

EMI -- TEST REPORT

Test Report No. : T31884-00-00HU	07. September 2007
	Date of issue

Type / Model Name : Emerald Family

Family Variations : Evolve G10, Evolve G20, Evolve P10, Evolve P20

Product Description : Electronic Article Surveillance Detection System

Applicant : Checkpoint Systems, Inc.

Address : 101 Wolf Drive, Thorofare

New Jersey, USA 08086

Manufacturer : Pikatron Feinwerktechnik GmbH & Co. KG

Address : Raiffeisenstrasse 10

D-61250 Usingen

Licence holder : Checkpoint Systems, Inc.

Address : 101 Wolf Drive, Thorofare

New Jersey, USA 08086

Test Result according to the standards listed in clause 1 test standards:	POSITIVE
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The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test results without the written permission of the test laboratory.

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1 TEST STANDARDS

The tests were performed according to following standards:

FCC Rules and Regulations Part 15 Subpart C - Intentional Radiators (October 01, 2006)

Part 15, Subpart C, Section 15.223	Operation in the band 1.705-10 MHz §15.223(a) Radiated emissions, Fundamental & Harmonics
Part 15, Subpart C, Section 15.207(a)	AC Line conducted emissions
Part 15, Subpart C, Section 15.209(a)	Radiated emissions, general requirements
Part 15, Subpart C, Section 15.215(c)	Additional Provisions to the general radiated emission limitations

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2 SUMMARY

GENERAL REMARKS:

None

FINAL ASSESSMENT:


The equipment under test **fulfills** the EMI requirements cited in clause 1 test standards.

Date of receipt of test sample : acc. to storage records

Testing commenced on : 10. July 2007


Testing concluded on : 08. August 2007

Checked by:

 Thomas Weise
Ich bestätige die
Richtigkeit und Integrität
dieses Dokuments
2007.09.07 09:54:00
+02'00'

Thomas Weise
Dipl.-Ing.(FH)
Laboratory Manager

Tested by:

 Huber Markus
Ich bin der Verfasser
dieses Dokuments
2007.09.07 08:19:44
+02'00'

Huber Markus

3.3 Power supply system utilised

Power supply voltage : 115 V / 60 Hz / 1 ϕ
24 V / DC

3.4 Short description of the Equipment under Test (EuT)

The Evolve Antenna's with Emerald Electronic are Electronic Article Surveillance System (EAS). The system detects target tags attached to merchandise. The targets resonate in the region of 8.2 MHz or 9.5 MHz. When an article of merchandise is purchased, the target is deactivated which causes it to no longer resonate. The Evolve Antenna's with Emerald Electronic monitors an area 3-feet on either side of the antenna in the 7.4 to 10.0 MHz range and triggers an alarm when a non-deactivated target is detected.

Number of tested samples: 1
Serial number: see Photo documentation of the EuT under Point 3 / Equipment Under Test

EuT operation mode:

The equipment under test was operated during the measurement under the following conditions:

- Continuous sweep mode at 8.2 MHz Band

- Continuous sweep mode at 9.0 MHz Dual Band

- Continuous sweep mode at 9.5 MHz Band

EuT configuration:

(The CDF filled by the applicant can be viewed at the test laboratory.)

The following peripheral devices and interface cables were connected during the measurements:

- PSU (Power Supply Unit) GlobTek Model : GT-2S5024D-R, S/N RoHS00984803/06
- PSU (Power Supply Unit) GlobTek Model : GT-2S5024D-R-ES, S/N Prototype
- Standard AC mains cable Model : _____
- _____ Model : _____
- _____ Model : _____
- _____ Model : _____

- customer specific cables

- For detailed information about the connected cables during the test and other technical details, see attached CDF (Subclause 7) which was filled out from the manufacturer and Photo documentation of the EuT under Point 3 / Equipment Under Test.

4 TEST ENVIRONMENT

4.1 Address of the test laboratory

mikes-testingpartners gmbh
Ohmstrasse 2-4
94342 Strasskirchen
Germany

4.2 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature: 15-35 ° C

Humidity: 30-60 %

Atmospheric pressure: 86-106 kPa

4.3 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16-4-2 /11.2003 „Uncertainties, statistics and limit modelling – Uncertainty in EMC measurements“ and is documented in the quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

4.4 Measurement Protocol for FCC, VCCI and AUSTEL

4.4.1 GENERAL INFORMATION

4.4.1.1 Test Methodology

Conducted and radiated disturbance testing is performed according to the procedures in International Special Committee on Radio Interference (CISPR) Publication 22, European Standard EN 55022 as shown under section 1 of this report.

In compliance with 47 CFR Part 15 Subpart A Section 15.38 testing for FCC compliance may be done following the ANSI C63.4-2003 procedures and using the CISPR 22 Limits.

4.4.1.2 Justification

The Equipment Under Test (EUT) is configured in a typical user arrangement in accordance with the manufacturer's instructions. A cable is connected to each available port and either terminated with a peripheral using the appropriate impedance characteristic or left unterminated. Where appropriate, cables are manually manipulated with respect to each other thus obtaining maximum disturbances from the unit.

4.4.2 DETAILS OF TEST PROCEDURES

General Standard Information

The test methods used comply with CISPR Publication 22, EN 55022 - "Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement" and with ANSI C63.4-2003 - "Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz."

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4.5 Discovery of worst case measurement conditions

The Emerald Family consists of different versions Evolve G10, Evolve G20, Evolve P10 and Evolve P20. All versions are technically identical except the following items:

- ⇒ different type of antenna frames G10, G20, P10, P20
- ⇒ same type of power supply unit
- ⇒ For more detailed information see technical documentation set and Constructional Data Form (Subclause 7) which was filled out from the manufacturer

To find out the worst case conditions for the complete measurements the following tests have been performed:

- ⇒ Measurement of the conducted emissions of the 4 versions. This measurement has been performed in order to find out the maximum spurious emissions of the transmitter (antenna).
 - With Power Supply GT-2S5024D-R:
 - Cont. sweep mode at 8.2 MHz Band ⇒ Evolve G10, Evolve G20
⇒ Evolve P10, Evolve P20
 - Cont. sweep mode at 9.0 MHz Dual Band ⇒ Evolve P20
 - Cont. sweep mode at 9.5 MHz Band ⇒ Evolve P20
 - With Power Supply GT-2S5024D-R-ES:
 - Cont. sweep mode at 9.0 MHz Band ⇒ Evolve G10, Evolve G20
⇒ Evolve P10, Evolve P20
- ⇒ Measurement of the radiated field strength of the operating frequency of the 4 versions. This measurement has been performed in order to find out the transmitter (antenna) with the maximum field strength.
 - Cont. sweep mode at 8.2 MHz Band ⇒ Evolve G10, Evolve G20
⇒ Evolve P10, Evolve P20
 - Cont. sweep mode at 9.0 MHz Dual Band ⇒ Evolve G10, Evolve G20
⇒ Evolve P10, Evolve P20
 - Cont. sweep mode at 9.5 MHz Band ⇒ Evolve G10, Evolve G20
⇒ Evolve P10, Evolve P20
- ⇒ Measurement of the radiated spurious emissions of the 4 versions. This measurement have been performed in order to find out the maximum spurious emission of the transmitter (antenna). Pre measurements shows no essential differences on the different working frequency bands.
 - Cont. sweep mode at 8.2 MHz Band ⇒ Evolve G10, Evolve G20
⇒ Evolve P10, Evolve P20

Summarizing:

- | | |
|---|--|
| ⇒ maximum conducted emission:
with PSU GT-2S5024D-R | Evolve P20 |
| ⇒ maximum conducted emission:
with PSU GT-2S5024D-R-ES | Evolve G10 |
| ⇒ maximum field strength: | Evolve P20 |
| ⇒ maximum spurious emission: | Evolve G20 |
| ⇒ bandwidth plots: | no essential differences on the 4 versions |
| ⇒ Duty Cycle: | no essential differences on the 4 versions |

This test results are documented in the following sections of this test report.

For detailed information about the connected cables during the test and other technical details, see attached CDF (Subclause 7) which was filled out from the manufacturer and Photo documentation of the EuT under Point 3 / Equipment Under Test.

4.6 Deviations or Exclusions from the Requirements and Standards

Measurement of the fundamental – 7.4 to 10.0 MHz – was performed by setting a spectrum analyzer to “max-hold”, peak detector, a 300 kHz bandwidth and a span from 6.5 MHz to 10 MHz. A resolution bandwidth of 300 kHz was used in performing the “true peak” measurements, because increasing the bandwidth above 300 kHz did not increase the detected peak of the fundamental.

4.7 Operation in Restricted Bands

The EUT is a digital swept frequency hopping transmitter. The EUT hops on discrete frequencies. The discrete frequencies that can be transmitted by the EUT are as follows:

Original Emerald frequency tables

/ Center frequency 8.2MHz +/- 410KHz */*

Value CT_8200_300[] = {8610, 8555, 8500, 8446, 8391, 8337, 8282, 8227,
8173, 8118, 8063, 8009, 7954, 7899, 7845, 7790};

/ Center frequency 8.6MHz +/- 430KHz */*

Value CT_8600_300[] = {9030, 8973, 8915, 8858, 8801, 8743, 8686, 8629,
8571, 8514, 8457, 8399, 8342, 8285, 8227, 8170};

/ Center frequency 9.0MHz +/- 450KHz */*

Value CT_9000_300[] = {9450, 9390, 9330, 9270, 9210, 9150, 9090, 9030,
8970, 8910, 8850, 8790, 8730, 8670, 8610, 8550};

/ Center frequency 9.2MHz +/- 460KHz */*

Value CT_9200_300[] = {9660, 9599, 9537, 9476, 9415, 9353, 9292, 9231,
9169, 9108, 9047, 8985, 8924, 8863, 8801, 8740};

/ Center frequency 9.5MHz +/- 480KHz */*

Value CT_9500_300[] = {9980, 9916, 9852, 9788, 9724, 9660, 9596, 9532,
9468, 9404, 9340, 9276, 9212, 9148, 9084, 9020};

/ Mult tag with bins 0-7 center frequency 9.2MHz and bins 8-16 center frequency 8.2MHz
each range +/- 300KHz */*

Value CTMult_9200_8200_300[] = {9500, 9404, 9329, 9243, 9157, 9071, 8986, 8900,
8500, 8414, 8329, 8243, 8157, 8071, 7986, 7900};

Skinny Pulse frequency tables.....

/ This table is used for mult band (8.2/9.2) skinny pulse, using PW of 4us JRG_SP */*

Value CTMult_sp[] = {9325, 9325, 9325, 9325, 9075, 9075, 9075, 9075,
8325, 8325, 8325, 8325, 8075, 8075, 8075, 8075};

/ This table is used for 8.2 band skinny pulse, using PW of 4us JRG_SP */*

Value CT_8200_sp[] = {8450, 8450, 8450, 8450, 8325, 8325, 8325, 8325,
8075, 8075, 8075, 8075, 7950, 7950, 7950, 7950};

The restricted frequency bands (per FCC Part 15 Clause 15.205) in the operating frequency band of the EUT are as follows:

8.291 – 8.294 MHz
8.362 – 8.366 MHz
8.37625 – 8.38675 MHz
8.41425 – 8.41475 MHz

The transmitter is not capable of hopping into, or operating, in the restricted frequency bands and therefore complies with the restriction.

5 TEST CONDITIONS AND RESULTS

5.1 Conducted emissions

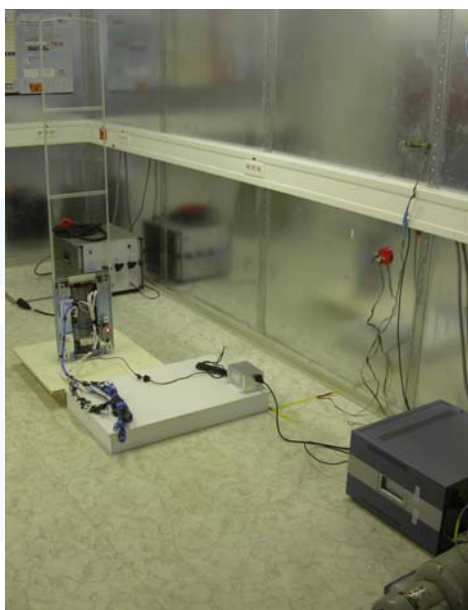
For test instruments and accessories used see section 6 Part A 4.

5.1.1 Description of the test location

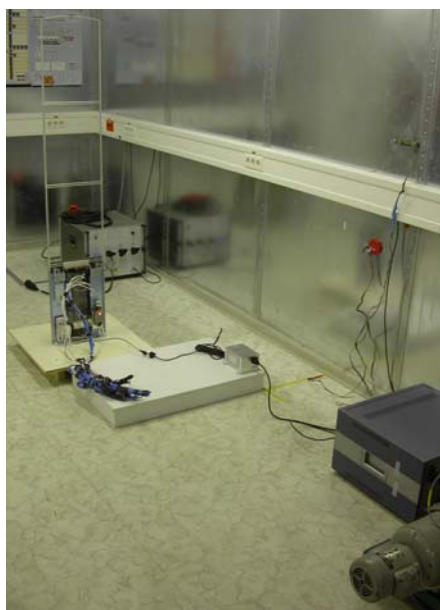
Test location: Shielded Room S2

5.1.2 Photo documentation of the test set-up

Evolve G10:



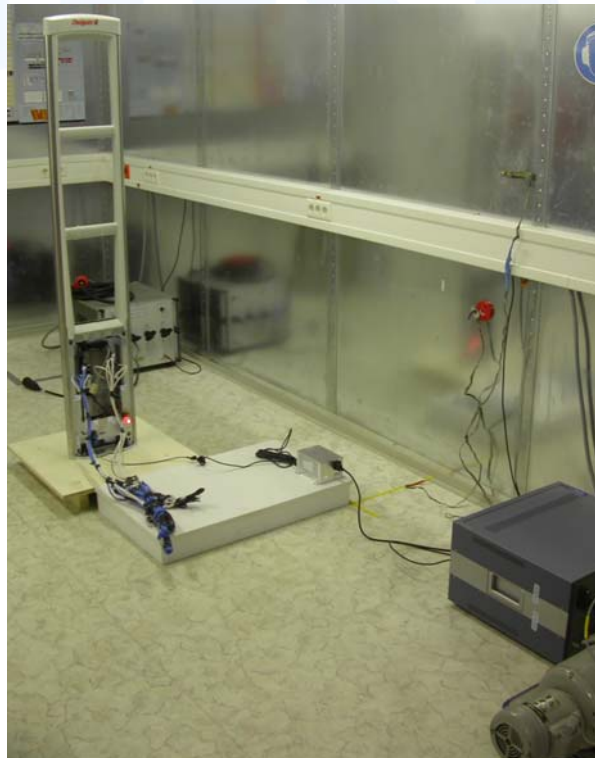
Evolve G20:



Evolve P10:



Evolve P20:



5.1.3 Description of Measurement

The final level, expressed in dB μ V, is arrived at by taking the reading directly from the EMI receiver. This level is compared directly to the FCC Limit or to the CISPR limit.

To convert between dB μ V and μ V, the following conversions apply:

$$\text{dB}\mu\text{V} = 20(\log \mu\text{V})$$

$$\mu\text{V} = \text{Inverse log}(\text{dB}\mu\text{V}/20)$$

Conducted emissions on the 50 Hz and/or 60 Hz power interface of the EuT are measured in the frequency range of 150 kHz to 30 MHz. The measurements are performed using a receiver, which has CISPR characteristic bandwidth and quasi-peak detection and a Line Impedance Stabilization Network (LISN) with 50 Ω /50 μ H (CISPR 16) characteristics. Table top equipment is placed on a non-conducting table 80 centimeters above the floor and is positioned 40 centimeters from the vertical ground plane (wall) of the screen room. If the minimum limit margin appears to be less than 20 dB with a peak mode measurement, the emissions are remeasured using a tuned receiver with quasi-peak and average detection and recorded on the data sheets.

5.1.4 Test result

Frequency range: 0.15 MHz - 30 MHz

With PSU GT-2S5024D-R:
Min. limit margin

8.2 MHz Band
Evolve G10: 27.8 dB at 0.32 MHz
Evolve G20: 27.9 dB at 8.63 MHz
Evolve P10: 24.7 dB at 8.63 MHz
Evolve P20: 20.5 dB at 8.63 MHz

9.0 MHz Dual Band
Evolve P20: 20.5 dB at 9.0 MHz

9.5 MHz Band
Evolve P20: 18.6 dB at 9.9 MHz

With PSU GT-2S5024D-R-ES:
Min. limit margin

8.0 MHz Band
Evolve G10: 1.9 dB at 9.51 MHz
Evolve G20: 3.4 dB at 9.51 MHz
Evolve P10: 2.3 dB at 9.51 MHz
Evolve P20: 3.6 dB at 9.51 MHz

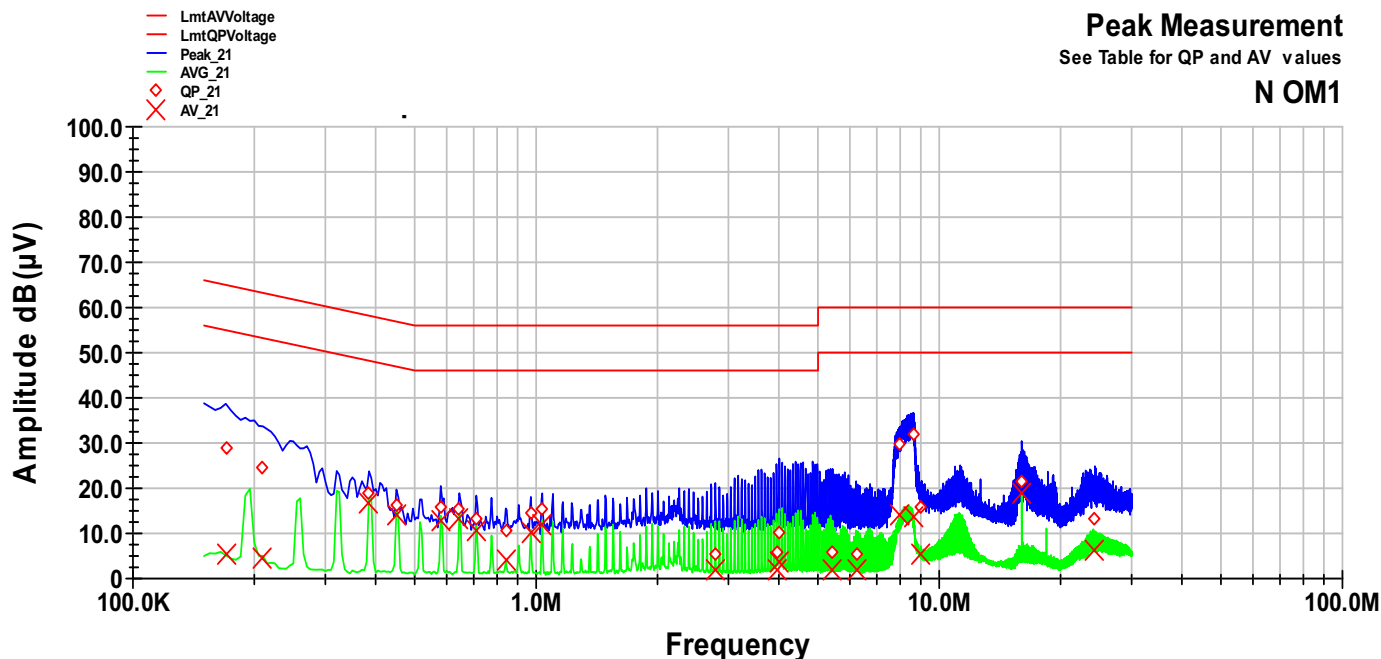
The requirements are **FULFILLED**.

Remarks:

5.1.5 Test protocol

Test point: L1 Result: passed
 Operation mode: Evolve G10 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
8.2MHz Band, Tx1 & Tx2: 20
 Date: 12.07.07
 Tested by: Huber Markus

Peak Measurement
 See Table for QP and AV values
N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.155	29.5	-36.2	65.7	4.5	-51.2	55.7
0.205	23.5	-39.9	63.4	4.5	-48.9	53.4
0.32	23.8	-35.9	59.7	21.9	-27.8	49.7
0.45	17.4	-39.4	56.9	15.2	-31.6	46.9
0.58	12.6	-43.4	56.0	8.9	-37.1	46.0
0.64	7.4	-48.6	56.0	3.8	-42.2	46.0
0.705	9.6	-46.4	56.0	6.6	-39.4	46.0
0.835	11.6	-44.4	56.0	8.9	-37.2	46.0
0.965	11.9	-44.2	56.0	8.6	-37.3	46.0
1.995	6.0	-50.0	56.0	2.4	-43.6	46.0
2.96	4.6	-51.4	56.0	1.5	-44.5	46.0
3.54	4.7	-51.3	56.0	1.5	-44.5	46.0
4.055	6.2	-49.8	56.0	2.1	-43.9	46.0
5.025	5.1	-54.9	60.0	1.6	-48.4	50.0
6.51	4.8	-55.2	60.0	1.5	-48.5	50.0
7.345	4.8	-55.2	60.0	1.5	-48.5	50.0
8.38	4.8	-55.2	60.0	1.6	-48.4	50.0
9.99	5.0	-55.0	60.0	1.8	-48.2	50.0
15.685	6.3	-53.7	60.0	2.2	-47.8	50.0
23.895	12.8	-47.2	60.0	6.0	-44.0	50.0

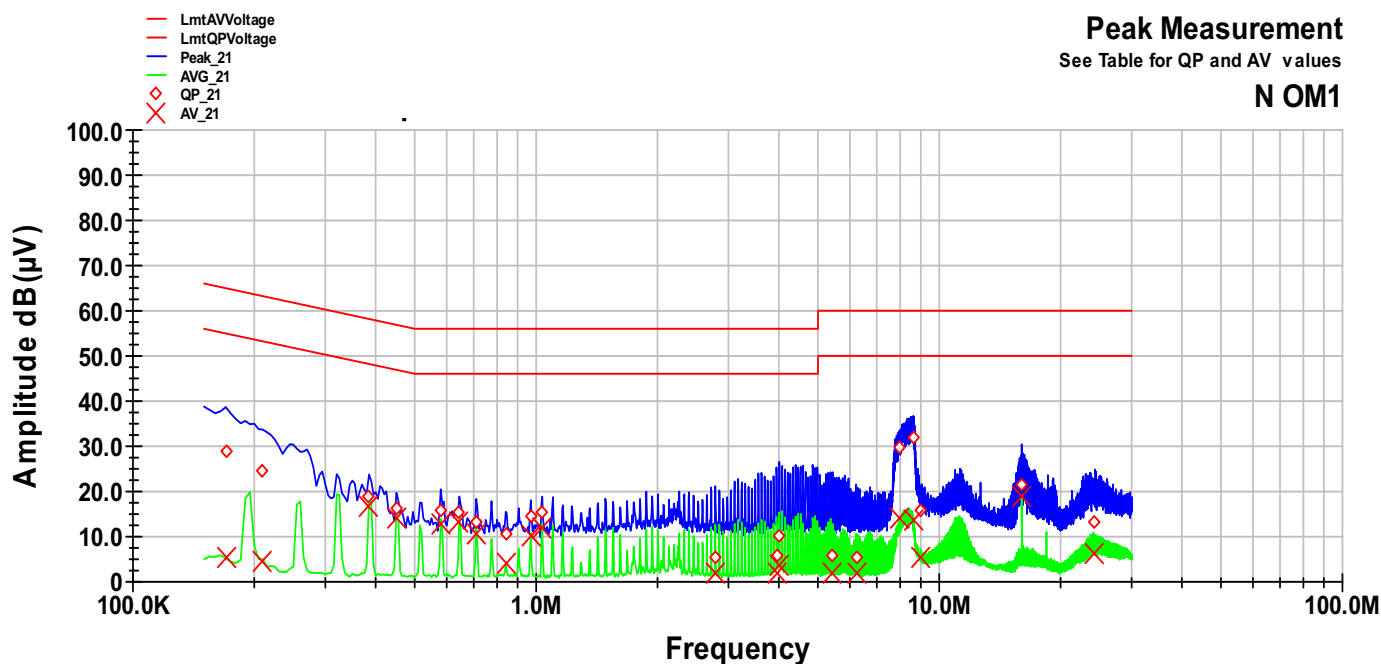
Test point: N
 Operation mode: Evolve G10 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
8.2MHz Band, Tx1 & Tx2: 20
 Date: 12.07.07
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

N OM1



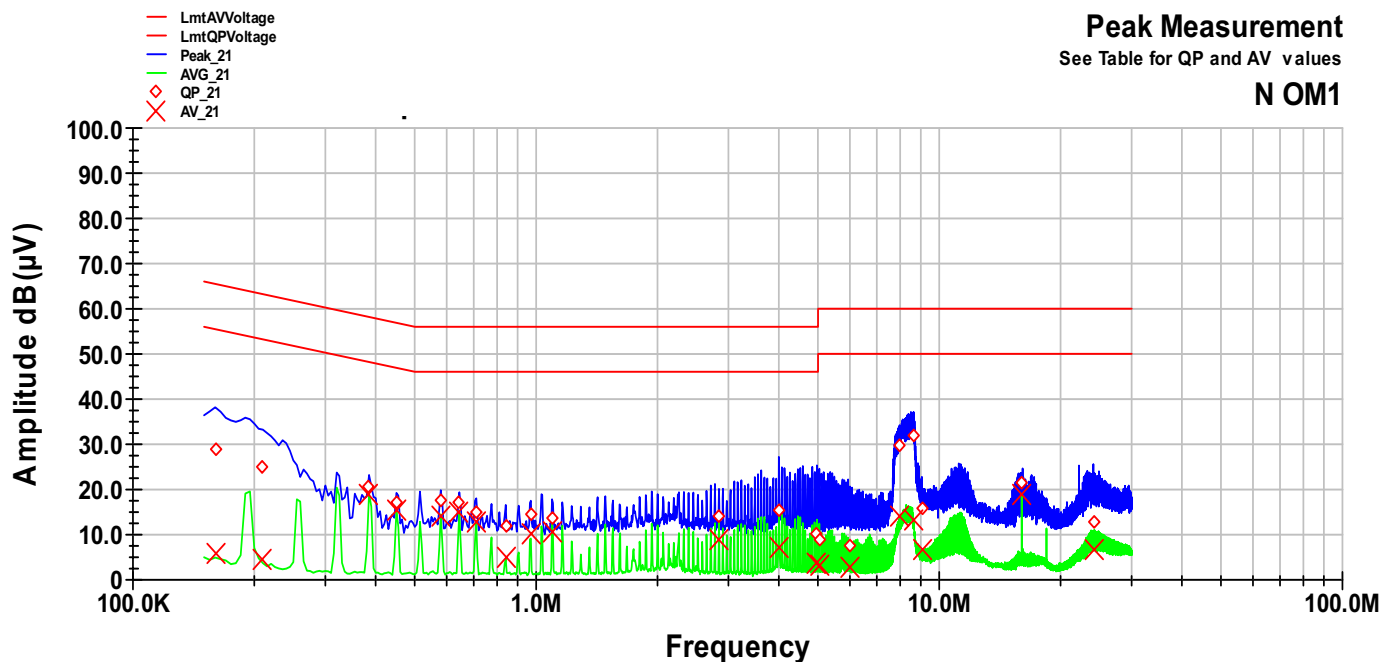
Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.17	29.1	-35.9	65.0	5.3	-49.6	55.0
0.21	24.4	-38.8	63.2	4.4	-48.8	53.2
0.385	18.7	-39.5	58.2	16.9	-31.3	48.2
0.45	16.2	-40.7	56.9	14.1	-32.8	46.9
0.58	15.7	-40.3	56.0	12.9	-33.1	46.0
0.645	15.2	-40.8	56.0	13.0	-33.0	46.0
0.71	13.2	-42.8	56.0	10.8	-35.2	46.0
0.84	10.4	-45.6	56.0	4.1	-41.9	46.0
0.97	14.4	-41.6	56.0	10.3	-35.7	46.0
1.035	15.6	-40.4	56.0	11.9	-34.1	46.0
2.78	5.3	-50.7	56.0	1.7	-44.3	46.0
3.945	5.9	-50.1	56.0	2.1	-43.9	46.0
4.01	10.4	-45.6	56.0	3.7	-42.3	46.0
5.435	6.0	-54.0	60.0	2.0	-48.0	50.0
6.215	5.5	-54.5	60.0	1.9	-48.1	50.0
7.995	29.7	-30.3	60.0	14.2	-35.8	50.0
8.615	31.9	-28.1	60.0	13.7	-36.3	50.0
9.035	15.7	-44.3	60.0	5.4	-44.6	50.0
16	21.3	-38.7	60.0	18.9	-31.1	50.0
24.305	13.1	-46.9	60.0	6.4	-43.6	50.0

Test point: L1
 Operation mode: Evolve G20 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
8.2MHz Band, Tx1 & Tx2: 19

Result: passed

Date: 12.07.07
 Tested by: Huber Markus

Peak Measurement
 See Table for QP and AV values
N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.15	28.5	-37.5	66.0	5.3	-50.8	56.0
0.23	20.2	-42.2	62.4	2.5	-50.0	52.4
0.32	24.2	-35.5	59.7	22.2	-27.5	49.7
0.45	16.3	-40.6	56.9	11.8	-35.0	46.9
0.515	15.3	-40.7	56.0	12.4	-33.6	46.0
0.645	18.8	-37.2	56.0	16.2	-29.8	46.0
0.775	15.1	-40.9	56.0	11.9	-34.1	46.0
0.9	12.1	-43.9	56.0	8.3	-37.7	46.0
0.965	15.7	-40.3	56.0	11.9	-34.1	46.0
1.87	19.5	-36.5	56.0	15.2	-30.8	46.0
2.965	12.5	-43.5	56.0	5.9	-40.1	46.0
3.545	15.7	-40.3	56.0	8.3	-37.7	46.0
4.19	11.9	-44.1	56.0	5.3	-40.7	46.0
5.225	17.3	-42.7	60.0	7.9	-42.1	50.0
6.32	7.7	-52.3	60.0	2.8	-47.2	50.0
7.48	8.6	-51.4	60.0	3.3	-46.7	50.0
8.255	28.0	-32.0	60.0	13.7	-36.3	50.0
10	13.4	-46.6	60.0	5.5	-44.5	50.0
15.355	19.0	-41.0	60.0	4.4	-45.6	50.0
24.075	17.4	-42.6	60.0	10.6	-39.4	50.0

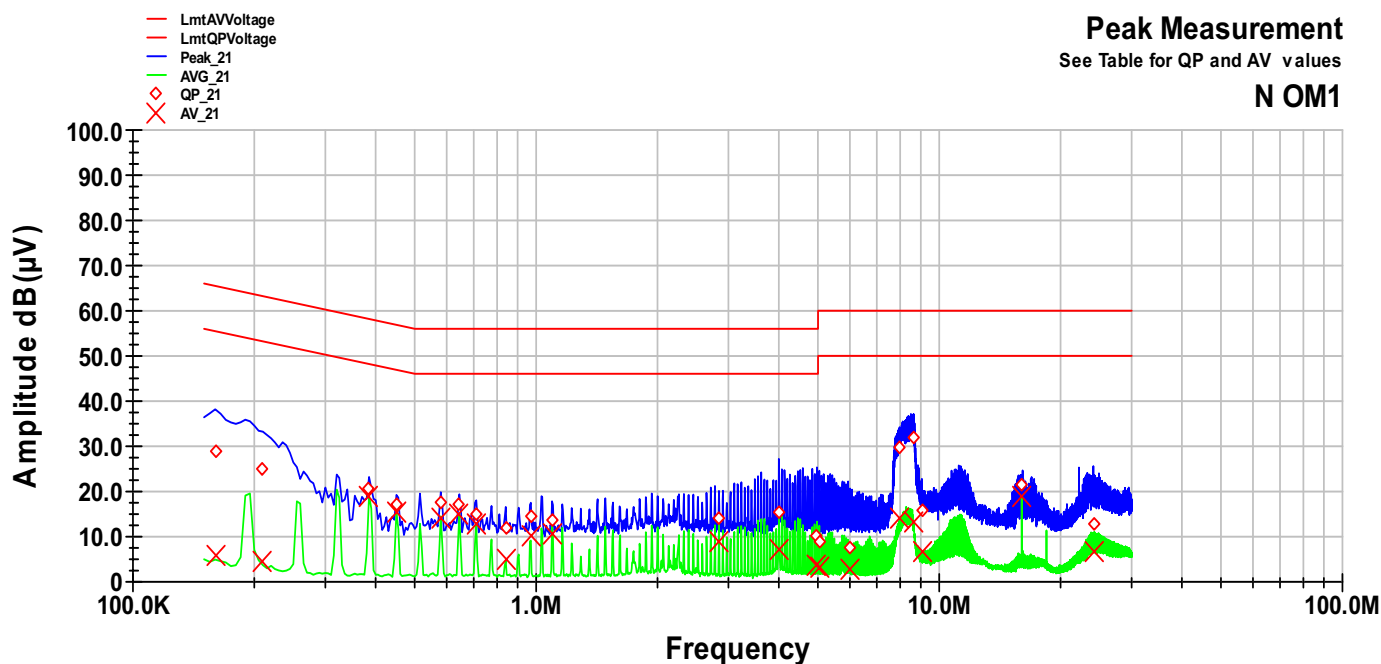
Test point: N
 Operation mode: Evolve G20 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
8.2MHz Band, Tx1 & Tx2: 19
 Date: 12.07.07
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.16	28.8	-36.7	65.5	5.9	-49.5	55.5
0.21	24.9	-38.3	63.2	4.4	-48.8	53.2
0.385	20.6	-37.6	58.2	18.7	-29.5	48.2
0.45	17.3	-39.6	56.9	15.5	-31.4	46.9
0.58	17.4	-38.6	56.0	14.3	-31.7	46.0
0.645	17.0	-39.0	56.0	14.9	-31.1	46.0
0.71	14.8	-41.2	56.0	12.7	-33.3	46.0
0.84	11.8	-44.2	56.0	4.7	-41.3	46.0
0.97	14.7	-41.3	56.0	10.3	-35.7	46.0
1.095	13.6	-42.3	56.0	10.6	-35.4	46.0
2.84	14.2	-41.8	56.0	9.0	-37.0	46.0
4	15.6	-40.4	56.0	6.9	-39.1	46.0
4.97	10.1	-45.9	56.0	3.5	-42.5	46.0
5.035	8.9	-51.1	60.0	3.1	-46.9	50.0
6.005	7.6	-52.4	60.0	2.7	-47.3	50.0
7.965	29.9	-30.1	60.0	13.9	-36.1	50.0
8.63	32.1	-27.9	60.0	13.4	-36.6	50.0
9.05	15.9	-44.0	60.0	6.7	-43.3	50.0
16	21.3	-38.7	60.0	19.0	-31.0	50.0
24.09	12.8	-47.3	60.0	6.8	-43.2	50.0

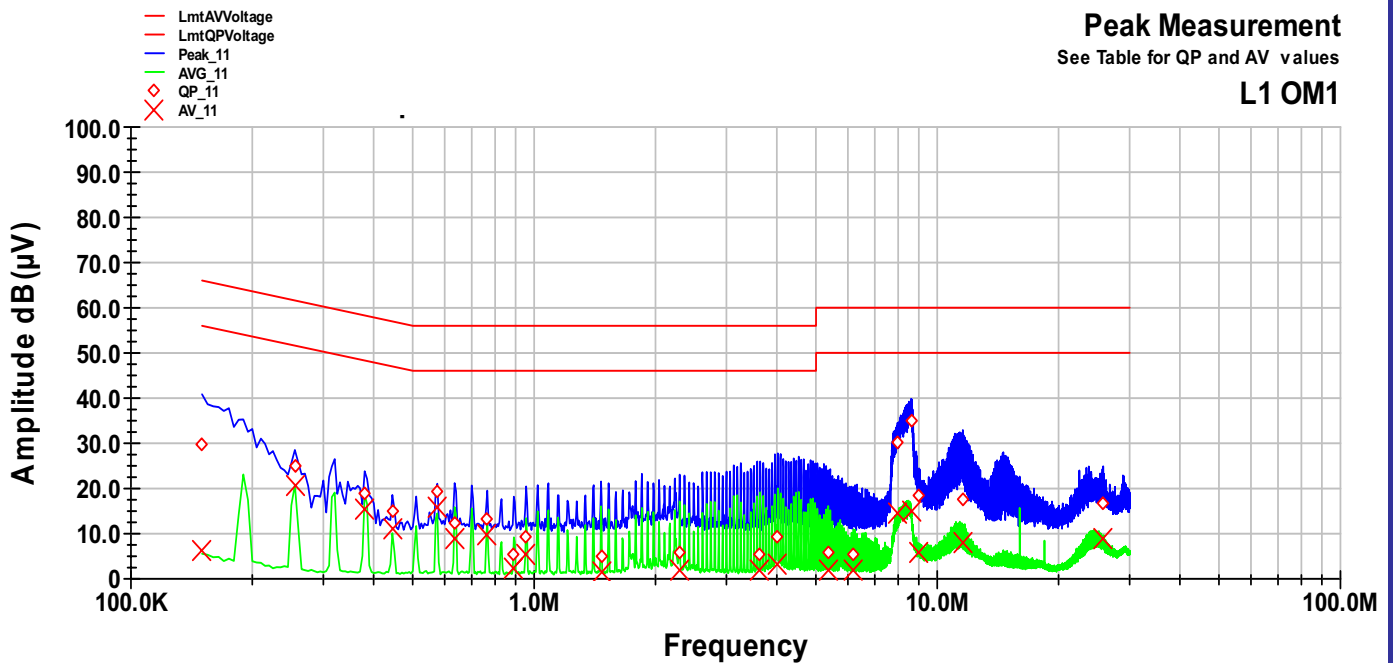
Test point: L1
 Operation mode: Evolve P10 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
8.2MHz Band, Tx1 & Tx2: 24
 Date: 12.07.07
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

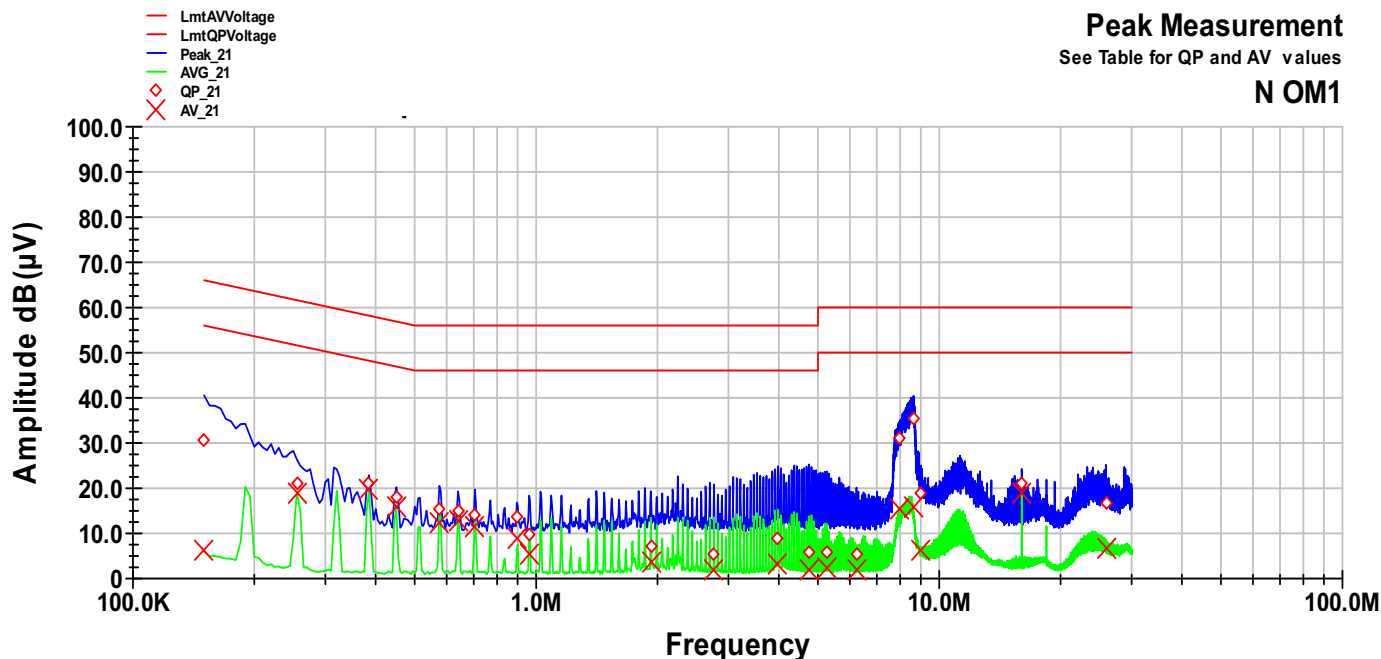
L1 0M1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.15	29.7	-36.3	66.0	6.3	-49.7	56.0
0.255	24.8	-36.8	61.6	20.5	-31.1	51.6
0.38	19.0	-39.3	58.3	15.3	-33.0	48.3
0.445	15.1	-41.9	57.0	11.2	-35.8	47.0
0.575	19.1	-36.9	56.0	15.8	-30.2	46.0
0.635	12.2	-43.8	56.0	8.9	-37.1	46.0
0.765	13.1	-42.9	56.0	9.7	-36.3	46.0
0.89	5.4	-50.6	56.0	2.3	-43.7	46.0
0.955	9.4	-46.7	56.0	5.5	-40.5	46.0
1.465	4.8	-51.2	56.0	1.6	-44.3	46.0
2.295	6.0	-50.0	56.0	2.0	-44.0	46.0
3.635	5.4	-50.5	56.0	1.8	-44.2	46.0
4.02	9.3	-46.7	56.0	3.4	-42.6	46.0
5.36	5.8	-54.2	60.0	1.9	-48.1	50.0
6.19	5.3	-54.7	60.0	1.9	-48.2	50.0
7.965	30.2	-29.8	60.0	14.6	-35.4	50.0
8.615	34.8	-25.2	60.0	15.1	-34.9	50.0
9.005	18.3	-41.7	60.0	6.0	-44.0	50.0
11.56	17.5	-42.5	60.0	7.8	-42.2	50.0
25.795	16.8	-43.2	60.0	9.0	-41.0	50.0

Test point: N Result: passed
 Operation mode: Evolve P10 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
8.2MHz Band, Tx1 & Tx2: 24
 Date: 12.07.07
 Tested by: Huber Markus

Peak Measurement
 See Table for QP and AV values
N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.15	30.7	-35.3	66.0	6.4	-49.6	56.0
0.255	21.2	-40.4	61.6	18.7	-32.9	51.6
0.385	21.1	-37.1	58.2	19.5	-28.6	48.2
0.45	17.9	-39.0	56.9	15.9	-30.9	46.9
0.575	15.3	-40.7	56.0	12.4	-33.7	46.0
0.64	14.9	-41.1	56.0	12.8	-33.2	46.0
0.705	14.0	-42.0	56.0	11.7	-34.3	46.0
0.9	13.6	-42.4	56.0	8.8	-37.2	46.0
0.96	9.8	-46.2	56.0	5.6	-40.4	46.0
1.925	7.0	-49.0	56.0	3.5	-42.5	46.0
2.76	5.3	-50.7	56.0	1.8	-44.2	46.0
3.98	8.7	-47.3	56.0	3.1	-42.9	46.0
4.75	5.9	-50.1	56.0	2.0	-44.0	46.0
5.265	5.8	-54.2	60.0	2.2	-47.8	50.0
6.23	5.5	-54.5	60.0	1.8	-48.2	50.0
7.995	31.0	-29.0	60.0	15.6	-34.5	50.0
8.63	35.3	-24.7	60.0	15.6	-34.4	50.0
9.035	18.7	-41.3	60.0	6.4	-43.6	50.0
16	21.2	-38.8	60.0	19.1	-30.9	50.0
25.875	16.6	-43.4	60.0	6.7	-43.3	50.0

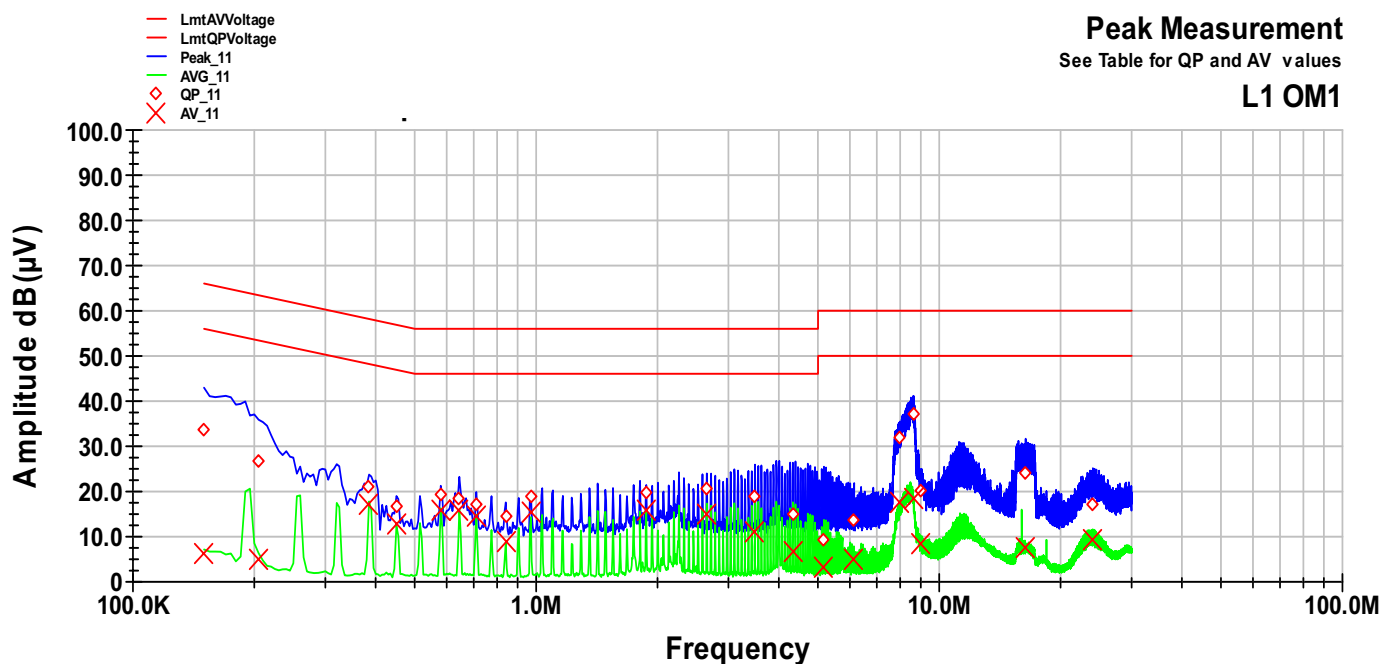
Test point: L1
 Operation mode: Evolve P20 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
8.2MHz Band, Tx1 & Tx2: 26
 Date: 12.07.07
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

L1 0M1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.15	33.9	-32.1	66.0	6.3	-49.7	56.0
0.205	26.6	-36.8	63.4	5.0	-48.4	53.4
0.385	21.0	-37.2	58.2	17.4	-30.8	48.2
0.45	16.8	-40.1	56.9	12.6	-34.2	46.9
0.58	19.2	-36.8	56.0	16.0	-30.0	46.0
0.645	18.4	-37.6	56.0	15.7	-30.3	46.0
0.71	17.0	-39.0	56.0	14.5	-31.5	46.0
0.84	14.6	-41.3	56.0	9.0	-37.0	46.0
0.97	18.9	-37.1	56.0	15.2	-30.8	46.0
1.875	19.9	-36.1	56.0	15.8	-30.2	46.0
2.65	20.4	-35.6	56.0	14.8	-31.2	46.0
3.49	18.9	-37.1	56.0	11.2	-34.8	46.0
4.33	14.8	-41.2	56.0	6.6	-39.4	46.0
5.17	9.5	-50.5	60.0	3.4	-46.6	50.0
6.145	13.7	-46.3	60.0	4.7	-45.3	50.0
7.98	32.1	-27.9	60.0	17.5	-32.5	50.0
8.63	37.2	-22.8	60.0	18.4	-31.6	50.0
9.035	20.3	-39.7	60.0	8.2	-41.8	50.0
16.36	24.3	-35.8	60.0	7.6	-42.5	50.0
24.01	17.2	-42.8	60.0	9.4	-40.5	50.0

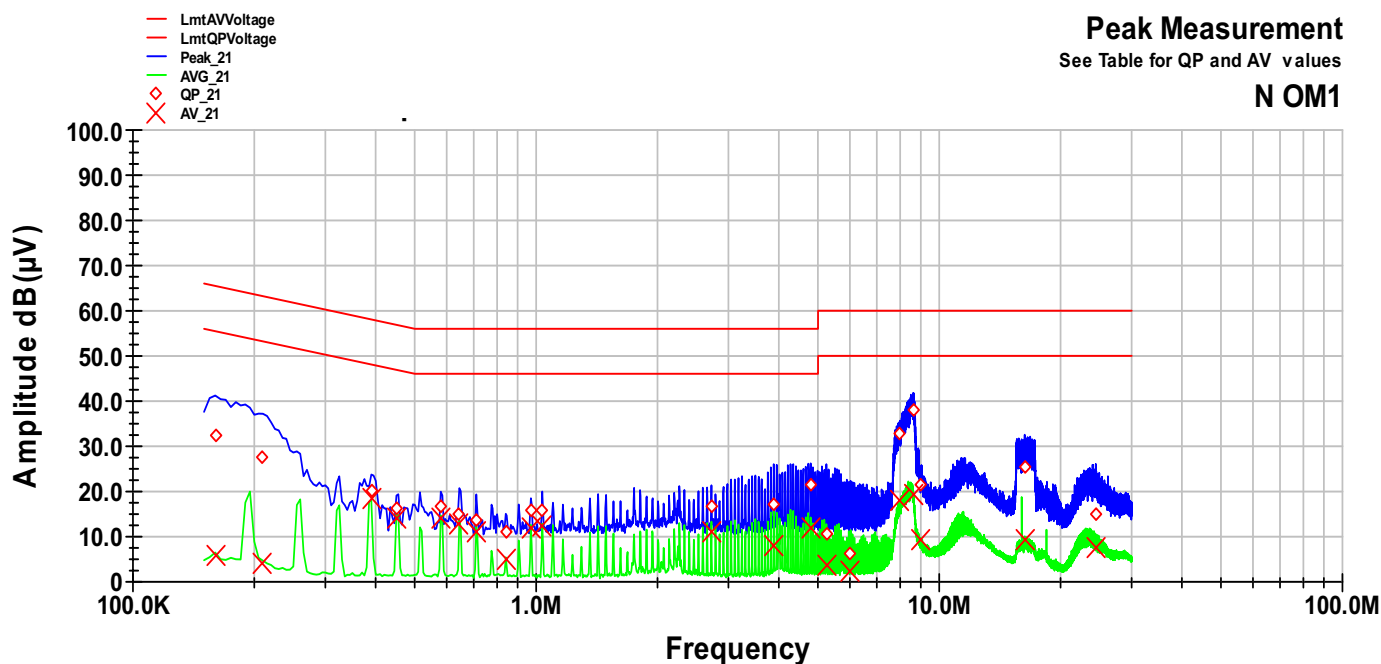
Test point: N
 Operation mode: Evolve P20 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
8.2MHz Band, Tx1 & Tx2: 26
 Date: 12.07.07
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.16	32.5	-33.0	65.5	5.8	-49.7	55.5
0.21	27.6	-35.6	63.2	4.3	-48.9	53.2
0.39	20.2	-37.9	58.1	18.5	-29.6	48.1
0.45	16.4	-40.4	56.9	14.3	-32.6	46.9
0.58	16.9	-39.2	56.0	13.9	-32.1	46.0
0.645	15.0	-41.0	56.0	12.8	-33.2	46.0
0.71	13.8	-42.3	56.0	11.2	-34.8	46.0
0.84	10.9	-45.1	56.0	5.0	-41.0	46.0
0.97	15.8	-40.2	56.0	11.9	-34.2	46.0
1.035	15.8	-40.2	56.0	12.6	-33.5	46.0
2.72	16.8	-39.2	56.0	11.1	-34.9	46.0
3.885	17.1	-38.9	56.0	7.9	-38.1	46.0
4.795	21.6	-34.4	56.0	11.7	-34.3	46.0
5.245	10.5	-49.5	60.0	3.6	-46.4	50.0
6.02	6.3	-53.7	60.0	2.4	-47.6	50.0
7.995	32.7	-27.3	60.0	18.1	-31.9	50.0
8.63	38.0	-22.0	60.0	19.4	-30.6	50.0
9.02	21.4	-38.6	60.0	9.1	-40.8	50.0
16.27	25.2	-34.8	60.0	9.1	-40.9	50.0
24.43	14.9	-45.0	60.0	7.5	-42.5	50.0

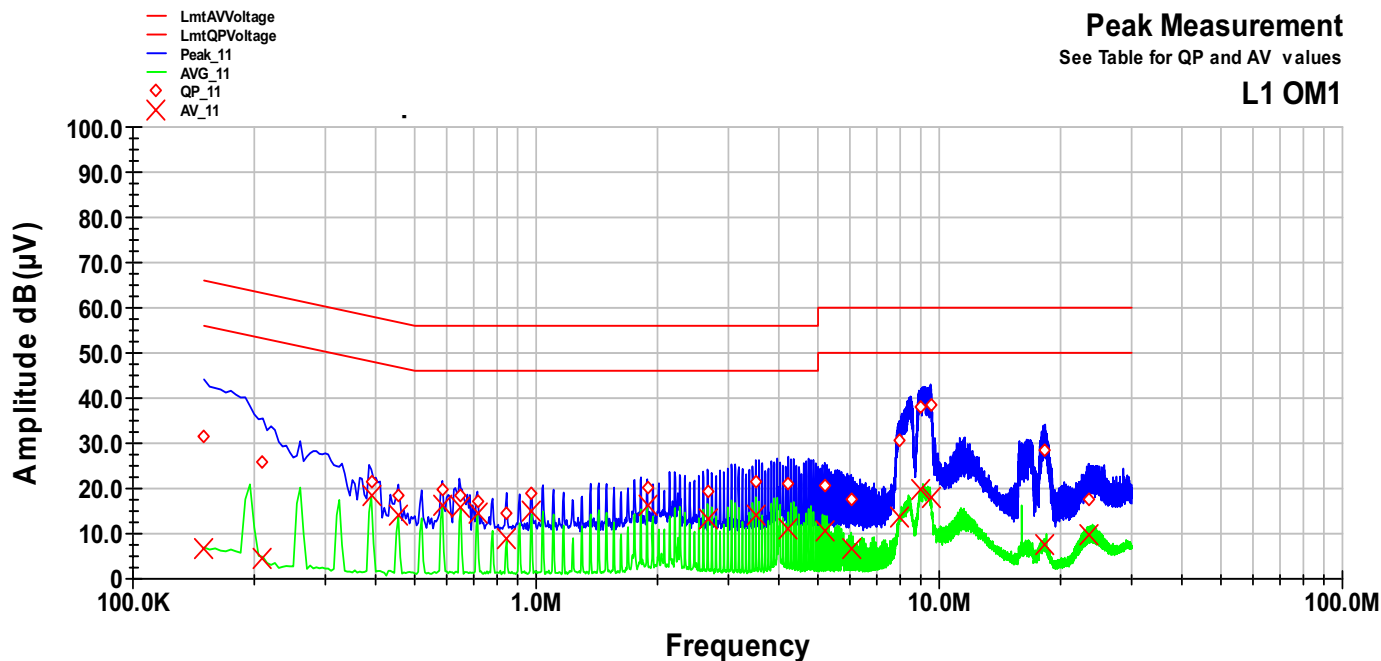
Test point: L1
 Operation mode: Evolve P20 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
9.0MHz Dual Band, Tx1 & Tx2: 26
 Date: 12.07.07
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

L1 0M1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.15	31.5	-34.5	66.0	6.5	-49.5	56.0
0.21	25.9	-37.3	63.2	4.7	-48.5	53.2
0.39	21.6	-36.4	58.1	18.3	-29.8	48.1
0.455	18.4	-38.4	56.8	13.9	-32.9	46.8
0.585	19.6	-36.4	56.0	16.3	-29.7	46.0
0.65	18.5	-37.5	56.0	15.8	-30.2	46.0
0.715	17.2	-38.8	56.0	14.5	-31.5	46.0
0.845	14.6	-41.4	56.0	9.0	-37.0	46.0
0.975	18.7	-37.3	56.0	15.0	-31.0	46.0
1.885	20.2	-35.8	56.0	16.2	-29.8	46.0
2.66	19.3	-36.7	56.0	13.3	-32.7	46.0
3.505	21.4	-34.6	56.0	14.1	-31.9	46.0
4.22	21.1	-34.9	56.0	11.3	-34.7	46.0
5.195	20.4	-39.6	60.0	10.6	-39.4	50.0
6.04	17.4	-42.6	60.0	6.7	-43.3	50.0
7.96	30.7	-29.3	60.0	13.7	-36.3	50.0
8.99	37.9	-22.1	60.0	19.7	-30.3	50.0
9.51	38.6	-21.4	60.0	18.1	-31.9	50.0
18.29	28.4	-31.6	60.0	7.6	-42.5	50.0
23.455	17.6	-42.4	60.0	9.9	-40.1	50.0

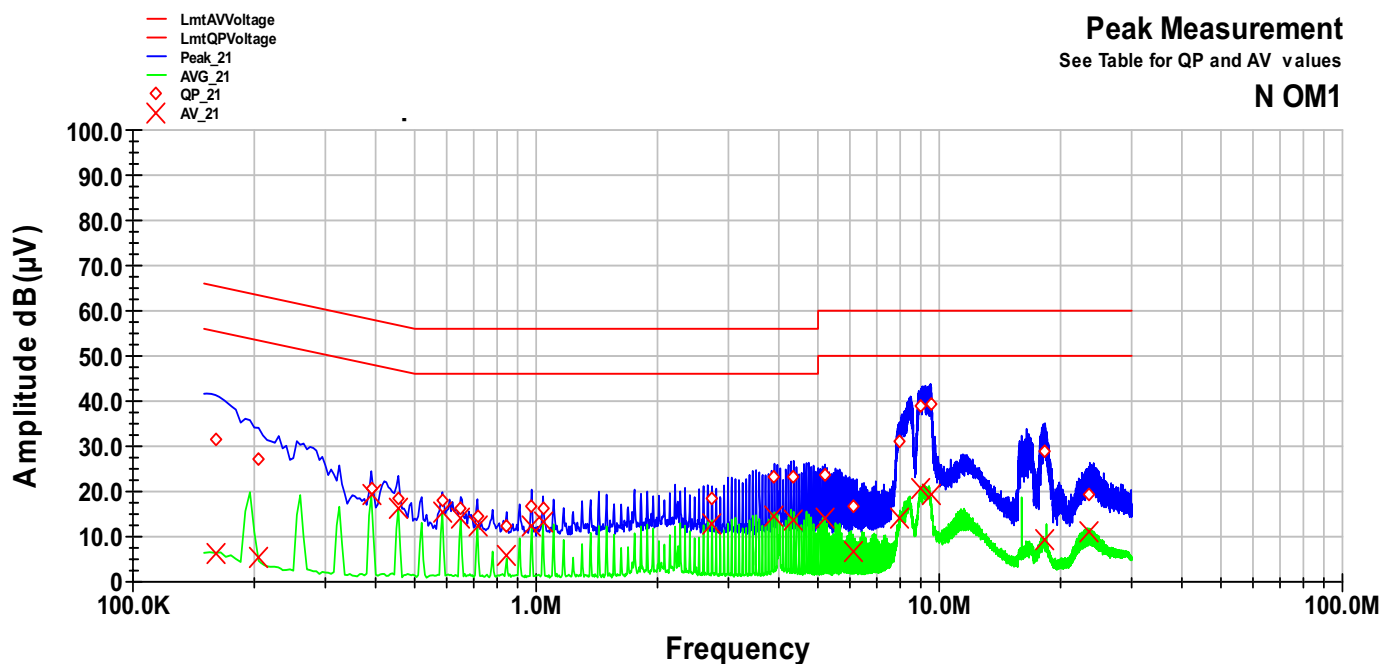
Test point: N
 Operation mode: Evolve P20 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
9.0MHz Dual Band, Tx1 & Tx2: 26
 Date: 12.07.07
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.16	31.5	-34.0	65.5	6.4	-49.1	55.5
0.205	27.0	-36.4	63.4	5.5	-47.9	53.4
0.39	20.8	-37.3	58.1	19.2	-28.9	48.1
0.455	18.4	-38.4	56.8	16.5	-30.3	46.8
0.585	18.1	-37.9	56.0	15.4	-30.6	46.0
0.65	16.2	-39.8	56.0	14.1	-31.9	46.0
0.715	14.7	-41.3	56.0	12.3	-33.7	46.0
0.845	12.2	-43.8	56.0	5.7	-40.3	46.0
0.975	16.6	-39.3	56.0	12.5	-33.5	46.0
1.04	16.3	-39.7	56.0	13.0	-33.0	46.0
2.73	18.5	-37.5	56.0	12.8	-33.2	46.0
3.9	23.3	-32.7	56.0	14.6	-31.4	46.0
4.355	23.1	-32.9	56.0	13.7	-32.3	46.0
5.205	23.5	-36.5	60.0	14.2	-35.8	50.0
6.11	16.5	-43.5	60.0	6.6	-43.4	50.0
7.99	31.1	-28.9	60.0	14.1	-35.9	50.0
8.99	38.7	-21.3	60.0	20.4	-29.6	50.0
9.51	39.5	-20.5	60.0	19.1	-30.9	50.0
18.275	29.1	-30.9	60.0	9.4	-40.6	50.0
23.61	19.4	-40.6	60.0	11.2	-38.8	50.0

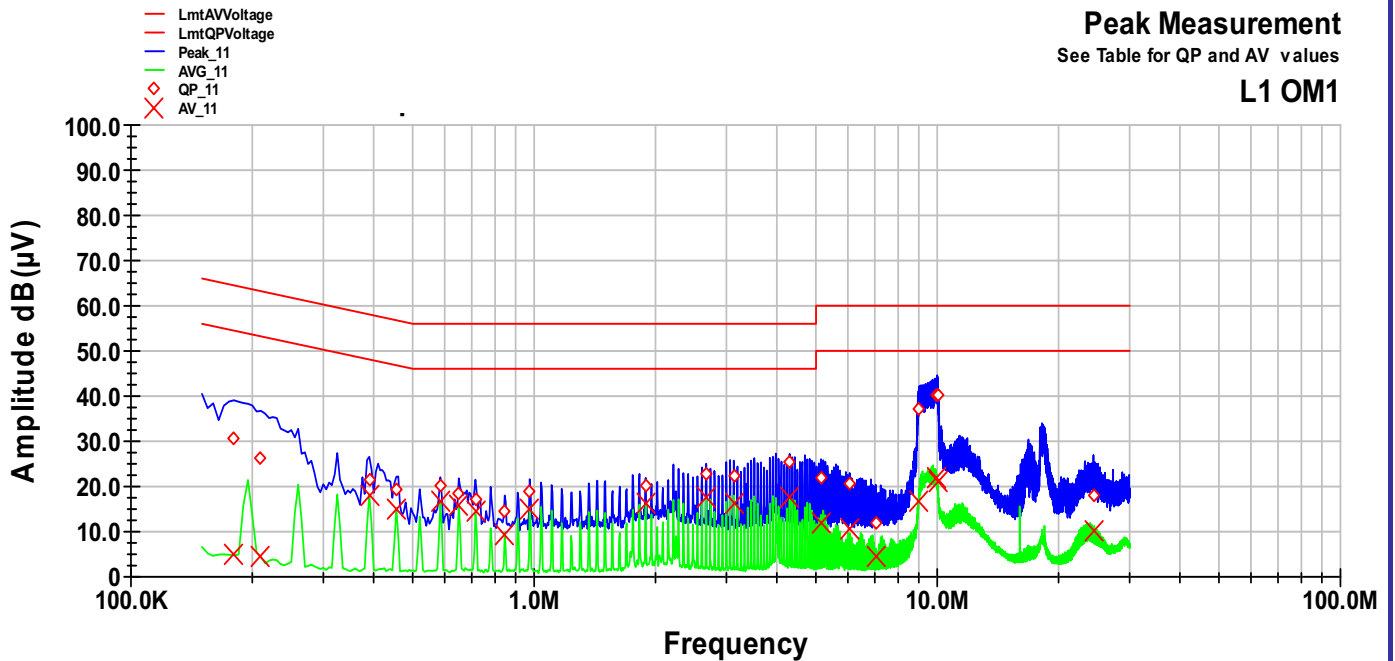
Test point: L1
 Operation mode: Evolve P20 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
9.5MHz Band, Tx1 & Tx2: 26
 Date: 12.07.07
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

L1 0M1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.18	30.7	-33.7	64.5	5.1	-49.4	54.5
0.21	26.3	-36.9	63.2	4.7	-48.5	53.2
0.39	21.7	-36.4	58.1	18.2	-29.9	48.1
0.455	19.1	-37.7	56.8	15.0	-31.8	46.8
0.585	20.0	-36.0	56.0	16.5	-29.5	46.0
0.65	18.6	-37.4	56.0	15.9	-30.1	46.0
0.715	17.0	-39.0	56.0	14.3	-31.7	46.0
0.845	14.4	-41.6	56.0	9.1	-36.9	46.0
0.975	18.8	-37.2	56.0	14.8	-31.2	46.0
1.89	20.3	-35.7	56.0	16.2	-29.8	46.0
2.67	22.9	-33.1	56.0	17.5	-28.5	46.0
3.125	22.3	-33.7	56.0	16.3	-29.7	46.0
4.3	25.2	-30.8	56.0	17.6	-28.4	46.0
5.145	22.0	-38.0	60.0	12.1	-37.9	50.0
6.06	20.7	-39.3	60.0	10.4	-39.6	50.0
7.035	12.1	-47.9	60.0	4.6	-45.4	50.0
8.975	37.0	-23.0	60.0	16.7	-33.3	50.0
9.99	40.4	-19.6	60.0	21.7	-28.3	50.0
10.005	40.1	-19.9	60.0	21.2	-28.8	50.0
24.37	18.2	-41.8	60.0	10.1	-39.8	50.0

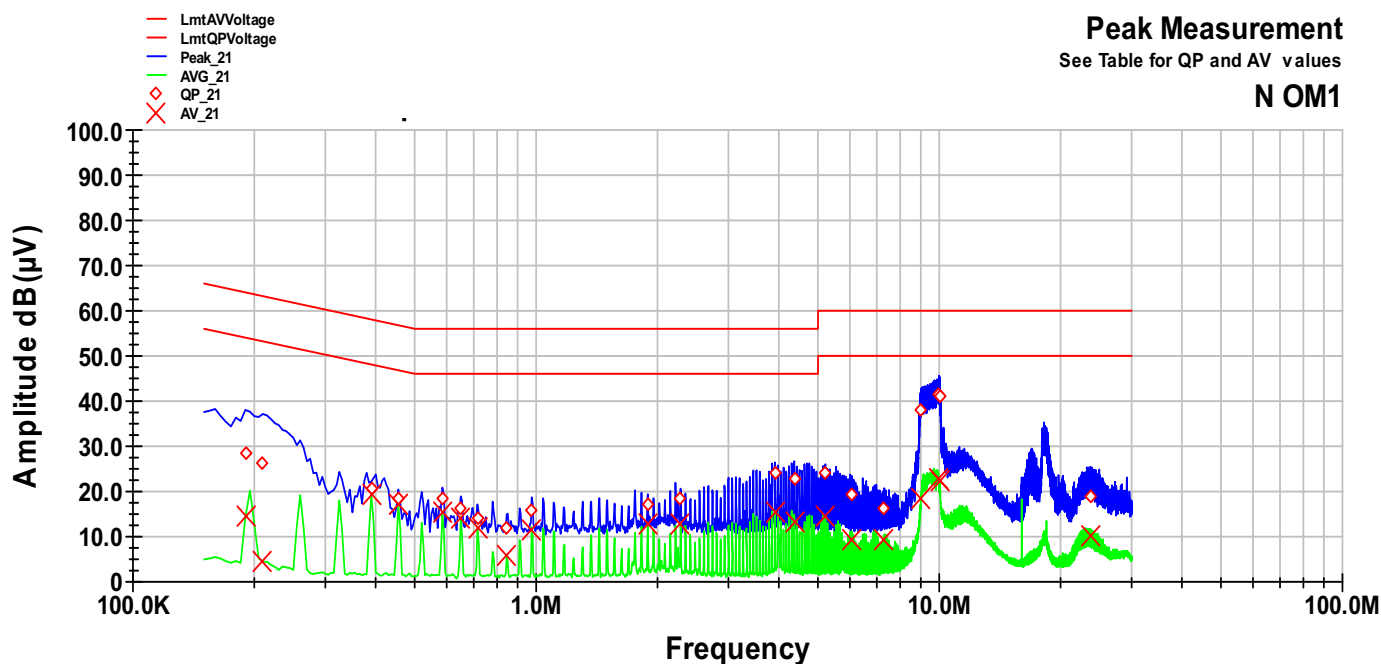
Test point: N
 Operation mode: Evolve P20 / Continuous sweep mode
 Remarks: PSU GT-2S5024D-R / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
9.5MHz Band, Tx1 & Tx2: 26
 Date: 12.07.07
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.19	28.3	-35.7	64.0	14.3	-39.7	54.0
0.21	26.2	-37.0	63.2	4.6	-48.6	53.2
0.39	20.8	-37.3	58.1	19.3	-28.8	48.1
0.455	18.6	-38.2	56.8	17.0	-29.8	46.8
0.585	18.4	-37.6	56.0	15.5	-30.5	46.0
0.65	16.1	-39.9	56.0	13.9	-32.1	46.0
0.715	14.3	-41.7	56.0	11.9	-34.1	46.0
0.845	11.8	-44.2	56.0	5.6	-40.4	46.0
0.975	15.8	-40.3	56.0	11.6	-34.4	46.0
1.89	17.1	-38.9	56.0	12.8	-33.2	46.0
2.28	18.3	-37.7	56.0	12.8	-33.2	46.0
3.91	23.9	-32.1	56.0	15.2	-30.8	46.0
4.365	22.7	-33.3	56.0	13.4	-32.6	46.0
5.215	24.0	-36.0	60.0	14.3	-35.7	50.0
6.06	19.2	-40.8	60.0	9.1	-40.8	50.0
7.3	16.4	-43.6	60.0	9.2	-40.8	50.0
8.99	38.1	-21.9	60.0	18.3	-31.7	50.0
9.99	41.4	-18.6	60.0	22.7	-27.3	50.0
10.005	41.1	-18.9	60.0	22.2	-27.8	50.0
23.665	19.0	-41.0	60.0	10.3	-39.7	50.0

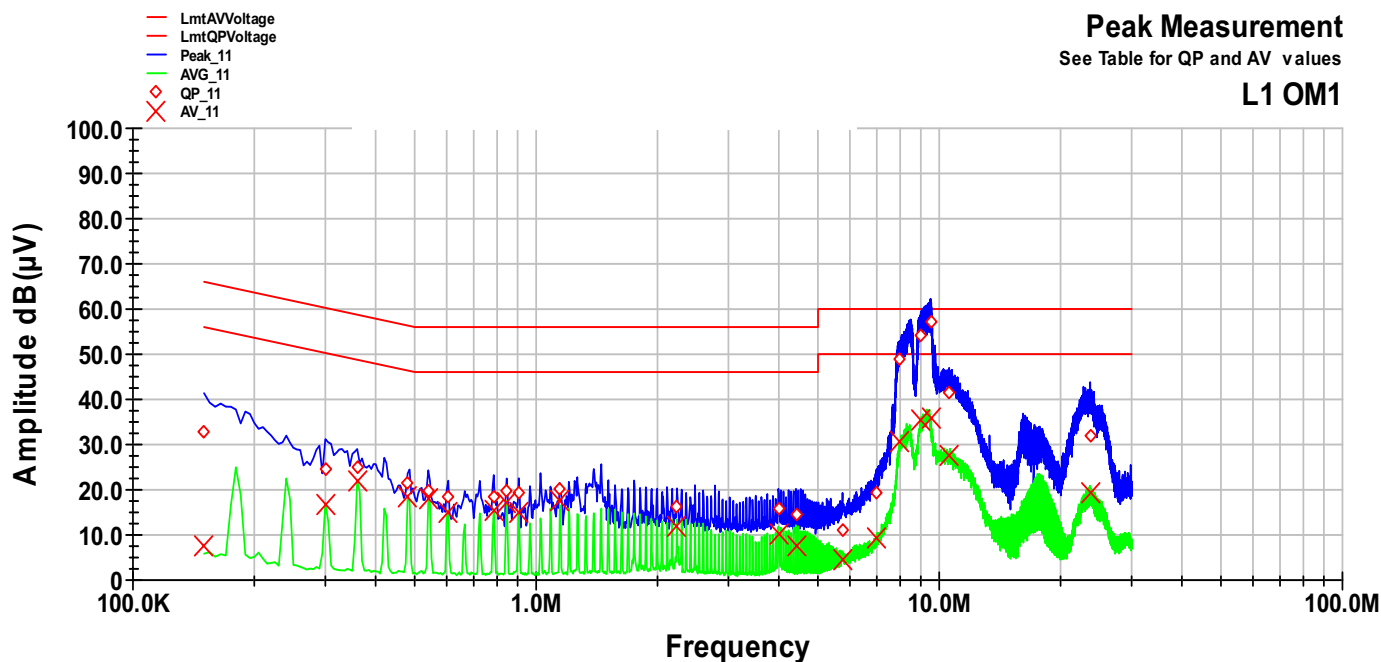
Test point: L1
 Operation mode: Evolve P10 / Continuous sweep mode at 9.0MHz Band
 Remarks: PSU GT-2S5024D-R-ES / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

L1 0M1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.15	32.8	-33.2	66.0	7.5	-48.5	56.0
0.3	24.6	-35.6	60.2	16.7	-33.5	50.2
0.36	24.8	-34.0	58.7	22.1	-26.6	48.7
0.48	21.3	-35.0	56.3	18.5	-27.9	46.3
0.54	19.9	-36.2	56.0	18.0	-28.0	46.0
0.605	18.4	-37.6	56.0	14.8	-31.2	46.0
0.785	18.4	-37.7	56.0	15.6	-30.4	46.0
0.845	19.8	-36.3	56.0	17.2	-28.8	46.0
0.905	19.3	-36.7	56.0	14.8	-31.2	46.0
1.145	20.1	-35.9	56.0	17.4	-28.6	46.0
2.235	16.4	-39.6	56.0	12.0	-34.0	46.0
3.985	15.7	-40.3	56.0	10.1	-35.8	46.0
4.41	14.4	-41.6	56.0	7.5	-38.5	46.0
5.75	11.1	-48.9	60.0	4.6	-45.4	50.0
6.99	19.5	-40.5	60.0	9.1	-40.9	50.0
7.96	48.7	-11.3	60.0	30.5	-19.5	50.0
8.99	54.3	-5.7	60.0	35.5	-14.5	50.0
9.51	57.2	-2.8	60.0	36.0	-14.0	50.0
10.575	41.7	-18.3	60.0	27.6	-22.4	50.0
23.66	32.0	-28.0	60.0	19.1	-30.9	50.0

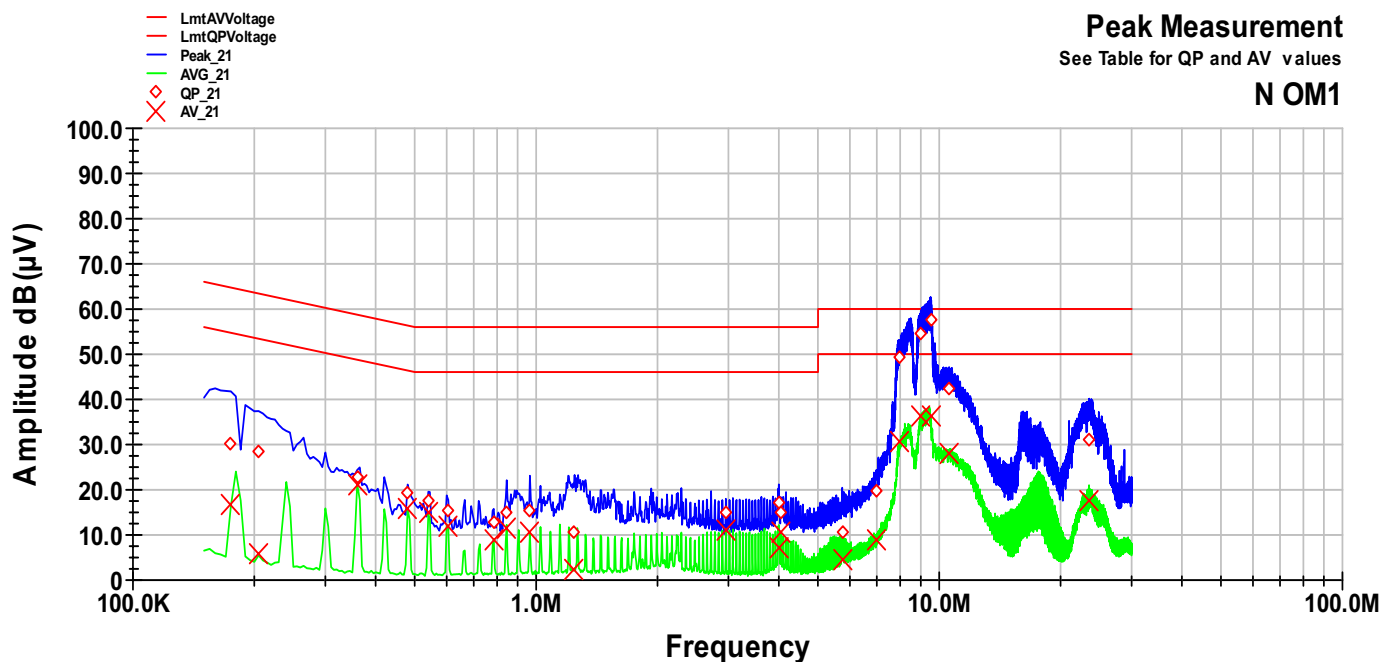
Test point: N
 Operation mode: Evolve P10 / Continuous sweep mode at 9.0MHz Band
 Remarks: PSU GT-2S5024D-R-ES / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.175	30.1	-34.6	64.7	16.9	-37.8	54.7
0.205	28.6	-34.8	63.4	5.9	-47.5	53.4
0.36	22.6	-36.1	58.7	21.1	-27.7	48.7
0.48	19.2	-37.2	56.3	16.0	-30.3	46.3
0.54	17.6	-38.4	56.0	14.8	-31.2	46.0
0.605	15.3	-40.7	56.0	11.9	-34.2	46.0
0.785	12.7	-43.3	56.0	8.9	-37.1	46.0
0.845	14.8	-41.2	56.0	11.6	-34.4	46.0
0.965	15.5	-40.5	56.0	10.4	-35.6	46.0
1.245	10.8	-45.2	56.0	2.4	-43.6	46.0
2.955	15.1	-40.9	56.0	11.1	-34.9	46.0
4	17.0	-39.0	56.0	7.2	-38.8	46.0
4.04	14.9	-41.1	56.0	10.4	-35.6	46.0
5.74	10.6	-49.4	60.0	4.4	-45.6	50.0
6.975	19.6	-40.4	60.0	8.7	-41.3	50.0
7.975	49.3	-10.7	60.0	30.7	-19.3	50.0
8.99	54.7	-5.3	60.0	36.1	-13.9	50.0
9.51	57.7	-2.3	60.0	36.5	-13.5	50.0
10.575	42.3	-17.7	60.0	27.9	-22.1	50.0
23.545	31.2	-28.8	60.0	17.5	-32.5	50.0

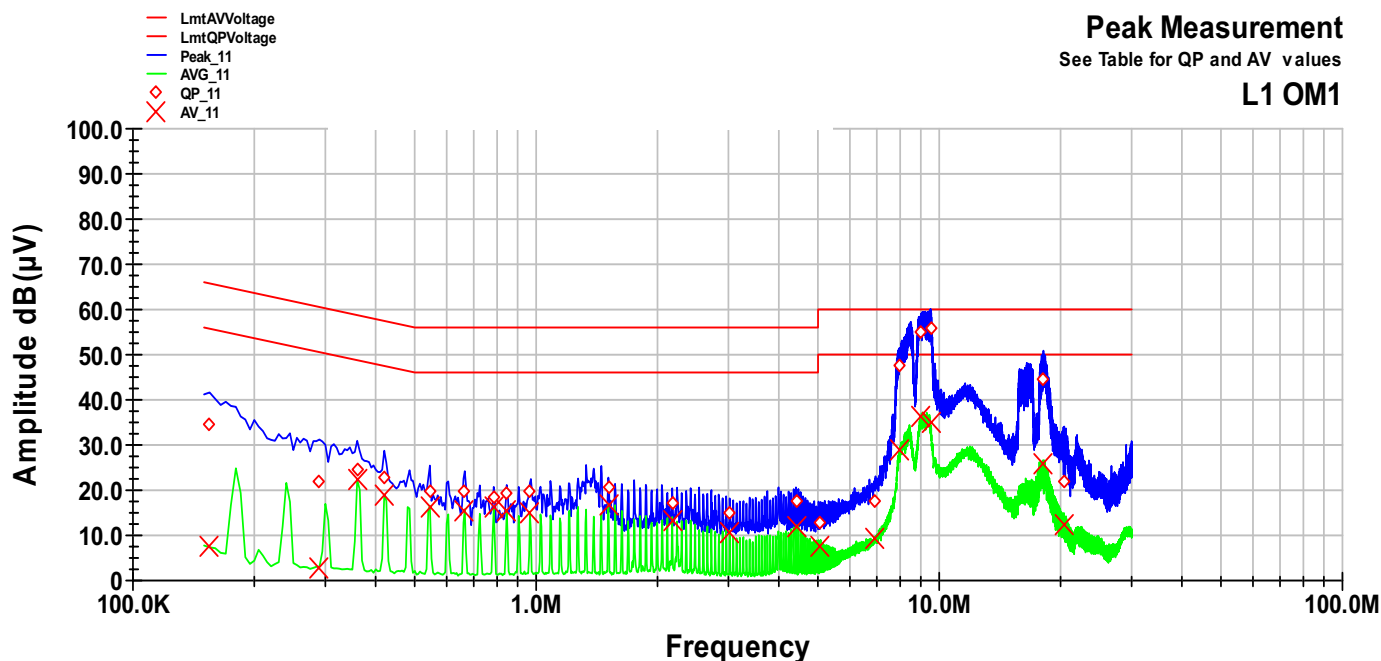
Test point: L1
 Operation mode: Evolve P20 / Continuous sweep mode at 9.0MHz Band
 Remarks: PSU GT-2S5024D-R-ES / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

L1 0M1

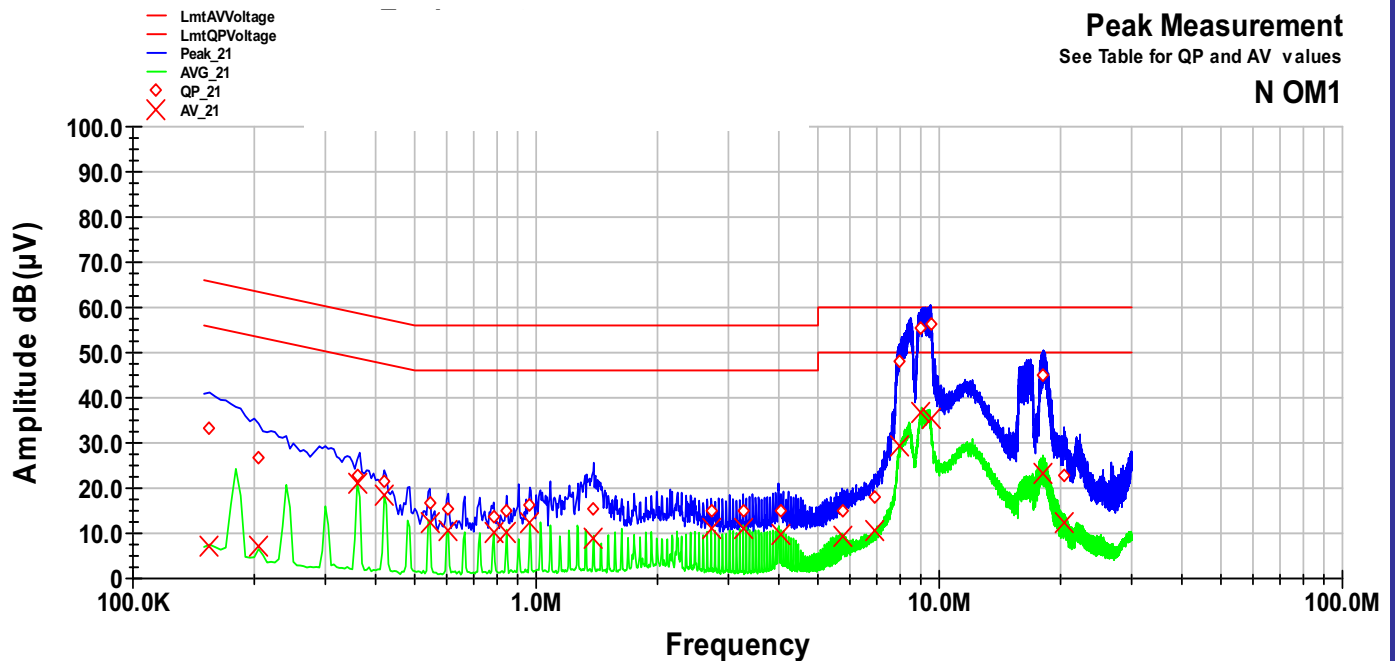


Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.155	34.5	-31.2	65.7	7.6	-48.1	55.7
0.29	21.8	-38.8	60.5	2.9	-47.7	50.5
0.36	24.6	-34.2	58.7	22.3	-26.4	48.7
0.42	22.8	-34.7	57.4	18.9	-28.5	47.4
0.545	19.7	-36.3	56.0	16.1	-29.9	46.0
0.665	19.7	-36.3	56.0	15.5	-30.5	46.0
0.785	18.5	-37.5	56.0	16.1	-29.9	46.0
0.845	19.4	-36.6	56.0	15.4	-30.6	46.0
0.965	19.6	-36.4	56.0	14.8	-31.2	46.0
1.51	20.5	-35.5	56.0	16.5	-29.5	46.0
2.175	17.0	-39.0	56.0	13.3	-32.7	46.0
3.02	15.0	-41.0	56.0	10.8	-35.2	46.0
4.41	17.8	-38.2	56.0	11.8	-34.2	46.0
5.075	12.7	-47.3	60.0	7.8	-42.2	50.0
6.94	17.5	-42.5	60.0	9.5	-40.5	50.0
7.975	47.4	-12.6	60.0	28.9	-21.1	50.0
8.99	54.8	-5.2	60.0	36.1	-13.9	50.0
9.51	55.9	-4.1	60.0	34.9	-15.1	50.0
18.125	44.6	-15.4	60.0	26.0	-24.0	50.0
20.4	21.8	-38.2	60.0	12.4	-37.7	50.0

Test point: N
 Operation mode: Evolve P20 / Continuous sweep mode at 9.0MHz Band
 Remarks: PSU GT-2S5024D-R-ES / FCC/IC Requirements
 With standard PSU Cable and Ferrite on DC line
 Tested by: Huber Markus

Result: passed

Peak Measurement
 See Table for QP and AV values
N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.155	33.1	-32.6	65.7	7.2	-48.5	55.7
0.205	26.9	-36.5	63.4	7.1	-46.3	53.4
0.36	22.8	-35.9	58.7	21.1	-27.6	48.7
0.42	21.5	-36.0	57.4	18.4	-29.0	47.4
0.545	16.8	-39.2	56.0	12.4	-33.5	46.0
0.605	15.5	-40.5	56.0	10.5	-35.5	46.0
0.785	13.6	-42.3	56.0	10.1	-35.9	46.0
0.845	15.1	-41.0	56.0	10.1	-35.9	46.0
0.965	16.0	-40.0	56.0	12.3	-33.7	46.0
1.39	15.5	-40.5	56.0	9.0	-37.0	46.0
2.715	14.8	-41.2	56.0	11.0	-35.0	46.0
3.26	15.1	-40.9	56.0	11.1	-34.9	46.0
4.045	14.8	-41.2	56.0	9.7	-36.3	46.0
5.735	14.9	-45.2	60.0	9.3	-40.7	50.0
6.94	18.1	-41.9	60.0	10.7	-39.3	50.0
7.975	47.8	-12.2	60.0	29.3	-20.7	50.0
8.99	55.3	-4.8	60.0	36.6	-13.4	50.0
9.51	56.4	-3.6	60.0	35.4	-14.6	50.0
18.125	45.0	-15.0	60.0	23.1	-26.9	50.0
20.385	22.7	-37.3	60.0	12.2	-37.8	50.0

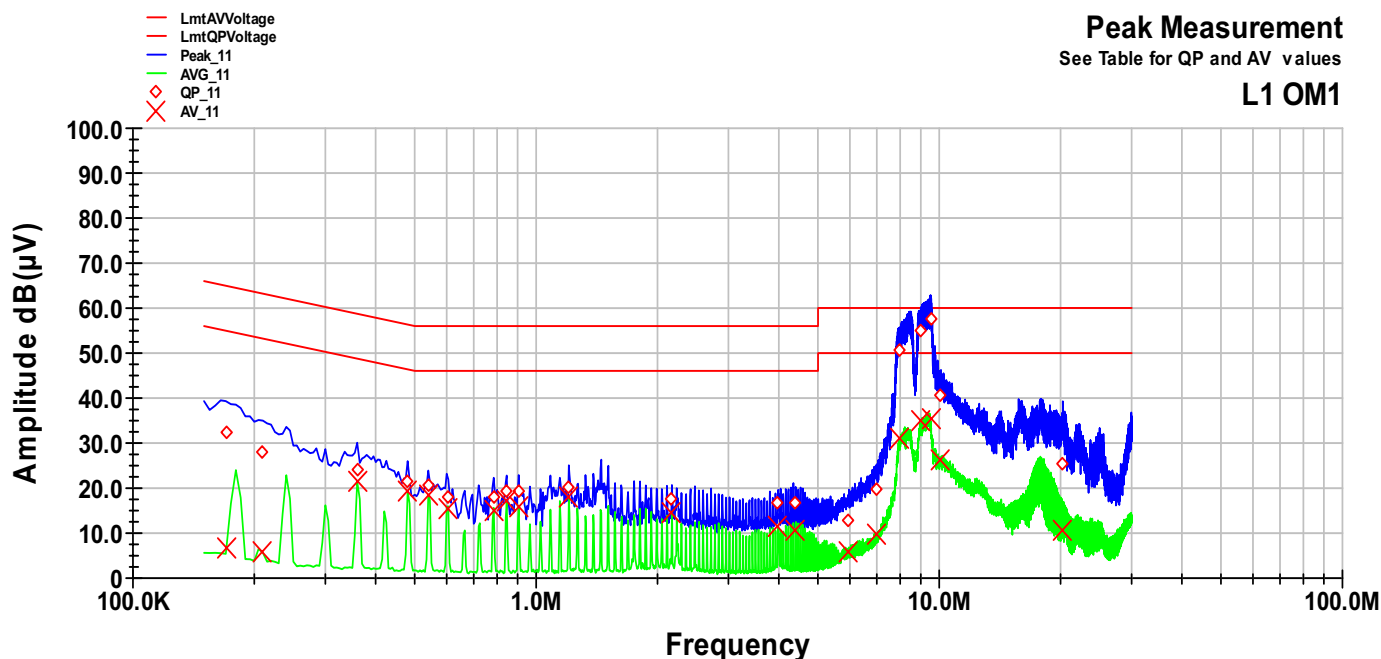
Test point: L1
 Operation mode: Evolve G10 / Continuous sweep mode at 9.0MHz Band
 Remarks: PSU GT-2S5024D-R-ES / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

L1 OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.17	32.6	-32.4	65.0	6.5	-48.4	55.0
0.21	27.9	-35.3	63.2	6.0	-47.2	53.2
0.36	24.0	-34.7	58.7	21.4	-27.4	48.7
0.48	21.5	-34.8	56.3	19.3	-27.0	46.3
0.54	20.4	-35.6	56.0	18.6	-27.4	46.0
0.605	18.0	-38.0	56.0	15.5	-30.5	46.0
0.785	18.0	-38.0	56.0	15.0	-31.0	46.0
0.845	19.4	-36.6	56.0	17.0	-29.0	46.0
0.905	19.3	-36.7	56.0	16.0	-30.0	46.0
1.205	20.3	-35.7	56.0	17.9	-28.1	46.0
2.17	17.6	-38.4	56.0	14.7	-31.3	46.0
3.98	16.6	-39.4	56.0	11.6	-34.4	46.0
4.405	16.5	-39.5	56.0	10.6	-35.5	46.0
5.965	12.9	-47.1	60.0	5.9	-44.1	50.0
6.99	19.9	-40.2	60.0	9.7	-40.3	50.0
7.975	50.6	-9.4	60.0	31.1	-18.9	50.0
8.99	55.0	-5.0	60.0	35.0	-15.0	50.0
9.51	57.6	-2.4	60.0	35.3	-14.7	50.0
10.09	40.8	-19.2	60.0	26.1	-23.9	50.0
20.24	25.5	-34.5	60.0	10.4	-39.6	50.0

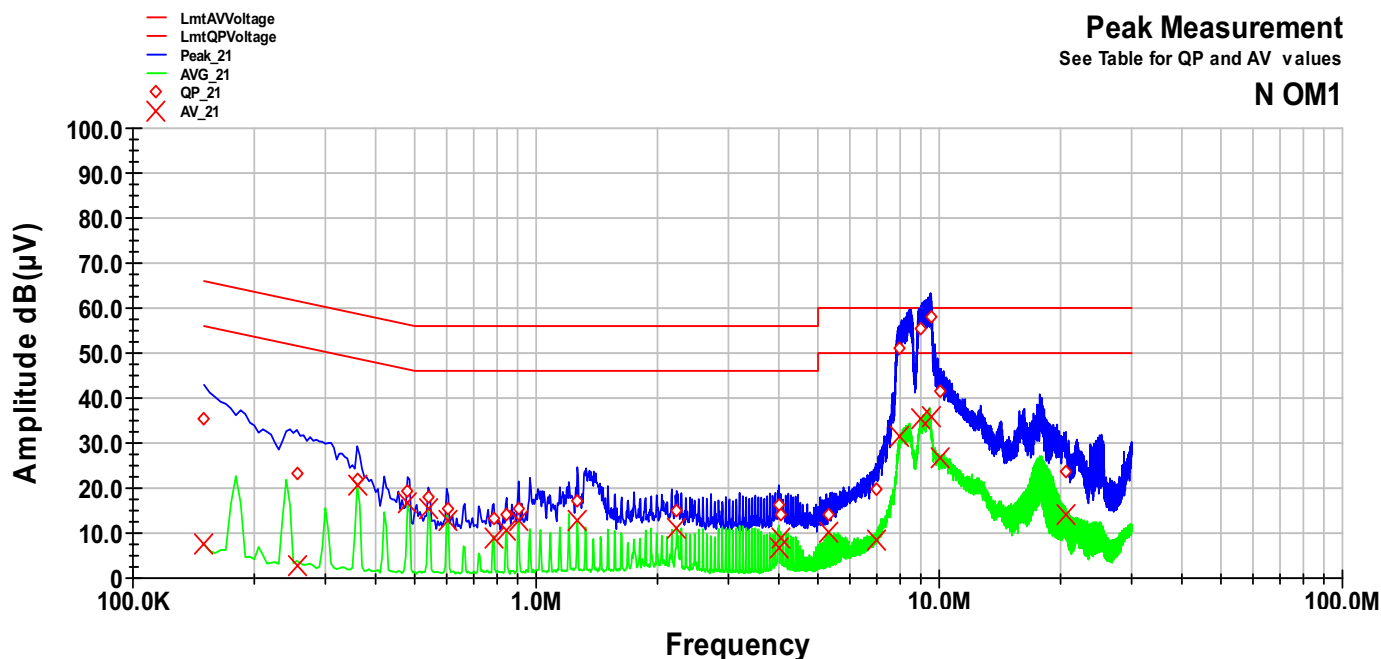
Test point: N
 Operation mode: Evolve G10 / Continuous sweep mode at 9.0MHz Band
 Remarks: PSU GT-2S5024D-R-ES / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.15	35.3	-30.7	66.0	7.3	-48.7	56.0
0.255	23.4	-38.2	61.6	3.0	-48.6	51.6
0.36	21.9	-36.9	58.7	20.5	-28.2	48.7
0.48	19.4	-36.9	56.3	16.9	-29.4	46.3
0.54	18.0	-38.0	56.0	15.2	-30.8	46.0
0.605	15.2	-40.8	56.0	12.6	-33.4	46.0
0.785	13.0	-43.0	56.0	8.9	-37.1	46.0
0.845	14.2	-41.8	56.0	10.7	-35.3	46.0
0.905	15.4	-40.7	56.0	12.6	-33.4	46.0
1.265	17.1	-38.9	56.0	13.0	-33.0	46.0
2.23	15.0	-41.0	56.0	11.3	-34.7	46.0
4	16.4	-39.6	56.0	6.7	-39.3	46.0
4.04	14.1	-41.9	56.0	8.9	-37.0	46.0
5.305	13.9	-46.1	60.0	9.9	-40.0	50.0
6.95	19.7	-40.3	60.0	8.3	-41.7	50.0
7.975	50.9	-9.1	60.0	31.4	-18.6	50.0
8.99	55.4	-4.6	60.0	35.4	-14.6	50.0
9.51	58.1	-1.9	60.0	35.9	-14.1	50.0
10.09	41.3	-18.7	60.0	26.6	-23.4	50.0
20.62	23.5	-36.5	60.0	14.1	-35.9	50.0

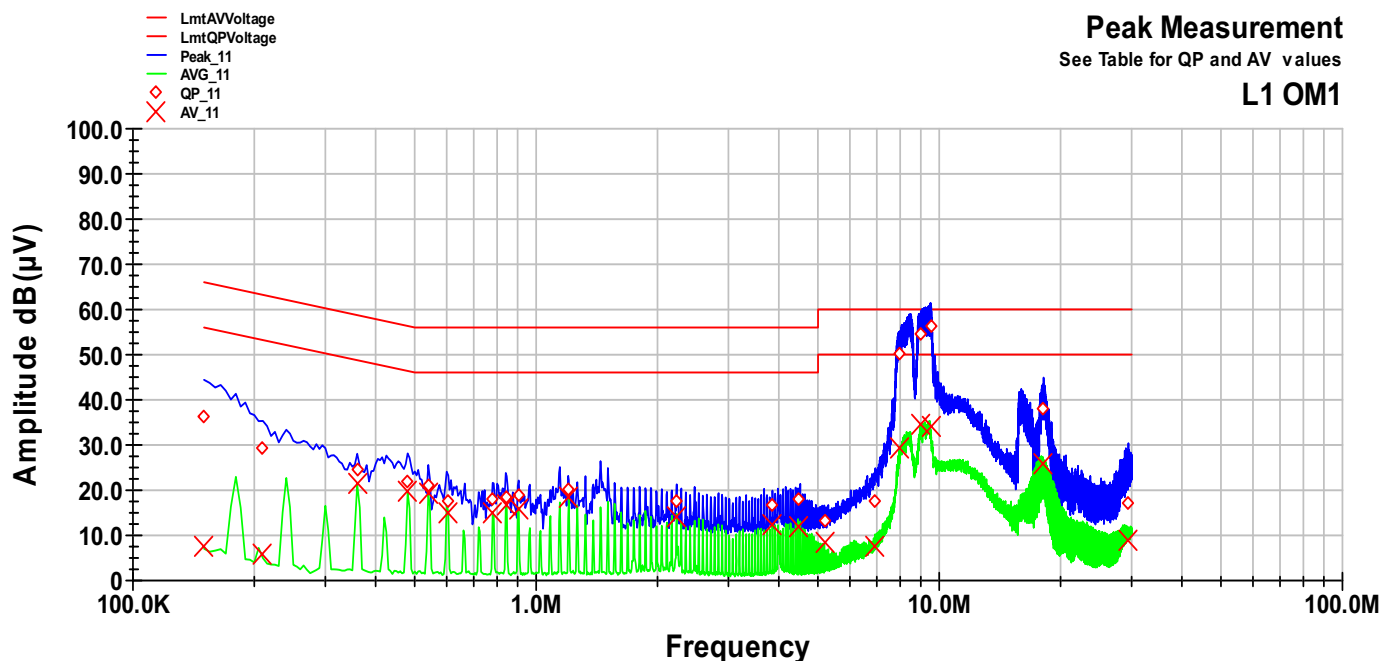
Test point: L1
 Operation mode: Evolve G20 / Continuous sweep mode at 9.0MHz Band
 Remarks: PSU GT-2S5024D-R-ES / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

L1 0M1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.15	36.2	-29.8	66.0	7.5	-48.5	56.0
0.21	29.5	-33.7	63.2	6.0	-47.2	53.2
0.36	24.5	-34.2	58.7	21.3	-27.5	48.7
0.48	22.0	-34.4	56.3	19.7	-26.6	46.3
0.54	20.9	-35.1	56.0	19.2	-26.8	46.0
0.605	17.5	-38.5	56.0	15.0	-31.0	46.0
0.78	17.9	-38.1	56.0	15.0	-31.0	46.0
0.845	18.6	-37.4	56.0	16.8	-29.2	46.0
0.905	18.7	-37.3	56.0	15.8	-30.2	46.0
1.205	20.3	-35.7	56.0	18.3	-27.7	46.0
2.23	17.5	-38.5	56.0	14.1	-31.9	46.0
3.855	16.5	-39.5	56.0	12.4	-33.6	46.0
4.46	17.9	-38.1	56.0	12.1	-33.9	46.0
5.18	13.1	-46.9	60.0	8.2	-41.8	50.0
6.935	17.6	-42.4	60.0	7.8	-42.2	50.0
7.975	50.0	-10.0	60.0	29.4	-20.6	50.0
8.99	54.5	-5.5	60.0	34.4	-15.6	50.0
9.51	56.1	-3.9	60.0	34.0	-16.0	50.0
18.14	37.9	-22.1	60.0	26.0	-24.0	50.0
29.425	17.2	-42.8	60.0	9.1	-40.9	50.0

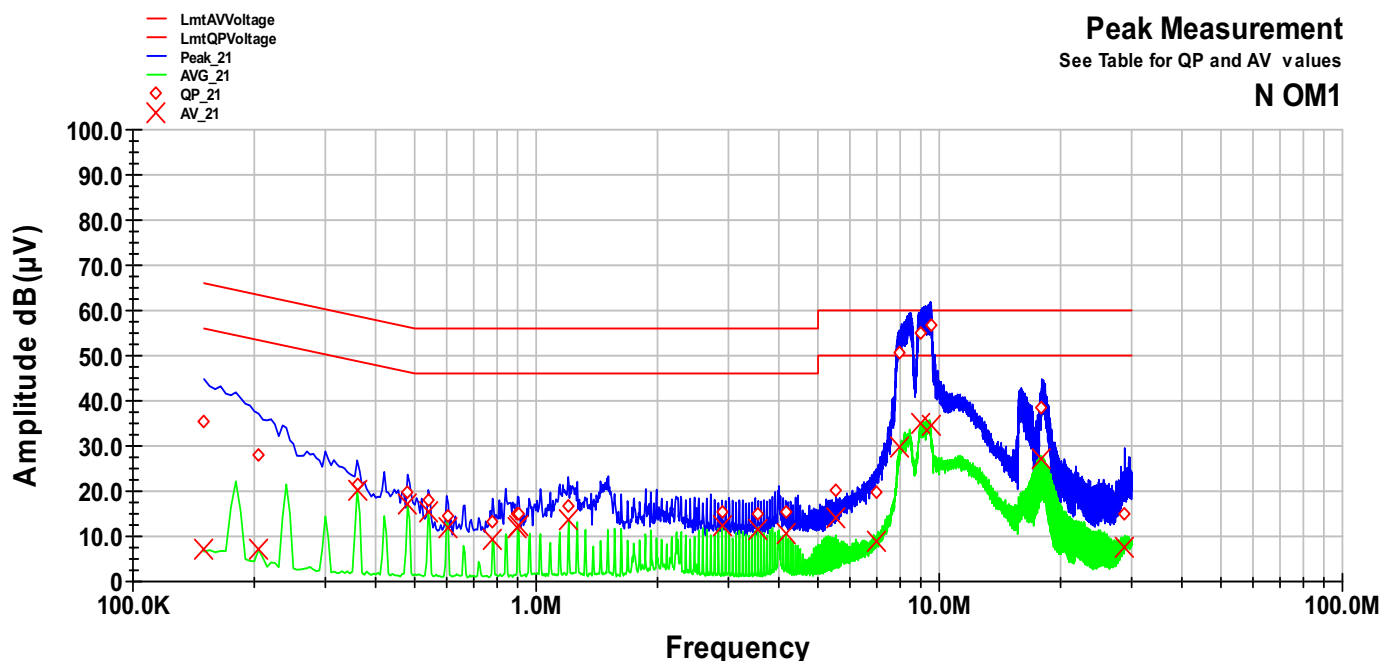
Test point: N
 Operation mode: Evolve G20 / Continuous sweep mode at 9.0MHz Band
 Remarks: PSU GT-2S5024D-R-ES / FCC/IC Requirements
With standard PSU Cable and Ferrite on DC line
 Tested by: Huber Markus

Result: passed

Peak Measurement

See Table for QP and AV values

N OM1



Frequency MHz	QP Level dB(µV)	QP Margin dB	QP Limit dB	AV Level dB(µV)	AV Margin dB	AV Limit dB
0.15	35.6	-30.4	66.0	7.3	-48.7	56.0
0.205	28.0	-35.4	63.4	7.1	-46.3	53.4
0.36	21.5	-37.2	58.7	20.3	-28.5	48.7
0.48	19.6	-36.8	56.3	17.3	-29.0	46.3
0.54	18.1	-37.9	56.0	15.5	-30.5	46.0
0.605	14.6	-41.4	56.0	12.1	-33.9	46.0
0.78	13.3	-42.7	56.0	9.2	-36.8	46.0
0.9	14.9	-41.1	56.0	11.9	-34.1	46.0
0.905	15.1	-40.9	56.0	12.2	-33.8	46.0
1.205	16.6	-39.4	56.0	13.7	-32.3	46.0
2.89	15.4	-40.6	56.0	12.3	-33.8	46.0
3.555	15.0	-41.0	56.0	11.4	-34.6	46.0
4.155	15.2	-40.8	56.0	10.6	-35.4	46.0
5.54	20.2	-39.8	60.0	14.1	-35.9	50.0
6.975	19.8	-40.2	60.0	8.7	-41.3	50.0
7.975	50.4	-9.6	60.0	29.7	-20.3	50.0
8.99	54.9	-5.1	60.0	34.8	-15.2	50.0
9.51	56.6	-3.4	60.0	34.4	-15.6	50.0
17.945	38.5	-21.5	60.0	27.0	-23.0	50.0
28.825	14.8	-45.2	60.0	7.4	-42.5	50.0