

Test report

284168-2TRFWL

Date of issue: December 1, 2018

Applicant:

Deltanode Solutions AB

Product:

700 LC

Model:

DHR805

FCC ID: V5FDHR001

IC: 11014A-DHR001

Specifications:

FCC 47 CFR Part 27, RSS-131 Issue 3, RSS-130 Issue 1

Test location

Company name	Nemko Canada Inc.
Address	303 River Road
City	Ottawa
Province	Ontario
Postal code	K1V 1H2
Country	Canada
Telephone	+1 613 737 9680
Facsimile	+1 613 737 9691
Toll free	+1 800 563 6336
Website	www.nemko.com
Test Site	FCC Designation Number: CA2040, FCC Registration Number: 175281; ISED Test Site Number: 2040A-4

Tested by	Kevin Rose, Wireless/EMC Specialist
Reviewed by	Russell Grant, Senior Technical Assessor
Date	December 1, 2018
Signature	

Limits of responsibility

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025. All results contain in this report are within Nemko Canada's ISO/IEC 17025 accreditation.

Copyright notification

Nemko Canada Inc. authorizes the applicant to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Nemko Canada Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.
© Nemko Canada Inc.

Table of contents

Table of contents	3
Section 1. Report summary	4
1.1 Applicant and manufacturer	4
1.2 Test specifications	4
1.3 Statement of compliance	4
1.4 Exclusions	4
1.5 Test report revision history	4
Section 2. Summary of test results	5
2.1 FCC Part 27, RSS-131 Issue 3, RSS-130 Issue 1	5
Section 3. Equipment under test (EUT) details	6
3.1 Sample information	6
3.2 EUT information	6
3.3 Technical information	6
3.4 Product description and theory of operation	6
3.5 EUT exercise details	6
3.6 EUT setup diagram	7
Section 4. Engineering considerations	8
4.1 Modifications incorporated in the EUT	8
4.2 Technical judgment	8
4.3 Deviations from laboratory tests procedures	8
Section 5. Test conditions	9
5.1 Atmospheric conditions	9
5.2 Power supply range	9
Section 6. Measurement uncertainty	10
6.1 Uncertainty of measurement	10
Section 7. Test equipment	11
7.1 Test equipment list	11
Section 8. Testing data	12
8.1 KDB 935210 D05 3.2, Measuring AGC threshold level	12
8.2 RSS-131 5.2.1, KDB 935210 D05 3.3, Out-of-band-rejection	15
8.3 RSS-131 5.2.2, KDB 935210 D05 3.4, Input-versus-output signal comparison	17
8.4 FCC 27.50 (c), RSS-131 5.2.3, RSS-130 4.4, KDB 935210 D05 3.5, Mean output power and amplifier/booster gain	20
8.5 FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.6.2, Out-of-band/out-of-block emissions conducted measurements	24
8.6 FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.6.3, Spurious emissions conducted	29
8.7 FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.8, Spurious emissions radiated measurements	33
Section 9. Setup Photos	35
9.1 Set-up	35
Section 10. Block diagrams of test set-ups	36
10.1 Measuring AGC threshold level, Out-of-band-rejection, Input-versus-output signal comparison, Mean output power and amplifier/booster gain, Spurious emissions conducted measurements	36
10.2 Out-of-band/out-of-block emissions conducted measurements (intermodulation test)	36
10.3 Spurious emissions radiated measurements	37

Section 1. Report summary

1.1 Applicant and manufacturer

Company name	Deltanode Solutions AB
Address	Hammarby Fabriksvag 61
City	Stockholm
Province/State	
Postal/Zip code	SE-120 30
Country	Sweden

1.2 Test specifications

FCC Part 27	Miscellaneous Wireless Communications Services
RSS-131 Issue 3	Zone Enhancers
RSS-130 Issue 1	Mobile Broadband Services (MBS), Equipment Operating in the Frequency, Bands 698-756 MHz and 777-787 MHz
935210 D05 Indus Booster Basic Meas v01r02	MEASUREMENTS GUIDANCE FOR INDUSTRIAL AND NON-CONSUMER SIGNAL BOOSTER, REPEATER, AND AMPLIFIER DEVICES

1.3 Statement of compliance

In the configuration tested, the EUT was found compliant.

Testing was completed against all relevant requirements of the test standard. Results obtained indicate that the product under test complies in full with the requirements tested. The test results relate only to the items tested.

See "Summary of test results" for full details.

1.4 Exclusions

None

1.5 Test report revision history

Revision #	Details of changes made to test report
TRF	Original report issued

Section 2. Summary of test results

2.1 FCC Part 27, RSS-131 Issue 3, RSS-130 Issue 1

Part	Test description	Verdict
KDB 935210 D05 3.2	Measuring AGC threshold level	Reported
RSS-131 5.2.1, KDB 935210 D05 3.3	Out-of-band-rejection	Pass
RSS-131 5.2.2, KDB 935210 D05 3.4,	Input-versus-output signal comparison	Pass
FCC 27.50(c), RSS-131 5.2.3, RSS-130 4.4, KDB 935210 D05 3.5	Mean output power and amplifier/booster gain	Pass
FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.6.2,	Out-of-band/out-of-block emissions conducted measurements	Pass
FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.6.3	Spurious emissions conducted measurements	Pass
FCC 27.54, RSS-131 5.2.4, RSS-130 4.3, KDB 935210 D05 3.7	Frequency stability measurements	N/A ¹
FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.8	Spurious emissions radiated measurements	Pass

Notes: ¹The signal booster does not alter the input signal in any way

Section 3. Equipment under test (EUT) details

3.1 Sample information

Receipt date	April 29, 2015
Nemko sample ID number	13300322

3.2 EUT information

Product name	700 LC
Model	DHR805
Serial number	10503

3.3 Technical information

Operating band	728 – 746 / 698 – 716 MHz
Modulation type	LTE
Channel Spacing	Standard
Power requirements	110 V _{AC} , ~3 A for entire system tested
Emission designator	1M40D7W, 3M00D7W, 5M00D7W, and 10M0D7W
Gain	85 dB
Antenna information	External Antenna is not provided EUT used a 50 Ω termination.

3.4 Product description and theory of operation

Off air high power repeater 33 dBm of output power on DL, 25 dBm of output power on UL, 85 dB gain in both DL and UL

3.5 EUT exercise details

The EUT was controlled via a Laptop interface with GUI to configure the system. The EUT uses set channels Bandwidths user settable to a maximum of 15 MHz.

3.6 EUT setup diagram



Figure 3.6-1: Setup diagram

Section 4. Engineering considerations

4.1 Modifications incorporated in the EUT

There were no modifications performed to the EUT during this assessment.

4.2 Technical judgment

None

4.3 Deviations from laboratory tests procedures

No deviations were made from laboratory procedures.

Section 5. Test conditions

5.1 Atmospheric conditions

Temperature	15–30 °C
Relative humidity	20–75 %
Air pressure	860–1060 mbar

When it is impracticable to carry out tests under these conditions, a note to this effect stating the ambient temperature and relative humidity during the tests shall be recorded and stated.

5.2 Power supply range

The normal test voltage for equipment to be connected to the mains shall be the nominal mains voltage. For the purpose of the present document, the nominal voltage shall be the declared voltage, or any of the declared voltages $\pm 5\%$, for which the equipment was designed.

Section 6. Measurement uncertainty

6.1 Uncertainty of measurement

Measurement uncertainty budgets for the tests are detailed below. Measurement uncertainty calculations assume a coverage factor of $K = 2$ with 95% certainty.

Test name	Measurement uncertainty, dB
All antenna port measurements	0.55
Conducted spurious emissions	1.13
Radiated spurious emissions	3.78

Section 7. Test equipment

7.1 Test equipment list

Table 7.1-1: Equipment list

Equipment	Manufacturer	Model no.	Asset no.	Cal cycle	Next cal.
3 m EMI test chamber	TDK	SAC-3	FA002047	1 year	Dec. 09/18
Flush mount turntable	Sunol	FM2022	FA002082	—	NCR
Controller	Sunol	SC104V	FA002060	—	NCR
Antenna mast	Sunol	TLT2	FA002061	—	NCR
Receiver/spectrum analyzer	Rohde & Schwarz	ESU 26	FA002043	1 year	March 26/19
Spectrum analyzer	Rohde & Schwarz	FSP	FA001920	1 year	Aug. 08/18
Bilog antenna (20–3000 MHz)	Sunol	JB3	FA002108	1 year	Aug. 31/18
Horn antenna (1–18 GHz)	EMCO	3115	FA000825	1 year	Sept 1/18
Preamp (1–18 GHz)	ETS-Lindgren	124334	FA002873	1 year	Nov. 3/18
50 Ω coax cable	Huber + Suhner	None	FA002074	1 year	May 12/18
50 Ω coax cable	Huber + Suhner	None	FA002830	1 year	May 08/19
DFS and Adaptivity system	Aeroflex	PXI 30xx	FA002628	1 year	Aug 26/18

Note: NCR - no calibration required, VOU - verify on use

Section 8. Testing data

8.1 KDB 935210 D05 3.2, Measuring AGC threshold level

8.1.1 Definitions and limits

The AGC threshold is the input power at which a 1 dB increase in the input signal power no longer causes a 1 dB increase in the output power.

8.1.2 Test summary

Test date	August 7, 2018	Temperature	23 °C
Test engineer	Kevin Rose	Air pressure	1005 mbar
Verdict	Pass	Relative humidity	43 %

8.1.3 Observations, settings and special notes

Test receiver settings:

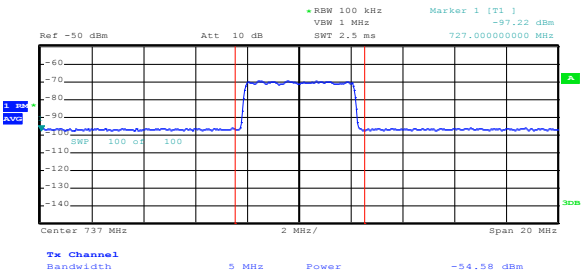
Detector mode	RMS (for average), Peak (for peak)
Resolution bandwidth	100 kHz
Integration bandwidth	>OBW
Video bandwidth	>RBW
Trace mode	Power Average (for average), Max Hold (for peak)
Measurement time	Auto



8.1.4 Test data

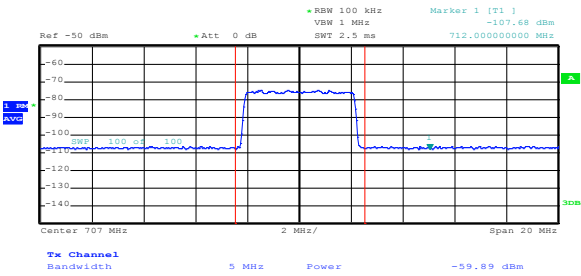
Table 8.1-1: AGC Threshold

Modulation	Frequency, MHz	RF input power AVG, dBm
AWGN	737	-54.58
AWGN	707	-59.89



Date: 7.AUG.2018 23:12:47

Figure 8.1-1: AWGN AGC +1 dB DL 737 MHz input power average



Date: 29.AUG.2018 21:55:21

Figure 8.1-2: AWGN AGC +1 dB UL 707 MHz input power average

8.2 RSS-131 5.2.1, KDB 935210 D05 3.3, Out-of-band-rejection

8.2.1 Definitions and limits

The gain-versus-frequency response and the 20 dB bandwidth of the zone enhancer shall be reported. The zone enhancer shall reject amplification of other signals outside the passband of the zone enhancer.

8.2.2 Test summary

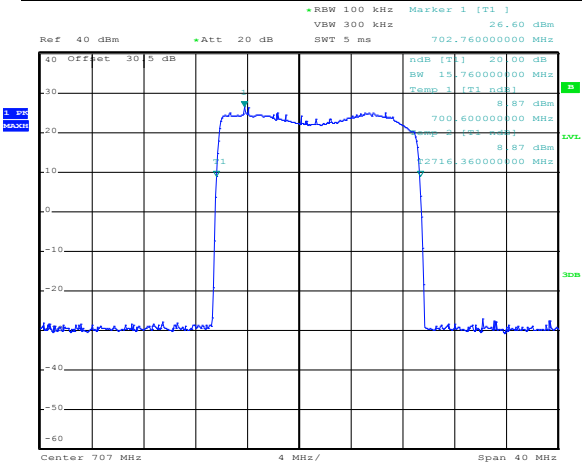
Test date	August 7, 2018	Temperature	23 °C
Test engineer	Kevin Rose	Air pressure	1005 mbar
Verdict	Pass	Relative humidity	43 %

8.2.3 Observations, settings and special notes

Frequency range	Frequency range = ± 250 % of the passband,
Detector mode	Peak
Resolution bandwidth sweep	1 % to 5 % of the EUT passband,
Video bandwidth	>RBW
Trace mode	Max Hold
Measurement time	Auto

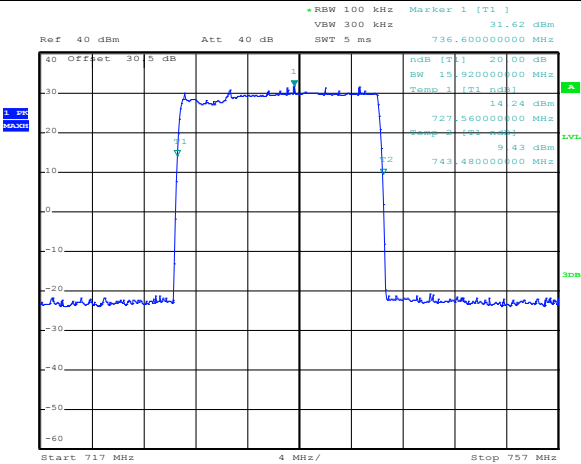


8.2.4 Test data



Date: 21.AUG.2018 21:58:19

Figure 8.2-1: AWGN UL Pass Band



Date: 7.AUG.2018 23:22:21

Figure 8.2-2: AWGN DL Pass Band

8.3 RSS-131 5.2.2, KDB 935210 D05 3.4, Input-versus-output signal comparison

8.3.1 Definitions and limits

The spectral growth of the 26 dB bandwidth of the output signal shall be less than 5% of the input signal spectrum.

A 26 dB bandwidth measurement shall be performed on the input signal and the output signal; alternatively, the 99% OBW can be measured and used.

8.3.2 Test summary

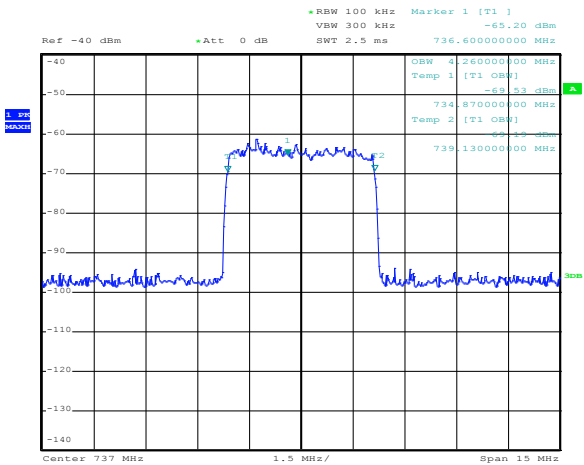
Test date	August 7, 2018	Temperature	23 °C
Test engineer	Kevin Rose	Air pressure	1005 mbar
Verdict	Pass	Relative humidity	43 %

8.3.3 Observations, settings and special notes

Receiver settings were:

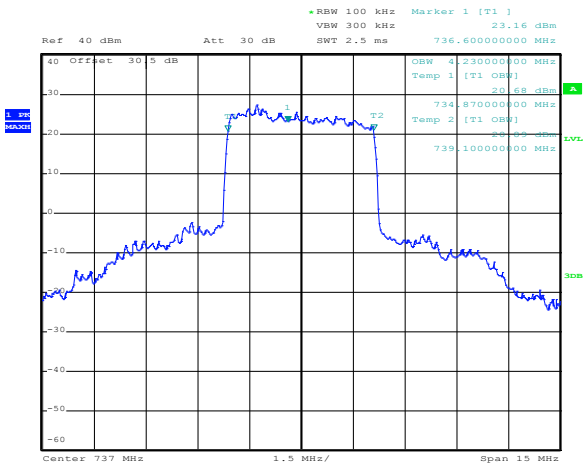
Frequency range	250% of OBW
Detector mode	Peak
Resolution bandwidth	1 % to 5 % of the anticipated OBW
Video bandwidth	>RBW
Trace mode	Max Hold

8.3.4 Test data



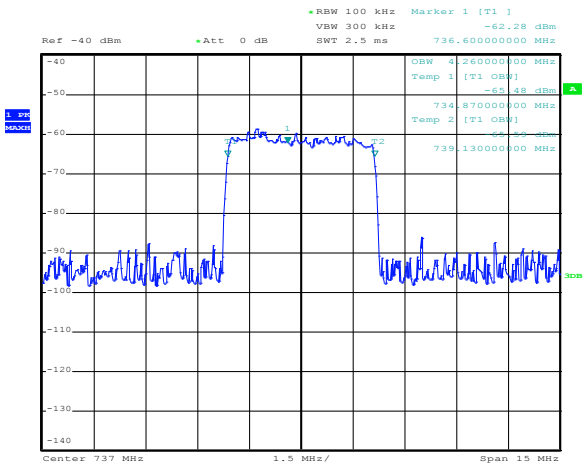
Date: 7.AUG.2018 23:35:00

Figure 8.3-1: AWGN AGC-0.5 dB 737 MHz input 99% BW



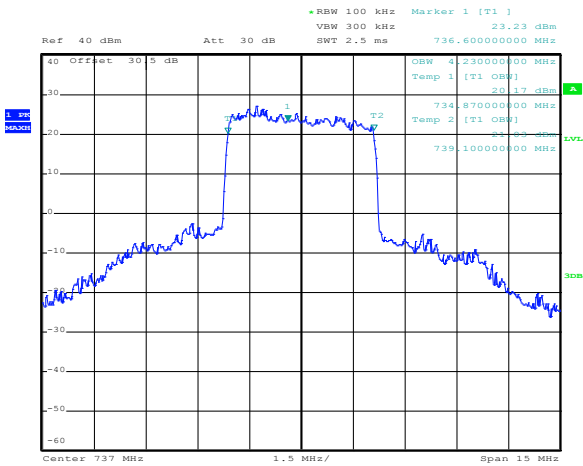
Date: 7.AUG.2018 23:33:09

Figure 8.3-2: AWGN AGC-0.5 dB 737 MHz output 99% BW



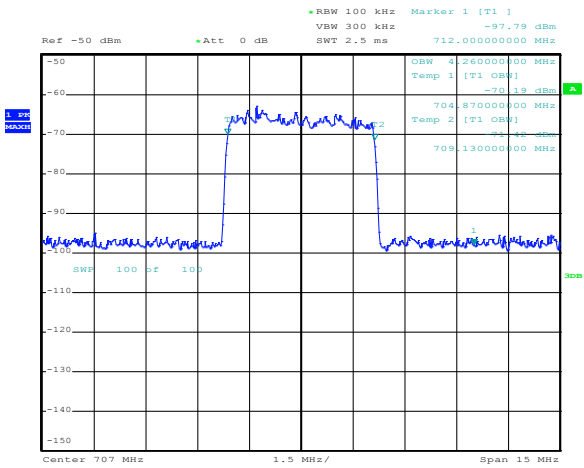
Date: 7.AUG.2018 23:34:36

Figure 8.3-3: AWGN AGC +3 dB 737 MHz input 99% BW



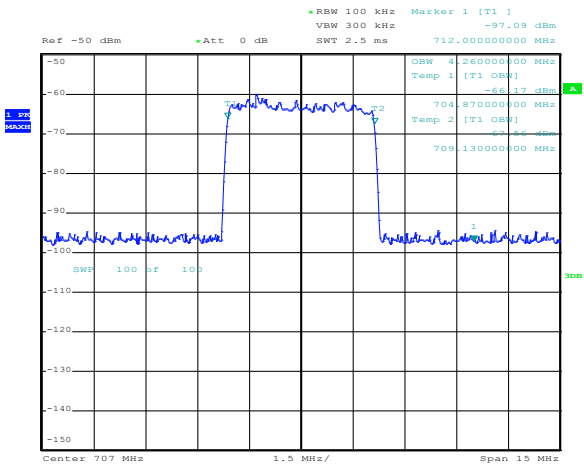
Date: 7.AUG.2018 23:33:40

Figure 8.3-4: AWGN AGC +3 dB 737 MHz output 99% BW



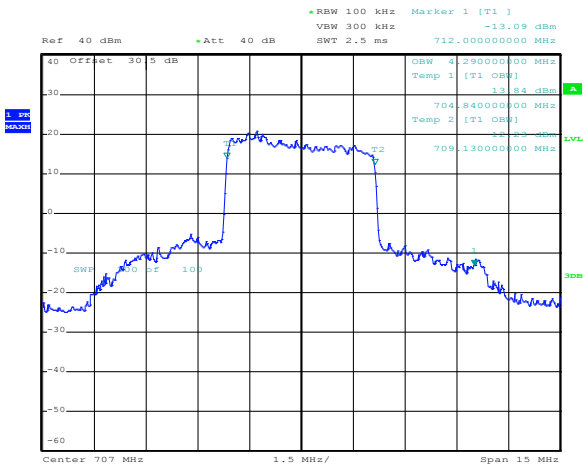
Date: 29.AUG.2018 21:52:30

Figure 8.3-5: AWGN AGC-0.5 dB 707 MHz input 99% BW



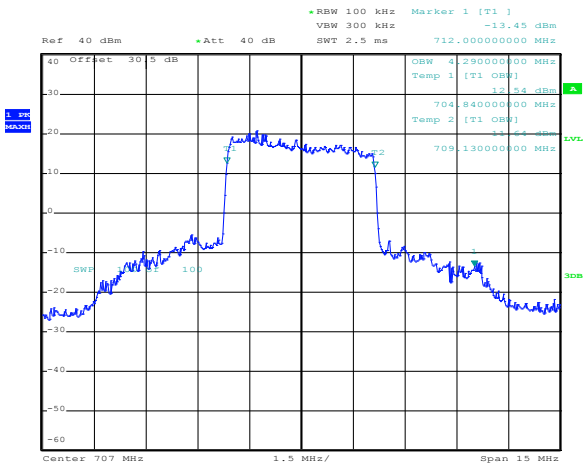
Date: 29.AUG.2018 21:52:02

Figure 8.3-7: AWGN AGC +3 dB 707 MHz input 99% BW



Date: 29.AUG.2018 21:50:24

Figure 8.3-6: AWGN AGC-0.5 dB 707 MHz output 99% BW



Date: 29.AUG.2018 21:51:03

Figure 8.3-8: AWGN AGC +3 dB 707 MHz output 99% BW

8.4 FCC 27.50 (c), RSS-131 5.2.3, RSS-130 4.4, KDB 935210 D05 3.5, Mean output power and amplifier/booster gain

8.4.1 Definitions and limits

FCC 27.50(c)

(1)(3) High Density, 1000 W ERP or 1000 W/MHz ERP with an emission bandwidth greater than 1 MHz

(2)(4) Low Density, 2000 W ERP or 2000 W/MHz ERP with an emission bandwidth greater than 1 MHz

RSS-131 5.2.3 The zone enhancer gain shall not exceed the nominal gain by more than 1.0 dB. Outside of the 20 dB bandwidth, the gain shall not exceed the gain at the 20 dB point

RSS-130 4.4, refer to SRSP-518. In addition, the peak-to-average power ratio (PAPR) of the transmitter shall not exceed 13 dB for more than 0.1% of the time and shall use a signal corresponding to the highest PAPR during periods of continuous transmission.

8.4.2 Test summary

Test date	August 7, 2018	Temperature	23 °C
Test engineer	Kevin Rose	Air pressure	1005 mbar
Verdict	Pass	Relative humidity	43 %

8.4.3 Observations, settings and special notes

Spectrum analyzer settings:

Detector mode	RMS (for average), Peak (for peak)
Resolution bandwidth	100 kHz
Integration bandwidth	>OBW
Video bandwidth	>RBW
Trace mode	Power Average (for average), Max Hold (for peak)
Measurement time	Auto

Table 8.4-1: Peak to Average results

Modulation	Frequency, MHz	RF output power AVG, dBm	RF output power Peak, dBm	Peak to Average Ratio, dB	Peak to Average Ratio Limit, dBm	Peak to Average Margin, dB
AWGN	737	33.11	42.91	9.80	13	3.20
AWGN	707	23.6	33.14	9.54	13	3.46

Table 8.4-2: +3 dB Average results

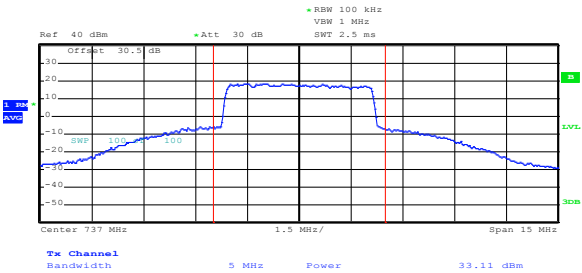
Modulation	Frequency, MHz	RF output power AVG, dBm
AWGN	737	33.09
AWGN	707	23.59

Table 8.4-3: Amplifier Gain

Modulation	Frequency, MHz	RF output power AVG, dBm	RF input power AVG, dBm	Gain, dB	Rated Gain, dB	Margin, dB
AWGN	737	33.11	-52.23	85.34	85	0.34
AWGN	707	23.6	-60.87	84.47	85	-0.53

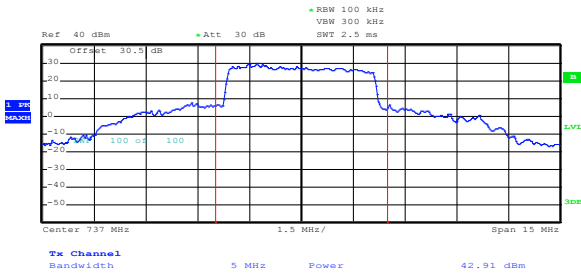


8.4.1 Test data



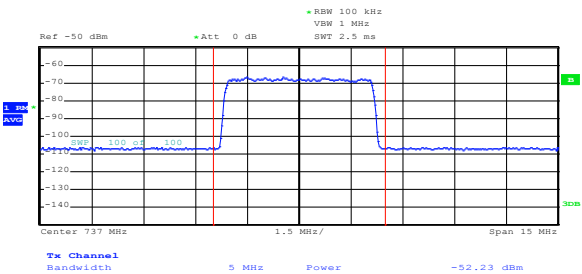
Date: 21.AUG.2018 19:41:43

Figure 8.4-1: AWGN AGC-0.5 dB 737 MHz output power average



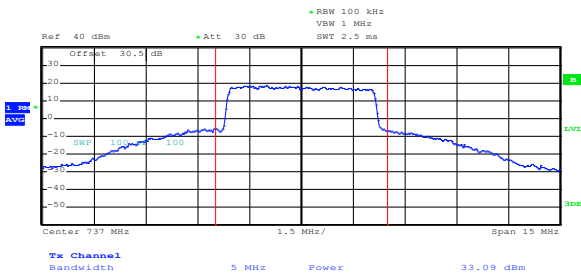
Date: 21.AUG.2018 19:42:11

Figure 8.4-2: AWGN AGC-0.5 dB 737 MHz output power peak



Date: 21.AUG.2018 19:44:35

Figure 8.4-3: AWGN AGC-0.5 dB DL 737 MHz input power average

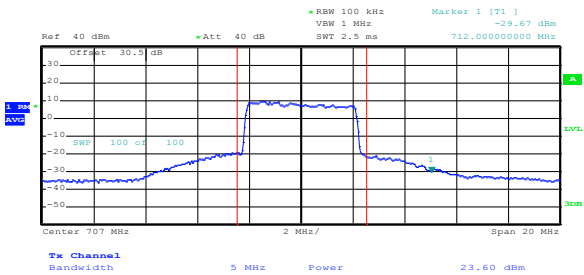


Date: 21.AUG.2018 19:42:58

Figure 8.4-4: AWGN AGC +3 dB 737 MHz output power average

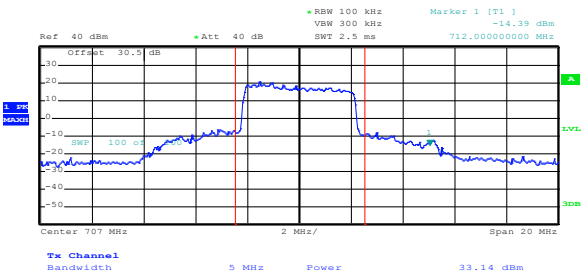
Section 8
Test name
Specification

Testing data
Mean output power and amplifier/booster gain
FCC 27.50 (c), RSS-131 5.2.3, RSS-130 4.4, KDB 935210 D05 3.5, Output power



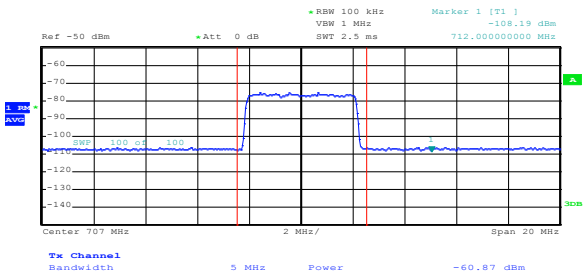
Date: 29.AUG.2018 21:45:26

Figure 8.4-5: AWGN AGC-0.5 dB 707MHz output power average



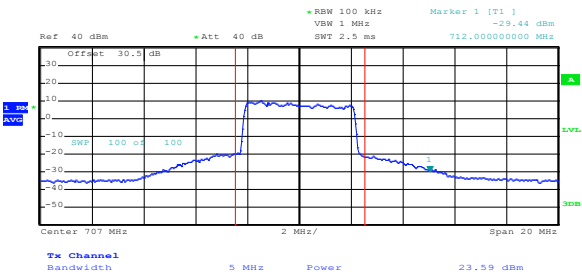
Date: 29.AUG.2018 21:45:45

Figure 8.4-6: AWGN AGC-0.5 dB 707 MHz output power peak



Date: 29.AUG.2018 21:53:35

Figure 8.4-7: AWGN AGC-0.5 dB DL 707 MHz input power average



Date: 29.AUG.2018 21:44:55

Figure 8.4-8: AWGN AGC +3 dB 707 MHz output power average

8.5 FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.6.2, Out-of-band/out-of-block emissions conducted measurements

8.5.1 Definitions and limits

FCC 27.53(g) / RSS-130 4.6 The power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB.

8.5.2 Test summary

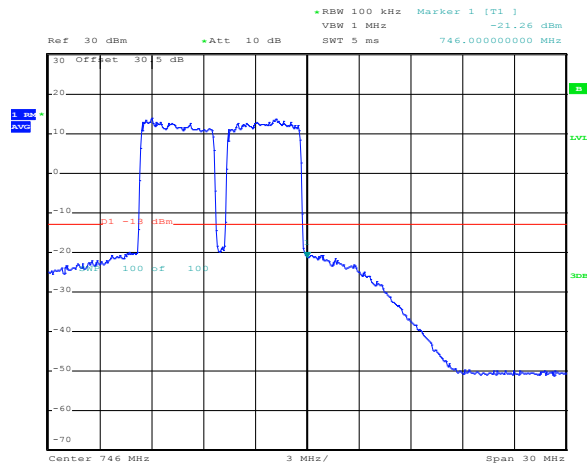
Verdict	Pass
---------	------

8.5.3 Observations, settings and special notes

Test receiver settings:

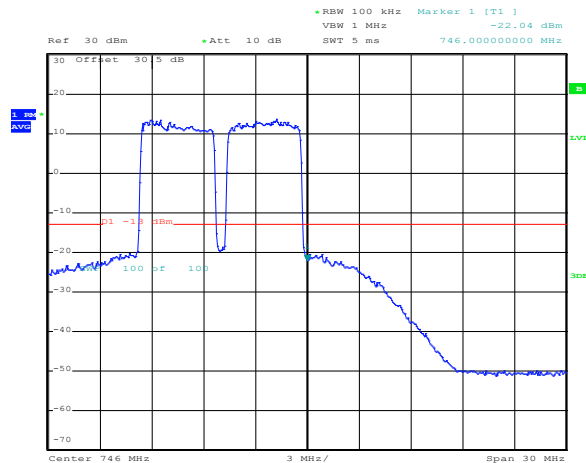
Detector mode	RMS
Resolution bandwidth	100 kHz (AWGN), 3 kHz(MSK)
Integration bandwidth	>OBW
Video bandwidth	>RBW
Trace mode	Power Average (100 sweeps)
Measurement time	Auto

8.5.4 Test data



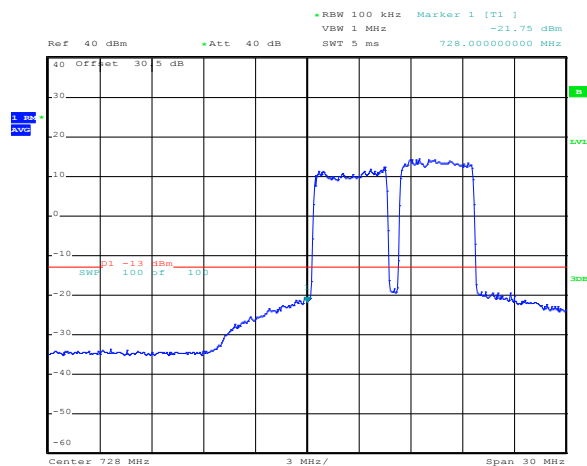
Date: 21.AUG.2018 19:57:13

Figure 8.5-1: 2X AWGN 738.5 and 743.5 MHz AGC Out-of-block



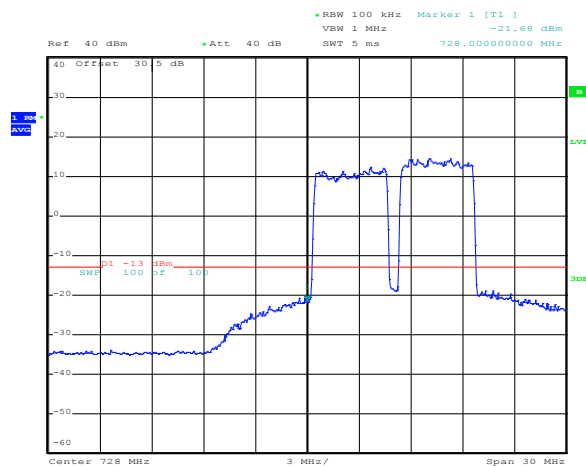
Date: 21.AUG.2018 19:57:43

Figure 8.5-2: 2X AWGN 738.5 and 743.5 MHz AGC + 3dB Out-of-block



Date: 21.AUG.2018 20:10:43

Figure 8.5-3: 2X AWGN 730.5 and 735.5 MHz AGC Out-of-block

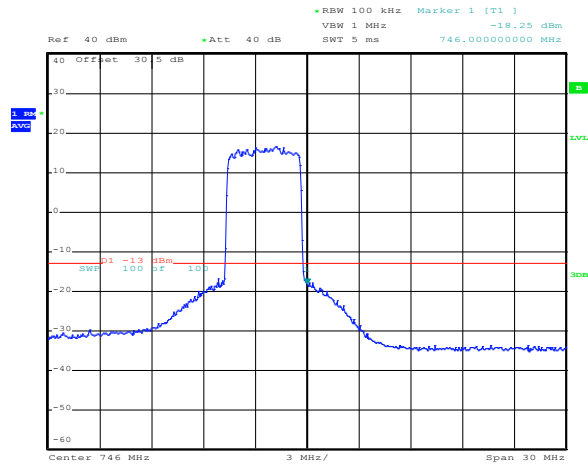


Date: 21.AUG.2018 20:11:11

Figure 8.5-4: 2X AWGN 730.5 and 735.5 MHz AGC + 3dB Out-of-block

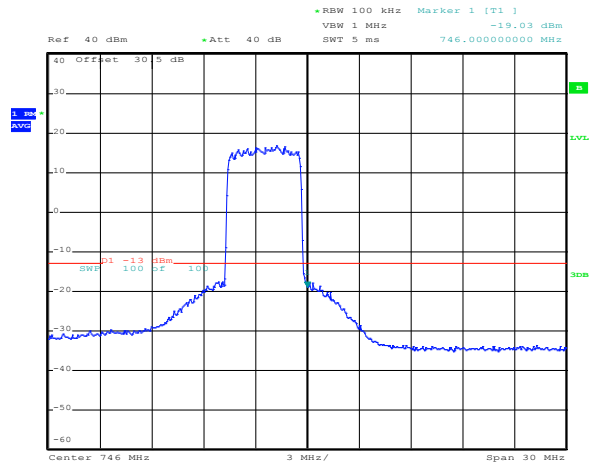
Section 8
Test name
Specification

Testing data
 Out-of-band/out-of-block emissions conducted measurements
 FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.6.2



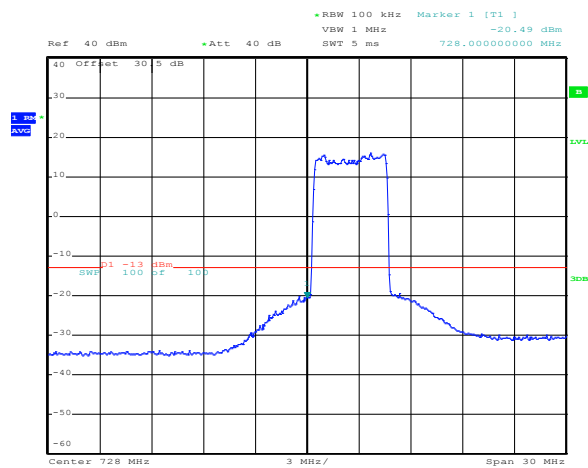
Date: 21.AUG.2018 20:01:12

Figure 8.5-5: AWGN 743.5 MHz AGC Out-of-block



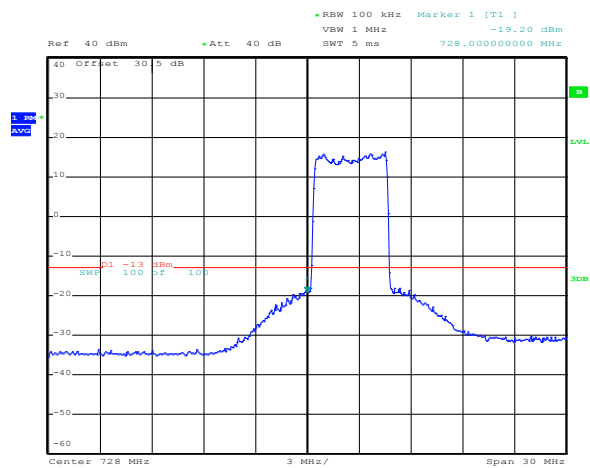
Date: 21.AUG.2018 20:00:41

Figure 8.5-6: AWGN 743.5 MHz AGC + 3dB Out-of-block



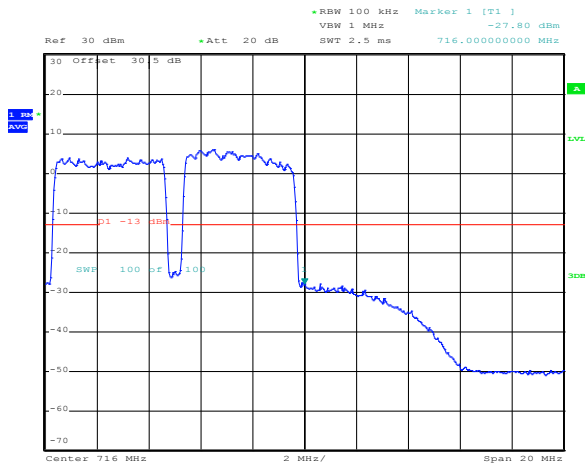
Date: 21.AUG.2018 20:09:19

Figure 8.5-7: AWGN 730.5 MHz AGC Out-of-block



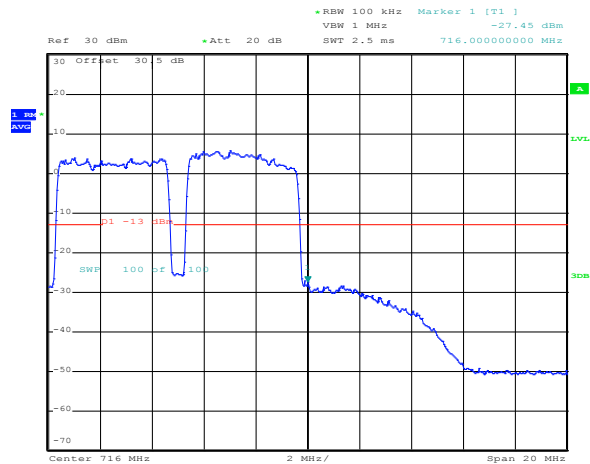
Date: 21.AUG.2018 20:09:48

Figure 8.5-8: AWGN 730.5 MHz AGC + 3dB Out-of-block



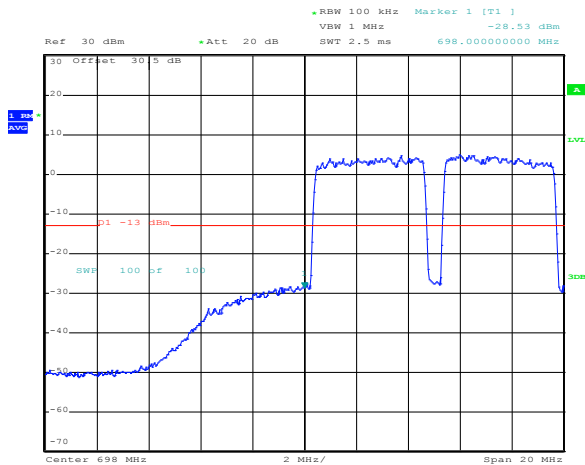
Date: 29.AUG.2018 22:17:51

Figure 8.5-9: 2X AWGN 708.5 and 713.5 MHz AGC Out-of-block



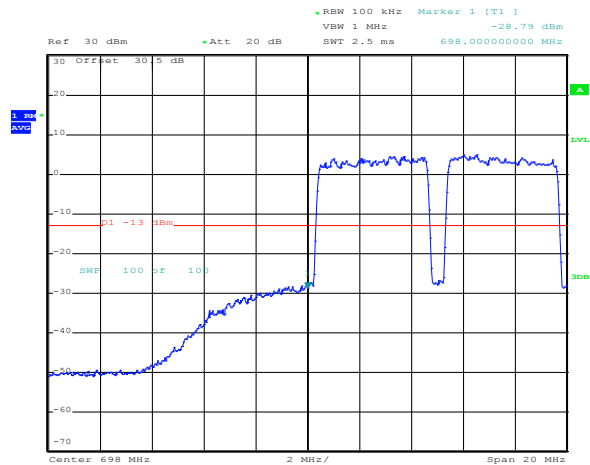
Date: 29.AUG.2018 22:18:26

Figure 8.5-10: 2X AWGN 708.5 and 713.5 MHz AGC + 3dB Out-of-block



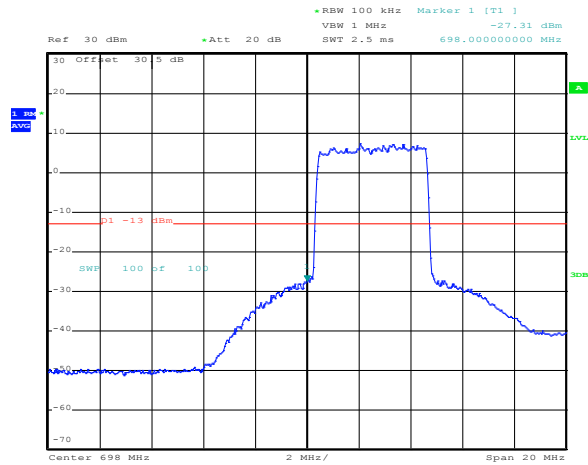
Date: 29.AUG.2018 22:15:53

Figure 8.5-11: 2X AWGN 700.5 and 705.5 MHz AGC Out-of-block



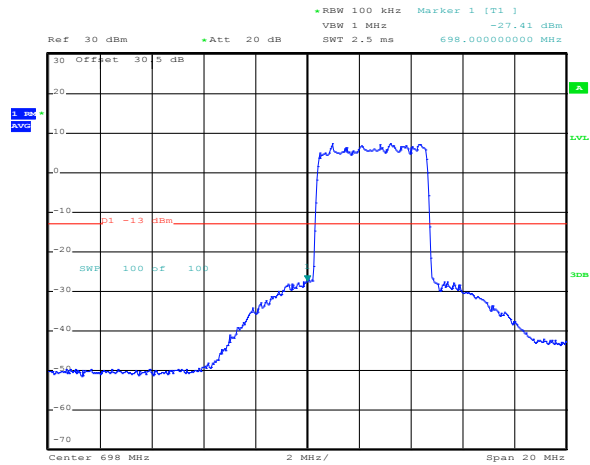
Date: 29.AUG.2018 22:15:29

Figure 8.5-12: 2X AWGN 700.5 and 705.5 MHz AGC + 3dB Out-of-block



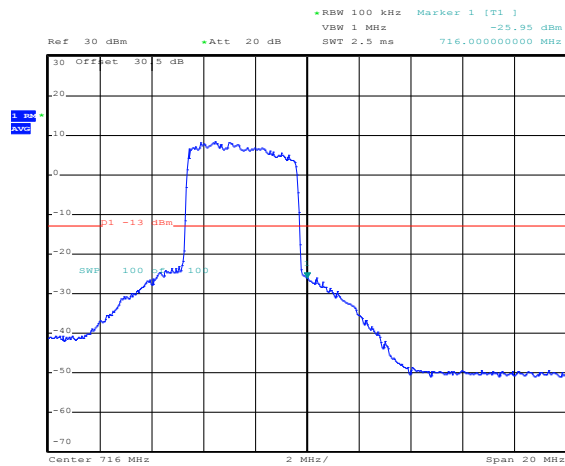
Date: 29.AUG.2018 22:13:46

Figure 8.5-13: AWGN 700.5 MHz AGC Out-of-block



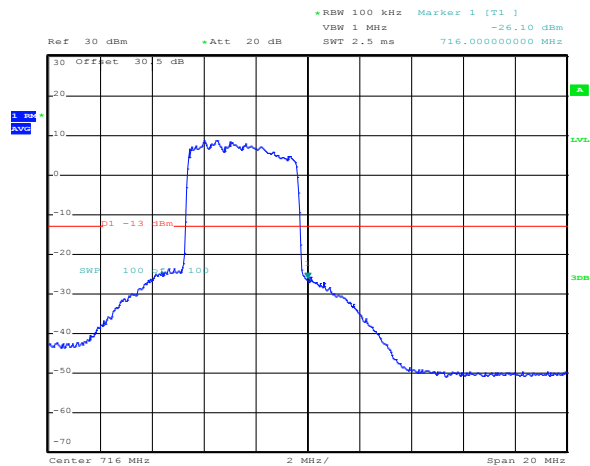
Date: 29.AUG.2018 22:14:17

Figure 8.5-14: AWGN 700.5 MHz AGC + 3dB Out-of-block



Date: 29.AUG.2018 22:12:13

Figure 8.5-15: AWGN 713.5 MHz AGC Out-of-block



Date: 29.AUG.2018 22:11:54

Figure 8.5-16: AWGN 713.5 MHz AGC + 3dB Out-of-block

8.6 FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.6.3, Spurious emissions conducted

FCC 27.53(g) / RSS-130 4.6 The power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB.

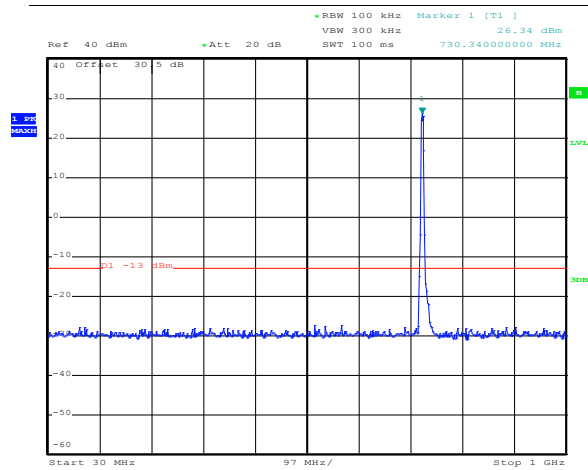
8.6.1 Test summary

Verdict	Pass
---------	------

8.6.2 Observations, settings and special notes

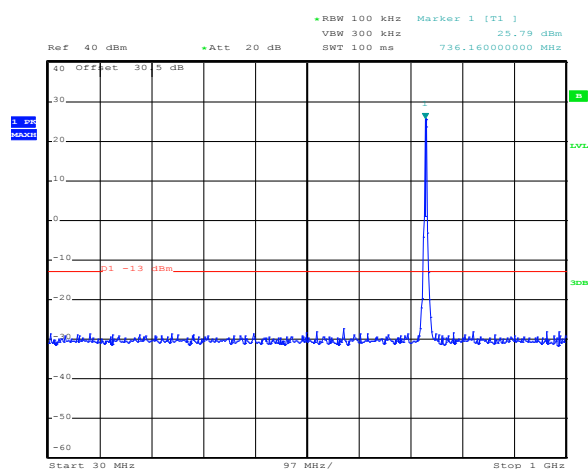
Frequency range	30 MHz to 10 th harmonic
Detector mode	Peak
Resolution bandwidth sweep	100 kHz (below 1 GHz), 1000 kHz (above 1 GHz)
Video bandwidth	>RBW
Trace mode	Max Hold
Measurement time	Auto

8.6.3 Test data



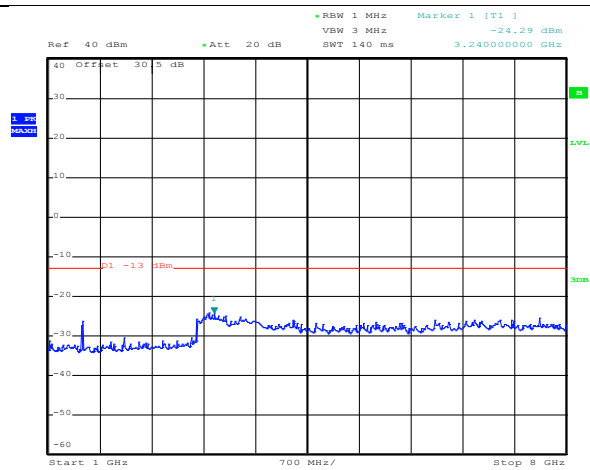
Date: 21.AUG.2018 21:29:15

Figure 8.6-1: AWGN 730.5 MHz Conducted 30-1000 MHz



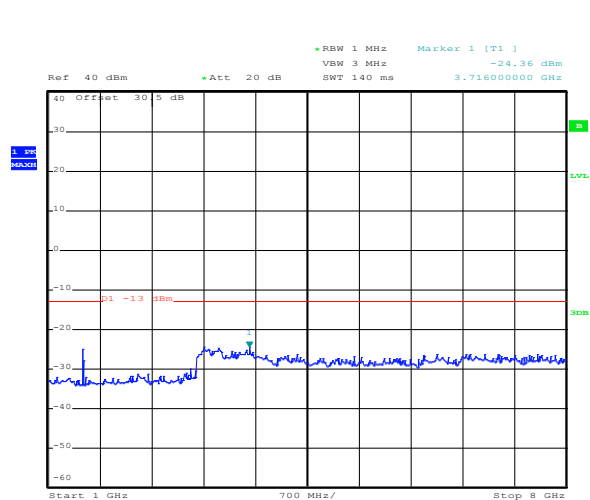
Date: 21.AUG.2018 21:31:18

Figure 8.6-3: AWGN 737 MHz Conducted 30-1000 MHz



Date: 21.AUG.2018 21:29:46

Figure 8.6-2: AWGN 730.5 MHz Conducted 1-8 GHz

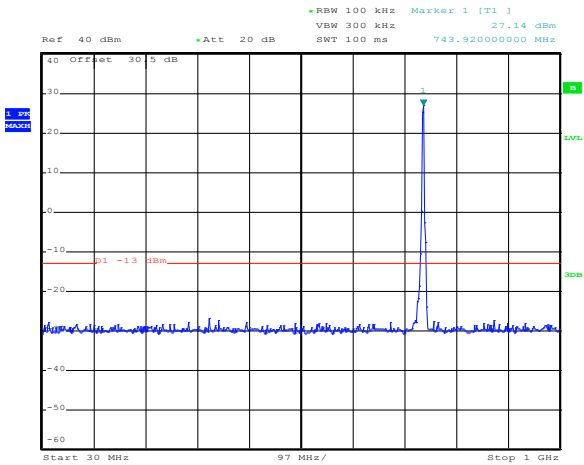


Date: 21.AUG.2018 21:30:33

Figure 8.6-4: AWGN 737 MHz Conducted 1-8 GHz

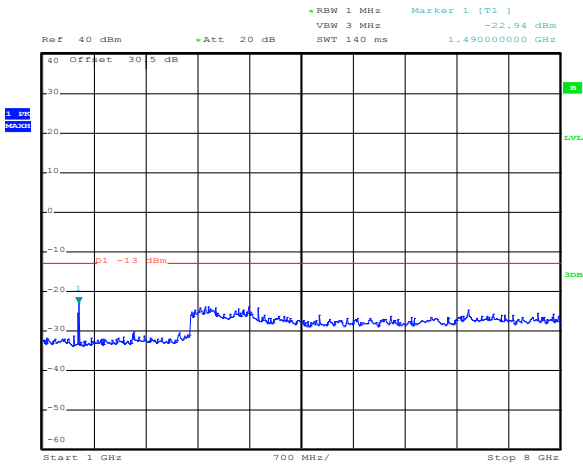
Section 8
Test name
Specification

Testing data
Spurious emissions conducted
FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.6.3



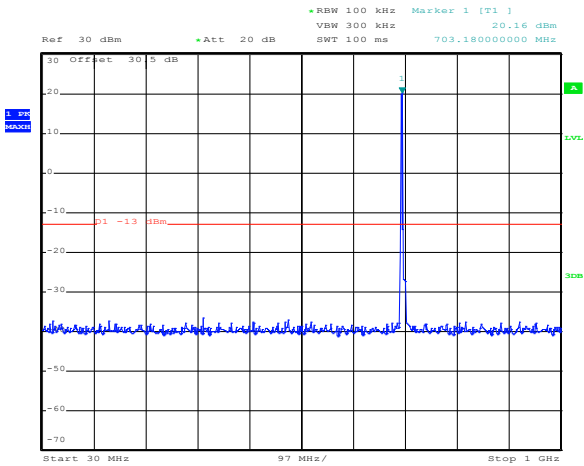
Date: 21.AUG.2018 21:34:52

Figure 8.6-5: AWGN 743.5 MHz Conducted 30-1000 MHz



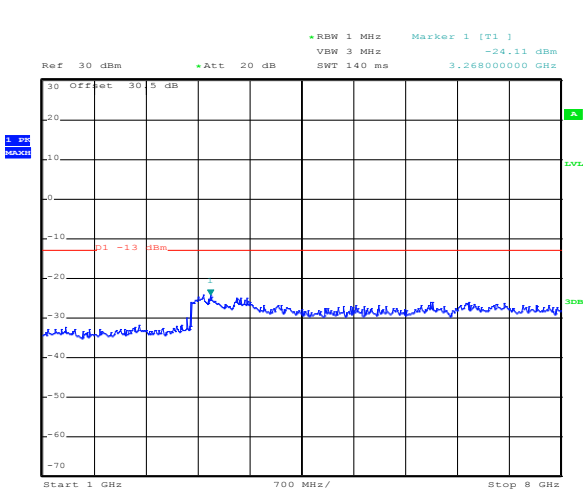
Date: 21.AUG.2018 21:35:36

Figure 8.6-6: AWGN 743.5 MHz Conducted 1-8 GHz



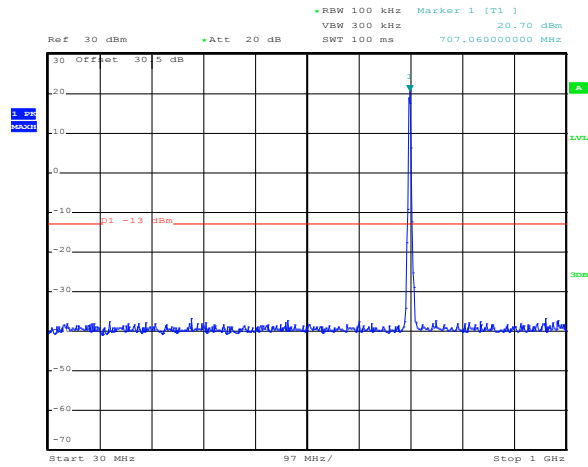
Date: 29.AUG.2018 22:06:14

Figure 8.6-7: AWGN 700.5 MHz Conducted 30-1000 MHz



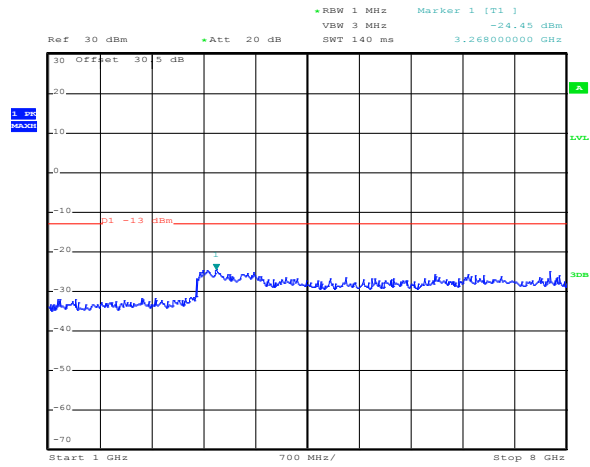
Date: 29.AUG.2018 22:06:51

Figure 8.6-8: AWGN 700.5 MHz Conducted 1-8 GHz



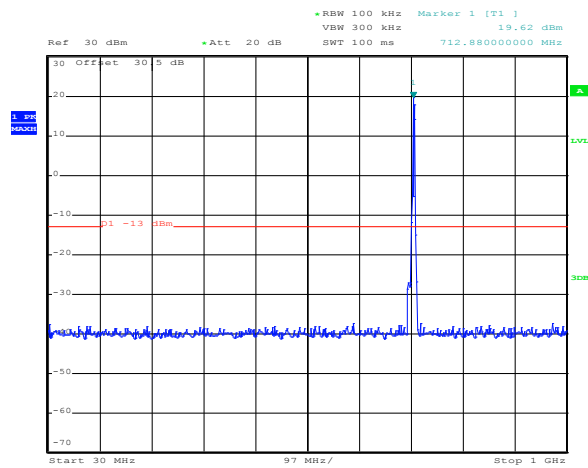
Date: 29.AUG.2018 22:03:41

Figure 8.6-9: AWGN 707 MHz Conducted 30-1000 MHz



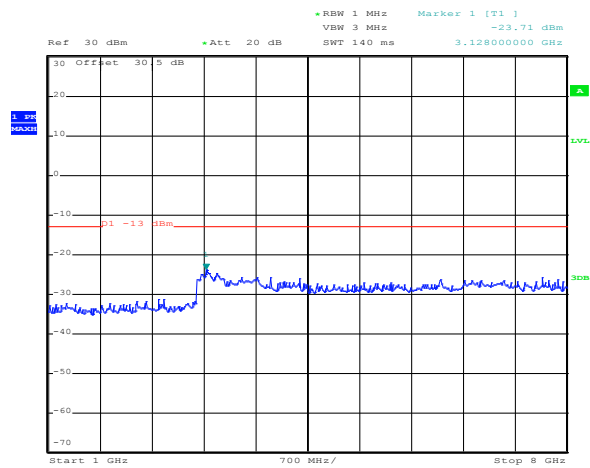
Date: 29.AUG.2018 22:04:21

Figure 8.6-10: AWGN 707 MHz Conducted 1-8 GHz



Date: 29.AUG.2018 22:05:14

Figure 8.6-11: AWGN 713.5 MHz Conducted 30-1000 MHz



Date: 29.AUG.2018 22:04:49

Figure 8.6-12: AWGN 713.5 MHz Conducted 1-8 GHz

8.7 FCC 27.53(g), RSS-130 4.6, KDB 935210 D05 3.8, Spurious emissions radiated measurements

8.7.1 Definitions and limits

27.53(g) / RSS-130 4.6 The power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB.

8.7.2 Test summary

Verdict	Pass
---------	------

8.7.3 Observations, settings and special notes

Worst case examples are provided. No emissions within 20 dB of the limit were detected.

Receiver settings were:

Frequency range	30 MHz to 10 th harmonic
Detector mode	Peak
Resolution bandwidth	100 kHz (below 1 GHz), 1000 kHz (above 1 GHz)
Video bandwidth	>RBW
Trace mode	Max Hold

8.7.4 Test data

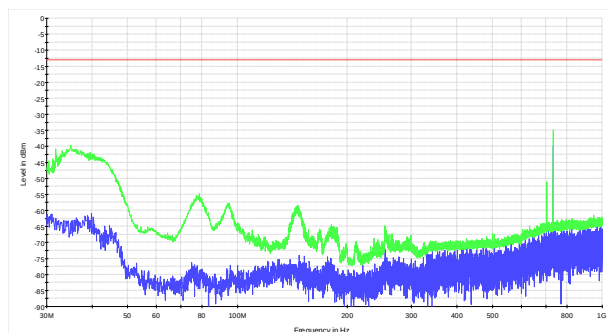


Figure 8.7-1: 30 MHz to 1 GHz

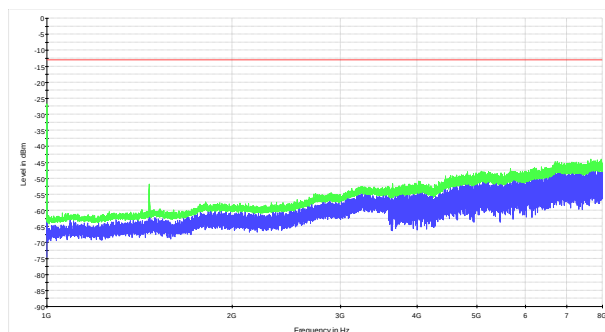


Figure 8.7-2: 1 GHz to 8 GHz

Section 9. Setup Photos

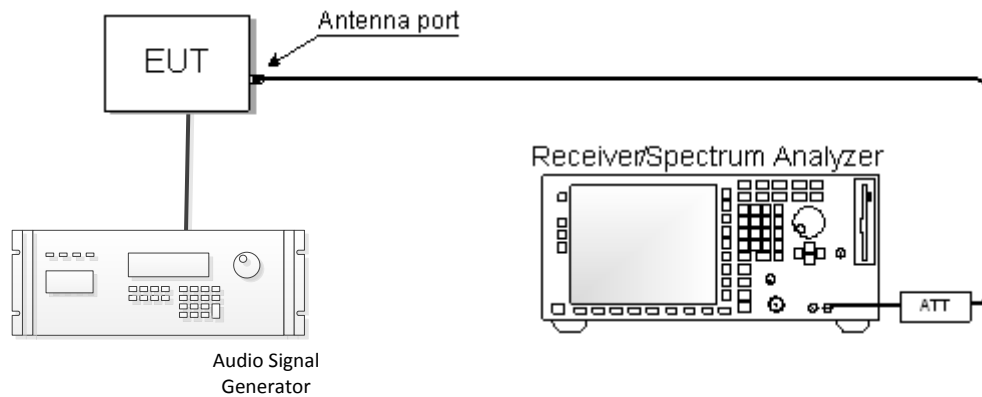
9.1 Set-up



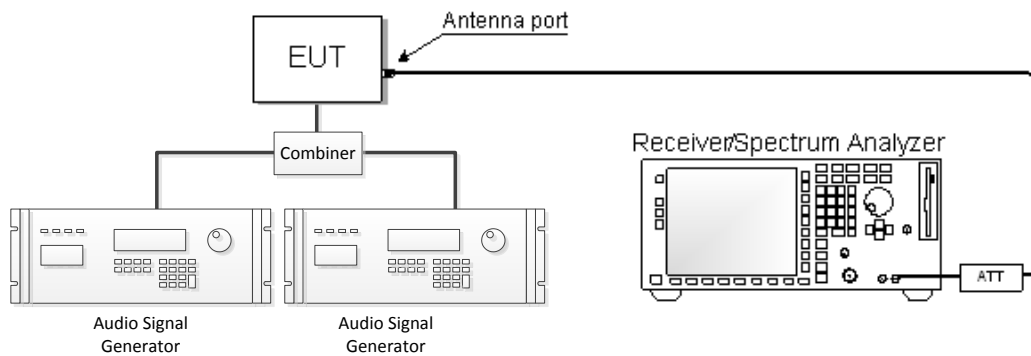
Figure 9.1-1: Radiated setup photo

Section 10. Block diagrams of test set-ups

10.1 Measuring AGC threshold level, Out-of-band-rejection, Input-versus-output signal comparison, Mean output power and amplifier/booster gain, Spurious emissions conducted measurements



10.2 Out-of-band/out-of-block emissions conducted measurements (intermodulation test)



10.3 Spurious emissions radiated measurements

