



TEST REPORT nr. R16195701

Federal Communication Commission (FCC)

Test item

Description: PE.AMI Outdoor Lighting Management Node NEMA 915 MHz band
Trademark: PARADOX ENGINEERING
Model/Type: PE.AMI-NDLM920N NC GPS
FCC ID: 2AKPQ0701142823020

Test Specification

Standard: FCC Rules & Regulations, Title 47:2015
Part 15 paragraph(s): 203, 204, 205, 207, 209 and 247

Client's name: PARADOX ENGINEERING

Address: Via Passeggiata, 7 – 6883 Novazzano – SWITZERLAND

Manufacturer's name : Same as client

Address: --

Report

Tested by: A. Bertezolo – Technician

Approved by: R. Beghetto – Laboratory Manager

Date of issue: 09.03.17

Contents: 92 pages

[Signature of A. Bertezolo]
[Signature of R. Beghetto]

This test report shall not be reproduced except in full without the written approval of CMC.
The test results presented in this report relate only to the item tested.



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1. Summary

Standard:

FCC Rules & Regulations, Title 47:2015

Part 15 paragraph(s): 203, 204, 205, 207, 209 and 247

Test specifications	Environmental Phenomena	Tests sequence	Result
Part 15.203	Antenna requirements	1	Complies
Part 15.207	Conducted emissions	2	Complies
Part 15.209	Radiated emissions	3	Complies
Part 15.247	20 dB Bandwidth	4	Complies
Part 15.247	Channel Separation	5	Complies
Part 15.247	Number of Hopping Channel	6	Complies
Part 15.247	Time of occupancy	7	Complies
Part 15.247	Band edge	8	Complies
Part 15.209 and 15.247	Peak Output Power	9	Complies
Part 15.209	Spurious emission	10	Complies
Part 1.1310	Maximum permissible exposure	11	Complies

The Test Report was given to the Client representatives for necessary documentation of ratification of the tested equipment and it is valid for the FCC certification



2. Description of Equipment under test (EUT)

Power supply : 100-240 V ~ 60 Hz single-phase
Tests performed on nominal voltage 120 and 240 V ~ 60 Hz

Serial Number : --

Type of equipment : ☒ Transmitter Unit
☒ Receiver Unit

Type of station : ☒ Fixed station
☐ Portable station
☐ Mobile station

Frequency band : 902 – 928 MHz
Hopping sequence (frequency, spacing and pattern) and access timing are declared by the manufacturer and not changeable by the user. Some samples of production can operate on operating band 909 – 921 MHz instead of 902 – 928 MHz with the same hopping characteristics. Tests have been performed only on 902,42 – 927,58 MHz operating band as worst case.

Nominal frequencies : F_L: 902,42 MHz F_M: 915,00 MHz F_H: 927,58 MHz

2.1 Test Site

Company : CMC Centro Misure Compatibilità S.r.l.

Address : Via della Fisica, 20
36016 Thiene (VI) – ITALY

Test site facility's FCC registration number : 271947



3. Testing and sampling

Date of receipt of test item : 03.11.16

Testing start date : 07.11.16

Testing end date : 23.02.17

Samples tested nr. : 1

Sampling procedure. : Equipment used for testing was picked up by the manufacturer, at the end of the production process with random criterion

Internal identification : adhesive label with the product number P161115

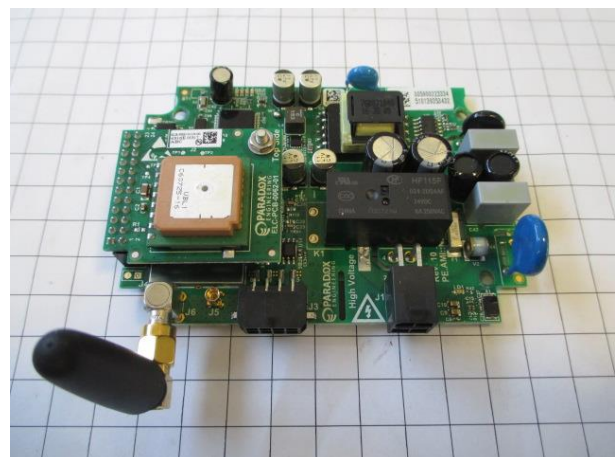
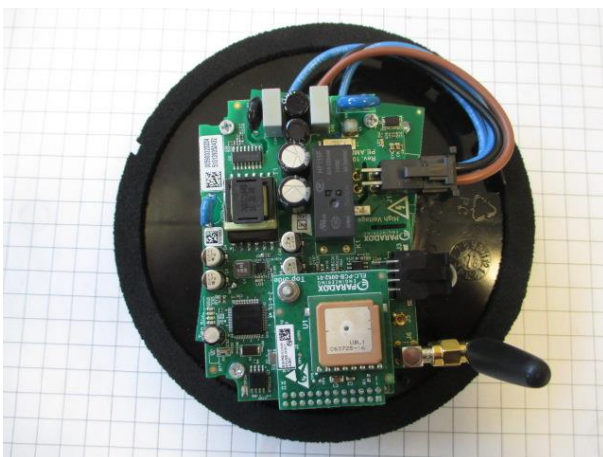
4. Operative conditions

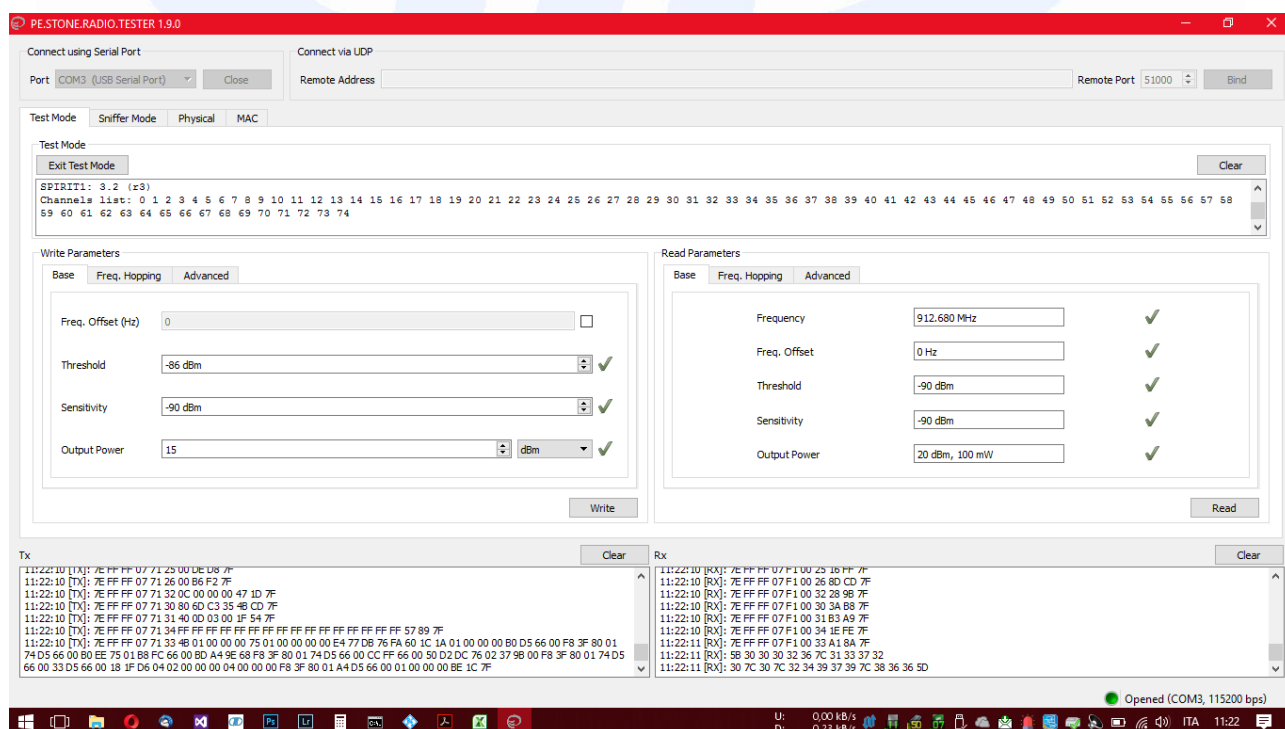
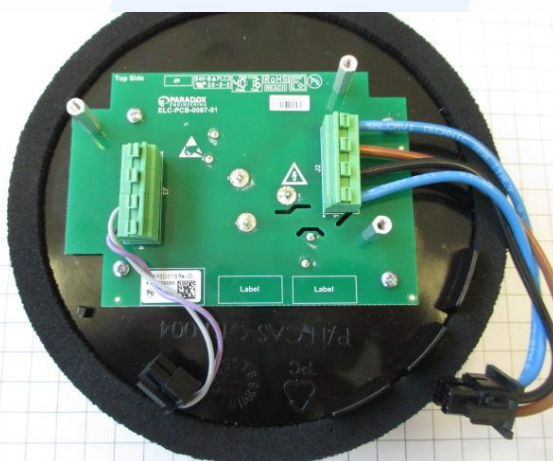
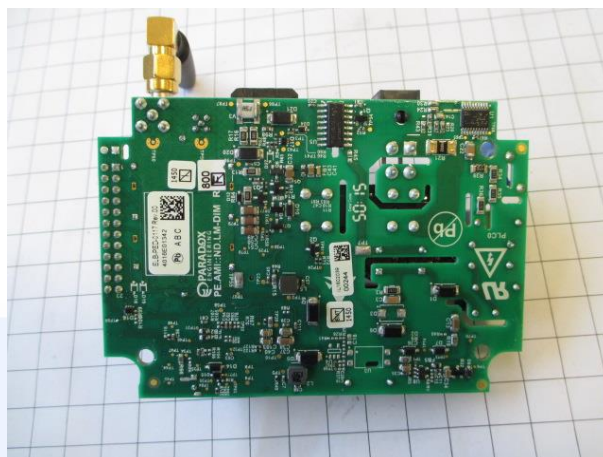
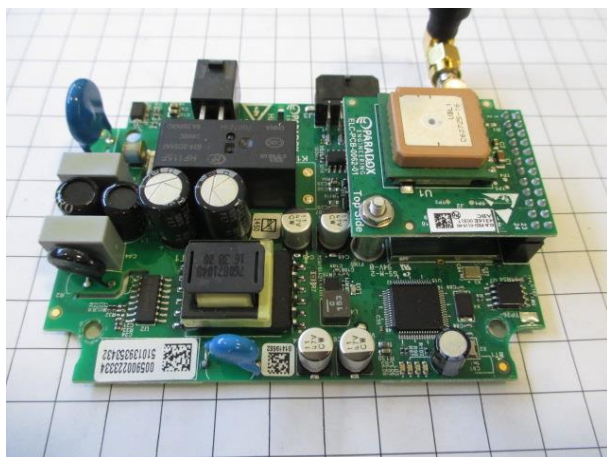
EUT exercising : Set in fixed or hopping frequencies based on the required tests with PA = 15 dBm. Tests other than 15.207 have been made only with EUT supplied at 120 V 60 Hz. Test according Part 15.207 has been made at both supply voltage 120 and 240 V 60 Hz



5. Photograph(s) of EUT

5.1 Photograph(s) of EUT







PESTONE.RADIO.TESTER 1.9.0

Connect using Serial Port: Port COM3 (USB Serial Port) Close

Connect via UDP: Remote Address Remote Port 51000 Bind

Test Mode: Sniffer Mode Physical MAC

Test Mode: Exit Test Mode Clear

SPIRIT1: 3.2 (v3)
Channels list: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58
59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74

Write Parameters: Base Freq. Hopping Advanced

Base frequency (MHz): 902.42 ✓
Channel spacing (kHz): 340 ✓
Number of channels: 75 ✓
Channel table: Seed (Hex) 1 ✓
Channel mask: FFFFFFFFFFFFFFFFFFFFFFFFFF ✓
☐ Gateway ☒ Hopping ☐ Scan ☐ Scan reply ✓

Read Parameters: Base Freq. Hopping Advanced

Frequency: 912.680 MHz ✓
Freq. Offset: 0 Hz ✓
Threshold: -90 dBm ✓
Sensitivity: -90 dBm ✓
Output Power: 20 dBm, 100 mW ✓

Write

Read

Tx: Clear

Rx: Clear

Opened (COM3, 115200 bps)

U: 0.66 kB/s
D: 2.09 kB/s

PESTONE.RADIO.TESTER 1.9.0

Connect using Serial Port: Port COM3 (USB Serial Port) Close

Connect via UDP: Remote Address Remote Port 51000 Bind

Test Mode: Sniffer Mode Physical MAC

Test Mode: Exit Test Mode Clear

SPIRIT1: 3.2 (v3)
Channels list: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58
59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74

Write Parameters: Base Freq. Hopping Advanced

Data Rate: 50 kbps ✓
Preamble: 4 bytes ✓
Sync Word: 88888888 ✓
Data Whitening: ☐ ✓
FEC: ☐ ✓

Read Parameters: Base Freq. Hopping Advanced

Frequency: 912.680 MHz ✓
Freq. Offset: 0 Hz ✓
Threshold: -90 dBm ✓
Sensitivity: -90 dBm ✓
Output Power: 20 dBm, 100 mW ✓

Write

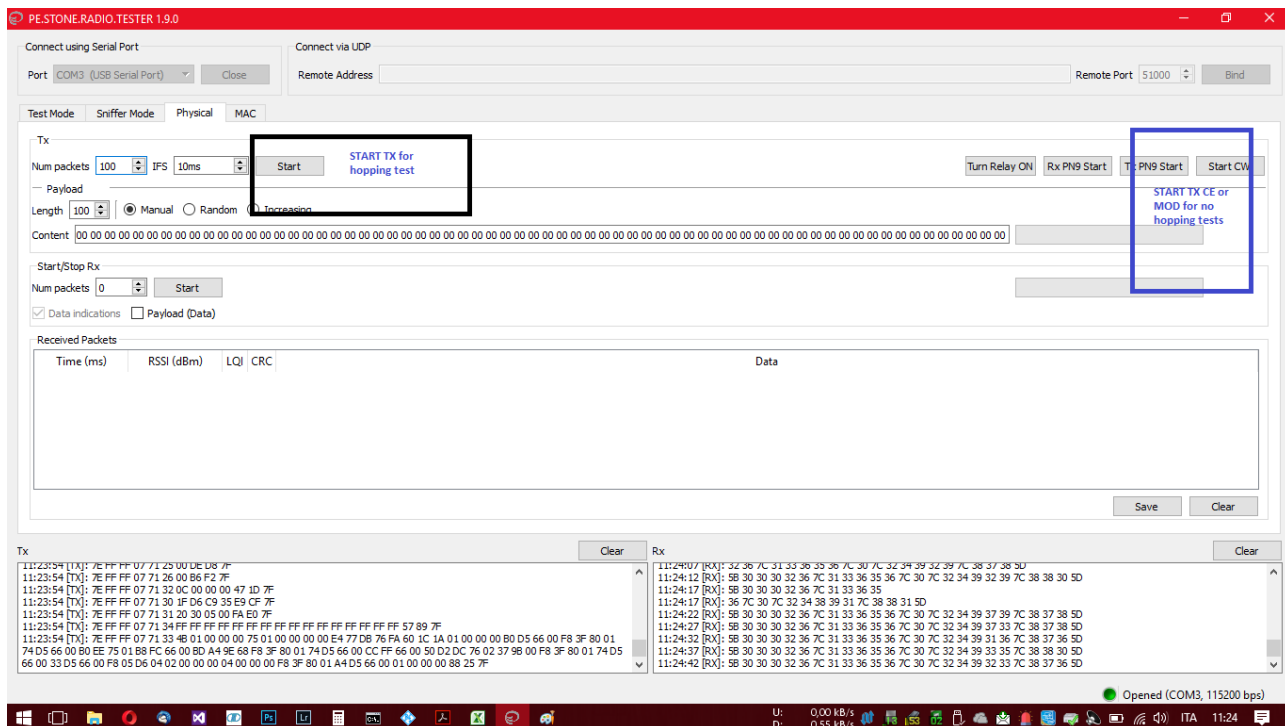
Read

Tx: Clear

Rx: Clear

Opened (COM3, 115200 bps)

U: 0.00 kB/s
D: 0.13 kB/s





6. Equipment list

<i>Id. number</i>	<i>Manufacturer</i>	<i>Model</i>	<i>Description</i>	<i>Serial number</i>	<i>Last calibration</i>	<i>Due date calibration</i>
CMC S010	Rohde & Schwarz	ESH3-Z2	Impulses Limiting Device	---	January '17	January '18
CMC S108	EMCO	3115	Horn Antenna	9811-5622	June '16	June '19
CMC S127	Schaffner	HLA6120	Loop Antenna	1191	November '13	November '18
CMC S164	Rohde & Schwarz	ESU26	EMC interference receiver	100052	January '17	January '18
CMC S200	Schwarzbeck	NSLK 8128	V-LISN	8128-273	January '17	January '18
CMC S227	Rohde & Schwarz	ESR7	EMI Test Receiver 7GHz	101121	January '17	January '18
CMC S260	CMC	Wfr_N	Shielded Cable	Wfr_ant10-1	November '16	November '17
CMC S261	CMC	Wfr_N	Shielded Cable	Wfr_ant20-1	November '16	November '17
CMC S262	CMC	Wfr_N_fix	Shielded Cable	Wfr_fix32-1	November '16	November '17
CMC S263	CMC	Wfr_N_fix	Shielded Cable	Wfr_fix31-1	November '16	November '17
CMC S264	CMC	Wfr_N	Shielded Cable	Wfr_ext03-1	November '16	November '17
CMC S271	Schwarzbeck	BBA 9106 + VHBB 9124	Biconical Antenna (30-300MHz)	831	June '16	June '19
CMC S287	Schwarzbeck	VUSLP 9111B	Log-periodic Antenna (200 MHz-3GHz)	9111B-203	June '16	June '19
CMC S288	CMC	W_sma_white	Joint Shielded Cable	W_001	November '16	November '17



7. Measurement uncertainty

Test	Expanded Uncertainty	note
Conducted Emission		
(50Ω/50μH AMN) - (9 kHz – 150 kHz)	±3,6 dB	1
(50Ω/50μH AMN) - (150 kHz – 30 MHz)	±3,0 dB	1
(Voltage probe) - (150 kHz – 30 MHz)	±2,9 dB	1
(50Ω/5μH AMN) - (150 kHz – 108 MHz)	±2,6 dB	1
Discontinuous Conducted Emission		
Conducted Emission (50Ω/50μH AMN) - (150 kHz – 30 MHz)	±3,0 dB	1
Disturbance Power (30 MHz – 300 MHz)		
	±3,4 dB	1
Radiated Emission		
(0,150 MHz – 30 MHz)	±3,8 dB	1
(30 MHz – 1000 MHz)	±3,8 dB	1
(1 GHz – 6 GHz)	±4,3 dB	1
Electromagnetic field EMF		
	±10,5 %	1
Harmonic current emissions test		
	±1,2 %	1
Voltage fluctuation and flicker test		
	±3,8 %	1
Insertion loss test		
	±2,0 dB	1
Radiated electromagnetic disturbance test (loop antenna)		
	±1,5 dB	1
Radiated electromagnetic field immunity test		
	0,81 V/m at 3V/m	1
Pulse modulated radiated electromagnetic field immunity test		
	0,81 V/m at 3V/m	1
Injected currents immunity test		
	0,45 V at 3V	1
Bulk current		
	3,7 mA at 60 mA	1
Power frequency magnetic field immunity test		
	0,23 A/m at 10 A/m	1
Effective radiated power (F < 1GHz)		
	±3,8 dB	1
Effective radiated power (F > 1GHz)		
	±5,5 dB	1
Frequency error		
	< 1x10 ⁻⁷	1
Timing zero span (1001pts.)		
	0,2% SWT	1
Modulation bandwidth		
	< 1x10 ⁻⁷	1
Conducted RF power and spurious emission		
	±0,7 dB	1
Adjacent channel power		
	±1,2 dB	1
Blocking		
	±1,2 dB	1
Electrostatic discharge immunity test		
		2
Electrical fast transients / burst immunity test		
		2
Surge immunity test		
		2
Pulse magnetic field immunity test		
		2
Damped oscillatory magnetic field immunity test		
		2
Short interruption immunity test		
		2
Voltage transient emission test		
	±2,2 %	1
Transient immunity test		
		2

Rev_16_01 date 09/02/2016

Note 1:

The expanded uncertainty reported according to EN55016-4-2:2011 is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of p = 95%

Note 2:

It has been demonstrated that the used test equipment meets the specified requirements in the standard with at least a 95% confidence, covering factor k = 2.



8. Reference documents

Reference no.	Description
FCC Rules and Regulation Title 47 part 15:2015	--
ANSI C63.4:2014	American National Standard for Methods of Measuring of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz – 40 GHz
ANSI C63.10:2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices
Internal Procedure PM001 rev. 3.0 (Quality Manual)	Measure Procedure
Internal procedure INC_M rev. 9.0 (Quality Manual)	Measurement uncertainty calculation



9. Deviation from test specification

None

10. Test case verdicts

Test case does not apply to the test object : N.A.

Test item does meet the requirement : Complies

Test item does not meet the requirement : Does not comply

Test not performed : N.E.

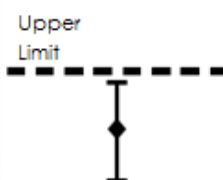
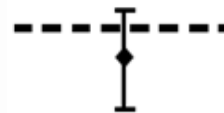
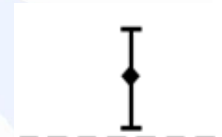


11. Results

In this clause tests results are reported.

Measurement uncertainty is in accordance with document CMC INC_M rev. 9.0.

Judgement of compliance:

Case 1	Case 2	Case 3	Case 4
			
The sample complies with the requirement.	The sample complies with the requirement.	The sample does not comply with the requirement.	The sample does not comply with the requirement.
The measurement results is within the specification limit when the measurement uncertainty is taken into account.	It is not possible to state compliance using a 95% coverage probability for the expanded uncertainty although the measurement result is below the limit.	It is not possible to state compliance using a 95% coverage probability for the expanded uncertainty also the measurement result is upper the limit.	The measurement results is outside the specification limit when the measurement uncertainty is taken into account.

In agreement with ILAC-G8: 03/2009 Guidelines on the Reporting of Compliance with Specification.



11.1 Antenna requirements

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.203 and 15.204
- DA 00-705
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Laboratory

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

--
Measurement uncertainty: See clause 7 of this test report

Test specification

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31 (d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded

Environmental conditions

Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
20	100	45

Result

Antenna Type	External R.F. power amplifier	Gain	Remarks	Results
Dedicated antenna	Not Present	2,15 dBi	--	Complies

Result: The requirements are met



11.2 Conducted emissions

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part 15.207
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Shielded chamber

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

CMC S010, CMC S200, CMC S206
Measurement uncertainty: See clause 7 of this test report

Test specification

Port: Main port
Frequency range: 150 kHz – 30 MHz

Environmental conditions

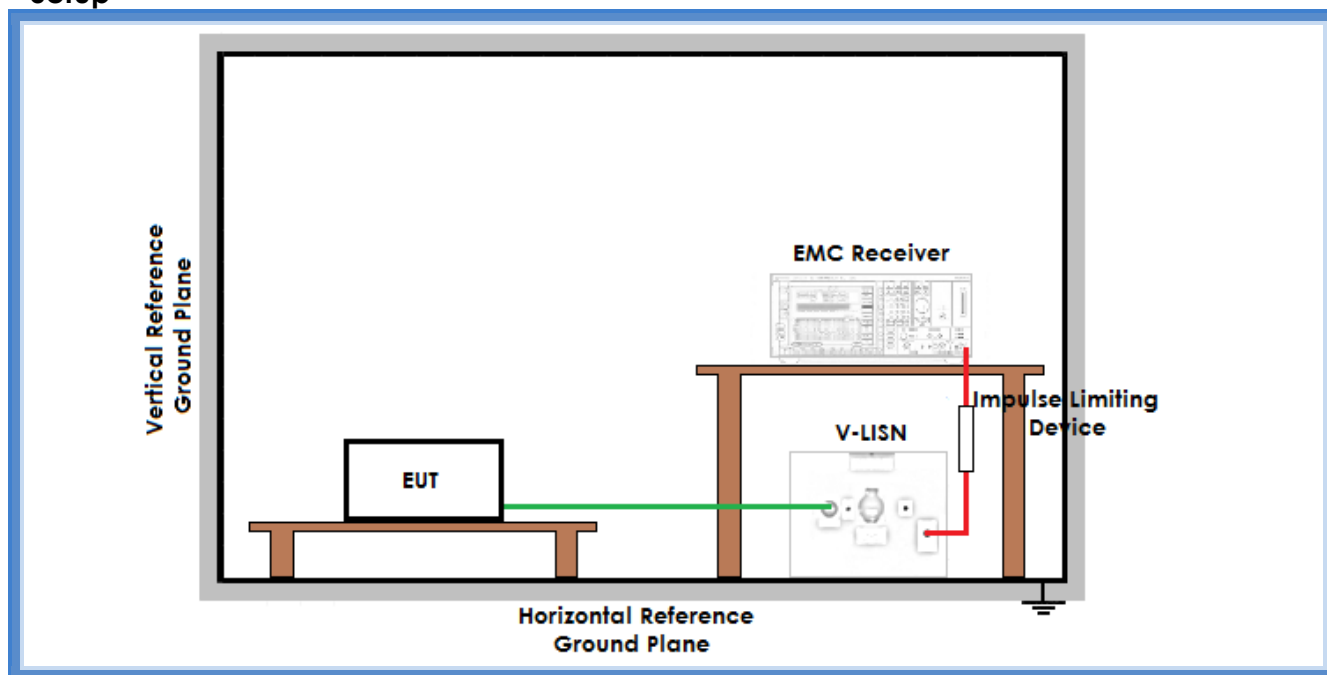
Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
21	98	46

Acceptance limits

Frequency range (MHz)	dB(μV) Quasi-peak	dB(μV) Average
0,15 to 0,50	66 to 56	56 to 46
0,50 to 5	56	46
5 to 30	60	50



Setup



Result

Line	Graphs	Remarks	Result
N	G16195727	120 V ~ 60 Hz	Complies
L1	G16195728	120 V ~ 60 Hz	Complies
N	G16195729	240 V ~ 60 Hz	Complies
L1	G16195730	240 V ~ 60 Hz	Complies

Remarks: EUT set on fixed worst case frequency

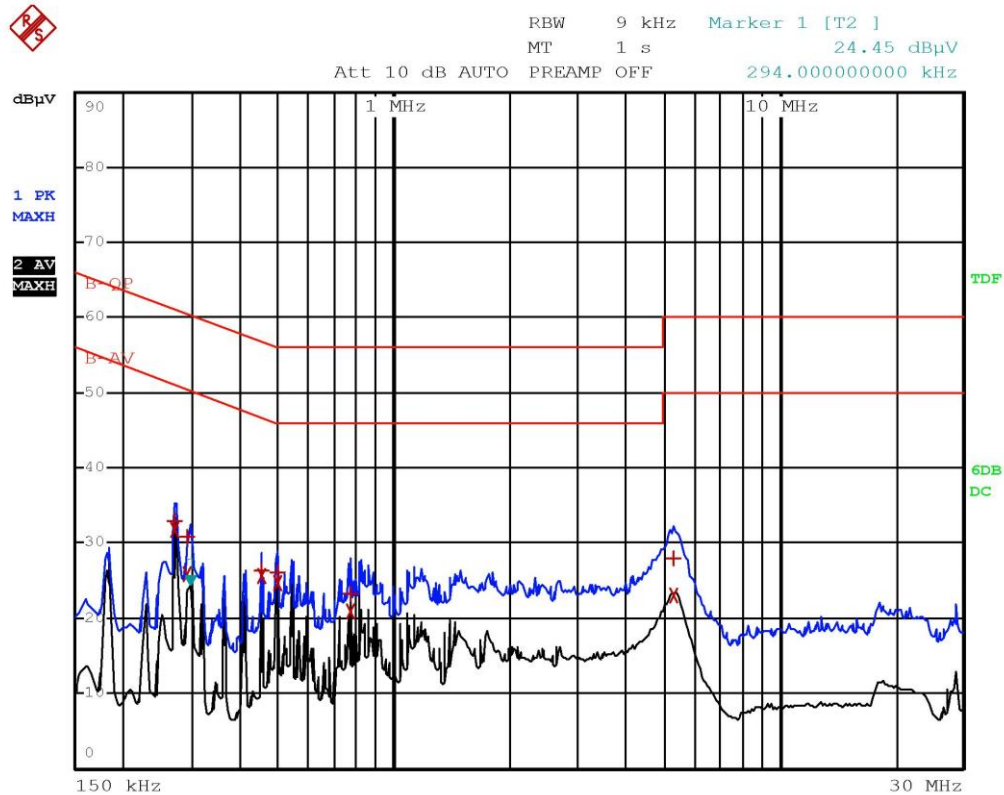
Graphs Legend

PK: Peak; QP [1s] (quasi-peak at 1 second) values are marked with a +

AV: Average; AV [1s] (average at 1 second) values are marked with a X



Graphs

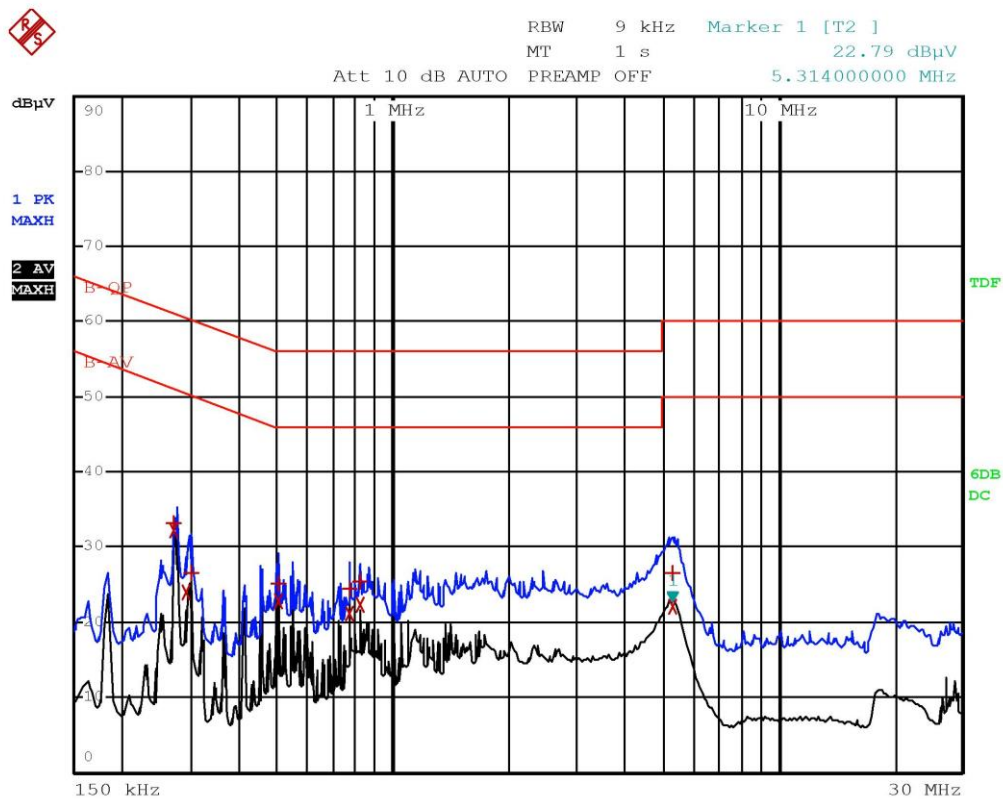


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EDIT PEAK LIST (Final Measurement Results)			
Trace1:	B-QP		
Trace2:	B-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Quasi Peak	270 kHz	32.86	-28.25
2 Average	270 kHz	31.82	-19.29
1 Quasi Peak	294 kHz	30.78	-29.62
2 Average	294 kHz	25.90	-24.50
1 Quasi Peak	454 kHz	26.44	-30.35
2 Average	454 kHz	25.72	-21.08
1 Quasi Peak	498 kHz	26.01	-30.02
2 Average	498 kHz	24.67	-21.36
2 Average	770 kHz	20.82	-25.17
1 Quasi Peak	770 kHz	23.34	-32.65
2 Average	5.31 MHz	22.99	-27.00
1 Quasi Peak	5.342 MHz	27.93	-32.06

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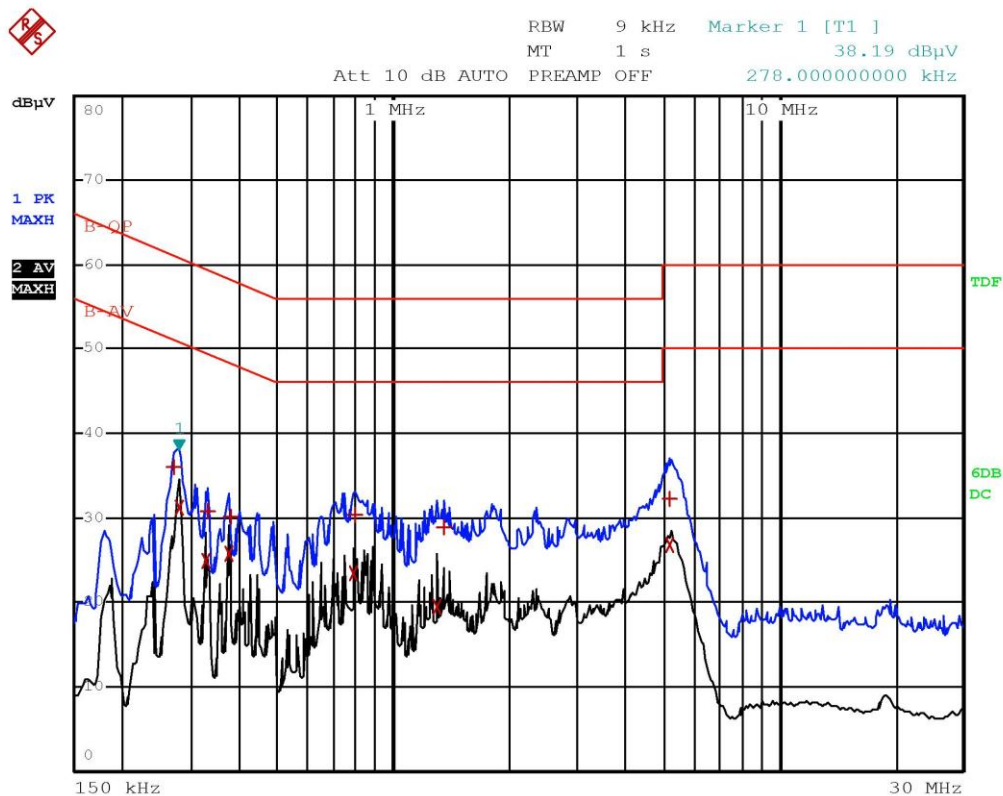


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EDIT PEAK LIST (Final Measurement Results)				
Trace1:	B-QP			
Trace2:	B-AV			
Trace3:	---			
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB	
2 Average	274 kHz	32.24	-18.75	
1 Quasi Peak	274 kHz	33.20	-27.79	
2 Average	294 kHz	24.02	-26.38	
1 Quasi Peak	298 kHz	26.45	-33.84	
2 Average	502 kHz	22.76	-23.23	
1 Quasi Peak	502 kHz	25.24	-30.75	
2 Average	774 kHz	21.08	-24.91	
1 Quasi Peak	774 kHz	24.43	-31.57	
2 Average	818 kHz	22.31	-23.68	
1 Quasi Peak	818 kHz	25.28	-30.71	
2 Average	5.314 MHz	22.01	-27.98	
1 Quasi Peak	5.334 MHz	26.54	-33.45	

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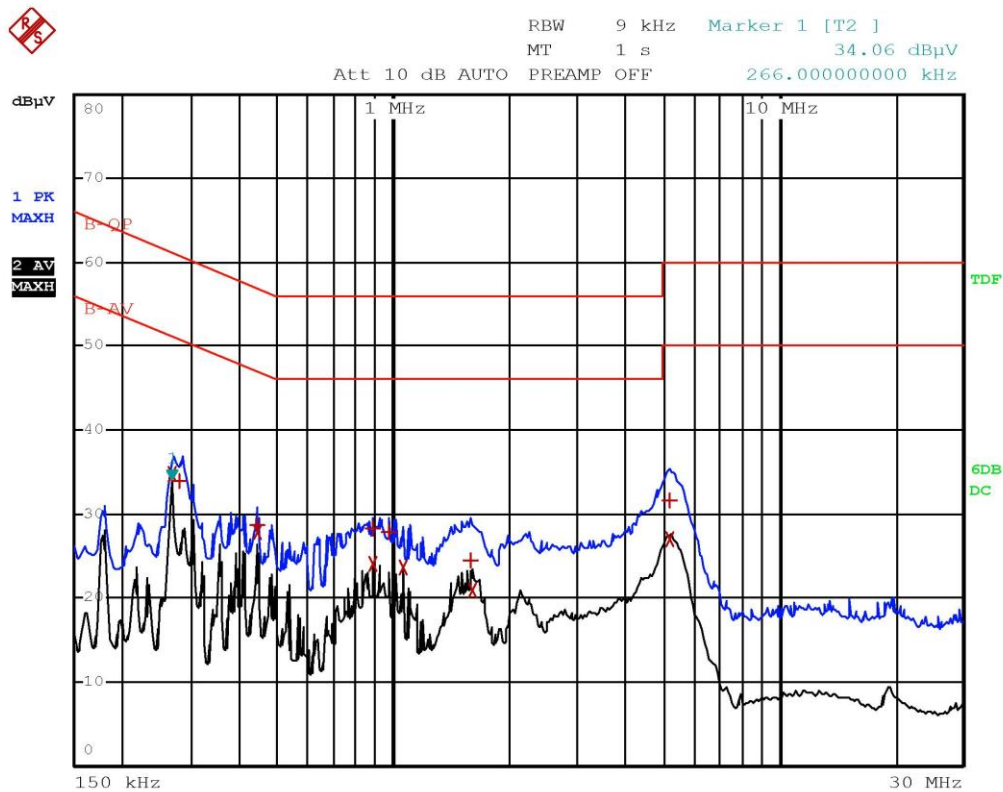


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EDIT PEAK LIST (Final Measurement Results)			
Trace1:	B-QP		
Trace2:	B-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
1 Quasi Peak	274 kHz	35.93	-25.05
2 Average	278 kHz	31.28	-19.59
2 Average	326 kHz	24.93	-24.61
1 Quasi Peak	330 kHz	30.80	-28.64
2 Average	374 kHz	25.70	-22.70
1 Quasi Peak	378 kHz	30.04	-28.28
2 Average	790 kHz	23.33	-22.66
1 Quasi Peak	794 kHz	30.34	-25.65
2 Average	1.302 MHz	19.43	-26.56
1 Quasi Peak	1.35 MHz	28.88	-27.11
2 Average	5.234 MHz	26.80	-23.19
1 Quasi Peak	5.234 MHz	32.32	-27.67

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EDIT PEAK LIST (Final Measurement Results)			
Trace1:	B-QP		
Trace2:	B-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBμV	DELTA LIMIT dB
2 Average	266 kHz	34.66	-16.57
1 Quasi Peak	282 kHz	33.85	-26.90
1 Quasi Peak	442 kHz	28.62	-28.39
2 Average	442 kHz	27.72	-19.29
1 Quasi Peak	886 kHz	28.34	-27.65
2 Average	890 kHz	23.98	-22.01
1 Quasi Peak	974 kHz	27.91	-28.08
2 Average	1.062 MHz	23.53	-22.46
1 Quasi Peak	1.59 MHz	24.45	-31.54
2 Average	1.598 MHz	20.93	-25.06
1 Quasi Peak	5.194 MHz	31.54	-28.46
2 Average	5.222 MHz	26.89	-23.10

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Result: The requirements are met



11.3 Radiated emissions

Test set-up and execution

- FCC Rules and Regulation; Titles 47 Part. 15.209
- DA 00-705
- Internal procedure PM001
- See clause 4 of this test report

Test configuration and test method

Test site:
Semi-anechoic chamber

Auxiliary equipment:
See clause 4 of this test report

EUT exercising

See clause 4 of this test report

Test equipment used

CMC S108, CMC S127, CMC S164, CMC S271, CMC S287
Measurement uncertainty: See clause 7 of this test report

Test specification

Port: Enclosure
Frequency range: 0,009 MHz – 1000 MHz
Antenna polarization: Horizontal (H) – Vertical (V)
EUT – Antenna distance:
10 m for frequencies $\leq$ 1000 MHz
3 m for frequencies $>$ 1000 MHz

Environmental conditions

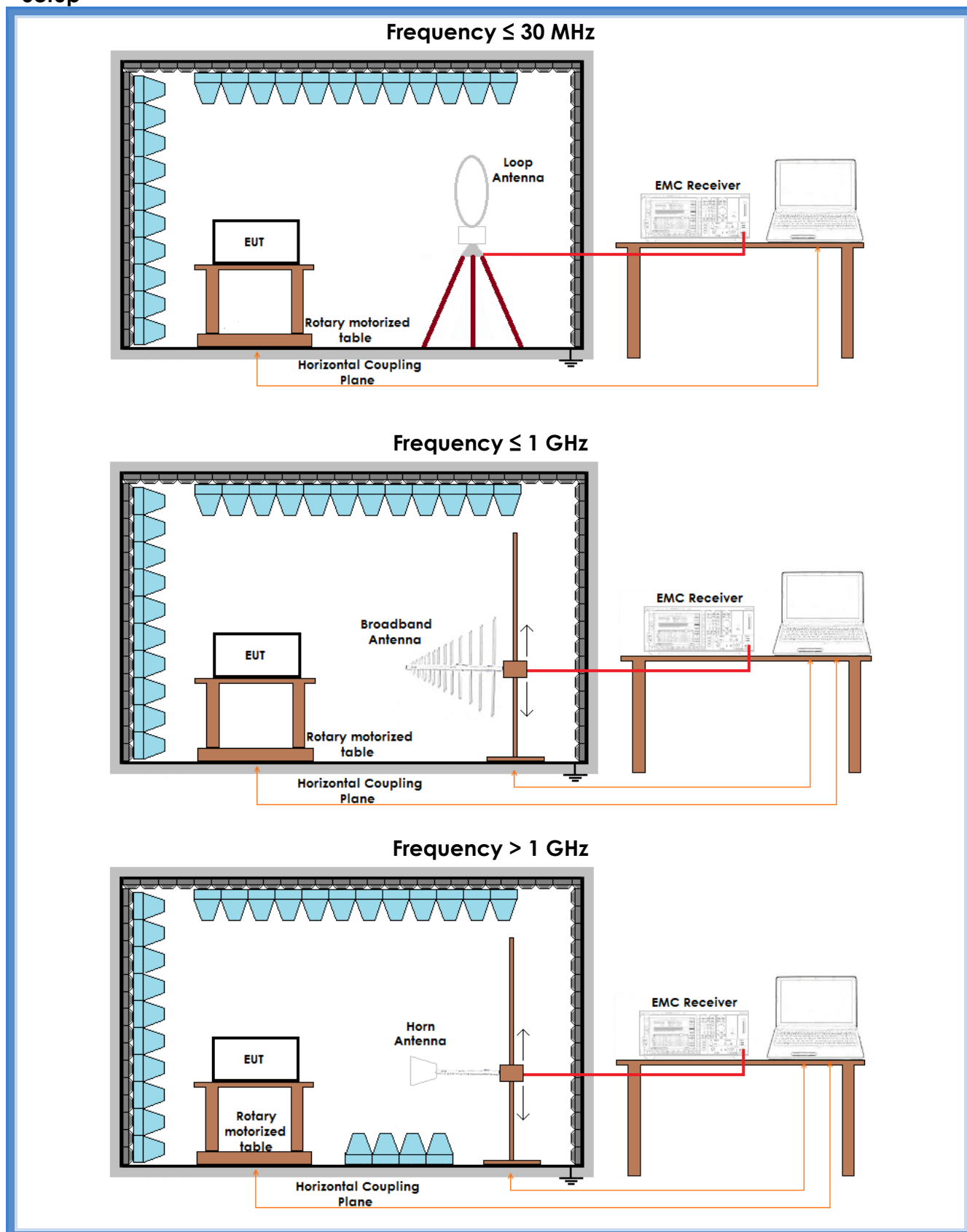
Temperature (°C)	Atmospheric pressure (kPa)	Relative humidity (%)
22	100	45

Acceptance limits

Frequency range (MHz)	Limits [dB(μ V/m)]
0,009 to 0,490	107,60 to 72,89
0,490 to 1,705	52,89 to 42,05
1,705 to 30	48,63
30 to 88	40
88 to 216	43,52
216 to 960	46,02
Above 960	53,98
Above 1000	53,98

Remarks: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

Setup





Result

Polarization	Frequency Range (MHz)	Graphs	Remarks	Result
Loop	0,009 – 30	G161957145	Worst case	Complies
H	30 – 300	G161957137	Worst case	Complies
V	30 – 300	G161957138	Worst case	Complies
V	300 – 1000	G161957139	Lowest frequency	Complies
H	300 – 1000	G161957140	Lowest frequency	Complies
H	300 – 1000	G161957141	Medium frequency	Complies
V	300 – 1000	G161957142	Medium frequency	Complies
V	300 – 1000	G161957143	Highest frequency	Complies
H	300 – 1000	G161957144	Highest frequency	Complies
V	1000 – 10000	G161957131	Lowest frequency	Complies
H	1000 – 10000	G161957132	Lowest frequency	Complies
H	1000 – 10000	G161957133	Medium frequency	Complies
V	1000 – 10000	G161957134	Medium frequency	Complies
V	1000 – 10000	G161957135	Highest frequency	Complies
H	1000 – 10000	G161957136	Highest frequency	Complies
Remarks: Peaks above the limits are due to the main transmitting frequencies				

Graphs Legend

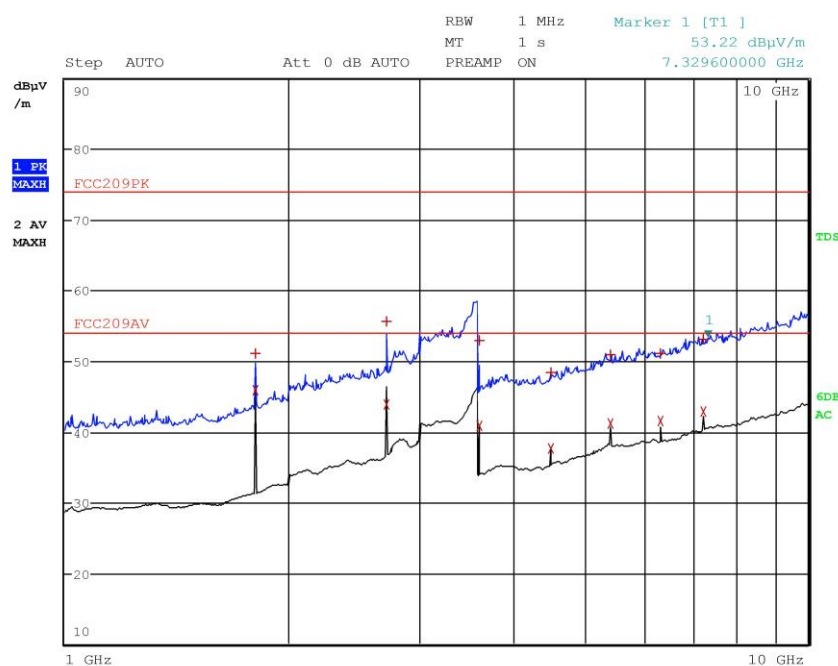
PK: Peak; QP [1s] (quasi-peak at 1 second) values are marked with a +
AV: Average; AV [1s] (average at 1 second) values are marked with a x



Graphs

G161957131

Meas Type Emission 3m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezzo 161957131
Test Spec





Meas Type Emission 3m
Equipment under Test
Manufacturer
OP Condition
Operator Bertezolo 161957131
Test Spec

Final Measurement

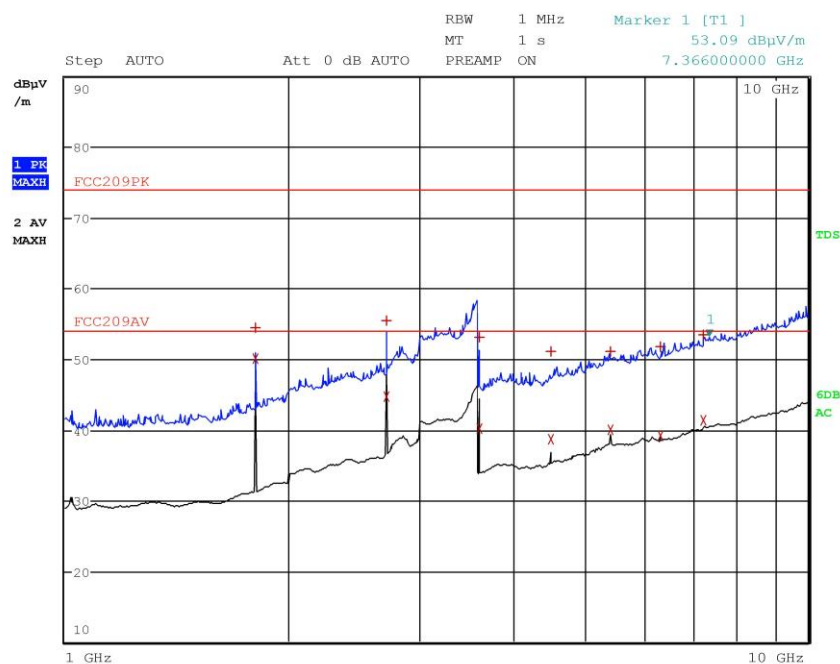
Meas Time: 1 s
Margin: 6 dB
Subranges: 14

Trace	Frequency	Level (dBμV/m)	Detector	Delta Limit/dB
1	1.804800000 GHz	51.15	Max Peak	-22.83
2	1.804800000 GHz	45.83	Average	-8.15
1	2.707600000 GHz	55.59	Max Peak	-18.39
2	2.707600000 GHz	43.79	Average	-10.19
1	3.610000000 GHz	53.01	Max Peak	-20.97
2	3.610000000 GHz	40.82	Average	-13.16
1	4.511600000 GHz	48.34	Max Peak	-25.64
2	4.512000000 GHz	37.72	Average	-16.26
1	5.409600000 GHz	50.90	Max Peak	-23.08
2	5.414400000 GHz	41.17	Average	-12.81
2	6.316800000 GHz	41.46	Average	-12.52
1	6.338000000 GHz	51.16	Max Peak	-22.82
2	7.219200000 GHz	42.82	Average	-11.16
1	7.229200000 GHz	53.07	Max Peak	-20.91



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Operator Bertezolo 161957132
Test Spec

Final Measurement

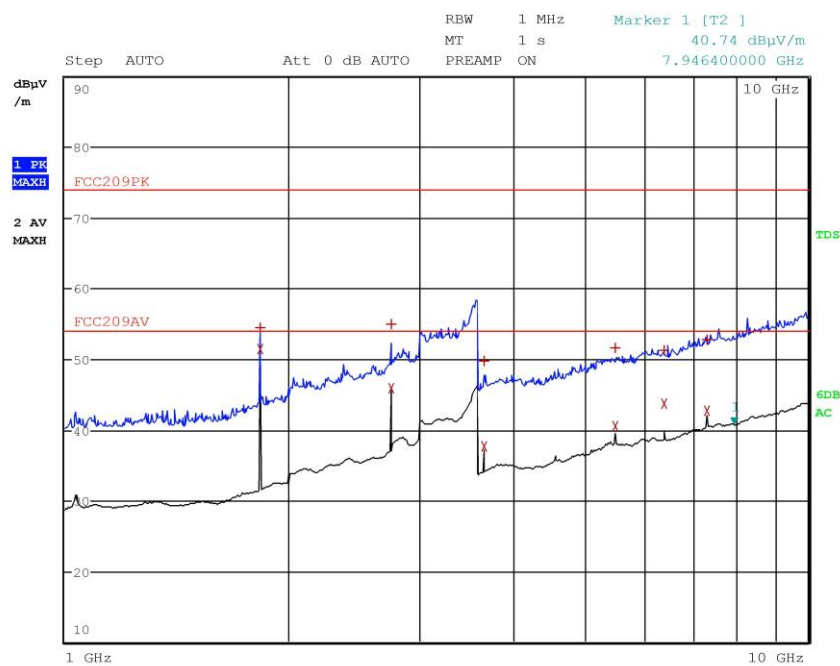
Meas Time: 1 s
Margin: 6 dB
Subranges: 14

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.804800000 GHz	54.49	Max Peak	-19.49
2	1.804800000 GHz	50.16	Average	-3.82
1	2.707600000 GHz	55.44	Max Peak	-18.54
2	2.707600000 GHz	44.69	Average	-9.29
1	3.610000000 GHz	53.03	Max Peak	-20.95
2	3.610000000 GHz	40.09	Average	-13.89
1	4.511600000 GHz	51.17	Max Peak	-22.81
2	4.512000000 GHz	38.58	Average	-15.40
1	5.409600000 GHz	51.07	Max Peak	-22.91
2	5.414400000 GHz	40.06	Average	-13.92
2	6.316800000 GHz	39.23	Average	-14.75
1	6.338000000 GHz	51.70	Max Peak	-22.28
2	7.219200000 GHz	41.32	Average	-12.66
1	7.229200000 GHz	53.46	Max Peak	-20.52



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Operator Bertezolo 161957133
Test Spec

Final Measurement

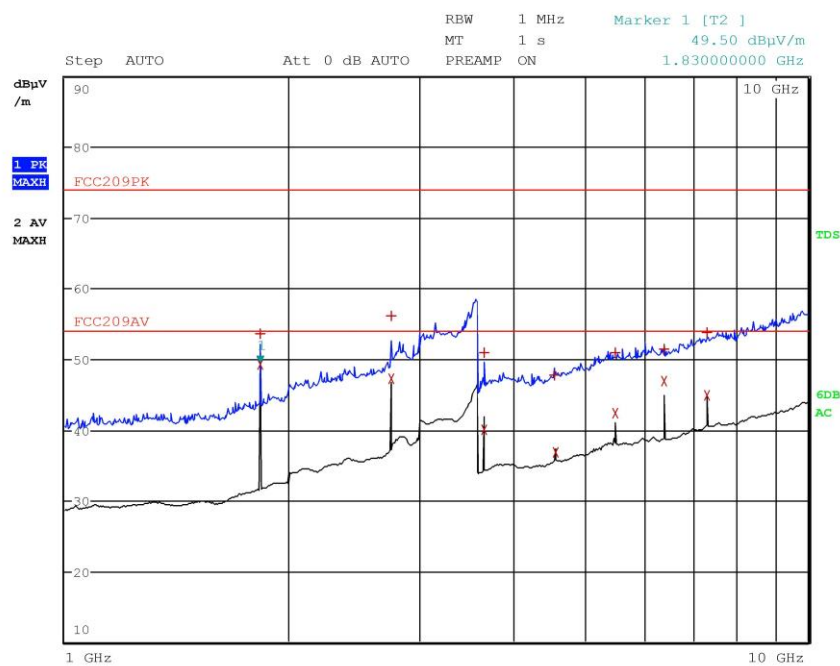
Meas Time: 1 s
Margin: 6 dB
Subranges: 12

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.830000000 GHz	54.50	Max Peak	-19.48
2	1.830000000 GHz	51.41	Average	-2.57
1	2.745200000 GHz	54.90	Max Peak	-19.08
2	2.745200000 GHz	45.80	Average	-8.18
1	3.660000000 GHz	49.69	Max Peak	-24.29
2	3.660000000 GHz	37.71	Average	-16.27
2	5.490000000 GHz	40.54	Average	-13.44
1	5.510000000 GHz	51.60	Max Peak	-22.38
1	6.388400000 GHz	51.34	Max Peak	-22.64
2	6.405200000 GHz	43.66	Average	-10.32
1	7.319600000 GHz	52.77	Max Peak	-21.21
2	7.320000000 GHz	42.68	Average	-11.30



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Test Spec

Final Measurement

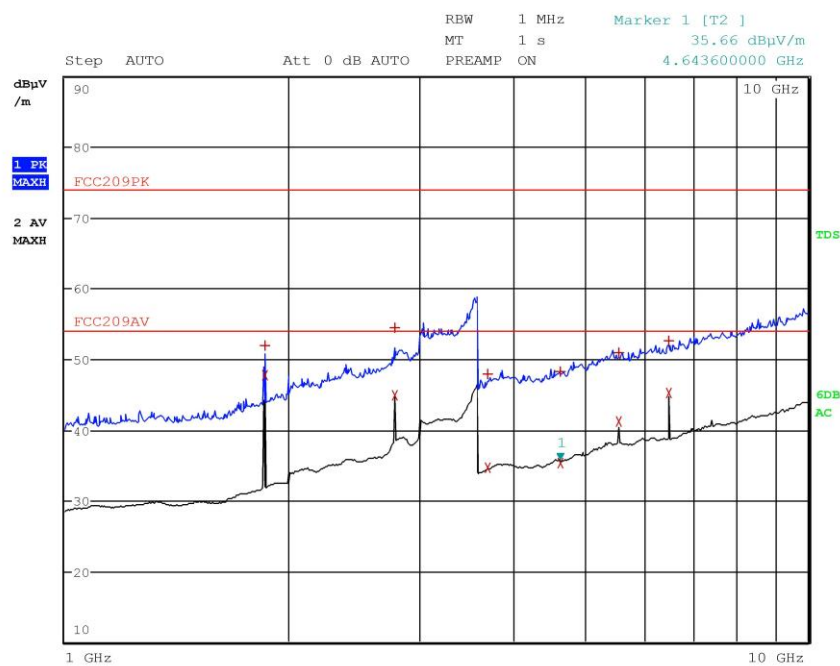
Meas Time: 1 s
Margin: 6 dB
Subranges: 14

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
2	1.830000000 GHz	49.17	Average	-4.81
1	1.830000000 GHz	53.60	Max Peak	-20.38
2	2.745200000 GHz	47.26	Average	-6.72
1	2.745200000 GHz	56.16	Max Peak	-17.82
1	3.659600000 GHz	50.96	Max Peak	-23.02
2	3.660000000 GHz	39.96	Average	-14.02
1	4.559600000 GHz	47.74	Max Peak	-26.24
2	4.574800000 GHz	36.88	Average	-17.10
2	5.490000000 GHz	42.35	Average	-11.63
1	5.490400000 GHz	50.99	Max Peak	-22.99
1	6.404800000 GHz	51.38	Max Peak	-22.60
2	6.405200000 GHz	46.83	Average	-7.15
1	7.320000000 GHz	53.71	Max Peak	-20.27
2	7.320000000 GHz	44.84	Average	-9.14



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Final Measurement

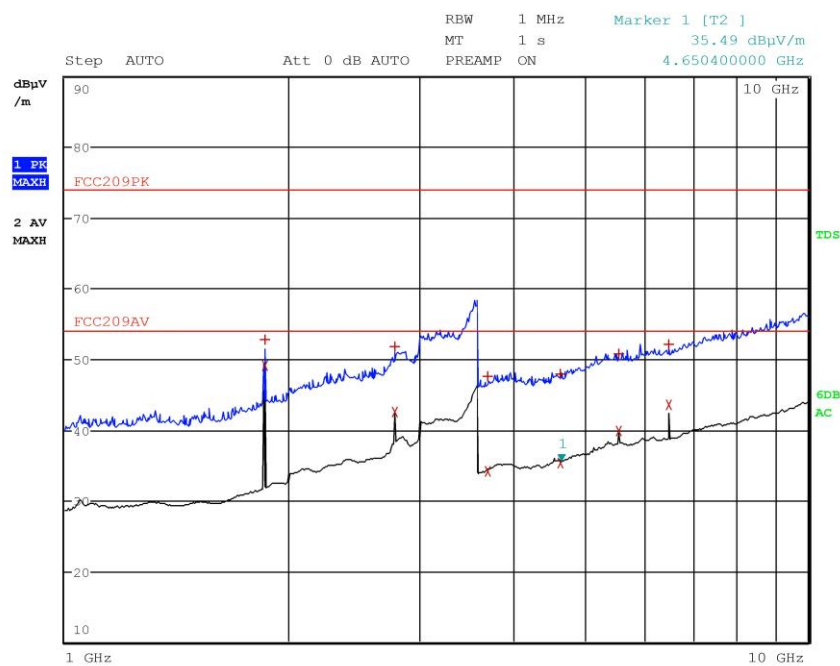
Meas Time: 1 s
Margin: 6 dB
Subranges: 12

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.855200000 GHz	51.90	Max Peak	-22.08
2	1.855200000 GHz	47.78	Average	-6.20
1	2.782800000 GHz	54.54	Max Peak	-19.44
2	2.782800000 GHz	44.86	Average	-9.12
1	3.704000000 GHz	47.96	Max Peak	-26.02
2	3.710400000 GHz	34.63	Average	-19.35
1	4.635600000 GHz	48.26	Max Peak	-25.72
2	4.643600000 GHz	35.37	Average	-18.61
1	5.565600000 GHz	50.87	Max Peak	-23.11
2	5.565600000 GHz	41.25	Average	-12.73
1	6.493200000 GHz	52.54	Max Peak	-21.44
2	6.493200000 GHz	45.21	Average	-8.77



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Meas Type Emission 3m
Equipment under Test
Manufacturer
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Test Spec

Final Measurement

Meas Time: 1 s
Margin: 6 dB
Subranges: 12

Trace	Frequency	Level (dBµV/m)	Detector	Delta Limit/dB
1	1.855200000 GHz	52.85	Max Peak	-21.13
2	1.855200000 GHz	49.00	Average	-4.98
1	2.782800000 GHz	51.70	Max Peak	-22.28
2	2.782800000 GHz	42.49	Average	-11.49
1	3.704000000 GHz	47.63	Max Peak	-26.35
2	3.710400000 GHz	34.04	Average	-19.94
1	4.635600000 GHz	47.92	Max Peak	-26.06
2	4.643600000 GHz	35.37	Average	-18.61
1	5.565600000 GHz	50.80	Max Peak	-23.18
2	5.565600000 GHz	39.79	Average	-14.19
1	6.493200000 GHz	52.15	Max Peak	-21.83
2	6.493200000 GHz	43.47	Average	-10.51