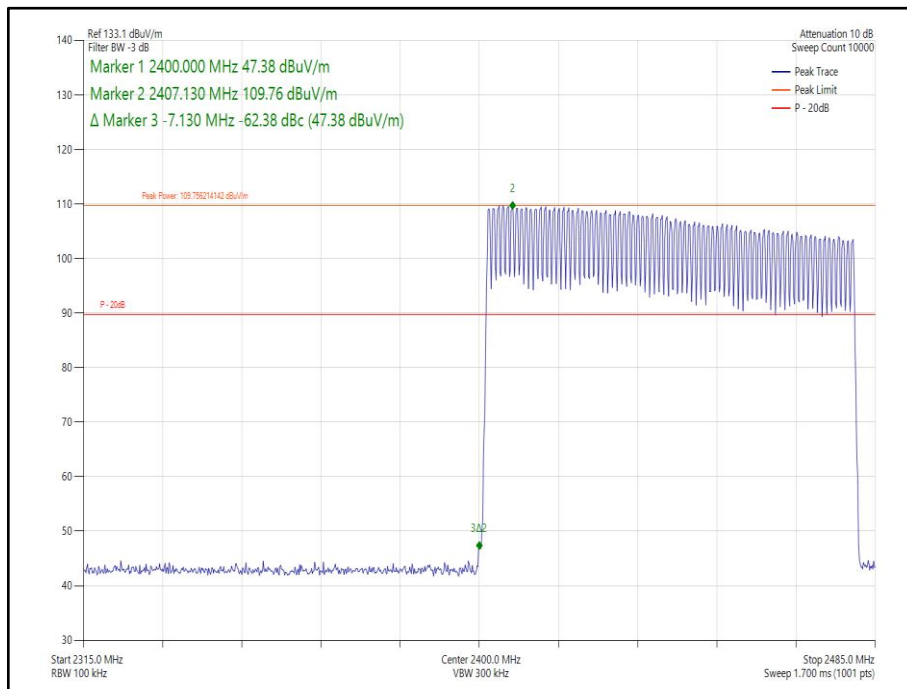


Figure 149 Core 0- Hopping - GFSK/DH5 - Band Edge Frequency 2400.0 MHz

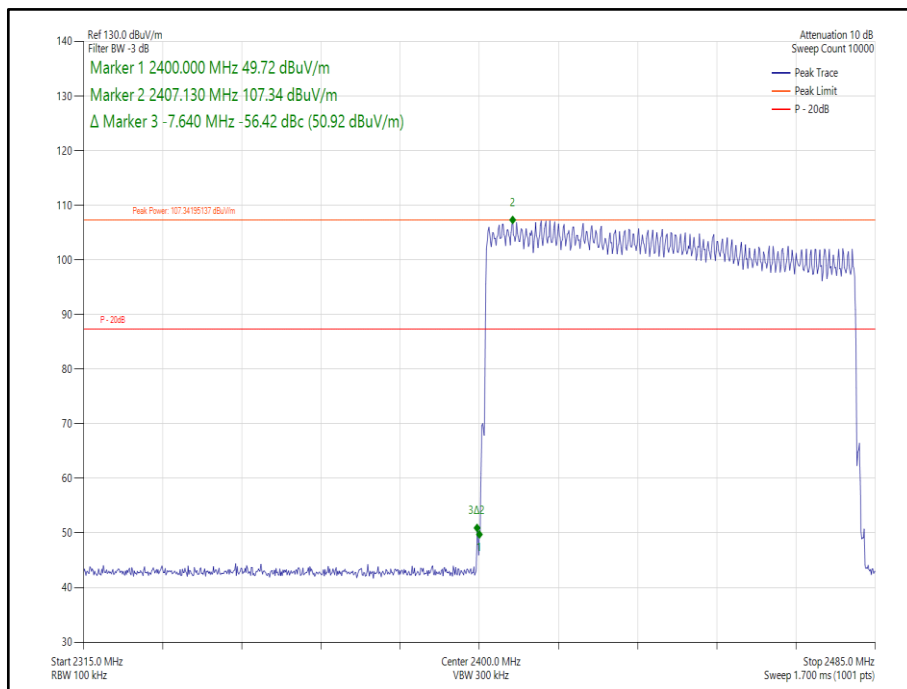


Figure 150 Core 0- Hopping -  $\pi/4$  DQPSK/2DH5 - Band Edge Frequency 2400.0 MHz

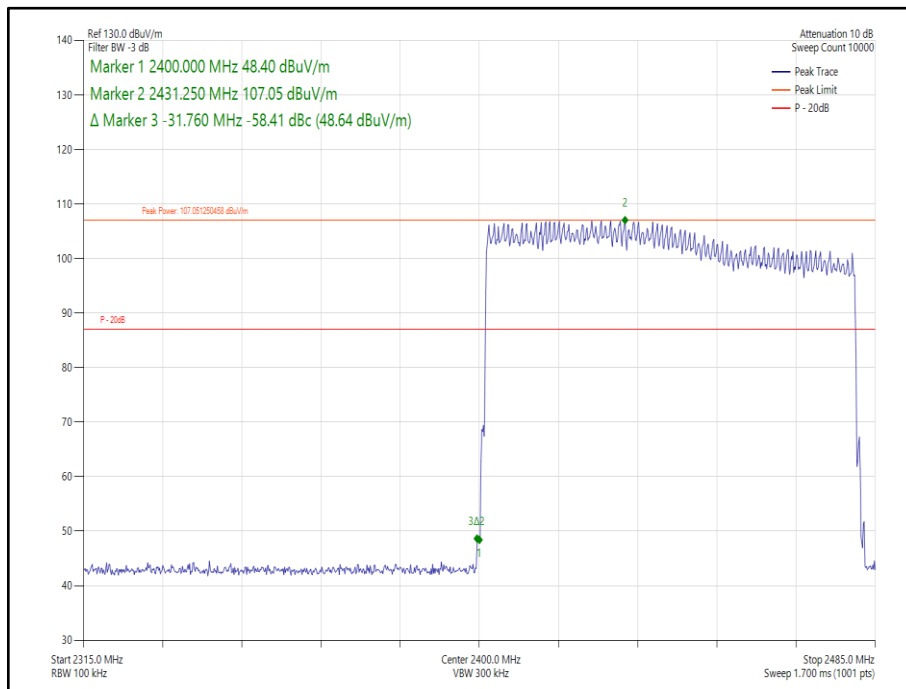


Figure 151 Core 0- Hopping - 8-DPSK/3DH5 - Band Edge Frequency 2400.0 MHz

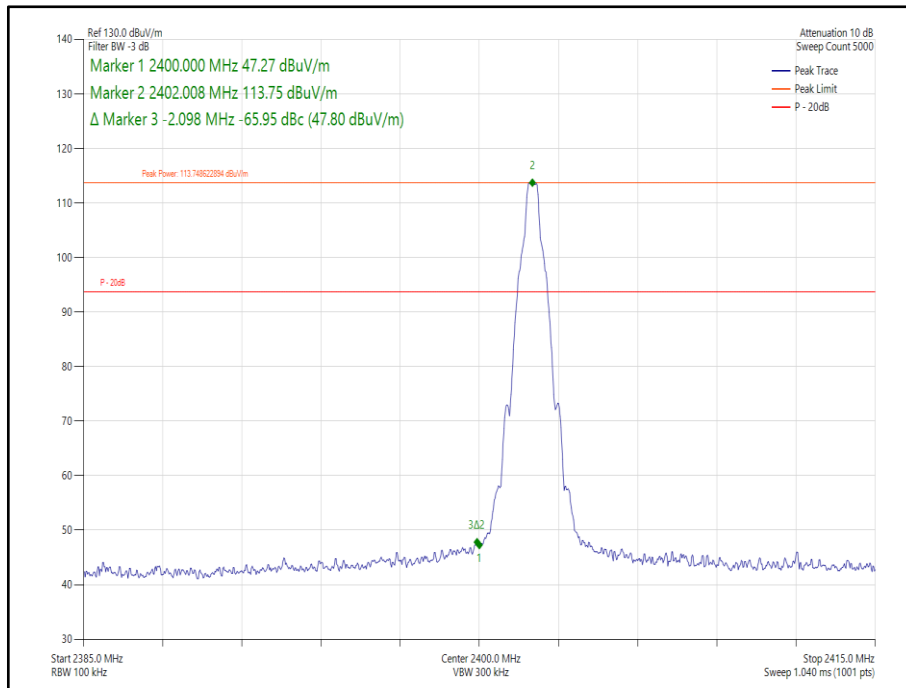


2.4 GHz Bluetooth (FHSS)

ePA

Mode	Modulation	Core	Packet Type	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	GFSK	0	DH5	2402	2400.0	-65.95
Static	$\pi/4$ DQPSK	0	2DH5	2402	2400.0	-60.67
Static	8-DPSK	0	3DH5	2402	2400.0	-61.26
Hopping	GFSK	0	DH5	2402	2400.0	-67.83
Hopping	$\pi/4$ DQPSK	0	2DH5	2402	2400.0	-61.72
Hopping	8-DPSK	0	3DH5	2402	2400.0	-63.72

**Table 100 - Authorised Band Edge Results**



**Figure 152 Core 0- Static - GFSK/DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz**



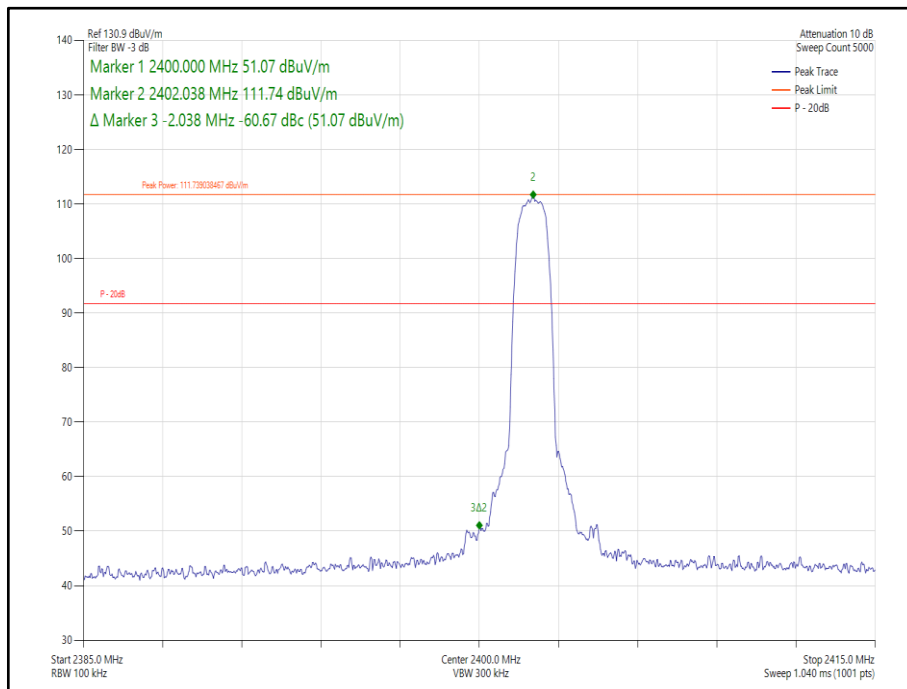


Figure 153 Core 0- Static -  $\pi/4$  DQPSK/2DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz

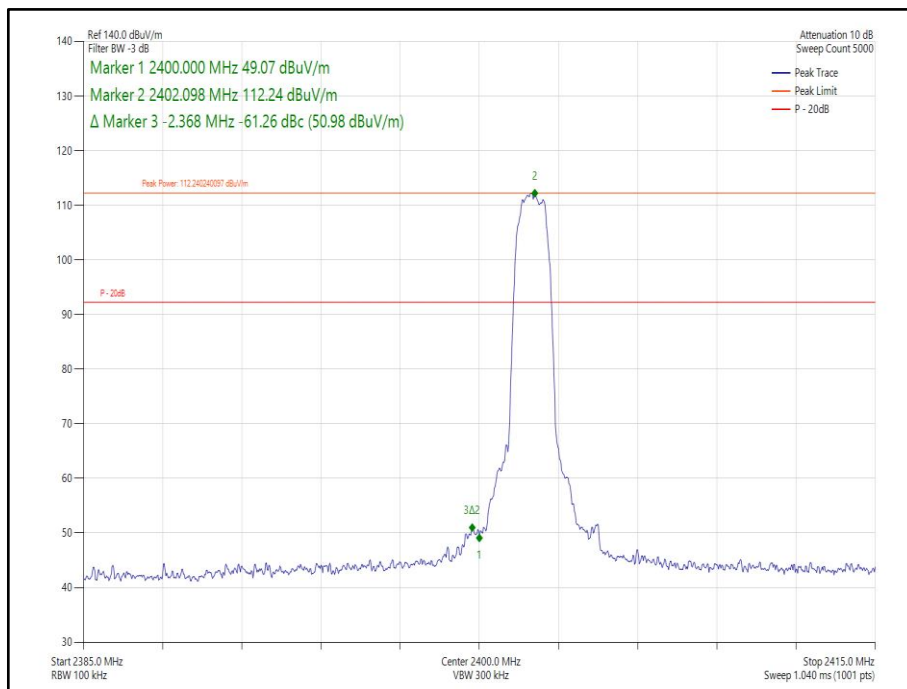


Figure 154 Core 0- Static - 8-DPSK/3DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz

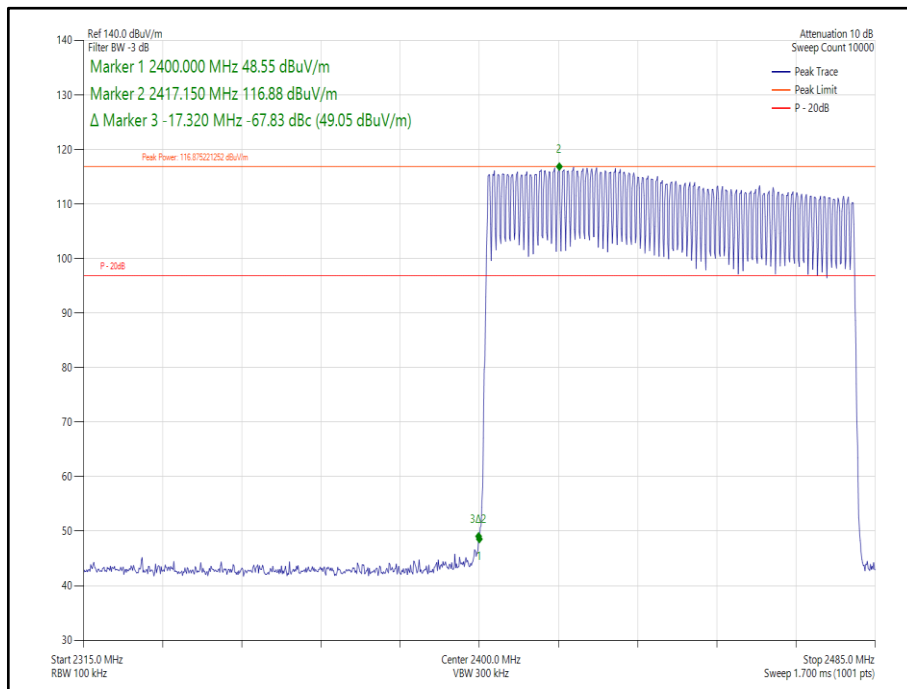


Figure 155 Core 0- Hopping - GFSK/DH5 - Band Edge Frequency 2400.0 MHz

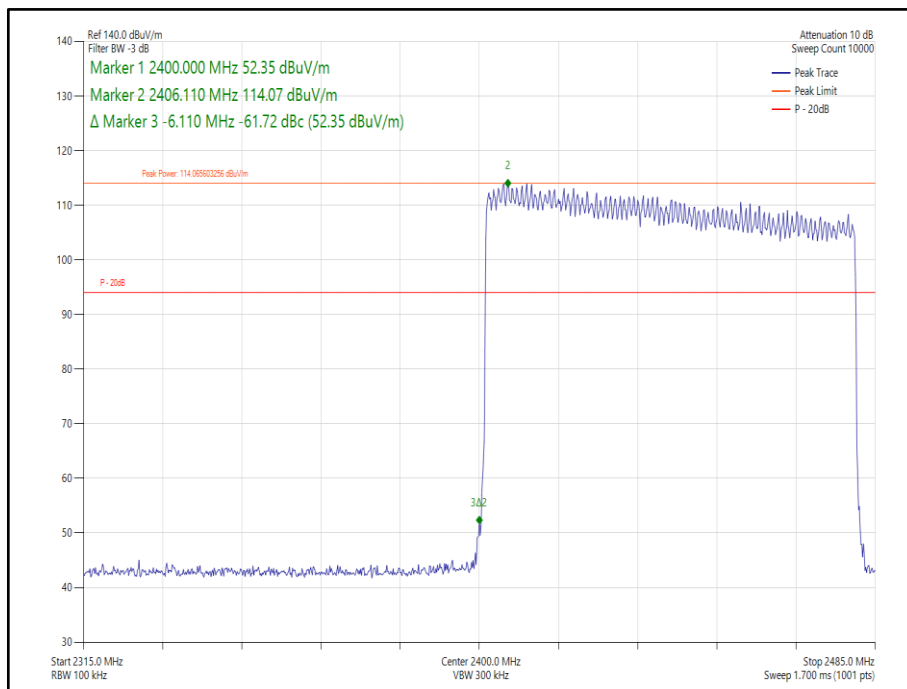


Figure 156 Core 0- Hopping -  $\pi/4$  DQPSK/2DH5 - Band Edge Frequency 2400.0 MHz

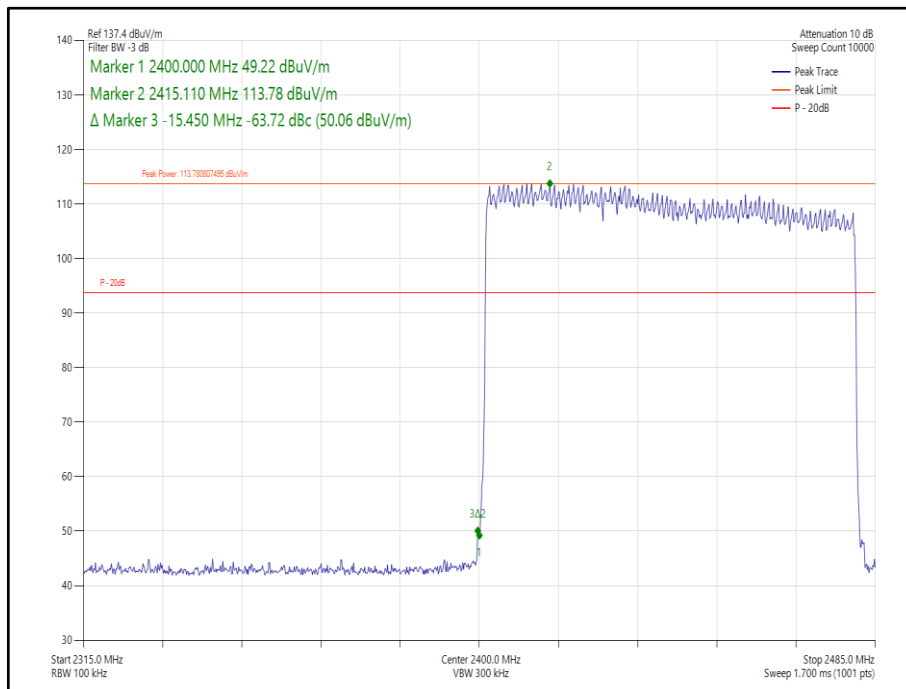


Figure 157 Core 0- Hopping - 8-DPSK/3DH5 - Band Edge Frequency 2400.0 MHz

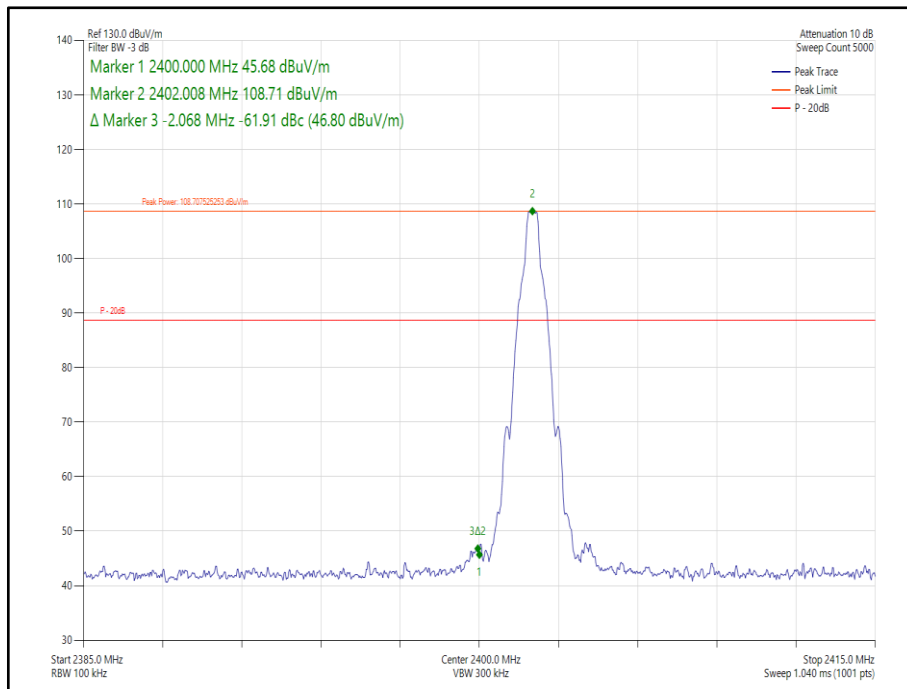


2.4 GHz Bluetooth (FHSS)

iPA

Mode	Modulation	Core	Packet Type	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	GFSK	2	DH5	2402	2400.0	-61.91
Static	$\pi/4$ DQPSK	2	2DH5	2402	2400.0	-58.25
Static	8-DPSK	2	3DH5	2402	2400.0	-58.04
Hopping	GFSK	2	DH5	2402	2400.0	-63.92
Hopping	$\pi/4$ DQPSK	2	2DH5	2402	2400.0	-62.67
Hopping	8-DPSK	2	3DH5	2402	2400.0	-62.03

**Table 101 - Authorised Band Edge Results**



**Figure 158 Core 2- Static - GFSK/DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz**

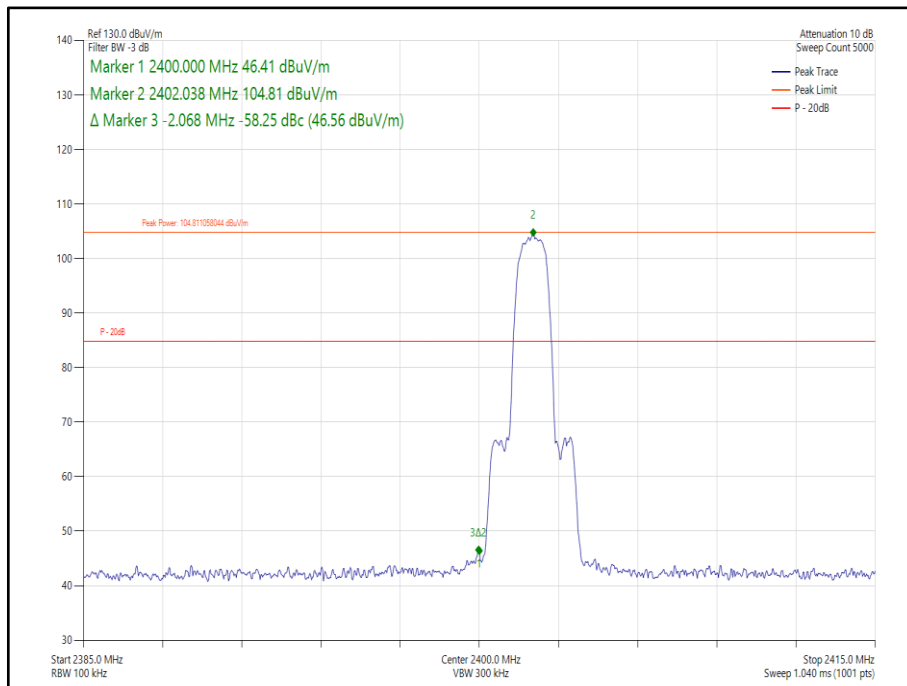


Figure 159 Core 2- Static -  $\pi/4$  DQPSK/2DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz

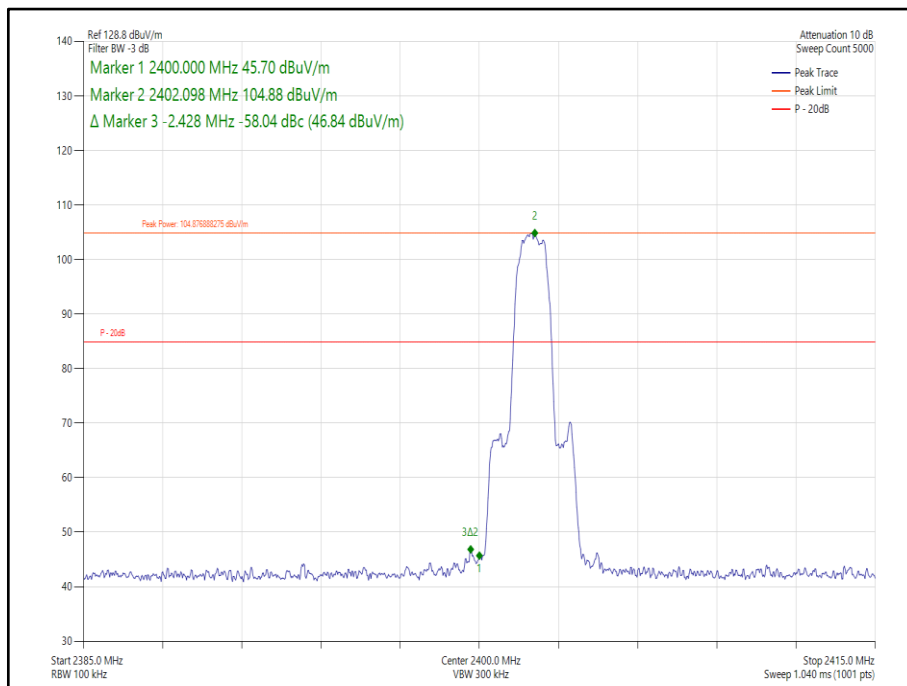


Figure 160 Core 2- Static - 8-DPSK/3DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz

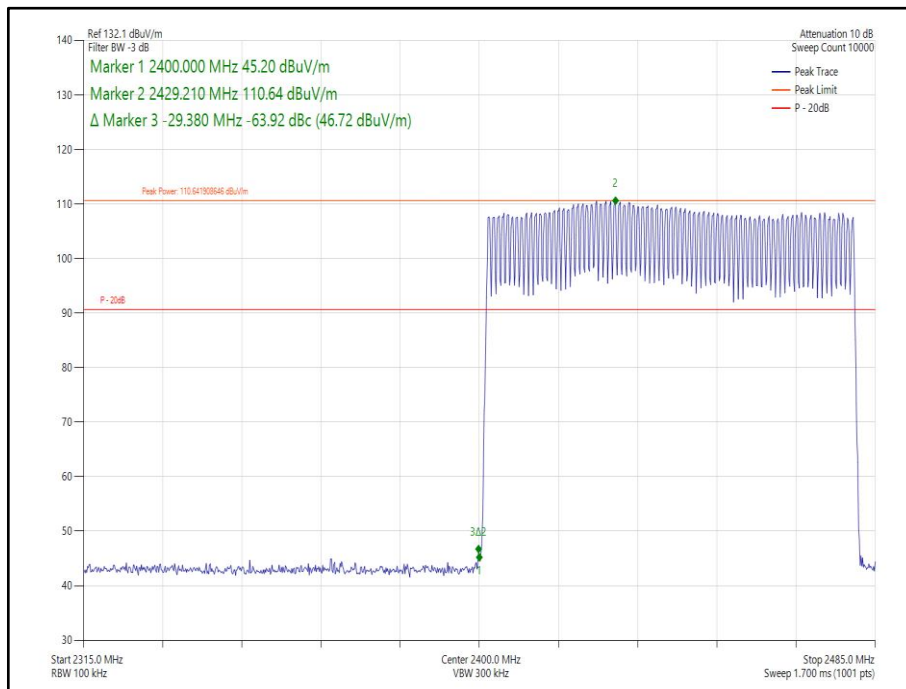


Figure 161 Core 2- Hopping - GFSK/DH5 - Band Edge Frequency 2400.0 MHz

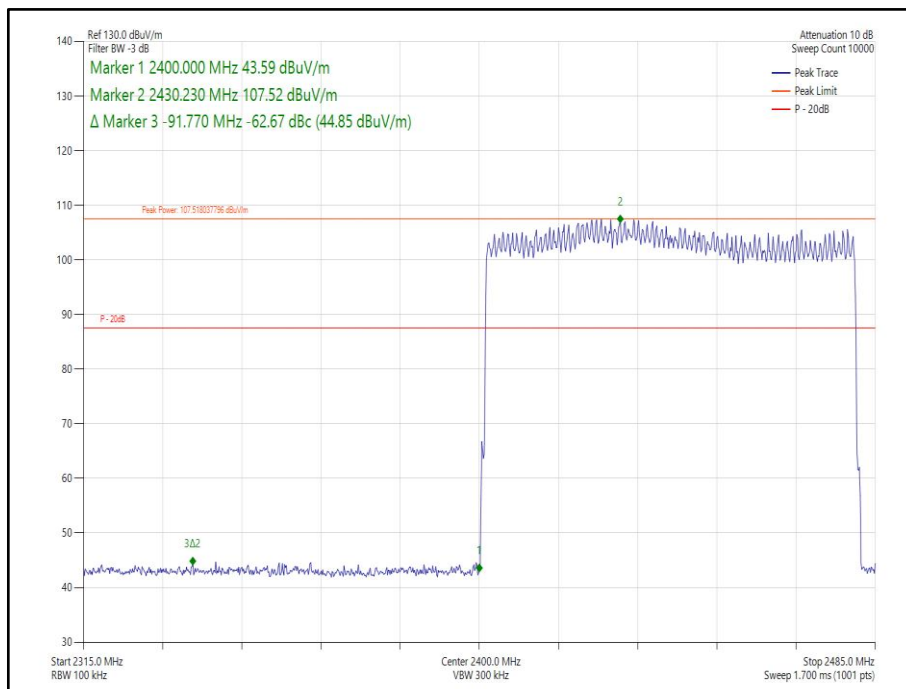


Figure 162 Core 2- Hopping -  $\pi/4$  DQPSK/2DH5 - Band Edge Frequency 2400.0 MHz

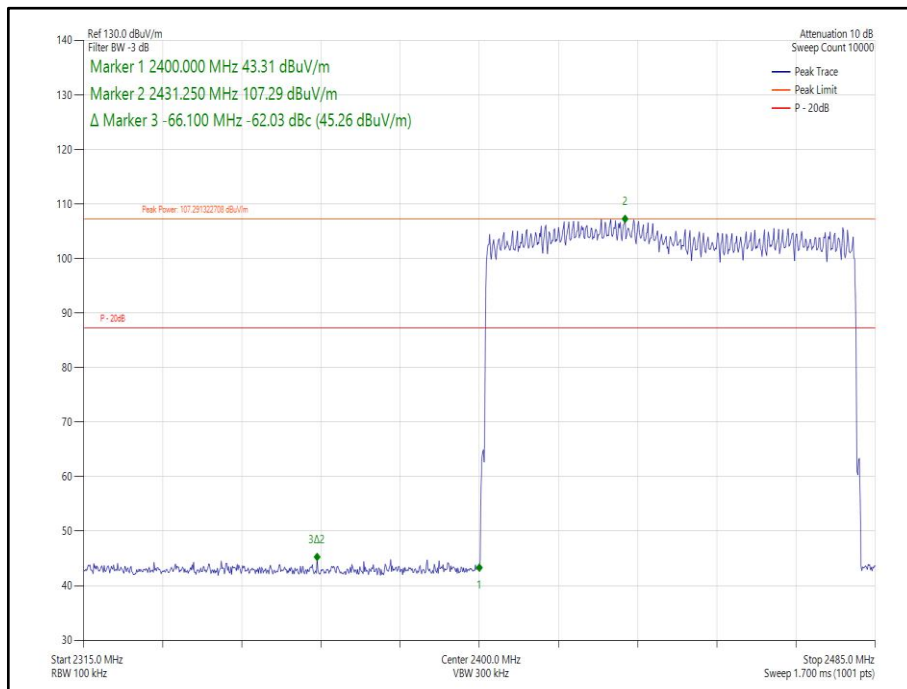


Figure 163 Core 2- Hopping - 8-DPSK/3DH5 - Band Edge Frequency 2400.0 MHz

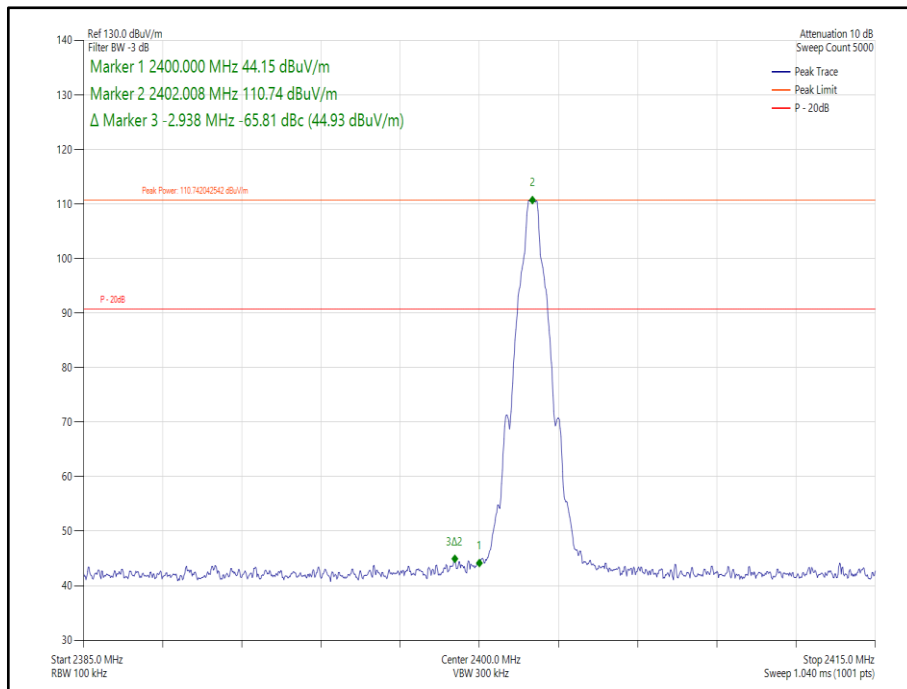


2.4 GHz Bluetooth (FHSS)

iPA

Mode	Modulation	Core	Packet Type	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	GFSK	0-1	DH5	2402	2400.0	-65.81
Static	$\pi/4$ DQPSK	0-1	2DH5	2402	2400.0	-56.50
Static	8-DPSK	0-1	3DH5	2402	2400.0	-54.95
Hopping	GFSK	0-1	DH5	2402	2400.0	-66.56
Hopping	$\pi/4$ DQPSK	0-1	2DH5	2402	2400.0	-58.60
Hopping	8-DPSK	0-1	3DH5	2402	2400.0	-58.36

**Table 102 - Authorised Band Edge Results**



**Figure 164 Core 0-1- Static - GFSK/DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz**



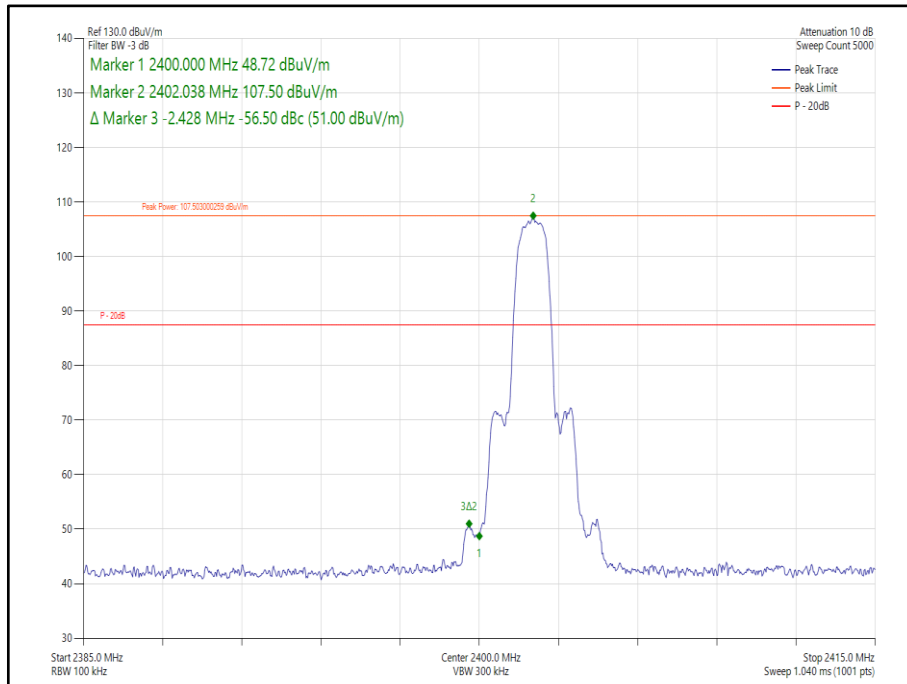


Figure 165 Core 0-1- Static -  $\pi/4$  DQPSK/2DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz

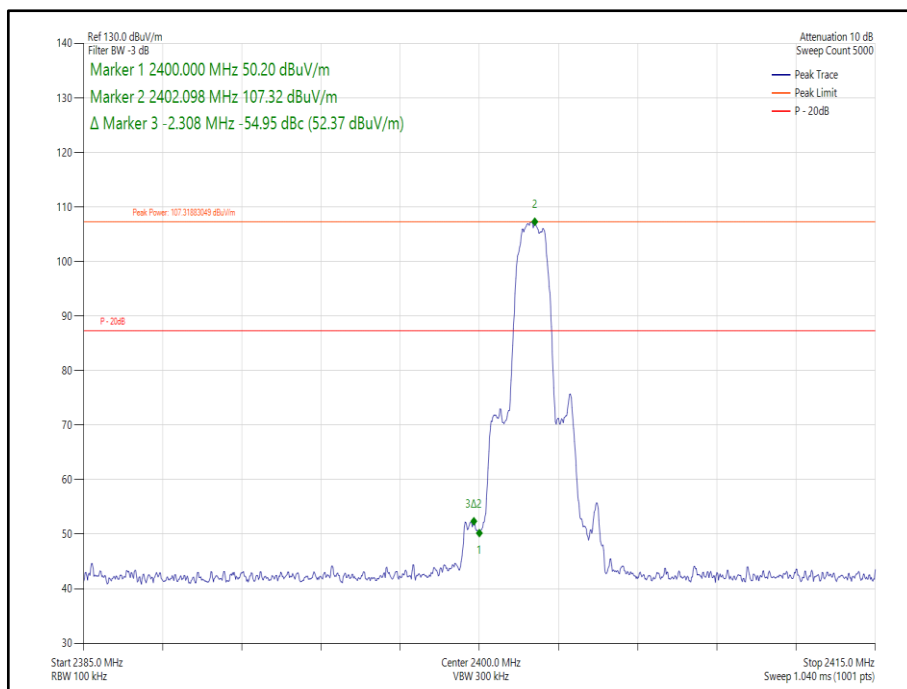


Figure 166 Core 0-1- Static - 8-DPSK/3DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz

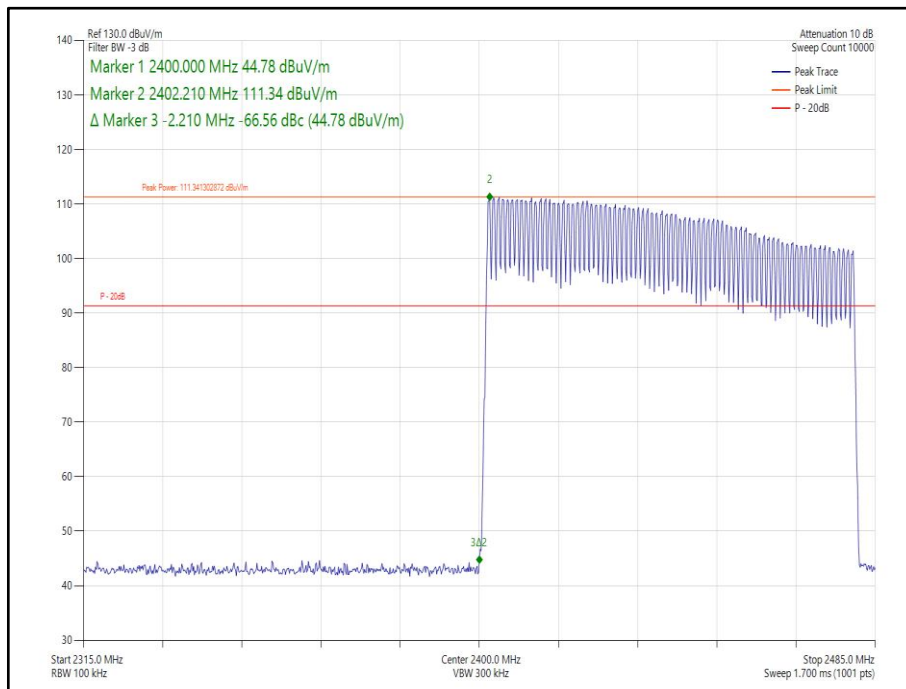


Figure 167 Core 0-1- Hopping - GFSK/DH5 - Band Edge Frequency 2400.0 MHz

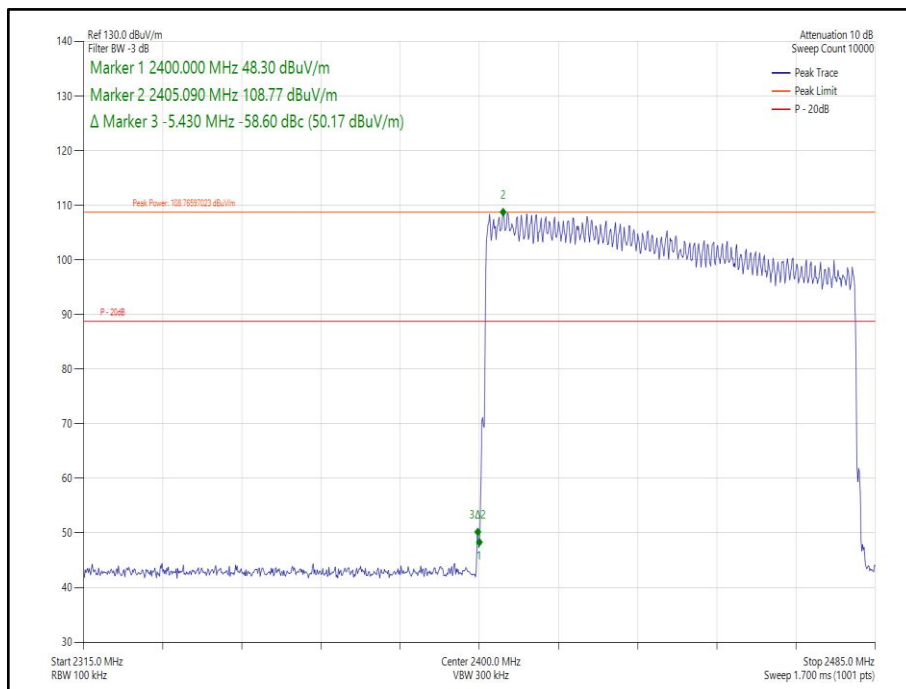


Figure 168 Core 0-1- Hopping -  $\pi/4$  DQPSK/2DH5 - Band Edge Frequency 2400.0 MHz

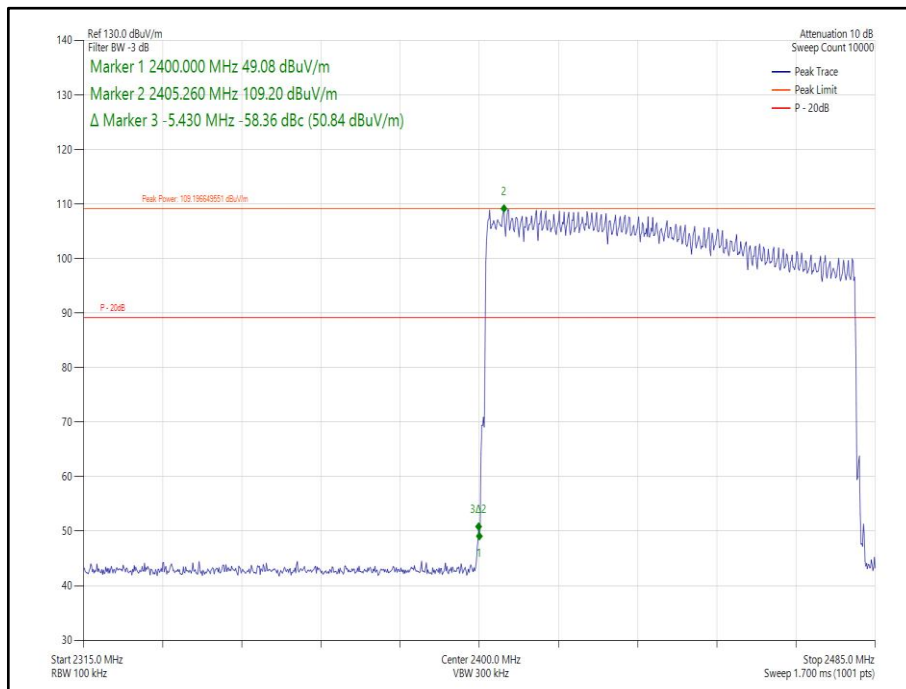


Figure 169 Core 0-1- Hopping - 8-DPSK/3DH5 - Band Edge Frequency 2400.0 MHz

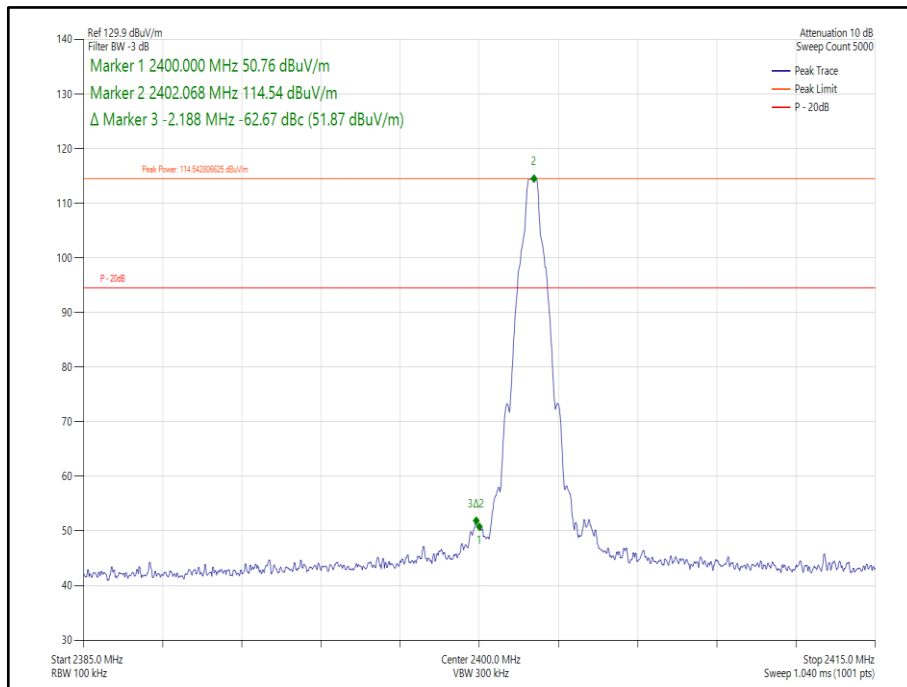


2.4 GHz Bluetooth (FHSS)

ePA

Mode	Modulation	Core	Packet Type	Tx Frequency (MHz)	Band Edge Frequency (MHz)	Level (dBc)
Static	GFSK	0-1	DH5	2402	2400.0	-62.67
Static	$\pi/4$ DQPSK	0-1	2DH5	2402	2400.0	-57.60
Static	8-DPSK	0-1	3DH5	2402	2400.0	-59.21
Hopping	GFSK	0-1	DH5	2402	2400.0	-69.11
Hopping	$\pi/4$ DQPSK	0-1	2DH5	2402	2400.0	-63.17
Hopping	8-DPSK	0-1	3DH5	2402	2400.0	-63.35

**Table 103 - Authorised Band Edge Results**



**Figure 170 Core 0-1- Static - GFSK/DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz**

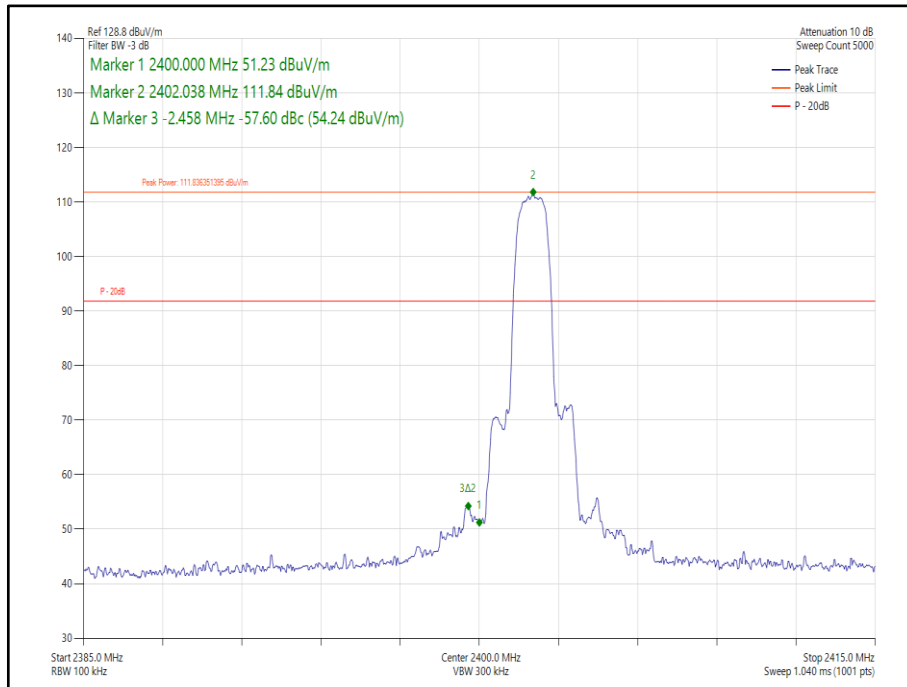


Figure 171 Core 0-1- Static -  $\pi/4$  DQPSK/2DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz

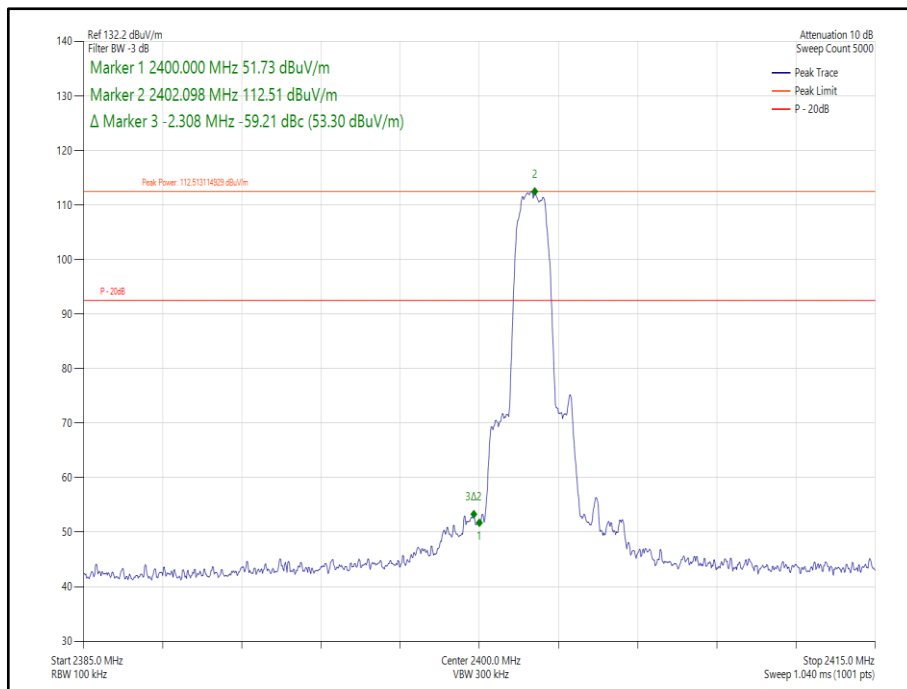


Figure 172 - Static Core 0-1- 8-DPSK/3DH5 - 2402 MHz - Band Edge Frequency 2400.0 MHz

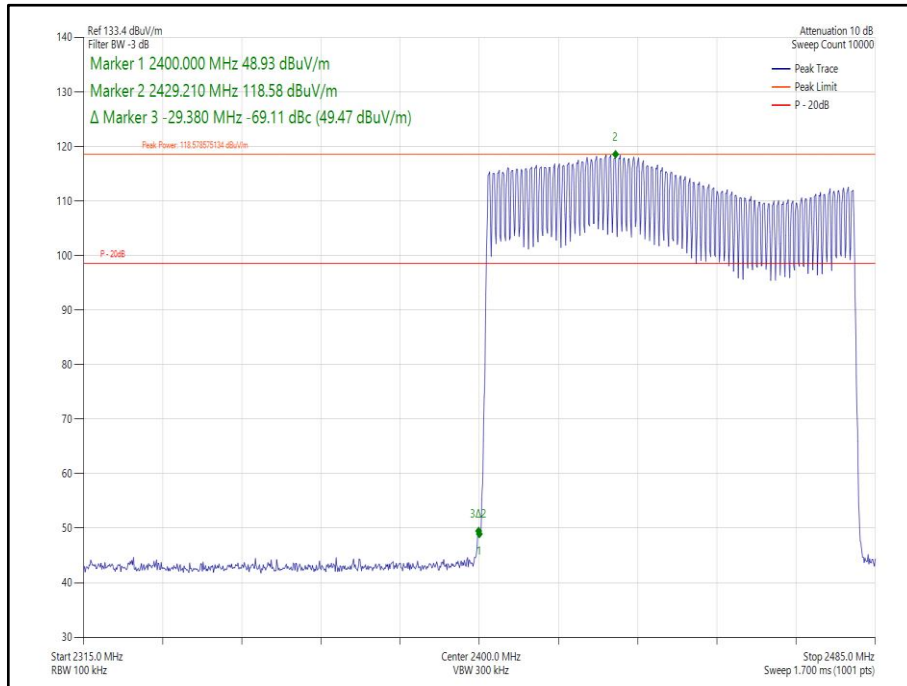


Figure 173 Core 0-1- Hopping - GFSK/DH5 - Band Edge Frequency 2400.0 MHz

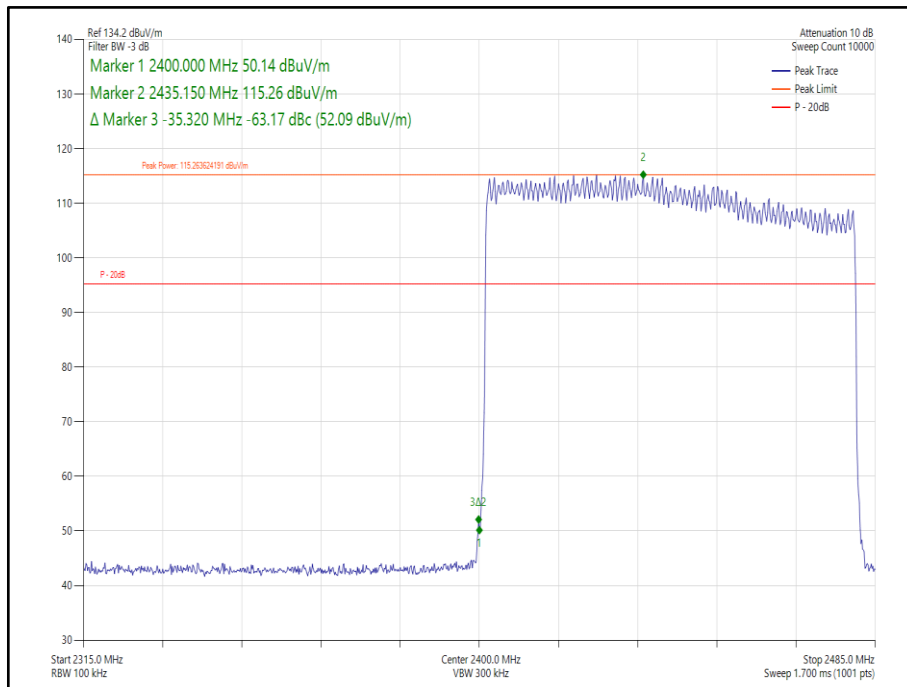
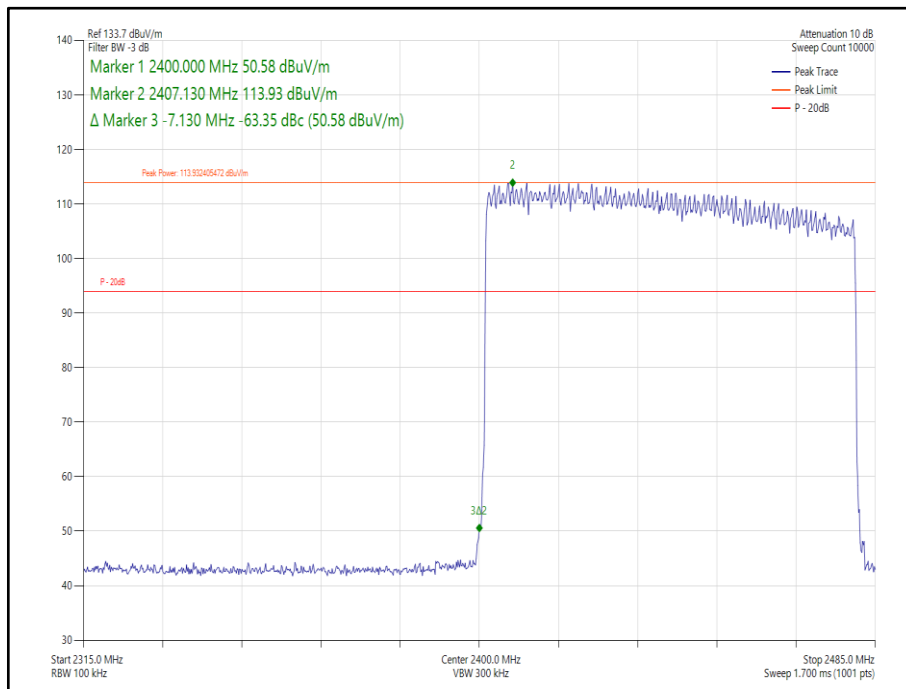


Figure 174 Core 0-1- Hopping -  $\pi/4$  DQPSK/2DH5 - Band Edge Frequency 2400.0 MHz



**Figure 175 Core 0-1- Hopping - 8-DPSK/3DH5 - Band Edge Frequency 2400.0 MHz**

FCC 47 CFR Part 15, Limit Clause 15.247 (d)

20 dB below the fundamental measured in a 100 kHz bandwidth using a peak detector. If the transmitter complies with the conducted power limits, based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB below the fundamental instead of 20 dB.

ISED RSS-247, Limit Clause 5.5

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided that the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of root-mean-square averaging over a time interval, as permitted under Section 5.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general field strength limits specified in RSS-Gen is not required.



**2.8.7 Test Location and Test Equipment Used**

This test was carried out in RF Chamber 11.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Expires
Multimeter	Iso-tech	IDM101	2421	12	28-Oct-2021
EMI Test Receiver	Rohde & Schwarz	ESW44	5084	12	08-Mar-2022
Emissions Software	TUV SUD	EmX V2.1.11	5125	-	Software
Screened Room (11)	Rainford	Rainford	5136	36	01-Nov-2021
Mast	Maturo	TAM 4.0-P	5158	-	TU
Mast and Turntable Controller	Maturo	Maturo NCD	5159	-	TU
Turntable	Maturo	TT 15WF	5160	-	TU
Horn Antenna (1-10GHz)	Schwarzbeck	BBHA 9120 B	5215	12	01-Apr-2022
2m SMA Cable	Junkosha	MWX221-02000AMSAMS/A	5518	12	09-Apr-2022
8m N Type Cable	Junkosha	MWX221-08000NMSNMS/B	5522	12	24-Mar-2022
Thermo-Hygro-Barometer	PCE Instruments	PCE-THB 40	5604	12	22-Sep-2022

**Table 104**

TU - Traceability Unscheduled





### 3 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
Restricted Band Edges	30 MHz to 1 GHz: $\pm 5.2$ dB 1 GHz to 40 GHz: $\pm 6.3$ dB
Frequency Hopping Systems - Average Time of Occupancy	-
Frequency Hopping Systems - Channel Separation	$\pm 21.51$ kHz
Frequency Hopping Systems - Number of Hopping Channels	-
Frequency Hopping Systems - 20 dB Bandwidth	$\pm 23.51$ kHz
Maximum Conducted Output Power	$\pm 3.2$ dB
Spurious Radiated Emissions	30 MHz to 1 GHz: $\pm 5.2$ dB 1 GHz to 40 GHz: $\pm 6.3$ dB
Authorised Band Edges	30 MHz to 1 GHz: $\pm 5.2$ dB 1 GHz to 40 GHz: $\pm 6.3$ dB

**Table 105**

#### Measurement Uncertainty Decision Rule

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2007, Clause 4.4.3 and 4.5.1. (Procedure 2). The measurement results are directly compared with the test limit to determine conformance with the requirements of the standard.

Risk: The uncertainty of measurement about the measured result is negligible with regard to the final pass/fail decision. The measurement result can be directly compared with the test limit to determine conformance with the requirement (compare IEC Guide 115). The level of risk to falsely accept and falsely reject items is further described in ILAC-G8.