

TEST REPORT

Application No.: KSCR2407001449AT
FCC ID: ROR2002
Applicant: Blinq Networks Inc.
Address of Applicant: 140 Renfrew Drive, Suite 200, Markham, L3R 6B3, Canada
Manufacturer: Blinq Networks Inc.
Address of Manufacturer: 140 Renfrew Drive, Suite 200, Markham, L3R 6B3, Canada
Factory: VVDN Technologies Private Limited
Address of Factory: Plot No: CP-07, Sector 8, IMT Manesar, Gurugram, Haryana
Equipment Under Test (EUT):
EUT Name: PCW-400i
Model No.: PCW-400i
Standard(s) : 47 CFR Part 2
47 CFR Part 27
47 CFR Part 96
Date of Receipt: 2024-07-31
Date of Test: 2024-08-01 to 2024-11-15
Date of Issue: 2024-11-20

Test Result:	Pass
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* In the configuration tested, the EUT complied with the standards specified above.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.



Revision Record				
Version	Chapter	Date	Modifier	Remark
00	Original	2024-11-20		/

Authorized for issue by:				
Tested By				
		Eric Liu /Project Engineer		
Approved By				
		Terry Hou /Reviewer		



2 Test Summary

Test Item	FCC Rule No.	Verdict
Effective (Isotropic) Radiated Power Output Data	§2.1046 §27.50(k) §27.50(J) §96.41	PASS
Peak-Average Ratio	§27.50(J) §27.50(k) §96.41	PASS
Bandwidth	§96.41	PASS
Band Edge Compliance	§2.1051 §27.53(l) §27.53(n) §96.41	PASS
Spurious emissions at antenna terminals	§2.1051 §27.53(l) §27.53(n) §96.41	PASS
Field strength of spurious radiation	§2.1051 §27.53(l) §27.53(n) §96.41	PASS
Frequency stability	§2.1055 §27.54	PASS
Remark: This base station supports N48, N77 and N78, and the frequency range is 3450-3980MHz. So we evaluated and tested all the band of Power and PSD, and the rest of the test items were tested based on the maximum power. EUT: In this whole report EUT means Equipment Under Test. Tx: In this whole report Tx (or tx) means Transmitter. Rx: In this whole report Rx (or rx) means Receiver.		



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4 General Information

4.1 Details of E.U.T.

Product Name:	PCW-400i
Model No.:	PCW-400i
Antenna Type:	Sector Antenna (Uncorrelated)
Antenna Gain:	8.0 dBi (Provided by manufacturer)
Power Supply:	44-57V DC By POE
Test Voltage:	120V, 60Hz
Sample Type:	Category A CBSD
Support Bandwidth:	10MHz,20MHz,30MHz,40MHz,50MHz,60MHz,70MHz,80MHz,90MHz,100MHz
Type of Modulation	5G NR: CP-OFDM: QPSK, 256QAM
Frequency Band:	5GNR N48, N77, N78
Frequency Range:	3450MHz-3980MHz
Normal Output Power:	30dBm
Antenna Delivery:	4T4R MIMO

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Notebook	ThinkPad	K27	EB24537645
POE	PROCET	PT-PSE106GBR-10	–

4.3 Power level setting using in test

	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
5G NR (3450-3550MHz)	30kHz	1CC	10	23.0	23.0	23.0
	30kHz	1CC	20	23.0	23.0	23.0
	30kHz	1CC	30	23.0	23.0	23.0
	30kHz	1CC	40	23.0	23.0	22.5
	30kHz	1CC	60	23.0	23.0	23.0
	30kHz	1CC	100	/	22.0	/
5G NR (3450-3550MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	2CC	CC1:10 CC2:10	23.0	23.0	23.0
	30kHz	2CC	CC1:20 CC2:20	22.5	23.0	23.0
	30kHz	2CC	CC1:30 CC2:10	22.0	23.0	23.0
	30kHz	2CC	CC1:30 CC2:20	22.0	23.0	23.0

	30kHz	2CC	CC1:40 CC2:20	22.5	23.0	23.0
	30kHz	2CC	CC1:40 CC2:40	23.0	23.0	23.0
	30kHz	2CC	CC1:60 CC2:20	23.0	23.0	23.0
5G NR (3450-3550MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	3CC	CC1:10 CC2:10 CC3:10	23.0	23.0	23.0
	30kHz	3CC	CC1:20 CC2:20 CC3:20	23.0	23.0	23.0
	30kHz	3CC	CC1:40 CC2:20 CC3:10	23.0	23.0	23.0
	30kHz	3CC	CC1:40 CC2:30 CC3:20	22.0	23.0	23.0
	30kHz	3CC	CC1:40 CC2:20 CC3:20	22.5	23.0	23.0
5G NR (3450-3550MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	4CC	CC1:20 CC2:20 CC3:20 CC4:20	22.5	23.0	23.0
	30kHz	4CC	CC1:40 CC2:30 CC3:20 CC4:10	23.0	23.0	23.0

5G NR (3550-3700MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	1CC	10	22.0	22.0	22.0
	30kHz	1CC	20	23.0	23.0	23.0
	30kHz	1CC	30	23.0	23.0	23.0
	30kHz	1CC	40	22.5	23.0	22.5
	30kHz	1CC	60	22.5	23.0	22.5
	30kHz	1CC	100	23.0	23.0	23.0
5G NR (3550-3700MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	2CC	CC1:10 CC2:10	23.0	23.0	23.0
	30kHz	2CC	CC1:20 CC2:20	22.5	23.0	22.5
	30kHz	2CC	CC1:30 CC2:10	23.0	23.0	23.0



	30kHz	2CC	CC1:30 CC2:20	23.0	23.0	23.0
	30kHz	2CC	CC1:40 CC2:20	22.5	23.0	22.5
	30kHz	2CC	CC1:40 CC2:40	22.5	23.0	22.5
	30kHz	2CC	CC1:60 CC2:20	23.0	23.0	23.0
5G NR (3550-3700MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	3CC	CC1:10 CC2:10 CC3:10	22.0	23.0	22.5
	30kHz	3CC	CC1:20 CC2:20 CC3:20	22.5	23.0	22.5
	30kHz	3CC	CC1:40 CC2:20 CC3:10	23.0	23.0	23.0
	30kHz	3CC	CC1:40 CC2:30 CC3:20	23.0	23.0	23.0
	30kHz	3CC	CC1:40 CC2:20 CC3:20	23.0	23.0	23.0
5G NR (3550-3700MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	4CC	CC1:20 CC2:20 CC3:20 CC4:20	23.0	23.0	23.0
	30kHz	4CC	CC1:40 CC2:30 CC3:20 CC4:10	23.0	23.0	23.0

5G NR (3700-3980MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	1CC	10	23.0	23.0	23.0
	30kHz	1CC	20	23.0	23.0	23.0
	30kHz	1CC	30	23.0	23.0	23.0
	30kHz	1CC	40	23.0	23.0	23.0
	30kHz	1CC	60	23.0	23.0	23.0
5G NR (3700-3980MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	2CC	CC1:10 CC2:10	23.0	23.0	23.0
	30kHz	2CC	CC1:20 CC2:20	23.0	23.0	23.0

	30kHz	2CC	CC1:30 CC2:10	23.0	23.0	23.0
	30kHz	2CC	CC1:30 CC2:20	23.0	23.0	23.0
	30kHz	2CC	CC1:40 CC2:20	23.0	23.0	23.0
	30kHz	2CC	CC1:40 CC2:40	23.0	23.0	23.0
	30kHz	2CC	CC1:60 CC2:20	23.0	23.0	23.0
5G NR (3700-3980MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	3CC	CC1:10 CC2:10 CC3:10	23.0	23.0	23.0
	30kHz	3CC	CC1:20 CC2:20 CC3:20	23.0	23.0	23.0
	30kHz	3CC	CC1:40 CC2:20 CC3:10	23.0	23.0	23.0
	30kHz	3CC	CC1:40 CC2:30 CC3:20	23.0	23.0	23.0
	30kHz	3CC	CC1:40 CC2:20 CC3:20	23.0	23.0	23.0
5G NR (3700-3980MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	4CC	CC1:20 CC2:20 CC3:20 CC4:20	23.0	23.0	23.0
	30kHz	4CC	CC1:40 CC2:30 CC3:20 CC4:10	23.0	23.0	23.0

4.4 Test Frequency

5G NR (3450-3550MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	1CC	10	3454.98	3499.98	3544.98
	30kHz	1CC	20	3459.99	3499.98	3540
	30kHz	1CC	30	3465	3500.01	3534.99
	30kHz	1CC	40	3469.98	3499.98	3529.98
	30kHz	1CC	60	3480	3499.98	3519.99

	30kHz	1CC	100	/	3499.98	/
5G NR (3450-3550MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	2CC	CC1:10 CC2:10	CC1:3454.98 CC2:3464.97	CC1:3495 CC2:3504.99	CC1:3534.99 CC2:3544.98
	30kHz	2CC	CC1:20 CC2:20	CC1:3459.99 CC2:3479.97	CC1:3489.99 CC2:3509.97	CC1:3520.02 CC2:3540
	30kHz	2CC	CC1:30 CC2:10	CC1:3465 CC2:3484.71	CC1:3495.12 CC2:3514.83	CC1:3525.27 CC2:3544.98
	30kHz	2CC	CC1:30 CC2:20	CC1:3465 CC2:3489.96	CC1:3490.02 CC2:3514.98	CC1:3515.04 CC2:3540
	30kHz	2CC	CC1:40 CC2:20	CC1:3469.98 CC2:3499.68	CC1:3490.14 CC2:3519.84	CC1:3510.3 CC2:3540
	30kHz	2CC	CC1:40 CC2:40	CC1:3469.98 CC2:3509.97	CC1:3480 CC2:3519.99	CC1:3489.99 CC2:3529.98
5G NR (3450-3550MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	3CC	CC1:10 CC2:10 CC3:10	CC1:3454.98 CC2:3464.97 CC3:3474.96	CC1:3489.99 CC2:3499.98 CC3:3509.97	CC1:3525 CC2:3534.99 CC3:3544.98
	30kHz	3CC	CC1:20 CC2:20 CC3:20	CC1:3459.99 CC2:3479.97 CC3:3499.95	CC1:3480 CC2:3499.98 CC3:3519.96	CC1:3500.04 CC2:3520.02 CC3:3540
	30kHz	3CC	CC1:40 CC2:20 CC3:10	CC1:3470.01 CC2:3499.71 CC3:3514.38	CC1:3485.31 CC2:3515.01 CC3:3529.68	CC1:3500.61 CC2:3530.31 CC3:3544.98
	30kHz	3CC	CC1:40 CC2:30 CC3:20	CC1:3470.01 CC2:3504.69 CC3:3529.65	CC1:3475.17 CC2:3509.85 CC3:3534.81	CC1:3480.36 CC2:3515.04 CC3:3540
5G NR (3450-3550MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	4CC	CC1:20 CC2:20 CC3:20 CC4:20	CC1:3459.99 CC2:3479.97 CC3:3499.95 CC4:3519.93	CC1:3470.01 CC2:3489.99 CC3:3509.97 CC4:3529.95	CC1:3480.06 CC2:3500.04 CC3:3520.02 CC4:3540
5G NR (3450-3550MHz)	30kHz	4CC	CC1:40 CC2:30 CC3:20 CC4:10	CC1:3470.01 CC2:3504.69 CC3:3529.65 CC4:3544.32	CC1:3470.34 CC2:3505.02 CC3:3529.98 CC4:3544.65	CC1:3470.67 CC2:3505.35 CC3:3530.31 CC4:3544.98

5G NR (3550-3700MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	1CC	10	3555	3624.99	3694.98
	30kHz	1CC	20	3560.01	3624.99	3690
	30kHz	1CC	30	3565.02	3624.99	3684.99

	30kHz	1CC	40	3570	3624.99	3679.98
	30kHz	1CC	60	3580.02	3624.99	3669.99
	30kHz	1CC	100	3600	3624.99	3649.98
5G NR (3550-3700MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	2CC	CC1:10 CC2:10	CC1:3555 CC2:3564.99	CC1:3619.98 CC2:3629.97	CC1:3684.99 CC2:3694.98
	30kHz	2CC	CC1:20 CC2:20	CC1:3559.98 CC2:3579.96	CC1:3615 CC2:3634.98	CC1:3670.02 CC2:3690
	30kHz	2CC	CC1:30 CC2:10	CC1:3565.02 CC2:3584.73	CC1:3620.13 CC2:3639.84	CC1:3675.27 CC2:3694.98
	30kHz	2CC	CC1:30 CC2:20	CC1:3565.02 CC2:3589.98	CC1:3615 CC2:3639.96	CC1:3665.04 CC2:3690
	30kHz	2CC	CC1:40 CC2:20	CC1:3570 CC2:3599.7	CC1:3615.12 CC2:3644.82	CC1:3660.3 CC2:3690
	30kHz	2CC	CC1:40 CC2:40	CC1:3570 CC2:3609.99	CC1:3604.98 CC2:3644.97	CC1:3639.99 CC2:3679.98
5G NR (3550-3700MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	3CC	CC1:10 CC2:10 CC3:10	CC1:3555 CC2:3564.99 CC3:3574.98	CC1:3615 CC2:3624.99 CC3:3634.98	CC1:3675 CC2:3684.99 CC3:3694.98
	30kHz	3CC	CC1:20 CC2:20 CC3:20	CC1:3560.01 CC2:3579.99 CC3:3599.97	CC1:3605.01 CC2:3624.99 CC3:3644.97	CC1:3650.04 CC2:3670.02 CC3:3690
	30kHz	3CC	CC1:40 CC2:20 CC3:10	CC1:3570 CC2:3599.7 CC3:3614.37	CC1:3610.29 CC2:3639.99 CC3:3654.66	CC1:3650.61 CC2:3680.31 CC3:3694.98
	30kHz	3CC	CC1:40 CC2:30 CC3:20	CC1:3570 CC2:3604.68 CC3:3629.64	CC1:3600.18 CC2:3634.86 CC3:3659.82	CC1:3630.36 CC2:3665.04 CC3:3690
5G NR (3550-3700MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	4CC	CC1:20 CC2:20 CC3:20 CC4:20	CC1:3560.01 CC2:3579.99 CC3:3599.97 CC4:3619.95	CC1:3595.02 CC2:3615 CC3:3634.98 CC4:3654.96	CC1:3630.06 CC2:3650.04 CC3:3670.02 CC4:3690
5G NR (3700-3980MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	4CC	CC1:40 CC2:30 CC3:20 CC4:10	CC1:3570 CC2:3604.68 CC3:3629.64 CC4:3644.31	CC1:3595.32 CC2:3630 CC3:3654.96 CC4:3669.63	CC1:3620.67 CC2:3655.35 CC3:3680.31 CC4:3694.98
5G NR (3700-3980MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
	30kHz	1CC	10	3705	3839.97	3974.97

	30kHz	1CC	20	3710.01	3839.97	3969.96
	30kHz	1CC	30	3715.02	3840	3964.98
	30kHz	1CC	40	3720	3839.97	3959.97
	30kHz	1CC	60	3729.99	3839.97	3949.98
	30kHz	1CC	100	3750	3839.97	3929.97
5G NR (3700-3980MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	2CC	CC1:10 CC2:10	CC1:3705 CC2:3714.99	CC1:3834.99 CC2:3844.98	CC1:3965.01 CC2:3975
	30kHz	2CC	CC1:20 CC2:20	CC1:3710.01 CC2:3729.99	CC1:3830.01 CC2:3849.99	CC1:3949.98 CC2:3969.99
	30kHz	2CC	CC1:30 CC2:10	CC1:3715.02 CC2:3734.73	CC1:3835.14 CC2:3854.85	CC1:3955.29 CC2:3975
	30kHz	2CC	CC1:30 CC2:20	CC1:3715.02 CC2:3739.98	CC1:3830.01 CC2:3854.97	CC1:3945 CC2:3969.99
	30kHz	2CC	CC1:40 CC2:20	CC1:3720 CC2:3749.7	CC1:3830.13 CC2:3859.83	CC1:3940.29 CC2:3969.99
	30kHz	2CC	CC1:40 CC2:40	CC1:3720 CC2:3759.99	CC1:3819.99 CC2:3859.98	CC1:3920.01 CC2:3960
	30kHz	2CC	CC1:60 CC2:20	CC1:3729.99 CC2:3769.77	CC1:3830.1 CC2:3869.88	CC1:3930.18 CC2:3969.99
5G NR (3700-3980MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	3CC	CC1:10 CC2:10 CC3:10	CC1:3705 CC2:3714.99 CC3:3724.98	CC1:3830.01 CC2:3840 CC3:3849.99	CC1:3955.02 CC2:3965.01 CC3:3975
	30kHz	3CC	CC1:20 CC2:20 CC3:20	CC1:3710.01 CC2:3729.99 CC3:3749.97	CC1:3820.02 CC2:3840 CC3:3859.98	CC1:3930 CC2:3949.98 CC3:3969.99
	30kHz	3CC	CC1:40 CC2:20 CC3:10	CC1:3720 CC2:3749.7 CC3:3764.37	CC1:3825.3 CC2:3855 CC3:3869.67	CC1:3930.63 CC2:3960.33 CC3:3975
	30kHz	3CC	CC1:40 CC2:30 CC3:20	CC1:3720 CC2:3754.68 CC3:3779.64	CC1:3815.16 CC2:3849.84 CC3:3874.8	CC1:3910.32 CC2:3945 CC3:3969.99
	30kHz	3CC	CC1:40 CC2:20 CC3:20	CC1:3720 CC2:3749.7 CC3:3769.68	CC1:3820.14 CC2:3849.84 CC3:3869.82	CC1:3920.28 CC2:3949.98 CC3:3969.99
5G NR (3700-3980MHz)	SCS	Carrier	Bandwidth (MHz)	Channel		
				Low	Middle	High
	30kHz	4CC	CC1:20 CC2:20 CC3:20 CC4:20	CC1:3710.01 CC2:3729.99 CC3:3749.97 CC4:3769.95	CC1:3810.03 CC2:3830.01 CC3:3849.99 CC4:3869.97	CC1:3910.02 CC2:3930 CC3:3949.98 CC4:3969.99
	30kHz	4CC	CC1:40 CC2:30 CC3:20 CC4:10	CC1:3720 CC2:3754.68 CC3:3779.64 CC4:3794.31	CC1:3810.33 CC2:3845.01 CC3:3869.97 CC4:3884.64	CC1:3900.69 CC2:3935.37 CC3:3960.33 CC4:3975



4.5 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%

Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4.6 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1.SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).

2.SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).

3. Sample source: sent by customer.

4.7 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA**

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

- **FCC**

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

- **ISED**

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

- **VCCI**

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.

4.8 Deviation from Standards

None

4.9 Abnormalities from Standard Conditions

None



5 Equipment List

RF Conducted Test						
1	Spectrum Analyzer	Keysight	N9020A	KUS1911E004-2	08/01/2024	07/31/2025
2	Spectrum Analyzer	Keysight	N9020A	KUS2001M001-2	08/01/2024	07/31/2025
3	Spectrum Analyzer	Keysight	N9030B	KSEM021-1	01/15/2024	01/14/2025
4	Signal Generator	R&S	SMBV100B	KSEM032	03/19/2024	03/18/2025
5	Signal Generator	R&S	SMW200A	KSEM020-1	08/02/2024	08/01/2025
6	Signal Generator	Agilent	N5182A	KUS2001M001-1	08/01/2024	07/31/2025
7	Signal Generator	Agilent	E8257C	KS301066	08/06/2024	08/05/2025
8	Radio Communication Test Station	Anritsu	MT8000A	KSEM001-1	08/01/2024	07/31/2025
9	Radio Communication Analyzer	Anritsu	MT8821C	KSEM002-1	03/19/2024	03/18/2025
10	Universal Radio Communication Tester	R&S	CMW500	KUS1911E004-1	08/12/2024	08/11/2025
11	Switcher	TST	FY562	KUS2001M001-4	01/15/2024	01/14/2025
12	Conducted Test Cable	Thermax	RF01-RF04	CZ301111-CZ301120	01/15/2024	01/14/2025
13	Temp. / Humidity Chamber	TERCHY	MHK-120AK	KS301190	08/26/2024	08/25/2025
14	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-5	03/19/2024	03/18/2025
15	Software	BST	TST-PASS	/	NCR	NCR
RF Radiated Test						
1	Spectrum Analyzer	R&S	FSV40	KUS1806E003	08/06/2024	08/05/2025
2	Universal Radio Communication Tester	R&S	CMW500	KSEM009-1	03/19/2024	03/18/2025
4	Loop Antenna	COM-POWER	AL-130R	KUS1806E001	03/18/2023	03/17/2025
5	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E005	06/29/2023	06/28/2025
6	Bilog Antenna	TESEQ	CBL 6112D	KUS1806E006	03/19/2024	03/18/2025
7	Horn-antenna(1-18GHz)	Schwarzbeck	BBHA9120D	KS301079	03/23/2024	08/22/2026
8	Horn-antenna(1-18GHz)	ETS-LINDGREN	3117	KS301186	04/07/2023	04/06/2025
9	Horn Antenna(18-40GHz)	Schwarzbeck	BBHA9170	CZ301058	01/07/2024	01/06/2026
10	Amplifier(30MHz~18GHz)	PANSHAN TECHNOLOGY	LNA:1~18G	KSEM010-1	01/15/2024	01/14/2025
11	Amplifier(18~40GHz)	PANSHAN TECHNOLOGY	LNA180400G40	KSEM038	08/12/2024	08/11/2025
12	RE Test Cable	REBES MICROWAVE	/	CZ301097	08/12/2024	08/11/2025
13	Temperature & Humidity Recorder	Renke Control	RS-WS-N01-6J	KSEM024-4	03/21/2024	03/20/2025
14	Software	Faratronic	EZ_EMV-3A1	/	NCR	NCR
15	Software	ESE	E3_V 6.111221a	/	NCR	NCR

6 Radio Spectrum Matter Test Results

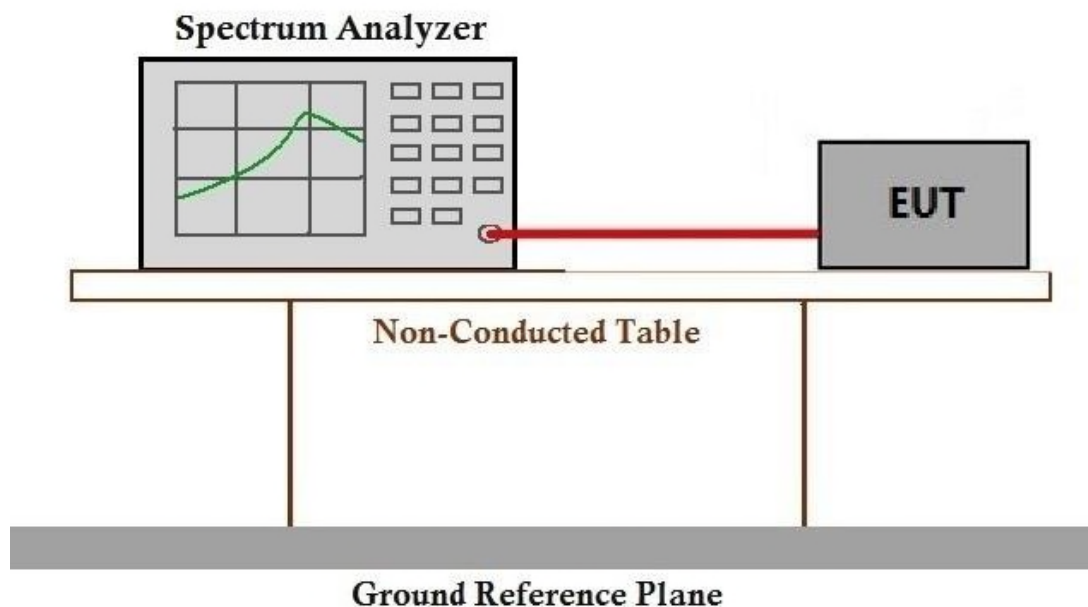
6.1 Effective (Isotropic) Radiated Power Output Data

Test Requirement: §2.1046, §27.50(k), §27.50(J), §96.41
Test Method: ANSI C63.26, KDB 971168 D01 v03
Limit: EIRP ≤ 62.15dBm/10MHz (3450-3550MHz, 3700-3980MHz)
EIRP ≤ 30dBm/10MHz, PSD ≤ 20dBm/MHz (3550-3700MHz)

6.1.1 E.U.T. Operation

Operating Environment:
Temperature: 20.4 °C Humidity: 56.4 % RH Atmospheric Pressure: 1030 mbar
Test mode: 00: Tx mode, Keep the EUT in transmitting mode.

6.1.2 Test Setup Diagram



6.1.3 Measurement Data

Please refer to Appendix

6.2 Peak-Average Ratio

Test Requirement: §27.50(k), §27.50(J), §96.41

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit: $\leq 13\text{dB}$

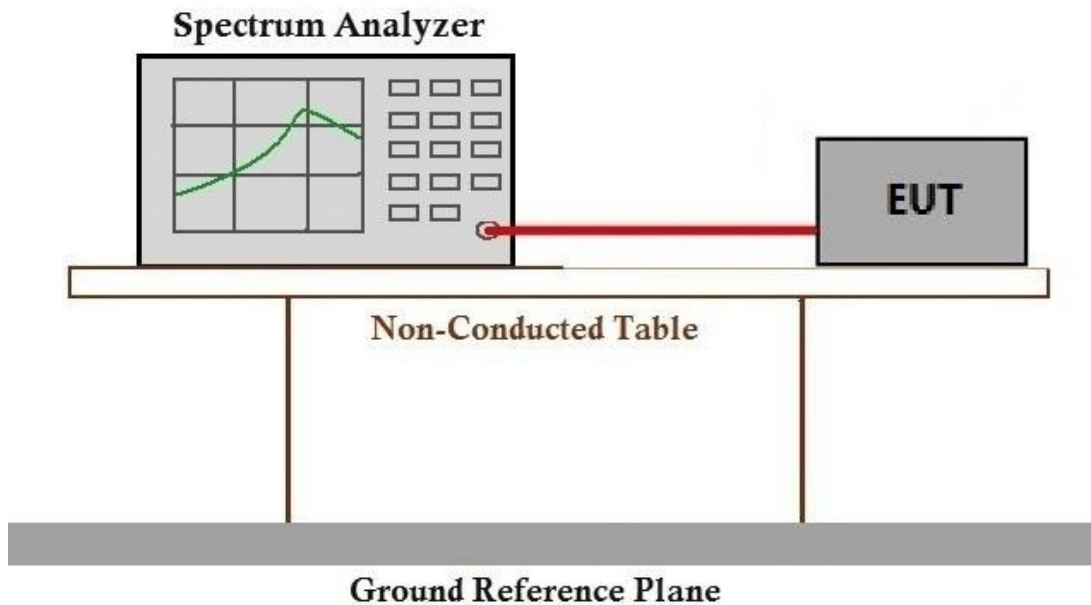
6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 20.4 °C Humidity: 56.4 % RH Atmospheric Pressure: 1030 mbar

Test mode: 00: Tx mode, Keep the EUT in transmitting mode.

6.2.2 Test Setup Diagram



6.2.3 Measurement Data

Please refer to Appendix

6.3 Band Edge Compliance

Test Requirement: §2.1051, §27.53(l), §27.53(n), §96.41

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit: The following emission limits apply to stations transmitting in the 3450-3550 MHz band:

For base station operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with the provisions of this paragraph (n)(1) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Notwithstanding the channel edge requirement of -13 dBm per megahertz, for base station operations in the 3450-3550 MHz band, the conducted power of any emission below 3440 MHz or above 3560 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3430 MHz or above 3570 MHz shall not exceed -40 dBm/MHz.

The following emission limits apply to stations transmitting in the 3700-3980 MHz band:

For base station operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this [paragraph \(l\)\(1\)](#) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

3.5 GHz Emissions and Interference Limits:

Except as otherwise specified in paragraph (e)(2) of this section, for channel and frequency assignments made by the SAS to CBSDs, the conducted power of any CBSD emission outside the fundamental emission bandwidth as specified in paragraph (e)(3) of this section (whether the emission is inside or outside of the authorized band) shall not exceed -13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any CBSD emission shall not exceed -25 dBm/MHz. The upper and lower SAS assigned channel edges are the upper

and lower limits of any channel assigned to a CBSD by an SAS, or in the case of multiple contiguous channels, the upper and lower limits of the combined contiguous channels.

Additional protection levels. Notwithstanding paragraph (e)(1) of this section, for CBSDs and End User Devices, the conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.

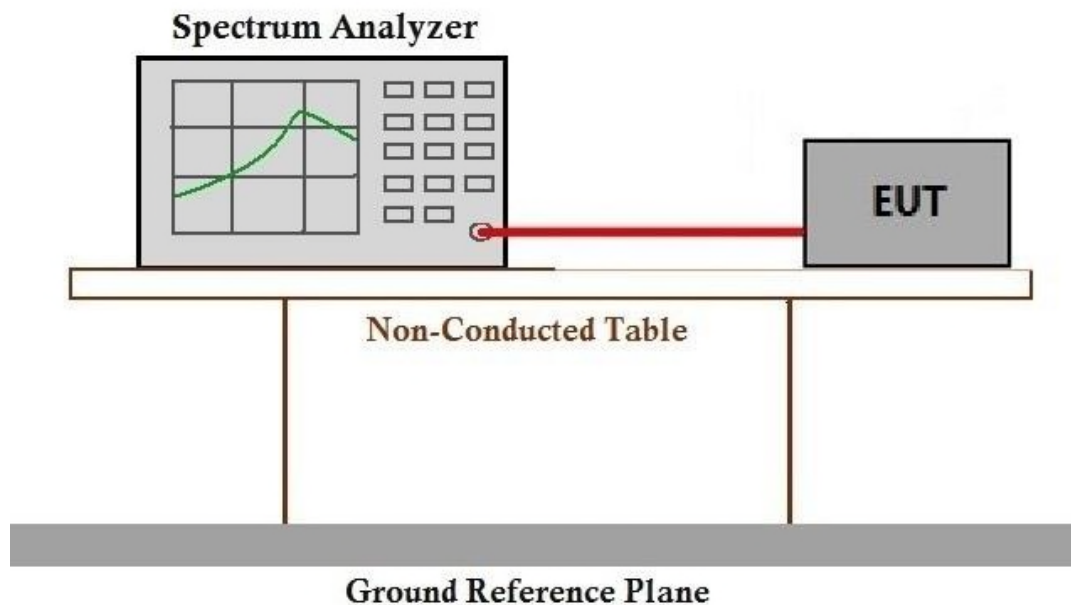
6.3.1 E.U.T. Operation

Operating Environment:

Temperature: 20.4 °C Humidity: 56.4 % RH Atmospheric Pressure: 1030 mbar

Test mode: 00: Tx mode, Keep the EUT in transmitting mode.

6.3.2 Test Setup Diagram



6.3.3 Measurement Data

Please refer to Appendix

6.4 Spurious emissions at antenna terminals

Test Requirement: §2.1051, §27.53(l), §27.53(n), §96.41

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit: The following emission limits apply to stations transmitting in the 3450-3550 MHz band:

For base station operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with the provisions of this paragraph (n)(1) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Notwithstanding the channel edge requirement of -13 dBm per megahertz, for base station operations in the 3450-3550 MHz band, the conducted power of any emission below 3440 MHz or above 3560 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3430 MHz or above 3570 MHz shall not exceed -40 dBm/MHz.

The following emission limits apply to stations transmitting in the 3700-3980 MHz band:

For base station operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this [paragraph \(l\)\(1\)](#) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

3.5 GHz Emissions and Interference Limits:

Except as otherwise specified in paragraph (e)(2) of this section, for channel and frequency assignments made by the SAS to CBSDs, the conducted power of any CBSD emission outside the fundamental emission bandwidth as specified in paragraph (e)(3) of this section (whether the emission is inside or outside of the authorized band) shall not exceed -13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any CBSD emission shall not exceed -25 dBm/MHz. The upper and lower SAS assigned channel edges are the upper

and lower limits of any channel assigned to a CBSD by an SAS, or in the case of multiple contiguous channels, the upper and lower limits of the combined contiguous channels.

Additional protection levels. Notwithstanding paragraph (e)(1) of this section, for CBSDs and End User Devices, the conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.

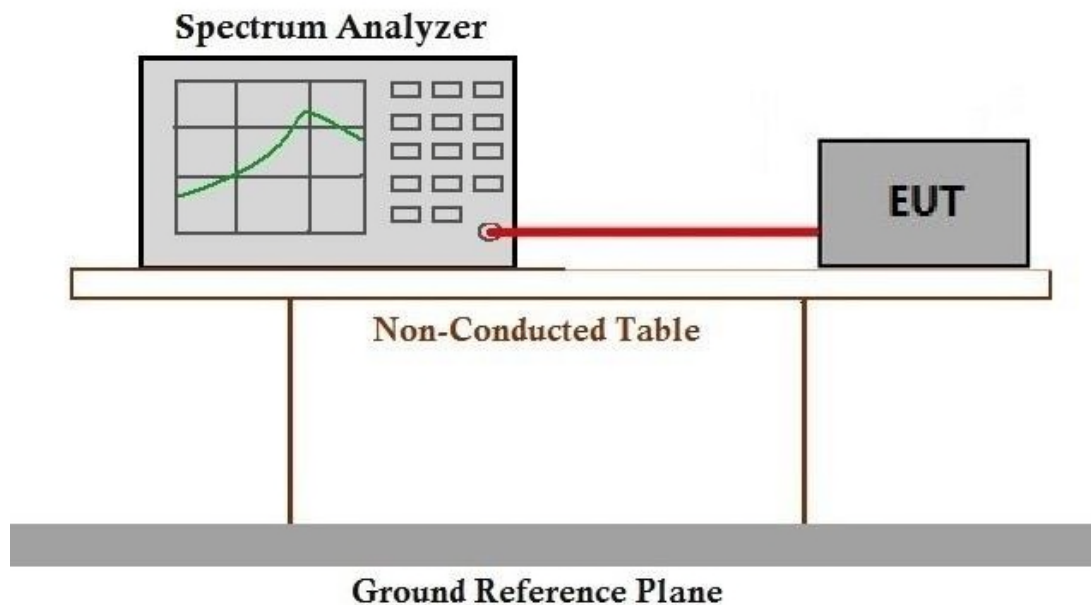
6.4.1 E.U.T. Operation

Operating Environment:

Temperature: 20.4 °C Humidity: 56.4 % RH Atmospheric Pressure: 1030 mbar

Test mode: 00: Tx mode, Keep the EUT in transmitting mode.

6.4.2 Test Setup Diagram



6.4.3 Measurement Data

Please refer to Appendix

6.5 Field strength of spurious radiation

Test Requirement: §2.1051, §96.41

Test Method: ANSI C63.26, KDB 971168 D01 v03

Limit: Except as otherwise specified in paragraph (e)(2) of this section, for channel and frequency assignments made by the SAS to CBSDs, the conducted power of any CBSD emission outside the fundamental emission bandwidth as specified in paragraph (e)(3) of this section (whether the emission is inside or outside of the authorized band) shall not exceed -13 dBm/MHz within 0-10 megahertz above the upper SAS-assigned channel edge and within 0-10 megahertz below the lower SAS-assigned channel edge. At all frequencies greater than 10 megahertz above the upper SAS assigned channel edge and less than 10 MHz below the lower SAS assigned channel edge, the conducted power of any CBSD emission shall not exceed -25 dBm/MHz. The upper and lower SAS assigned channel edges are the upper and lower limits of any channel assigned to a CBSD by an SAS, or in the case of multiple contiguous channels, the upper and lower limits of the combined contiguous channels.

Additional protection levels. Notwithstanding paragraph (e)(1) of this section, for CBSDs and End User Devices, the conducted power of emissions below 3540 MHz or above 3710 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed -40 dBm/MHz.

Note: For MIMO mode, the conducted Bandedge/Spurious are tested at single antenna port and add $10 \cdot \log(NANT)$ according to KDB 662911 D01, only the worst MIMO Ant is shown in the report.

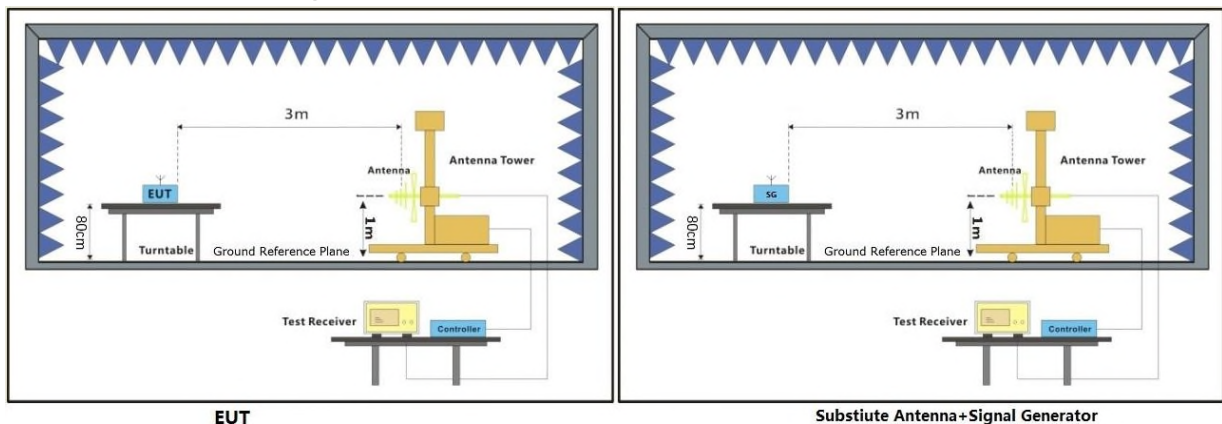
6.5.1 E.U.T. Operation

Operating Environment:

Temperature: 20.4°C Humidity: 56.4% RH Atmospheric Pressure: 1030 mbar

Test mode: 00: Tx mode, Keep the EUT in transmitting mode.

6.5.2 Test Setup Diagram

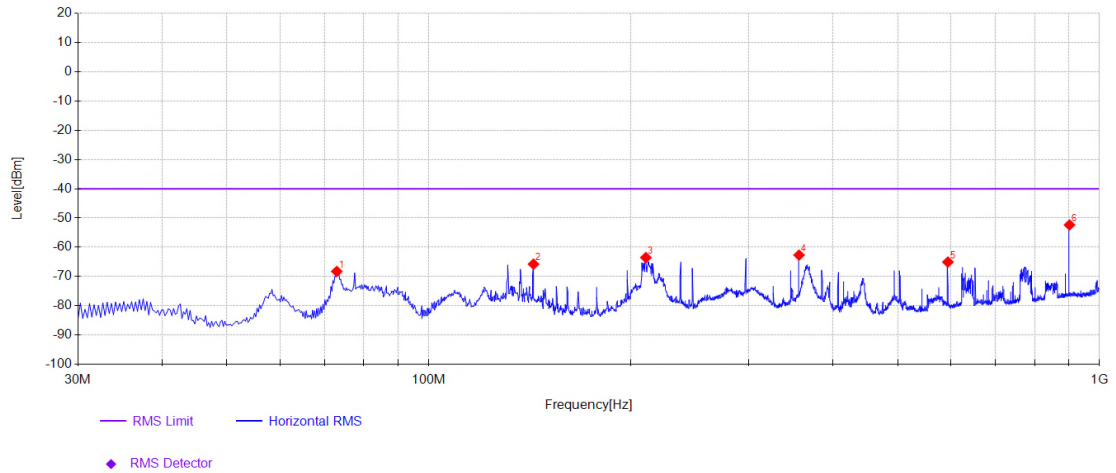


6.5.3 Measurement Procedure and Data

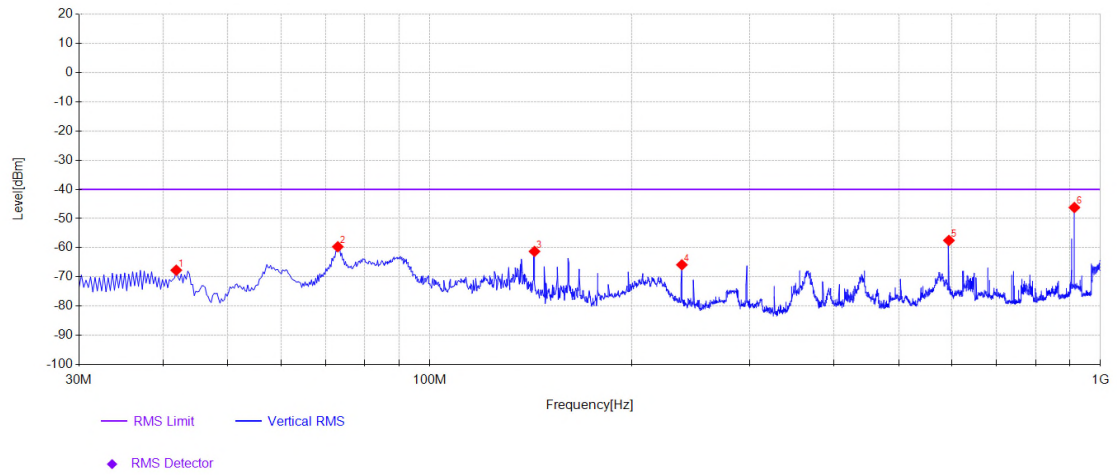
Test Procedure:

- (1) On a test site, the EUT shall be placed on a turntable and in the position closest to the normal use as declared by the user.
- (2) The test antenna shall be oriented initially for vertical polarization located 3m from the EUT to correspond to the transmitter.
- (3) The output of the antenna shall be connected to the measuring receiver and either a peak or quasi-peak detector was used for the measurement as indicated on the report. The detector selection is based on how close the emission level was approaching the limit.
- (4) The transmitter shall be switched on; if possible, without the modulation and the measurement receiver shall be tuned to the frequency of the transmitter under test.
- (5) The test antenna shall be raised and lowered through the specified range of height until the measuring receiver detects a maximum signal level.
- (6) The transmitter shall then be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
- (7) The test antenna shall be raised and lowered again through the specified range of height until the measuring receiver detects a maximum signal level.
- (8) The maximum signal level detected by the measuring receiver shall be noted.
- (9) The measurement shall be repeated with the test antenna set to horizontal polarization.
- (10) Replace the antenna with a proper Antenna (substitution antenna).
- (11) The substitution antenna shall be oriented for vertical polarization and, if necessary, the length of the substitution antenna shall be adjusted to correspond to the frequency of transmitting.
- (12) The substitution antenna shall be connected to a calibrated signal generator.
- (13) If necessary, the input attenuator setting of the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
- (14) The test antenna shall be raised and lowered through the specified range of the height to ensure that the maximum signal is received.
- (15) The input signal to substitution antenna shall be adjusted to the level that produces a level detected by the measuring receiver, that is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuation setting of the measuring receiver.
- (16) The input level to the substitution antenna shall be recorded as power level in dBm, corrected for any change of input attenuator setting of the measuring receiver.
- (17) The measurement shall be repeated with the test antenna and the substitution antenna oriented for horizontal polarization.

30M-1G:
3550-3700M

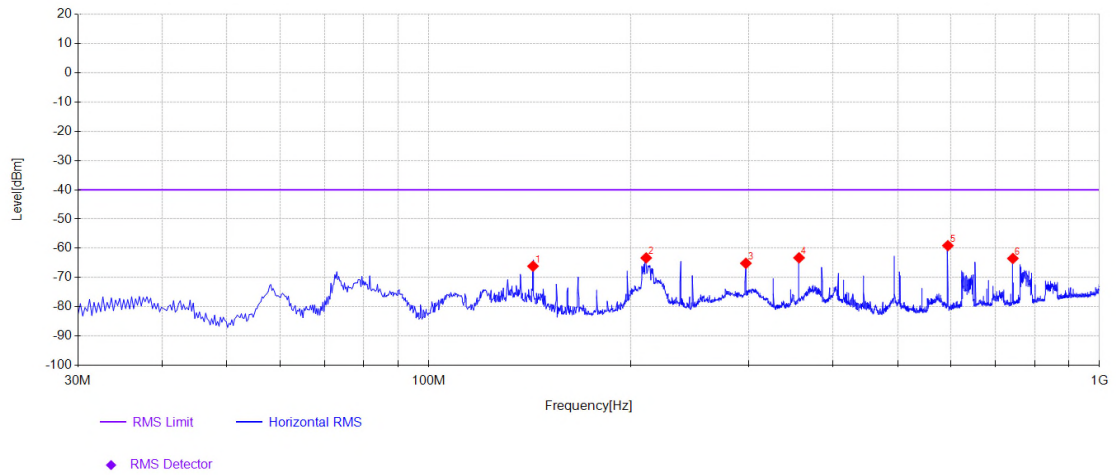


Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	72.9225	45.08	-33.99	15.92	-68.24	-40.00	28.24	Horizontal
2	143.2475	44.40	-33.57	18.68	-65.75	-40.00	25.75	Horizontal
3	210.6625	49.41	-33.09	15.43	-63.52	-40.00	23.52	Horizontal
4	356.405	45.78	-32.38	19.20	-62.66	-40.00	22.66	Horizontal
5	594.055	37.55	-31.39	24.06	-65.04	-40.00	25.04	Horizontal
6	901.7875	45.48	-30.42	27.84	-52.36	-40.00	12.36	Horizontal

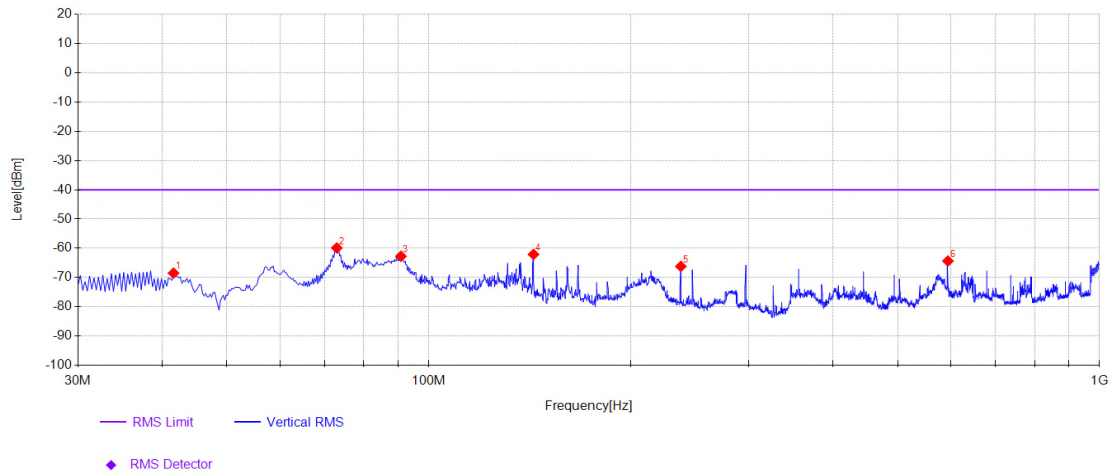


Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	41.8825	43.04	-34.18	18.71	-67.69	-40.00	27.69	Vertical
2	72.9225	53.67	-33.99	15.92	-59.65	-40.00	19.65	Vertical
3	143.2475	48.90	-33.57	18.68	-61.25	-40.00	21.25	Vertical
4	237.58	45.73	-32.91	16.60	-65.84	-40.00	25.84	Vertical
5	594.055	45.09	-31.39	24.06	-57.50	-40.00	17.50	Vertical
6	913.9125	51.74	-30.34	27.64	-46.22	-40.00	6.22	Vertical

3450-3550M

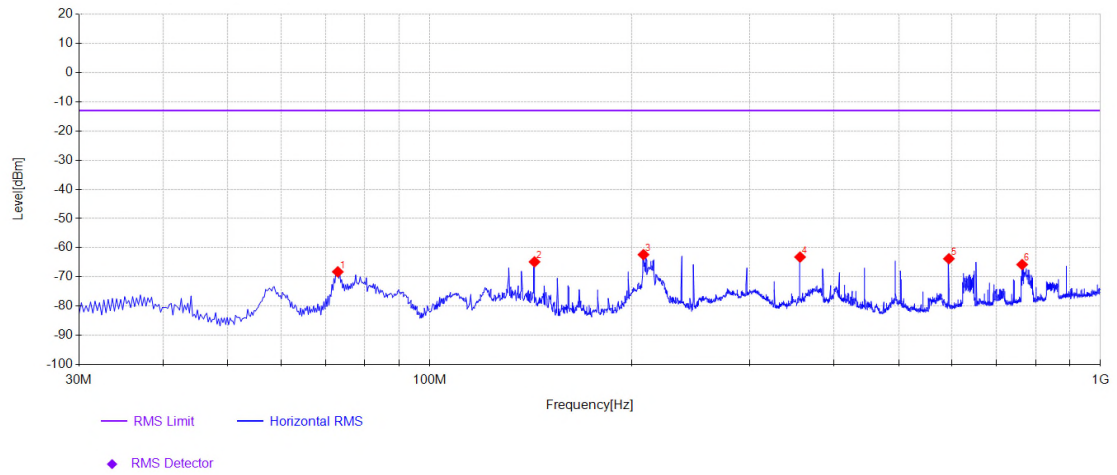


Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	143.005	44.01	-33.57	18.70	-66.12	-40.00	26.12	Horizontal
2	210.905	49.64	-33.09	15.44	-63.28	-40.00	23.28	Horizontal
3	296.9925	44.64	-32.69	18.18	-65.13	-40.00	25.13	Horizontal
4	356.405	45.18	-32.38	19.20	-63.26	-40.00	23.26	Horizontal
5	594.055	43.49	-31.39	24.06	-59.10	-40.00	19.10	Horizontal
6	742.465	36.81	-30.93	25.90	-63.48	-40.00	23.48	Horizontal

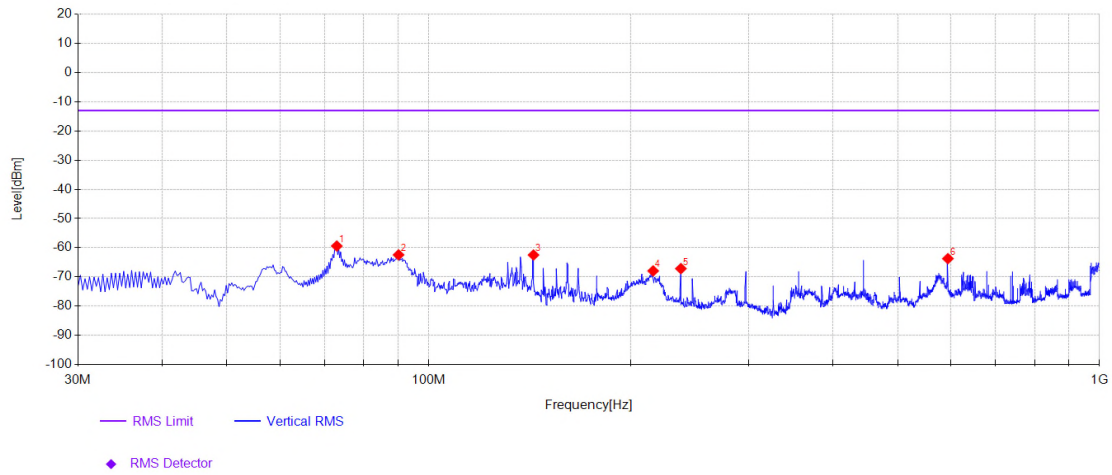


Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	41.64	42.23	-34.18	18.74	-68.47	-40.00	28.47	Vertical
2	72.9225	53.44	-33.99	15.92	-59.88	-40.00	19.88	Vertical
3	90.8675	51.85	-33.84	14.53	-62.72	-40.00	22.72	Vertical
4	143.2475	48.07	-33.57	18.68	-62.08	-40.00	22.08	Vertical
5	237.58	45.39	-32.91	16.60	-66.18	-40.00	26.18	Vertical
6	594.055	38.24	-31.39	24.06	-64.35	-40.00	24.35	Vertical

3700M-3980M



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	72.9225	45.08	-33.99	15.92	-68.24	-13.00	55.24	Horizontal
2	143.2475	45.33	-33.57	18.68	-64.82	-13.00	51.82	Horizontal
3	208.2375	50.69	-33.12	15.33	-62.36	-13.00	49.36	Horizontal
4	356.405	45.25	-32.38	19.20	-63.19	-13.00	50.19	Horizontal
5	594.055	38.84	-31.39	24.06	-63.75	-13.00	50.75	Horizontal
6	763.805	34.10	-30.89	26.30	-65.75	-13.00	52.75	Horizontal



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	72.9225	53.92	-33.99	15.92	-59.40	-13.00	46.40	Vertical
2	90.14	52.00	-33.84	14.67	-62.43	-13.00	49.43	Vertical
3	143.2475	47.67	-33.57	18.68	-62.48	-13.00	49.48	Vertical
4	215.9975	44.74	-33.05	15.64	-67.93	-13.00	54.93	Vertical
5	237.58	44.43	-32.91	16.60	-67.14	-13.00	54.14	Vertical
6	594.055	38.87	-31.39	24.06	-63.72	-13.00	50.72	Vertical