



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA GFSK (LE 1M)	Duty Cycle (%):	60.5
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	1.18	-	-	-	-	8.00	-6.82
2440	3.0	0.89	-	-	-	-	8.00	-7.11
2480	3.0	1.18	-	-	-	-	8.00	-6.82

Table 136 - FCC Maximum Power Spectral Density Results

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	1.18	-	-	-	-	8.00	-6.82
2440	3.0	0.89	-	-	-	-	8.00	-7.11
2480	3.0	1.18	-	-	-	-	8.00	-6.82

Table 137 - ISED Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	-		

DUT Configuration			
Mode:	ePA GFSK (LE 2M)	Duty Cycle (%):	31.3
Antenna Configuration:	SISO	DCCF (dB):	-
Active Port(s):	A (Core 0)	Peak Antenna Gain (dBi):	3.30

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	-0.98	-	-	-	-	8.00	-8.98
2440	3.0	-0.97	-	-	-	-	8.00	-8.97
2480	3.0	-1.29	-	-	-	-	8.00	-9.29

Table 138 - FCC Maximum Power Spectral Density Results

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	-0.98	-	-	-	-	8.00	-8.98
2440	3.0	-0.97	-	-	-	-	8.00	-8.97
2480	3.0	-1.29	-	-	-	-	8.00	-9.29

Table 139 - ISED Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.1
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.94

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2404	3.0	-11.22	-11.36	-	-	-8.28	6.06	-14.34
2441	3.0	-11.18	-11.64	-	-	-8.39	6.06	-14.45
2476	3.0	-10.83	-11.57	-	-	-8.18	6.06	-14.24

Table 140 - FCC Maximum Power Spectral Density Results

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2404	3.0	-11.22	-11.36	-	-	-8.28	8.00	-16.28
2441	3.0	-11.18	-11.64	-	-	-8.39	8.00	-16.39
2476	3.0	-10.83	-11.57	-	-	-8.18	8.00	-16.18

Table 141 - ISED Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	iPA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.94

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2404	3.0	-10.79	-11.34	-	-	-8.05	6.06	-14.11
2441	3.0	-11.49	-11.35	-	-	-8.41	6.06	-14.47
2476	3.0	-11.39	-11.35	-	-	-8.36	6.06	-14.42

Table 142 - FCC Maximum Power Spectral Density Results

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2404	3.0	-10.79	-11.34	-	-	-8.05	8.00	-16.05
2441	3.0	-11.49	-11.35	-	-	-8.41	8.00	-16.41
2476	3.0	-11.39	-11.35	-	-	-8.36	8.00	-16.36

Table 143 - ISED Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	iPA GFSK (LE 1M)	Duty Cycle (%):	60.6
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.94

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	-9.23	-9.34	-	-	-6.27	6.06	-12.33
2440	3.0	-9.41	-9.83	-	-	-6.60	6.06	-12.66
2480	3.0	-9.36	-9.88	-	-	-6.60	6.06	-12.66

Table 144 - FCC Maximum Power Spectral Density Results

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	-9.23	-9.34	-	-	-6.27	8.00	-14.27
2440	3.0	-9.41	-9.83	-	-	-6.60	8.00	-14.60
2480	3.0	-9.36	-9.88	-	-	-6.60	8.00	-14.60

Table 145 - ISED Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	iPA GFSK (LE 2M)	Duty Cycle (%):	31.4
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.94

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	-11.29	-11.48	-	-	-8.37	6.06	-14.43
2440	3.0	-11.27	-11.47	-	-	-8.36	6.06	-14.42
2480	3.0	-11.63	-11.84	-	-	-8.72	6.06	-14.78

Table 146 - FCC Maximum Power Spectral Density Results

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	-11.29	-11.48	-	-	-8.37	8.00	-16.37
2440	3.0	-11.27	-11.47	-	-	-8.36	8.00	-16.36
2480	3.0	-11.63	-11.84	-	-	-8.72	8.00	-16.72

Table 147 - ISED Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (4-DH5)	Duty Cycle (%):	78.4
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.94

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2404	3.0	-1.88	-1.86	-	-	1.14	6.06	-4.92
2441	3.0	-1.45	-1.48	-	-	1.54	6.06	-4.52
2476	3.0	-2.03	-2.69	-	-	0.66	6.06	-5.40

Table 148 - FCC Maximum Power Spectral Density Results

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2404	3.0	-1.88	-1.86	-	-	1.14	8.00	-6.86
2441	3.0	-1.45	-1.48	-	-	1.54	8.00	-6.46
2476	3.0	-2.03	-2.69	-	-	0.66	8.00	-7.34

Table 149 - ISED Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	ePA $\pi/4$ DQPSK (8-DH5)	Duty Cycle (%):	78.2
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.94

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2404	3.0	-4.05	-4.17	-	-	-1.10	6.06	-7.16
2441	3.0	-4.26	-4.46	-	-	-1.35	6.06	-7.41
2476	3.0	-4.16	-4.19	-	-	-1.17	6.06	-7.23

Table 150 - FCC Maximum Power Spectral Density Results

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2404	3.0	-4.05	-4.17	-	-	-1.10	8.00	-9.10
2441	3.0	-4.26	-4.46	-	-	-1.35	8.00	-9.35
2476	3.0	-4.16	-4.19	-	-	-1.17	8.00	-9.17

Table 151 - ISED Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	ePA GFSK (LE 1M)	Duty Cycle (%):	60.5
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.94

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	1.15	-1.42	-	-	3.06	6.06	-3.00
2440	3.0	1.18	-1.25	-	-	3.14	6.06	-2.92
2480	3.0	0.91	-1.49	-	-	2.88	6.06	-3.18

Table 152 - FCC Maximum Power Spectral Density Results

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	1.15	-1.42	-	-	3.06	8.00	-4.94
2440	3.0	1.18	-1.25	-	-	3.14	8.00	-4.86
2480	3.0	0.91	-1.49	-	-	2.88	8.00	-5.12

Table 153 - ISED Maximum Power Spectral Density Results



Test Configuration			
Frequency Range:	2400-2483.5 MHz	Band:	2.4 GHz
Limit Clause(s):	15.247 (e) RSS-247 5.2 b)	Test Method(s):	C63.10 11.10.2
Additional Reference(s):	662911 D01 v02r01 E)2)b)		

DUT Configuration			
Mode:	ePA GFSK (LE 2M)	Duty Cycle (%):	31.3
Antenna Configuration:	Beamforming	DCCF (dB):	-
Active Port(s):	A+B (Core 0 + Core 1)	Peak Antenna Gain (dBi):	7.94

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	-0.64	-3.18	-	-	1.28	6.06	-4.78
2440	3.0	-1.12	-4.08	-	-	0.66	6.06	-5.40
2480	3.0	-1.02	-3.77	-	-	0.83	6.06	-5.23

Table 154 - FCC Maximum Power Spectral Density Results

Test Frequency (MHz)	RBW (kHz)	PSD (dBm/RBW)					Limit (dBm/3 kHz)	Margin (dB)
		A	B	C	D	Σ		
2402	3.0	-0.64	-3.18	-	-	1.28	8.00	-6.72
2440	3.0	-1.12	-4.08	-	-	0.66	8.00	-7.34
2480	3.0	-1.02	-3.77	-	-	0.83	8.00	-7.17

Table 155 - ISED Maximum Power Spectral Density Results

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

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.



2.6.7 Test Location and Test Equipment Used

This test was carried out in RF Laboratory 14.

Instrument	Manufacturer	Type No.	TE No.	Calibration Period (months)	Calibration Expiry Date
Hygrometer	Rotronic	I-1000	3068	12	07-Nov-2024
1500VA AC Power Supply	iTech	IT7324	5907	-	O/P Mon
MXA Signal Analyser	Keysight Technologies	N9020B	5919	24	18-Mar-2026
Digital Multimeter	Fluke	115	6145	12	06-Jun-2025
Signal Conditioning Unit	TUV SUD	SPECTRUM_SCU001	6519	12	08-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6520	12	09-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6521	12	09-Feb-2025
SCU Cable Assembly	TUV SUD	SPECTRUM_SCU_CA	6522	12	09-Feb-2025

Table 156

O/P Mon - Output Monitored using calibrated equipment

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: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Emission Bandwidth	± 144.25 kHz
Maximum Conducted Output Power	± 1.38 dB
Authorised Band Edges	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Spurious Radiated Emissions	30 MHz to 1 GHz: ± 5.2 dB 1 GHz to 40 GHz: ± 6.3 dB
Power Spectral Density	± 1.49 dB

Table 157

Measurement Uncertainty Decision Rule – Accuracy Method

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115:2021, Clause 4.4.3 (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.