



ETS PRODUCT SERVICE AG



GSM TEST - REPORT

- PARTIAL -

3GPP TS 51.010-1
GCF-CC

Test report no.: G0M20709-0170-T-51

Model no.: Bolero-LT



Table of content

1	General information	2
1.1	Notes	2
1.2	Tester	3
1.3	Testing laboratory	4
1.4	Details of approval holder	5
1.5	Applications details	5
1.6	Test item	5
1.7	Test standards	6
1.8	Additional information	6
1.9	Abbreviations used for the test results	7
2	Technical test	8
2.1	Summary of test results	8
2.2	Test environment	8
2.3	Measurement and test set-up	8
2.4	Test equipment utilized	9
3	Test results	10
3.1	Test group overview	10
3.2	Tests under normal and extreme test conditions	10 - 11
3.3	Uncertainty budget	12 - 15
Annex A	Photos of the EUT	7 pages
Annex B	Measurement diagrams	
	GSM 900 Band	26 pages
	GSM 1800 Band	22 pages

1 General Information

1.1 Notes

The test results of this test report relate exclusively to the test item specified in 1.5. The ETS Product Service AG does not assume responsibility for any conclusions and generalisations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publications of extracts from the test report requires the prior written approval of the ETS Product Service AG.

- Only applicable to protocol testing services -

The purpose of conformity testing is to increase the probability of adherence to essential requirements or conformity specifications, as appropriate. The complexity of the technical specifications, however, means that the full and thorough testing is impracticable for both technical and economic reasons. Furthermore, there is no guarantee that a test sample which has passed all the relevant tests conforms to a specification. Neither is there any guarantee that such a test sample will interwork with other genuinely open systems. The existence of the test nevertheless provides the confidence that the test sample possess the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

A declaration by the manufacturer has to be submitted for all non tested required parameters and technical procedures which certify the conformation to the corresponding subclauses of the 3GPP TS 51.010-1 and GCF-CC.

1.2 Tester

Operator:

15.11.2007

F. Walter



Date

Name

Signature

Technical responsibility for area of testing:

15.11.2007

N. Kaspar



Date

Name

Signature

1.3 Testing laboratory

1.3.1 Location

ETS PRODUCT SERVICE AG
Storkower Straße 38c
D-15526 Reichenwalde b. Berlin
Germany
Telefon : +49 33631 888-0
Telefax : +49 33631 888-660

1.2.2 Details of accreditation status

ACCREDITED TESTING LABORATORY
DAR-registration number: DAT-P-201/96

ACCREDITED NOTIFIED BODY EMC
BNetzA-Registration number: BNetzA-BS EMV-07/61

ACCREDITED NOTIFIED BODY R&TTE
BNetzA-Registration number: BNetzA-BS-02/51-53

FCC FILED TEST LABORATORY:
Reg. No. 96970

INDUSTRY CANADA FILED TEST LABORATORY
Reg. No. IC 3470A

A2LA ACCREDITED
Certificate Number: 1983-01

BLUETOOTH QUALIFICATION TEST FACILITY (BQTF)
Accredited by: Bluetooth Qualification Review Board (BQRF)

CTIA AUTHORIZED TEST LABORATORY
Lab Code: 20020528-00

1.3.4 Test location, where different

1.4 Details of approval holder

Name : Falcom Wireless Communications GmbH
Street : Gewerbering 6
Town : 98704 Langewiesen
Country : Germany
Telephone : +49(0)3677 8042-0
Fax : +49(0)3677 8042-215

Contact : Herr Ralf Leipoldt
Email : ceo@falcom.de

1.5 Application details

Date of receipt of application : 26.09.2007
Date of receipt of test item : 26.09.2007
Date of test : 28.09.2007 - 14.11.2007

1.6 Test item

Description of test item : GSM/GPRS-GPS-tracking unit

Phase Identification : Phase II+

Type identification : Bolero-LT

Serial number : without serial number

Software Version : 07.02.003 (SVN 03)

Hardware Version : 02b

GPRS class : 10

SIM ATK : Not Supported

Module used : Telit GE864

Manufacturer: (if applicable)

Name : Falcom Wireless Communications GmbH
Street : Gewerbering 6
Town : 98704 Langewiesen
Country : Germany

Photos of the test item : See annex I

1.7 Test standard

- EN 301 419-1, (GSM 13.01) April 2000 version 4.1.1
- EN 301 420, (GSM 13.02) December 1999 version 4.0.1
- EN 301 511, (GSM 13.11) March 2003 version 9.0.2
- 3GPP TS 51.010-1 (GSM 11.10), November 2005 version 6.5.0
- GCF-CC, September 2005 version 3.19.0

1.8 Additional information

The equipment Bolero-LT contains the module Telit GE864. Based on the related GSM Test Report No. 22345RTC.002 a shortened test plan was created in confirmation with the manufacturer.

1.9 Abbreviations used for the test results

passed	EUT passed this test case
failed	EUT failed this test case
inc.	EUT did not pass and did not fail this test case, therefore the verdict “INCONCLUSIVE”
n.a.	Test case not applicable for the EUT
A	Test fully available and fully validated, testing at an accredited test laboratory required
B	Testing at an accredited test laboratory with exceptions (related to GCF-CC or PTCRB)
D	Manufacturers declaration without evidence
E	Tests validated, results are provided to CTIA; negative results will not cause loss of certification
N	Tests not applicable to a particular GSM frequency band
P	New test not yet validated

2 Technical Test

2.1 Summary of test results

No deviations from the requirements were ascertained in the course of the test performed.

The deviations from the requirements as shown in clause 3 were ascertained in the course of the test performed.

2.2 Test environment

Temperature : 18 ... 25 °C

Relative humidity content : 20 ... 75 %

Air pressure : 860 ... 1030 hPa

Details of power supply : 220 ... 240 V AC

Other parameter :

- Extreme test conditions : Operating voltage of the mobile
 $V_{\text{nom}} = 13.5 \text{ V DC}$

- Extreme temperature : - 10 / 55 °C

2.3 Measurement and test set-up

GSM/ PCN/ PCS/ 850 Test System TS8950G by Rohde & Schwarz

Test configuration and procedures in accordance to the 3GPP TS 51.010-1 (GSM 11.10)

2.4 Test equipment utilized

1. Type: GSM/PCN/PCS/850 TS8950G
 Software System SW RS-PASS V4.71, Common Part V10.10
 Hardware 1140.0009K02
 Manufacturer: Rohde&Schwarz
 Applied standard: Permanent reference document NAPRD.03
 Global Certification Forum reference document GCF-CC

2. Type: GSM SIM Simulator
 Software R 3.7
 Hardware IT³ Test Platform
 Manufacturer: Orga Kartensysteme
 Applied standard: Permanent reference document NAPRD.03

3. Anechoic chamber by ETS Product Service AG Halle 3 (ETS 0310)

3 Test Results

3.1 Test group overview

- 12 Transceiver
- 13 Transmitter
- 27 Testing of the SIM/ME interface

3.2 Tests under normal test conditions

3GPP TS 51.010 Item	TEST DESCRIPTION	GCF GSM 900 Cat	GCF GSM 1800 Cat	GSM 900/ 1800/ Dualband- required	Verdict GSM 900	Verdict GSM 1800	Comments
12.2.1	Radiated spurious emissions - MS allocated a channel	A	A	All Bands	passed	passed	
12.2.2	Radiated spurious emissions – MS in idle mode	A	A	All Bands	passed	passed	
13.16.2.4.1	Transmitter output power in GPRS multislot configuration- MS with permanent antenna connector	B	B	All Bands	passed	passed	
27.17.1.1	Electrical tests – phase preceding ME power on	A	A	900 or 1800	passed		
27.17.1.2	Electrical tests - Phase during SIM power on	A	A	900 or 1800	passed		
27.17.1.3	Electrical tests - Phase during ME power off with clock stop forbidden	A	A	900 or 1800	n.a.		
27.17.1.4	Electrical tests - Phase during ME power off with clock stop allowed	A	A	900 or 1800	passed		
27.17.1.5.1	SIM Type Recognition and Voltage Switching, Reaction of 3V only MEs on SIM type recognition failure	A	A	900 or 1800	passed		
27.17.1.5.2	SIM Type Recognition and Voltage Switching, Reaction of 3V only MEs on type recognition of 5V only SIMs	A	A	900 or 1800	passed		

3GPP TS 51.010 Item	TEST DESCRIPTION	GCF GSM 900 Cat	GCF GSM 1800 Cat	GSM 900/ 1800/ Dualband- required	Verdict GSM 900	Verdict GSM 1800	Comments
27.17.1.5.3	SIM Type Recognition and Voltage Switching, Reaction of MEs with 3V/5V SIM interface on recognition of a 5V only SIM	A	A	900 or 1800	n.a.		
27.17.1.5.4	SIM Type Recognition and Voltage Switching, Reaction of MEs with 3V/5V SIM interface on recognition of a 3V only SIM	A	A	900 or 1800	n.a.		
27.17.1.5.5	Reaction of 1,8V only MEs on SIM type recognition failure	A	A	900 or 1800	n.a.		
27.17.1.5.6	Reaction of 1,8V only MEs on type recognition of 3V SIMs	A	A	900 or 1800	n.a.		
27.17.1.5.7	Reaction of 1,8V technology MEs on type recognition of 3V technology SIMs	A	A	900 or 1800	n.a.		
27.17.1.5.8	Reaction of 1,8V technology MEs on type recognition of 1,8V technology SIMs	A	A	900 or 1800	n.a.		
27.17.2.1.1	Electrical tests on contact C1 / test 1	A	A	900 or 1800	passed		
27.17.2.1.2	Electrical tests on contact C1 / test 2	A	A	900 or 1800	passed		
27.17.2.2	Electrical tests on contact C2	A	A	900 or 1800	passed		
27.17.2.3	Electrical tests on contact C3	A	A	900 or 1800	passed		
27.17.2.5	Electrical tests on contact C7	A	A	900 or 1800	passed		

3.3 Uncertainty budget GSM / GPRS

Test Case	Conditions @ DUT TX/RX Port	Type of Specification	Level Uncertainty / dB (95% Confidence Level)	Source
12.1.1	Conducted Spurious Emissions – MS Allocated			1
	Wanted Signal @ $100\text{kHz} \leq f \leq 2\text{GHz}$	Absolute	0.3	
	Wanted Signal @ $2\text{GHz} < f \leq 12.75\text{GHz}$	Absolute	0.7	
12.1.2	Conducted Spurious Emissions – MS Idle			1
	Wanted Signal @ $100\text{kHz} \leq f \leq 100\text{MHz}$	Absolute	0.3	
	Wanted Signal @ $100\text{MHz} < f \leq 2\text{GHz}$	Absolute	0.4	
	Wanted Signal @ $2\text{GHz} < f \leq 12.75\text{GHz}$	Absolute	0.7	
12.2.1	Radiated Spurious Emissions - MS Allocated a channel	Absolute	5.95	2
12.2.2	Radiated Spurious Emissions - MS in Idle mode	Absolute	5.95	2
13.1	Frequency Error & Phase Error			1
	Phase Error(GMSK)	Absolute	$< 0.2^\circ$, rms $< 0.7^\circ$, peak	
	Frequency Error	Absolute	$\leq 1.5\text{Hz} + \text{error of reference frequency (a)}$	
13.2	Frequency Error under Multipath and Interference Conditions			1
	Frequency Error	Absolute	$\leq 1.5\text{Hz} + \text{error of reference frequency (a)}$	
13.3.4.1	Transmitter Output Power			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.3	
	Wanted Signal @ $f \leq 2\text{GHz}$	Relative	0.1	
13.4	Output RF Spectrum			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.3	
	Wanted Signal @ $f \leq 2\text{GHz}$	Relative	0.1	
14.1.1.1	Bad Frame Indication – TCH/FS			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.4	
14.1.1.2	Bad Frame Indication – TCH/FS-DTX	Absolute	0.4 (d)	1
14.1.2.1	Bad Frame Indication – TCH/HS	Absolute	0.4 (d)	1
14.1.2.2	Bad Frame Indication – TCH/HS-DTX	Absolute	0.4 (d)	1
14.2.1	Reference Sensitivity – TCH/FS			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.4	
14.2.2	Reference Sensitivity – TCH/HS	Absolute	0.4 (b)	1
14.2.3	Reference Sensitivity – FACCH/F	Absolute	0.4 (b)	1
14.2.4	Reference Sensitivity – FACCH/H	Absolute	0.4 (b)	1
14.2.7	Reference Sensitivity – TCH/FS	Absolute	0.4 (b)	1
14.2.19	Reference Sensitivity – TCH/AFS-INB	Absolute	0.4 (b)	1
14.2.20	Reference Sensitivity – TCH/AHS-INB	Absolute	0.4 (b)	1
14.3	Useable Receiver Input Range			1
	Wanted Signal @ $f \leq 2\text{GHz}$ (lower power level range)	Absolute	0.4 (d)	

	Wanted Signal @ $f \leq 2\text{GHz}$ (upper power level range)	Absolute	0.4	
14.4	Co-Channel Rejection			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.4	
	Interferer Signal @ $f \leq 2\text{GHz}$	Absolute	0.4	
	Relative Uncertainty (Wanted to Interferer) – correlated	Relative	0.3	
14.5	Adjacent Channel Rejection			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.4 ^(b)	
	Interferer Signal @ $\pm 200\text{kHz}$, $f \leq 2\text{GHz}$	Absolute	0.4	
	Interferer Signal @ $\pm 400\text{kHz}$, $f \leq 2\text{GHz}$	Absolute	0.4	
	Relative Uncertainty (Wanted to 1st Interferer) – correlated	Relative	0.2	
	Relative Uncertainty (Wanted to 2nd Interferer) – correlated	Relative	0.4	
14.6	Intermodulation Rejection			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.4 ^(b)	
	1st Static Interferer @ $f \leq 2\text{GHz}$	Absolute	0.3	
	2nd Modulated Interferer @ $f \leq 2\text{GHz}$	Absolute	0.3	
	Relative Uncertainty (Wanted to 1st Interferer) – Correlated	Absolute	0.4	
	Relative Uncertainty (Wanted to 2nd Interferer) – Correlated	Absolute	0.4	
14.7	Blocking & Spurious Response			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.4 ^(b)	
	Blocking Signal @ $100\text{kHz} \leq f \leq 2\text{GHz}$	Absolute	0.3	
	Blocking Signal @ $2\text{GHz} < f \leq 12,75\text{GHz}$	Absolute	0.5	
	Relative Uncertainty (Wanted to Blocking @ $f < 2\text{GHz}$) – correlated	Relative	0.4	
	Relative Uncertainty (Wanted to Blocking @ $f < 12,75\text{GHz}$) – correlated	Relative	0.4	
16	Reception time Tracking Speed			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.4	
18	Temporary Reception Gaps			1
18.1	Temporary Reception Gaps, Single Slot			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.2	
21	Received Signal Measurements			1
21.1	Signal Strength			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.2	
	BCCH Carriers of Serving & Adjacent Cells @ $f \leq 2\text{GHz}$ BCCH1 (via SIG2) BCCH2 to BCCH6 (via RF_OUT)	Absolute Absolute	0.3 0.2	
	Wanted to Interferers & Interferers to Interferers. TCH to BCCHs & BCCHs to BCCHs @ $f \leq 2\text{GHz}$ TCH to BCCH 1 TCH to BCCH 2-6 BCCH 1 to BCCH 2-6	Relative Relative Relative	0.3 0.2 0.3	
21.2	Signal strength Selectivity			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.2	
	BCCH Carriers of Serving & Adjacent Cells @ $f \leq 2\text{GHz}$ BCCH1 (via SIG2) BCCH2 to BCCH6 (via RF_OUT)	Absolute Absolute	0.3 0.2	

	Wanted to Interferers & Interferers to Interferers. TCH to BCCHs & BCCHs to BCCHs @ $f \leq 2\text{GHz}$ TCH to BCCH 1 TCH to BCCH 2-6 BCCH 1 to BCCH 2-6	Relative Relative Relative	0.3 0.2 0.3	
21.3	Signal Quality Under Static Conditions			1
	<i>The following uncertainties refer to the Wanted Signal @ $f \leq 2\text{GHz}$</i>			
21.3.1	Signal Quality Under Static Conditions – TCH/FS no DTX	Absolute	0.3	1
21.3.2	Signal Quality Under Static Conditions – TCH/HS	Absolute	0.3	1
21.3.3	Signal Quality Under Static Conditions – TCH/AFS – DTX off	Absolute	0.3	1
21.3.4	Signal Quality Under Static Conditions – TCH/AHS – DTX off	Absolute	0.3	1
21.4	Signal Quality Under TUhigh Propagation Conditions			1
	<i>The following uncertainties refer to the Wanted Signal @ $f \leq 2\text{GHz}$</i>			
21.4.1	Signal Quality Under TUhigh Propagation Conditions -TCH/FS	Absolute	0.3	1
21.4.2	Signal Quality Under TUhigh Propagation Conditions -TCH/AFS	Absolute	0.3	1
21.4.3	Signal Quality Under TUhigh Propagation Conditions -TCH/AHS	Absolute	0.3	1
22	Transmit Power Control Timing and Configuration			1
	<i>The following uncertainties refer to the Wanted Signal @ $f \leq 2\text{GHz}$</i>			
22.1	Transmit Power Control Timing and Configuration, Single Slot	Absolute	0.2	1
22.3	GPRS Uplink Power Control – Use of α and GCH parameters.	Absolute	0.3	1
22.4	GPRS Uplink Power Control – Independence of TS Power Control	Absolute	0.3	1
22.8	EGPRS Uplink Power Control – Use of α and Γ CH parameters	Absolute	0.3	1
22.9	EGPRS Uplink Power Control – Independence of TS Power Control	Absolute	0.3	1
14.1.5.1	Bad Frame Indication – TCH/AFS	-	Identical to GSM 14.1.1.1	1
14.1.6.1	Bad Frame Indication – TCH/AHS	-	Identical to GSM 14.1.1.1	1
14.2.10	Reference Sensitivity – TCH/AFS	-	Identical to GSM 14.1.1.1	1
14.2.18	Reference Sensitivity – TCH/AHS	-	Identical to GSM 14.1.1.1	1
14.4.8	Co-channel Rejection – TCH/AFS	-	Identical to GSM 14.4	1
14.4.16	Co-channel Rejection – TCH/AHS	-	Identical to GSM 14.4 (c)	1
14.5.1.2	Adjacent Channel Rejection - TCH/AFS	-	Identical to GSM 14.5	1

14.5.1.3	Adjacent Channel Rejection - TCH/AHS	-	Identical to GSM 14.5	1
13.16.1	Frequency Error & Phase Error	-	Identical to GSM 13.1	1
13.16.2	Transmitter Output Power	-	Identical to GSM 13.3.4.1	1
13.16.3	Output RF Spectrum	-	Identical to GSM 13.4	1
14.16.1	Minimum input level for reference performance	Absolute	0.4	1
14.16.2	Co-Channel Rejection	-	Identical to GSM 14.4	1
13.17.1	Frequency Error and Modulation Accuracy in EGPRS Configuration			1
	Inherent EVM (8PSK)	Absolute	< 0.25%, rms < 1%, peak	
	Frequency Error	Absolute	$\leq 1\text{Hz} + \text{error of reference frequency}^{(a)}$	
13.17.2	Frequency Error under Multipath and Interference Conditions	-	Identical to GSM 13.2	1
13.17.3	Transmitter Output Power	-	Identical to GSM 13.3.4.1	1
13.17.4	Output RF Spectrum	-	Identical to GSM 13.4	1
14.18.1	Minimum input level for reference performance	Absolute	0.4	1
14.18.2	Co-Channel Rejection (EGPRS)	-	Identical to GSM 14.4	1
14.18.3	Adjacent Channel Rejection	-	Identical to GSM 14.5	1
14.18.4	Intermodulation Rejection	-	Identical to GSM 14.6	1
14.18.5	Blocking and Spurious Response	-	Identical to GSM 14.7	1
14.18.6	Usable Receiver Input Level Range			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.3	
14.18.7	Incremental Redundancy Performance			1
	Wanted Signal @ $f \leq 2\text{GHz}$	Absolute	0.4	

1 R&S TS8950G – Uncertainty Calculations v2.11

2 ETS Measurement uncertainty budget Mobile Communication

Annex A: Photos of the EUT



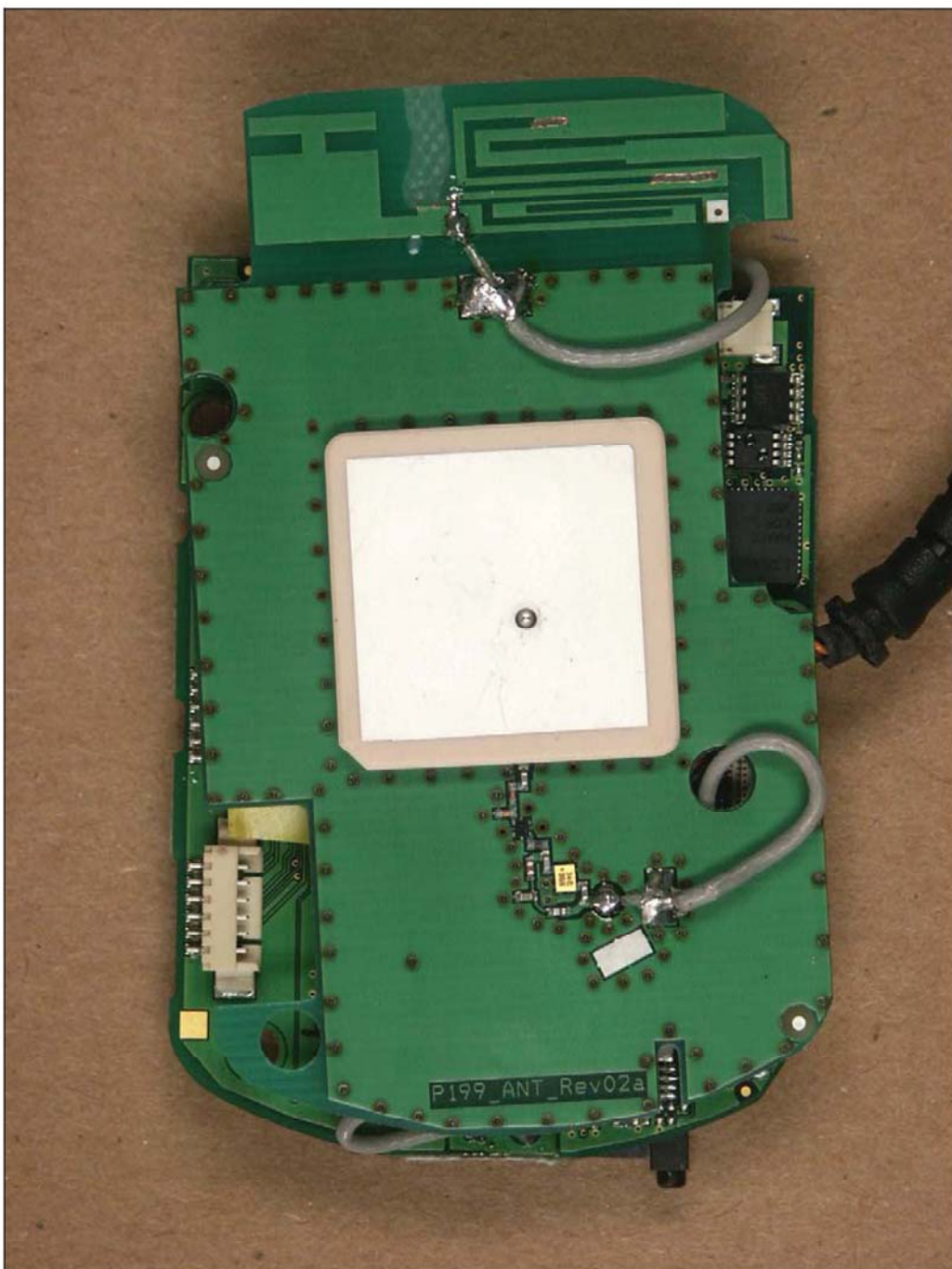








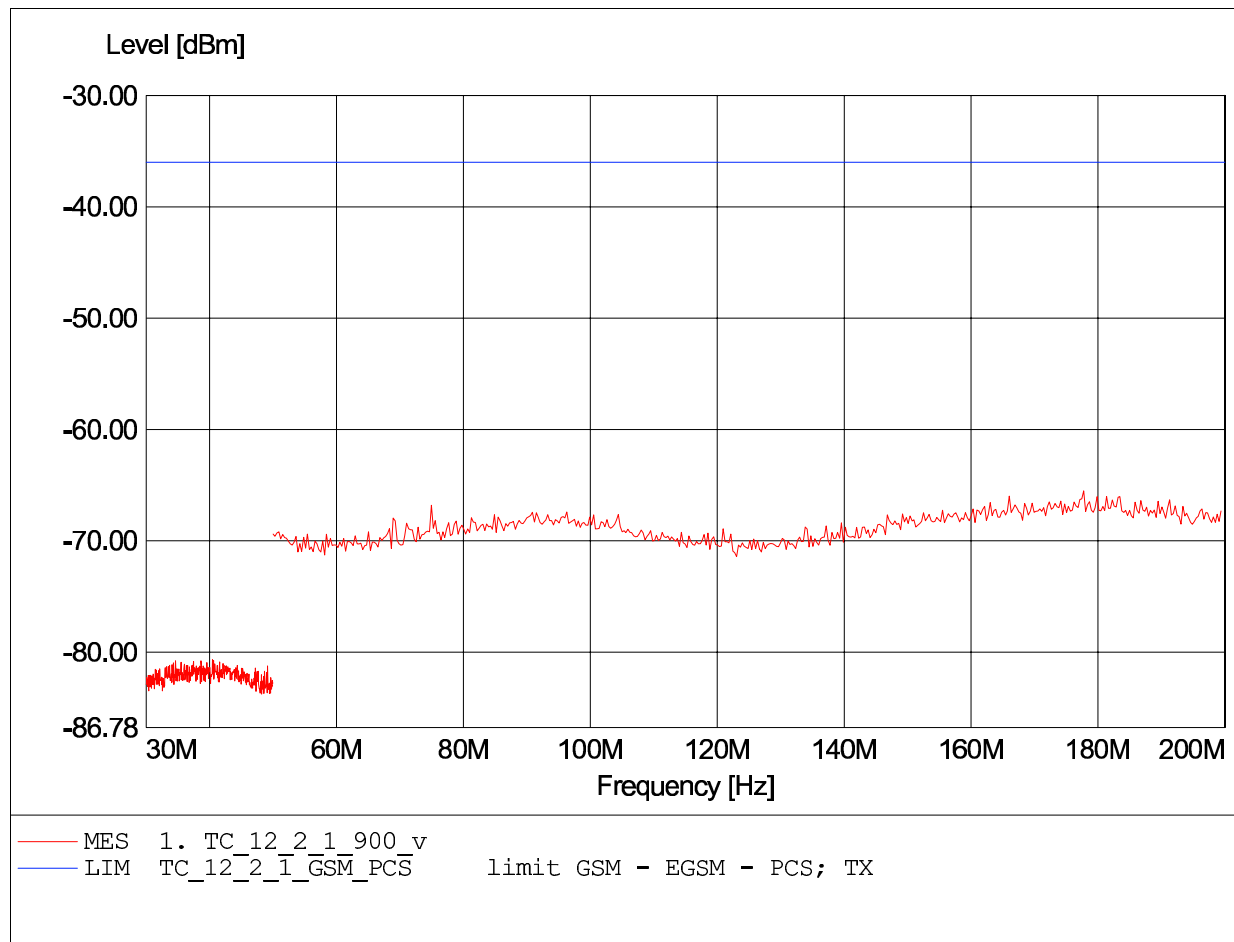




Annex B: Measurement diagrams

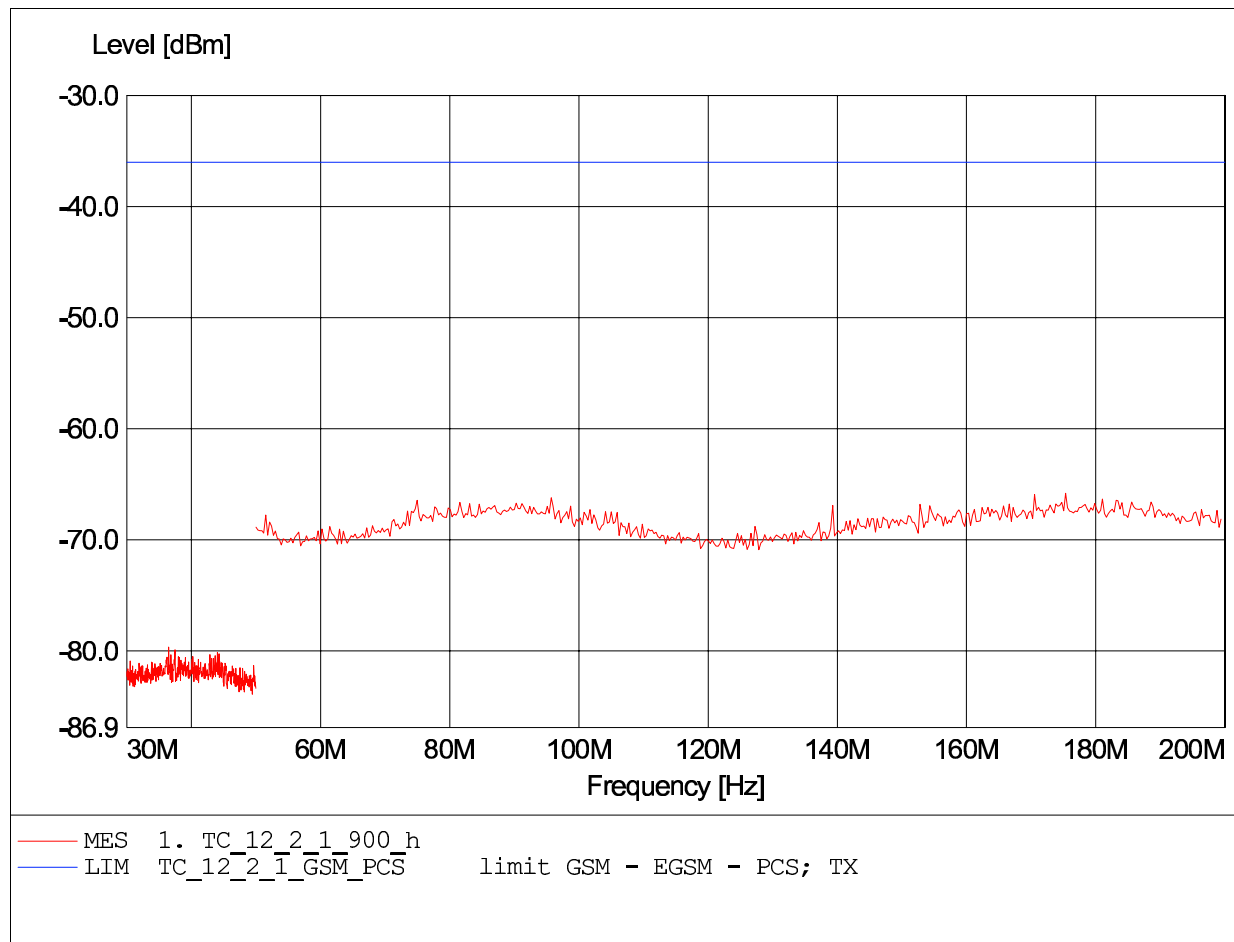
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq:177.756MHz Pmax:-65.52dBm RBW:10/100KHz



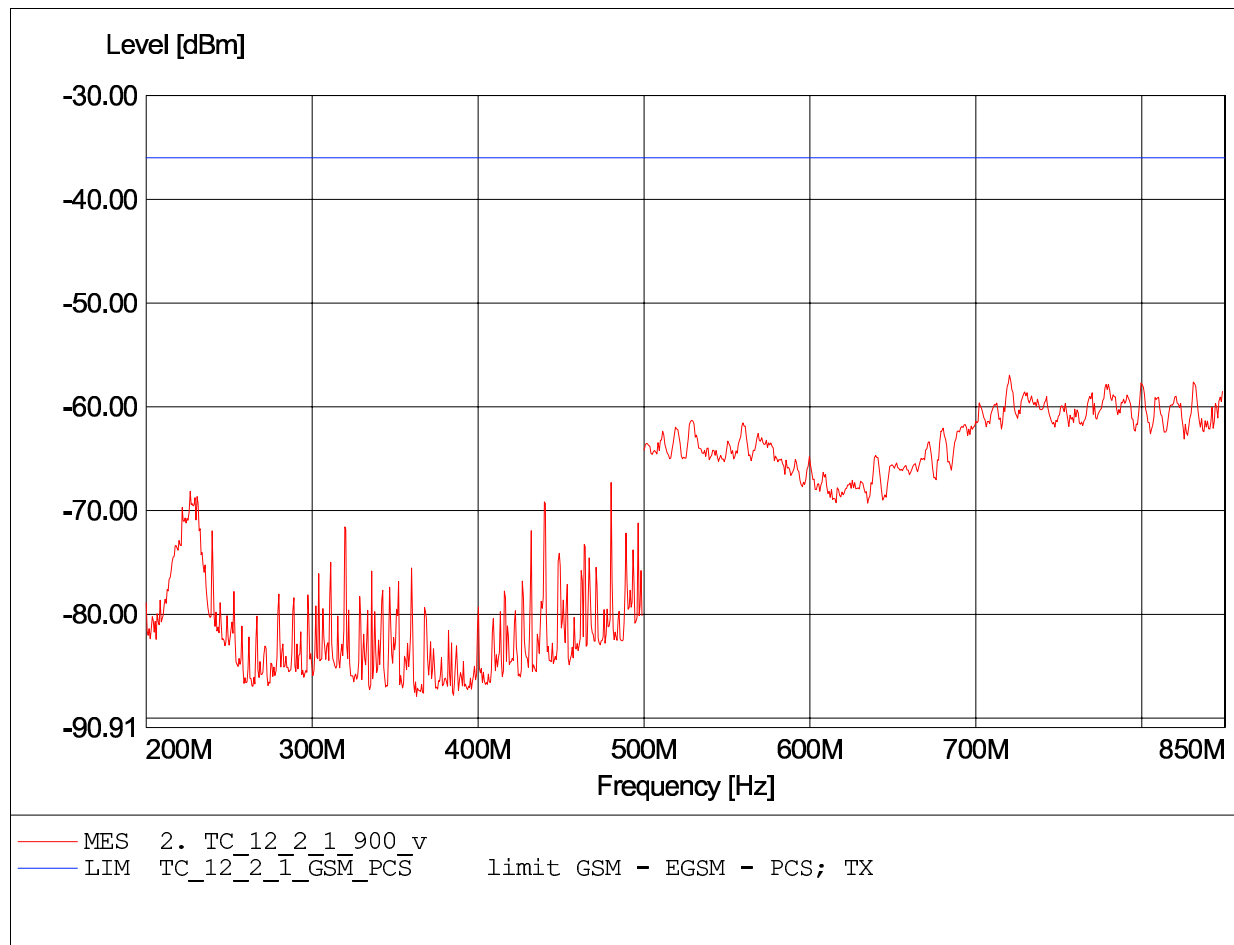
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq:175.351MHz Pmax:-65.81dBm RBW:10/100KHz



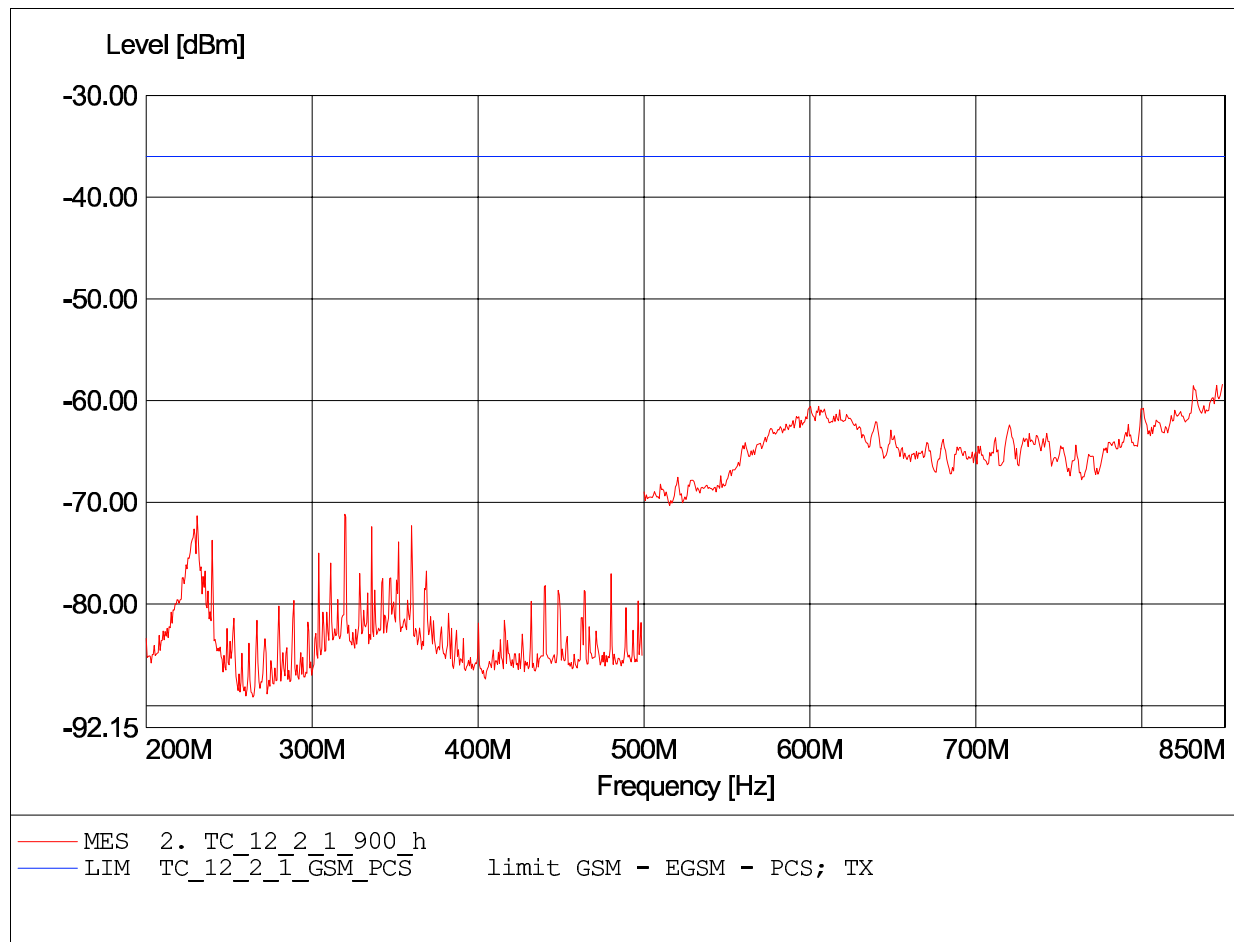
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.:0.2-1GHz, notch-f.
Comment 2: Freq:720.240MHz Pmax:-56.94dBm RBW:0.1/3MHz



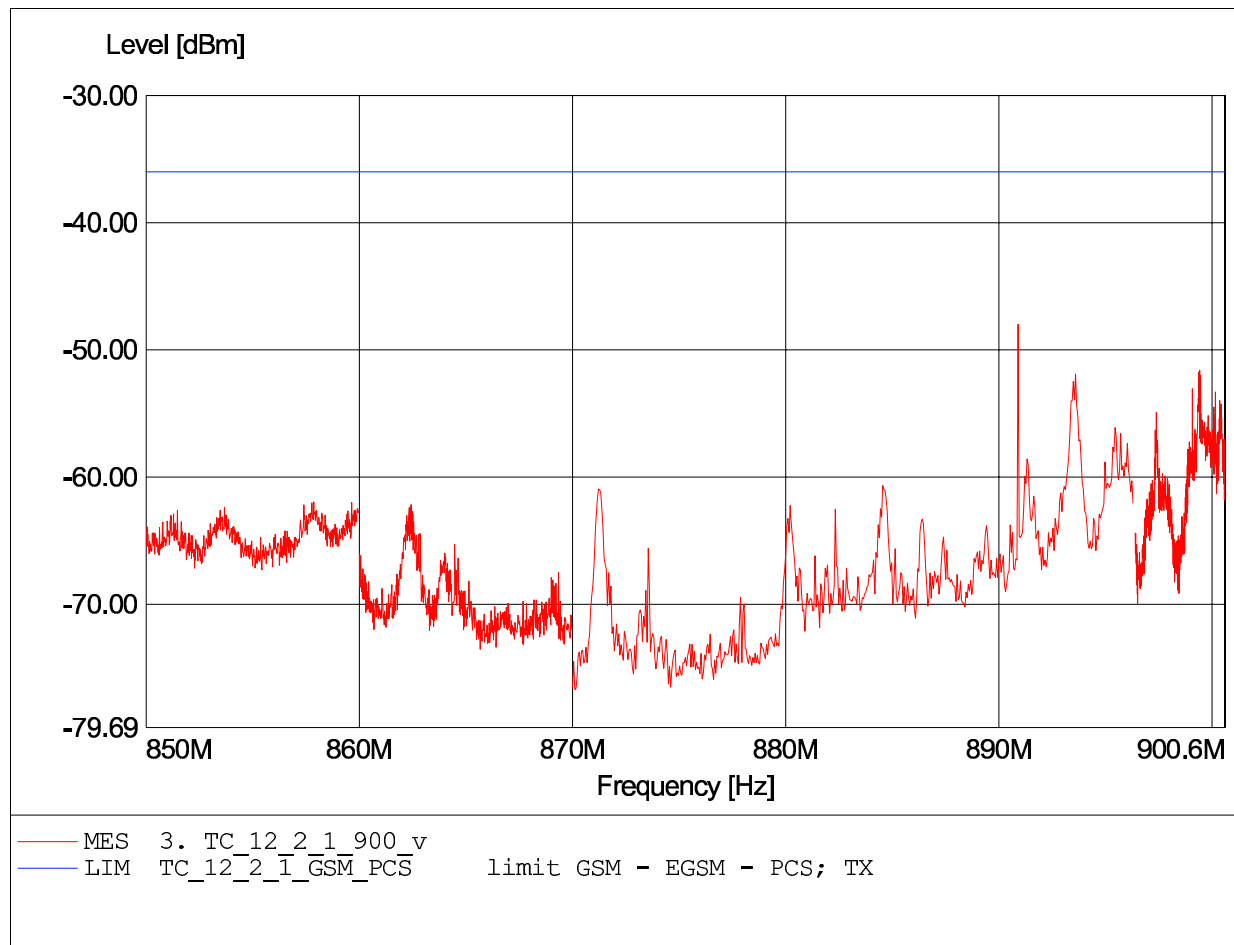
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.:0.2-1GHz,notch-f.
Comment 2: Freq:848.597MHz Pmax:-58.40dBm RBW:0.1/3MHz



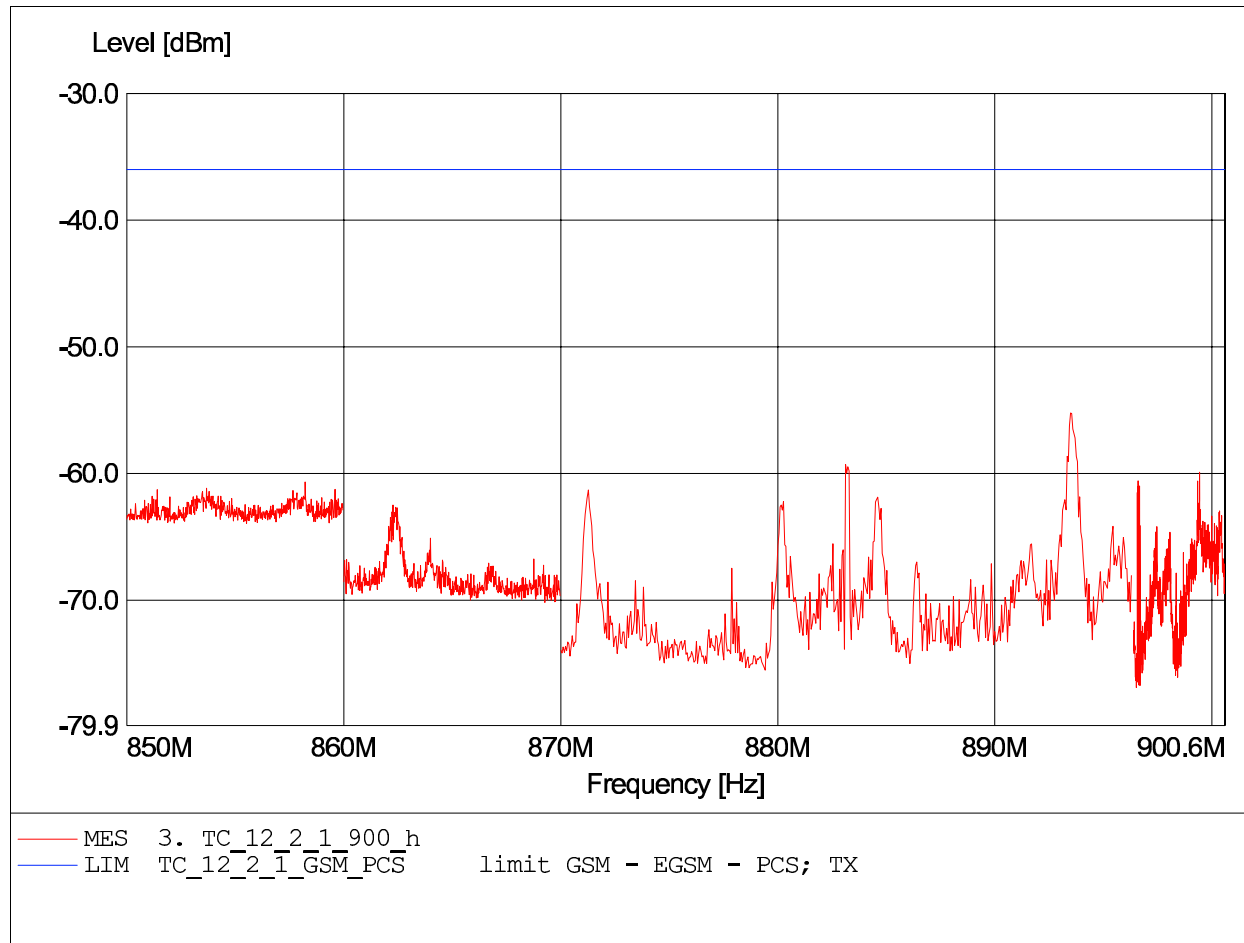
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.:0.2-1GHz, notch-f.
Comment 2: Freq:890.898MHz Pmax:-47.97dBm RBW:1MHz to 30KHz



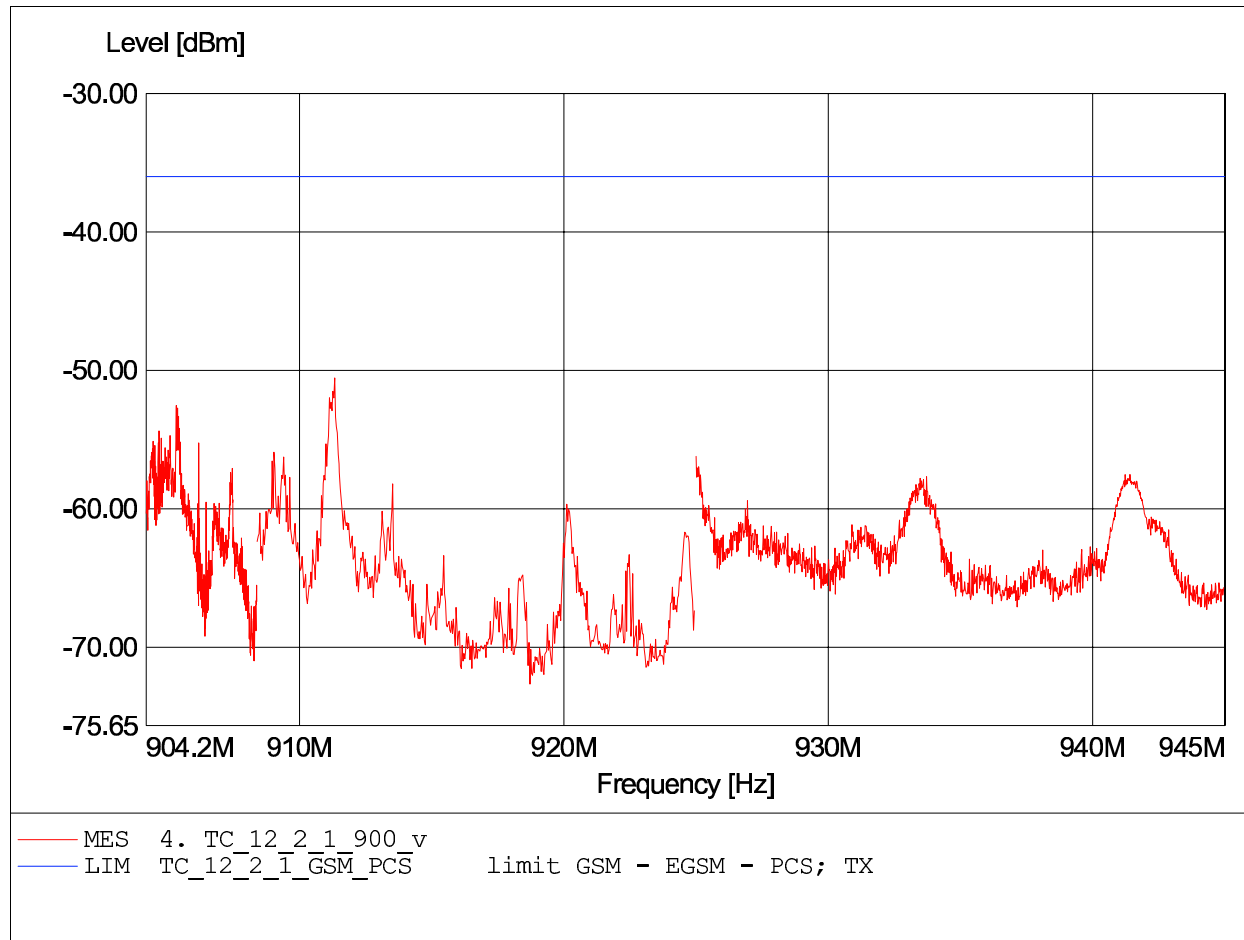
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.:0.2-1GHz, notch-f.
Comment 2: Freq:893.490MHz Pmax:-55.23dBm RBW:1MHz to 30KHz



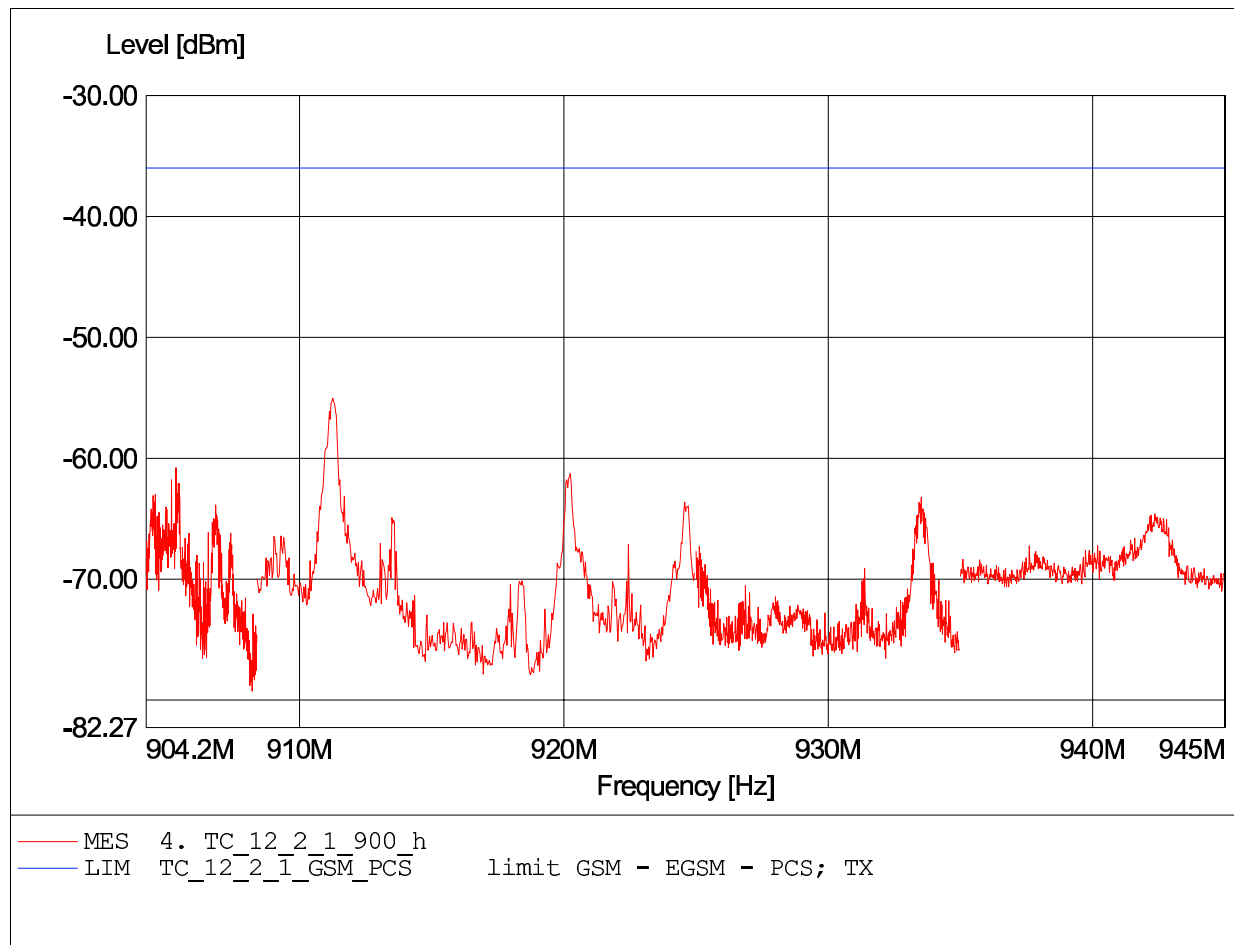
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.:0.2-1GHz,notch-f.
Comment 2: Freq:911.327MHz Pmax:-50.55dBm RBW:30KHz to 1MHz



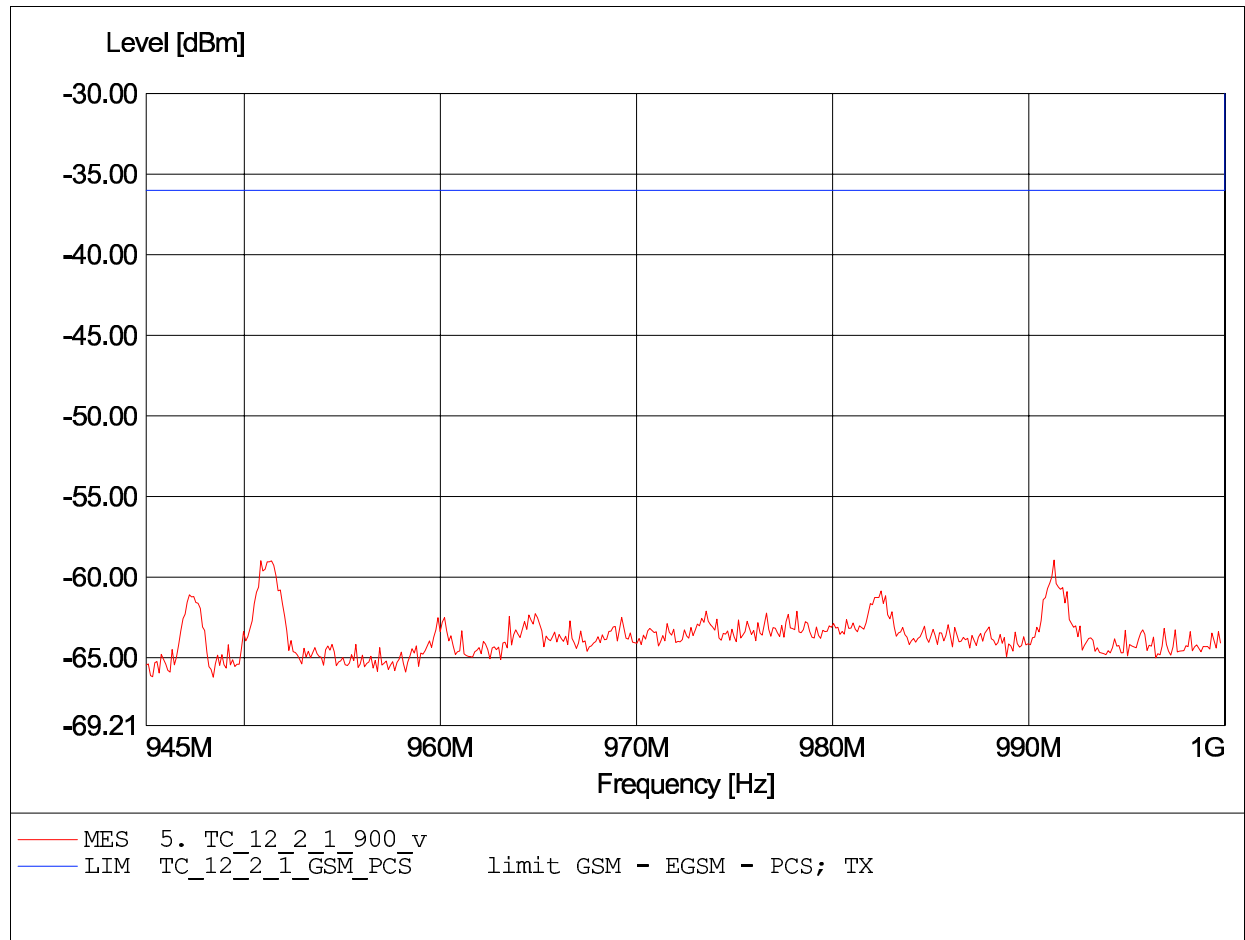
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.:0.2-1GHz, notch-f.
Comment 2: Freq:911.261MHz Pmax:-55.02dBm RBW:30KHz to 1MHz



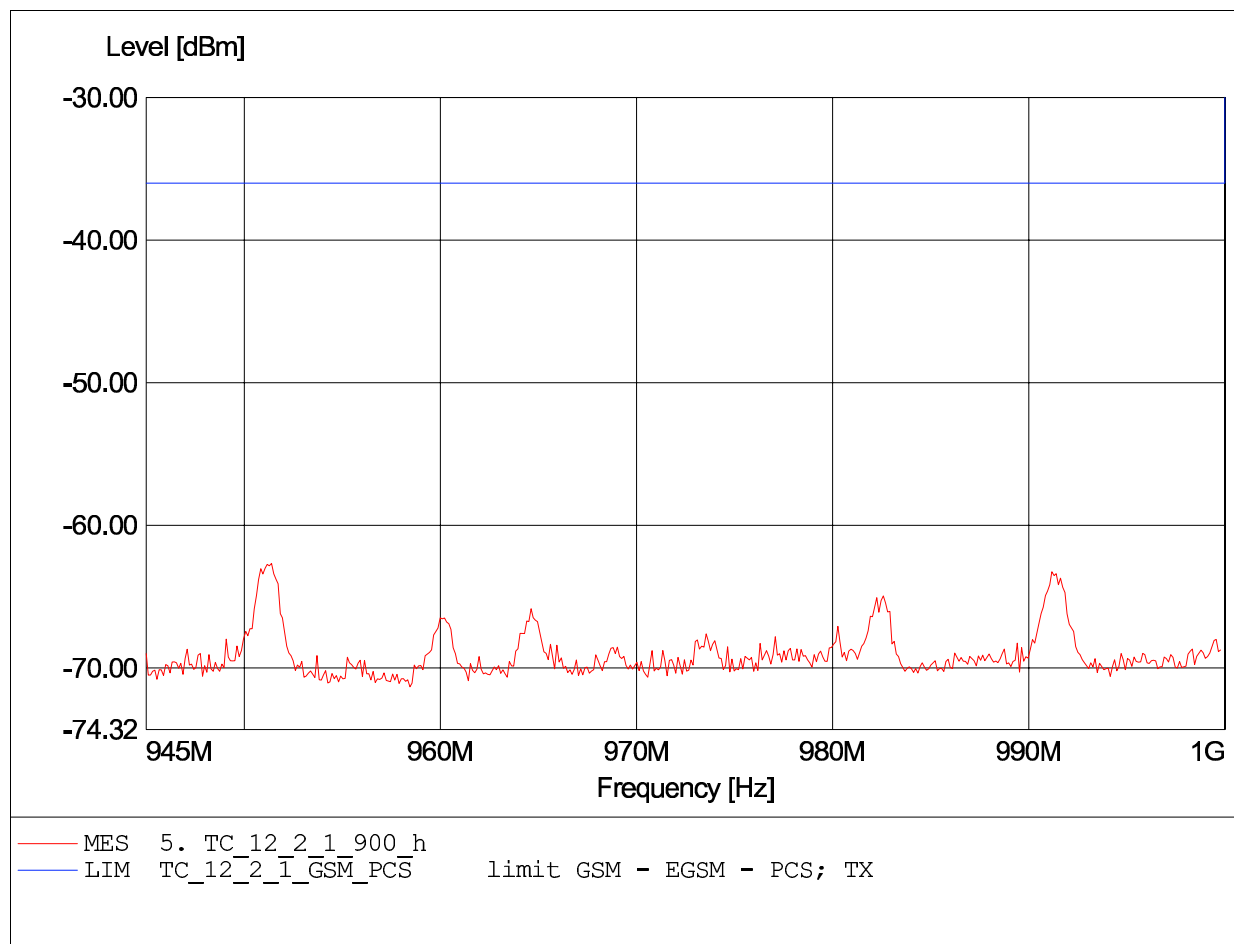
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.:0.2-1GHz,notch-f.
Comment 2: Freq:991.293MHz Pmax:-58.94dBm RBW:3MHz



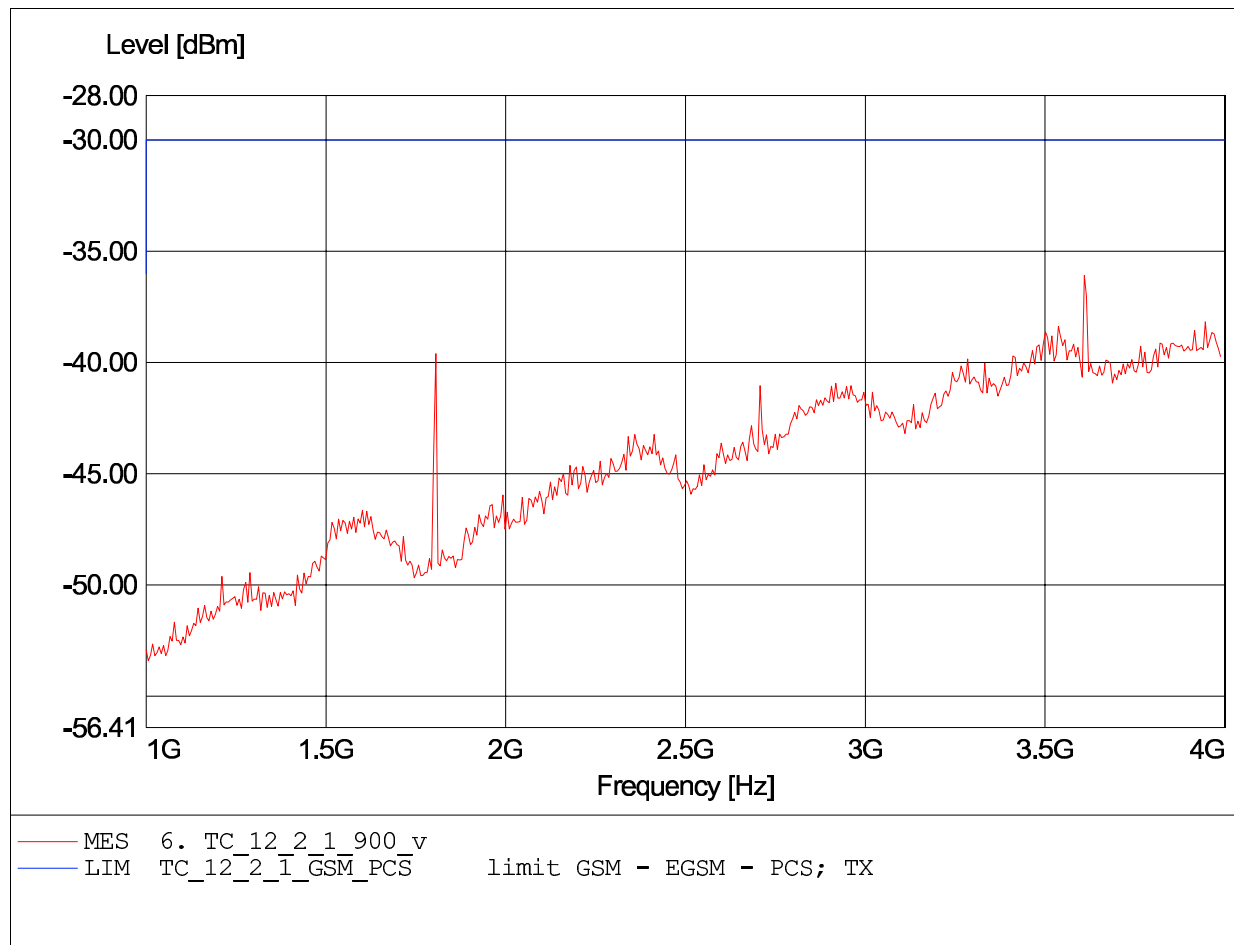
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.:0.2-1GHz,notch-f.
Comment 2: Freq:951.393MHz Pmax:-62.67dBm RBW:3MHz



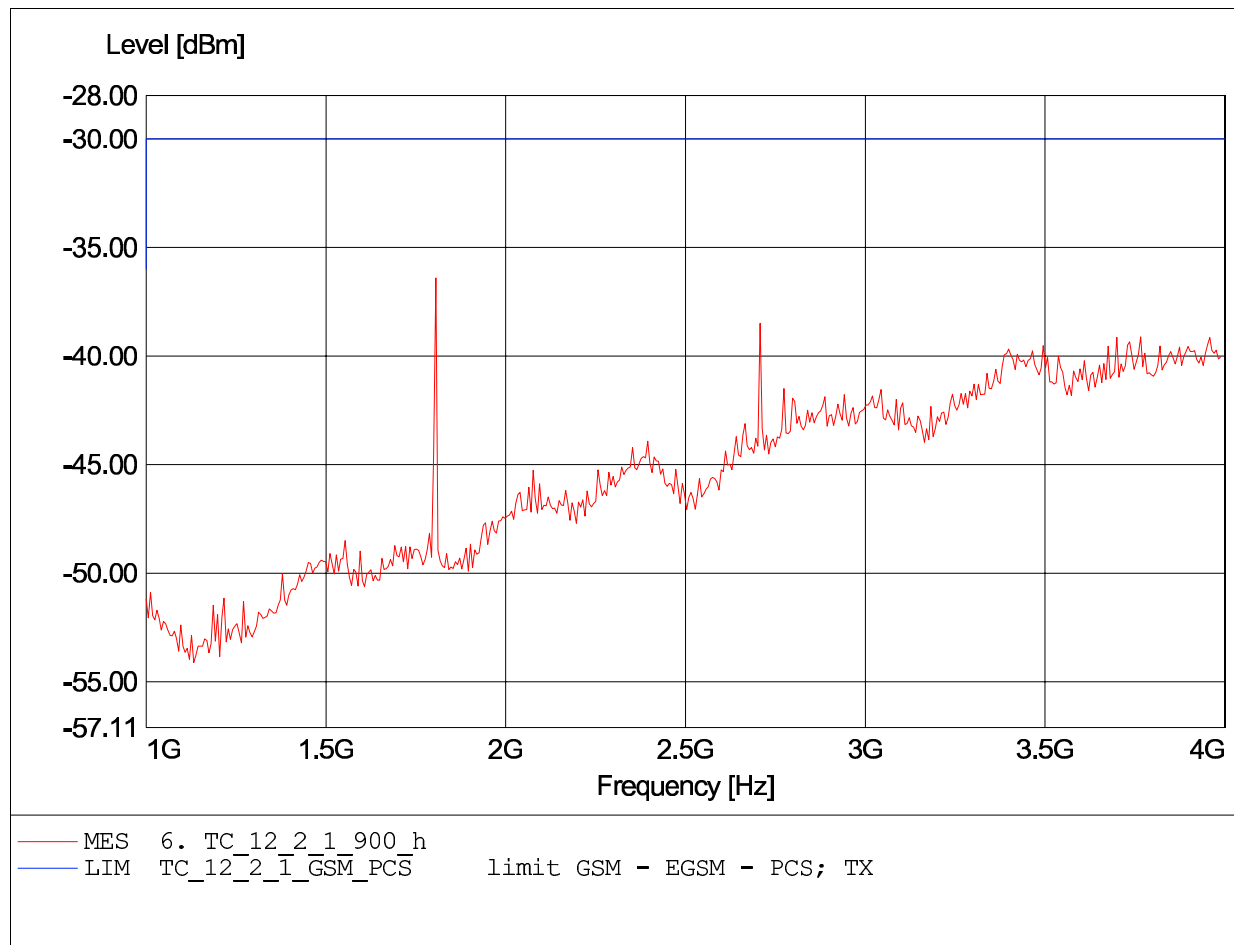
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, High Pass
Comment 2: Freq:3.609GHz Pmax:-36.09dBm RBW:3MHz



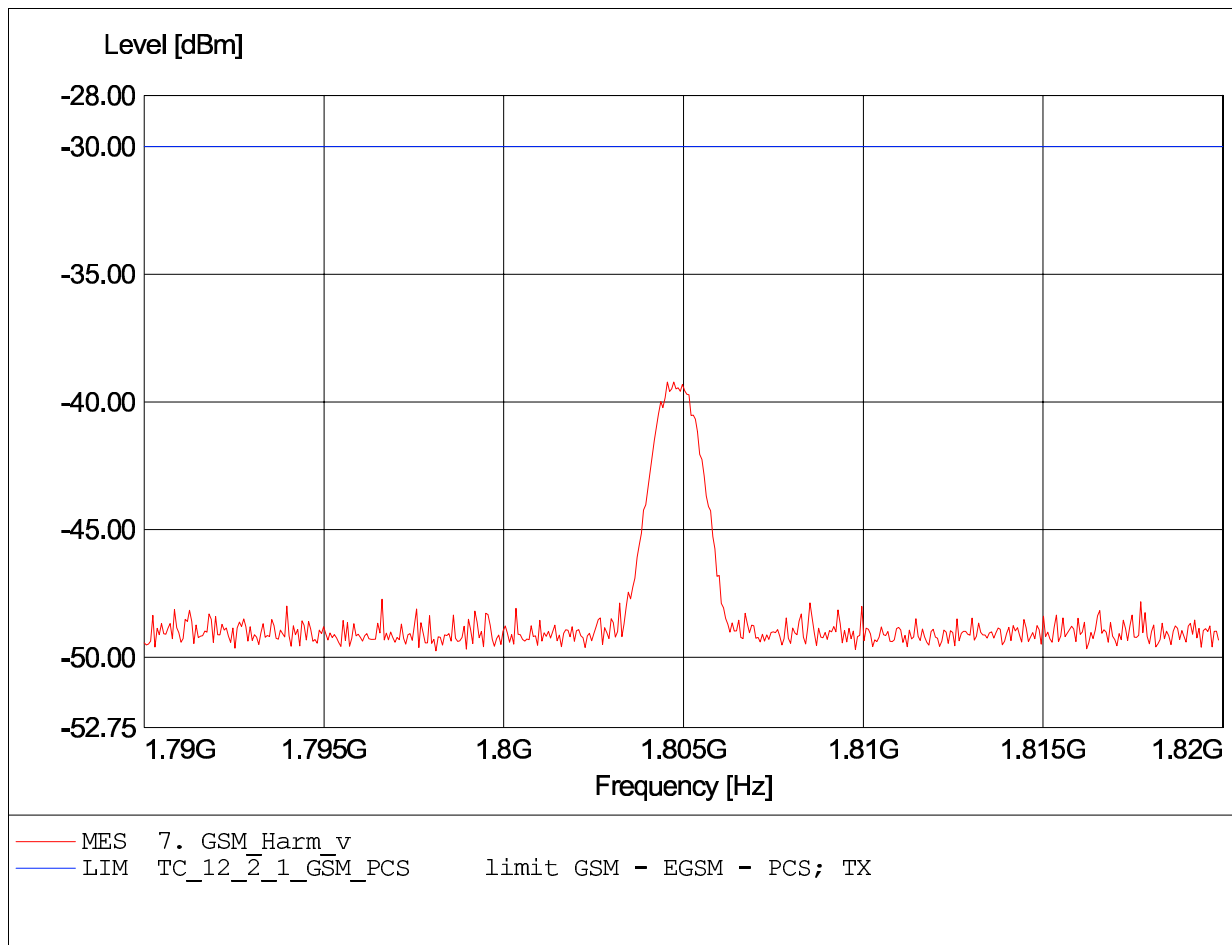
**Radiated spurious emissions-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, High Pass
Comment 2: Freq:1.806GHz Pmax:-36.40dBm RBW:3MHz



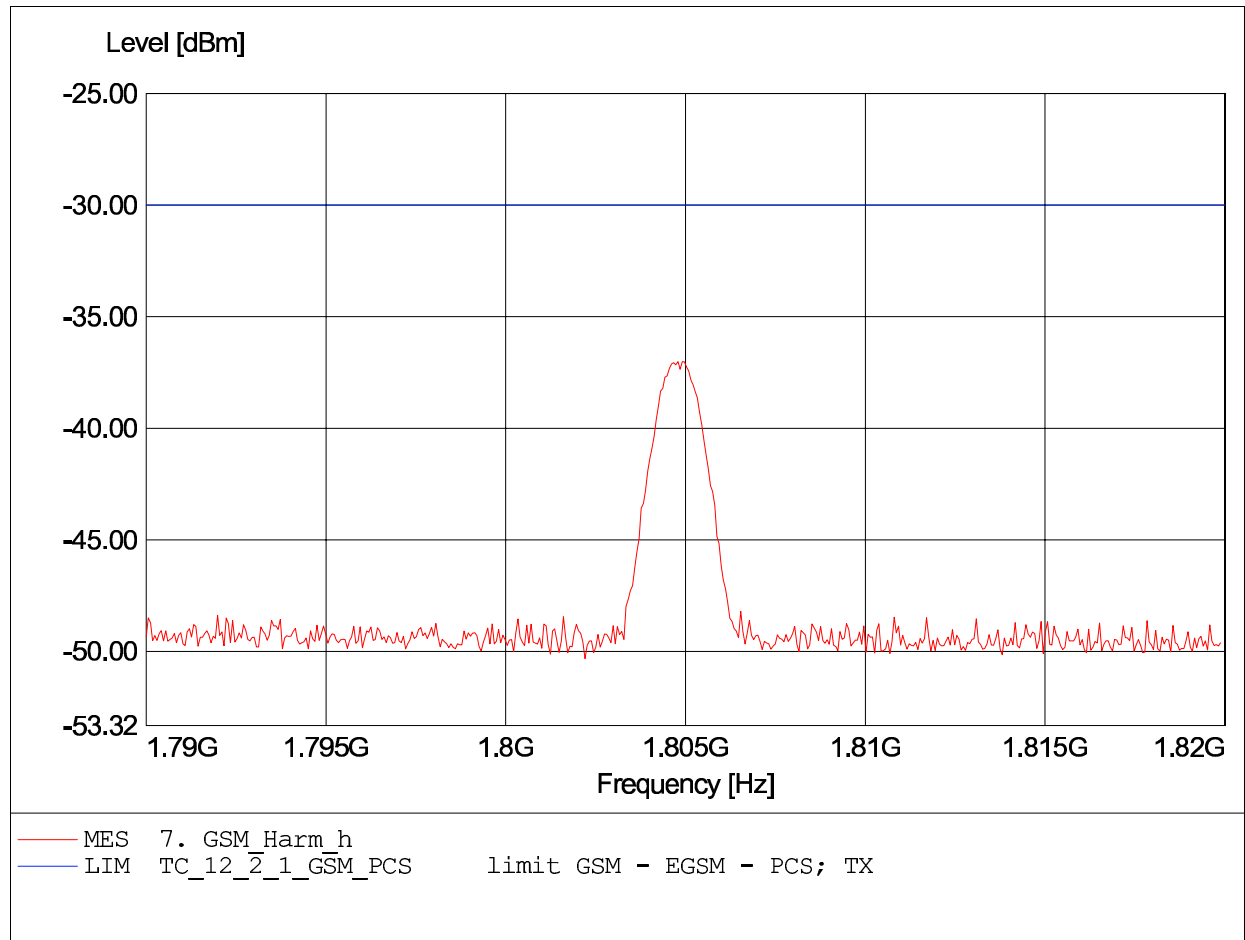
**2.Harmonic-MS allocated channel 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, High Pass
Comment 2: Freq:1.805GHz Pmax:-39.22dBm RBW:3MHz



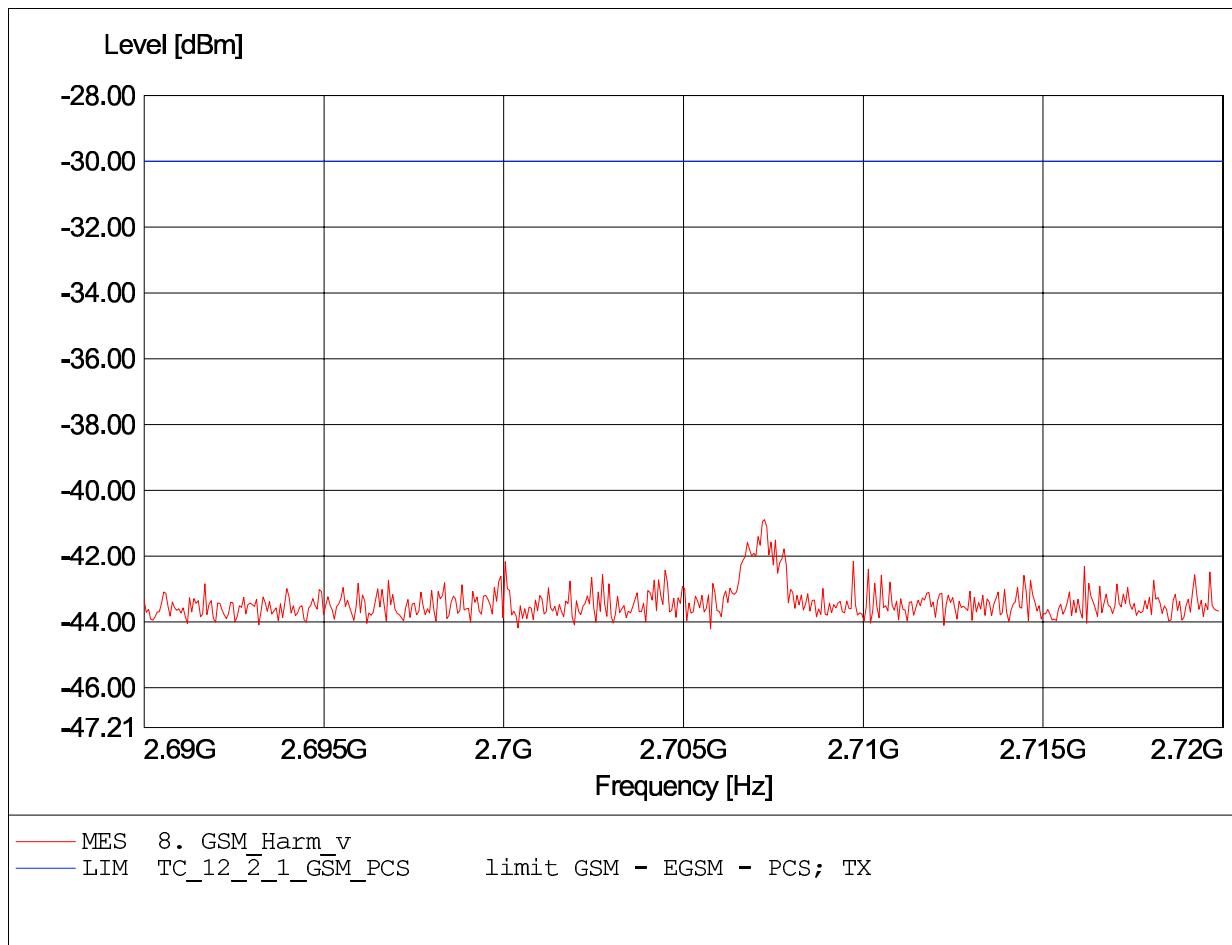
**2.Harmonic-MS allocated channel 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, High Pass
Comment 2: Freq:1.805GHz Pmax:-37.01dBm RBW:3MHz



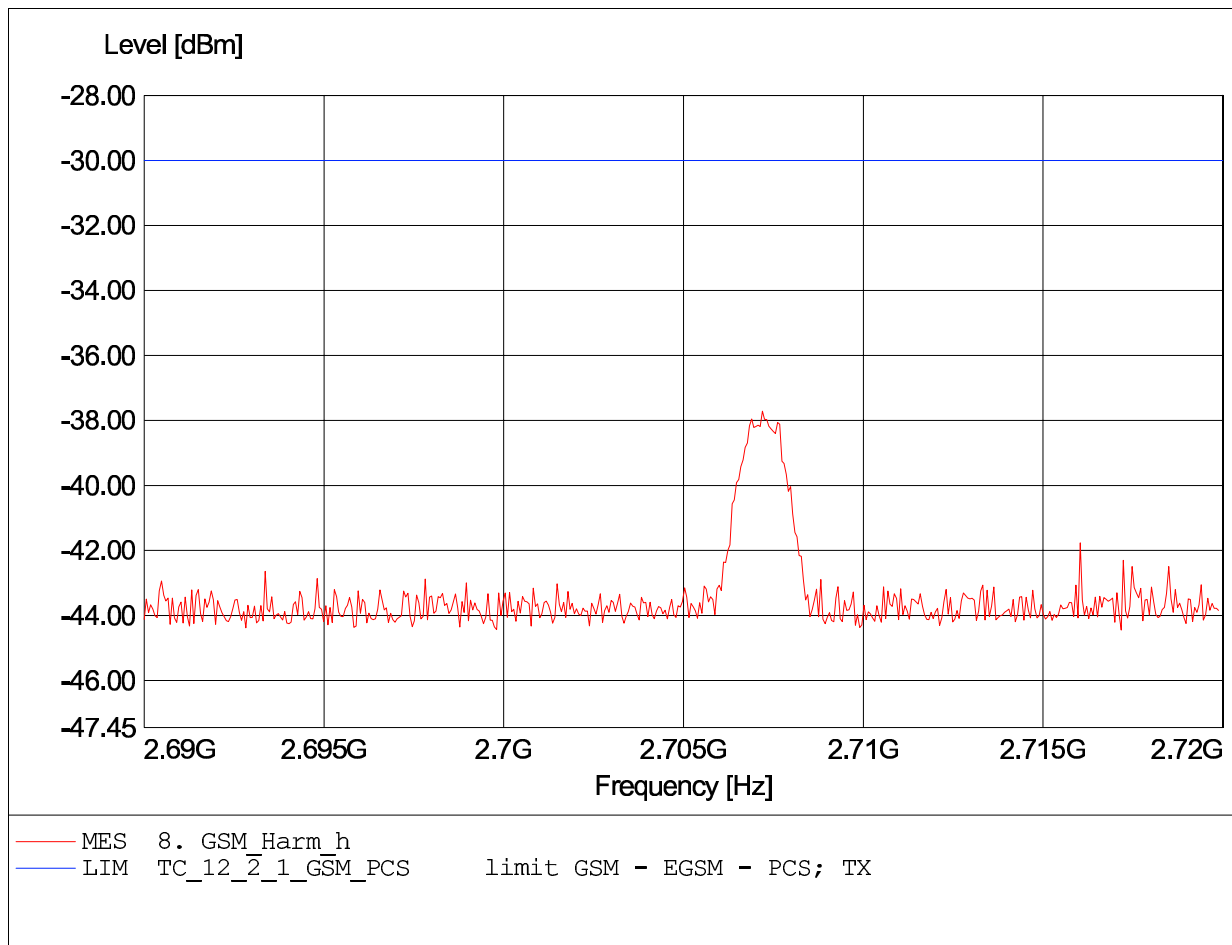
**3.Harmonic-MS allocated channel 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, High Pass
Comment 2: Freq:2.707GHz Pmax:-40.89dBm RBW:3MHz



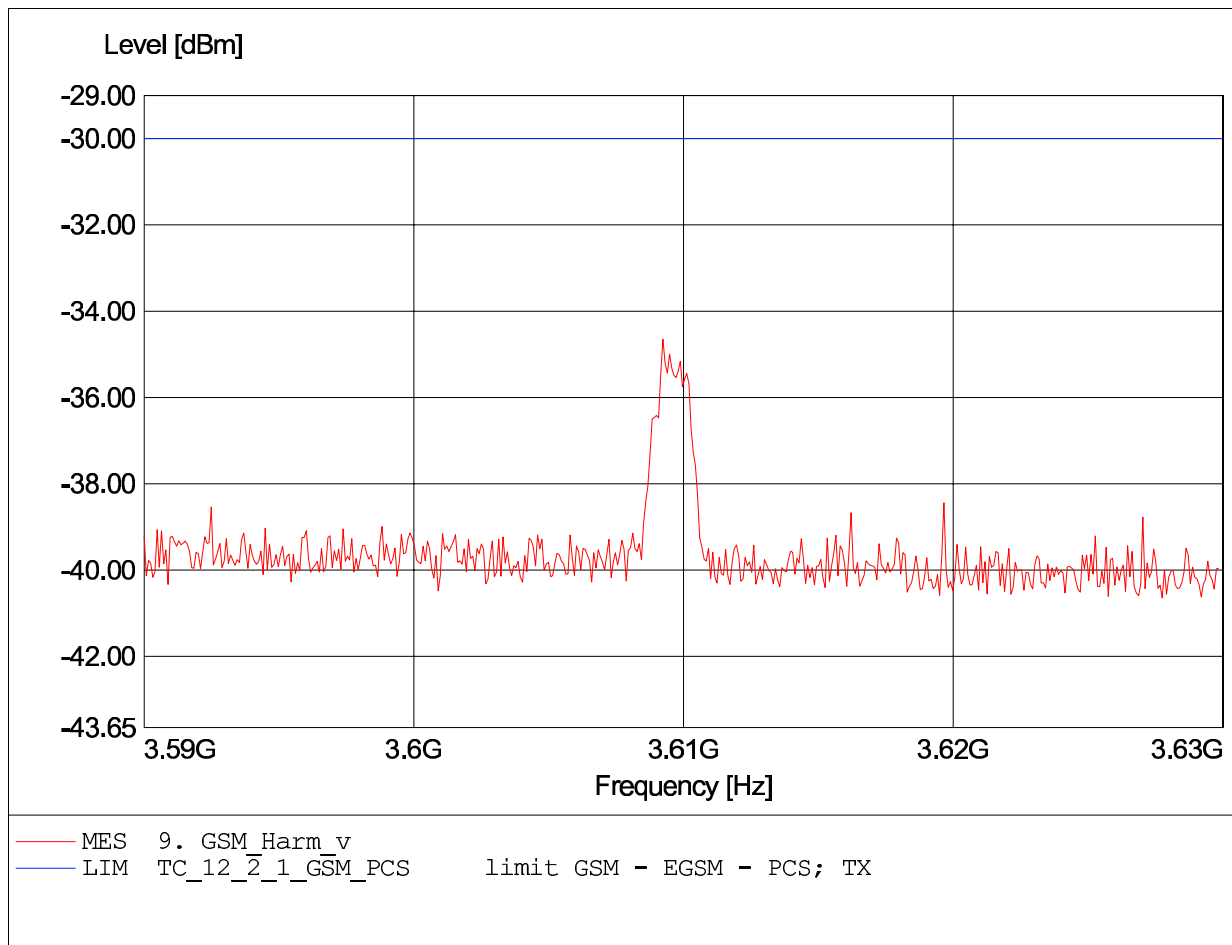
**3.Harmonic-MS allocated channel 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, High Pass
Comment 2: Freq:2.707GHz Pmax:-37.71dBm RBW:3MHz



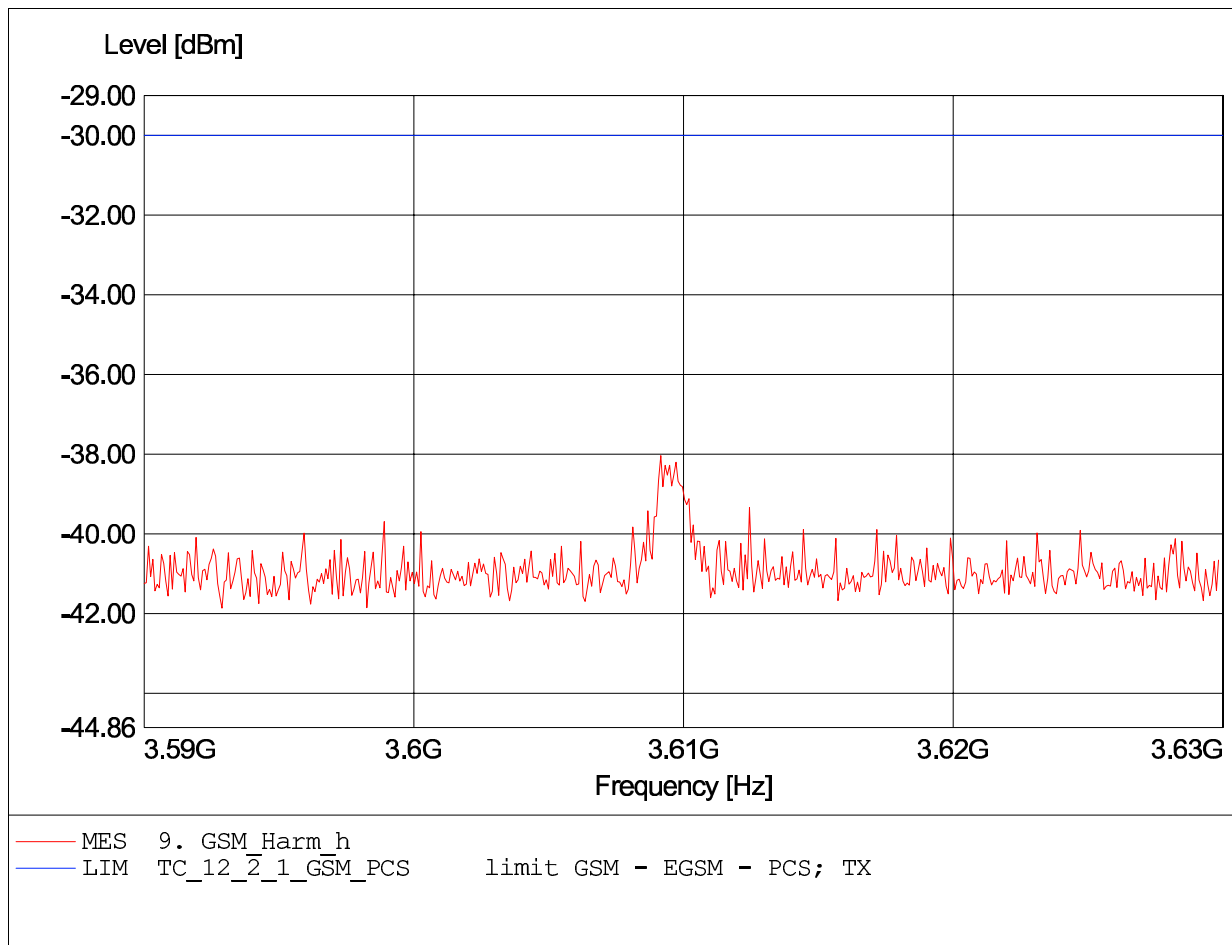
**4.Harmonic-MS allocated channel 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, High Pass
Comment 2: Freq:3.609GHz Pmax:-34.64dBm RBW:3MHz



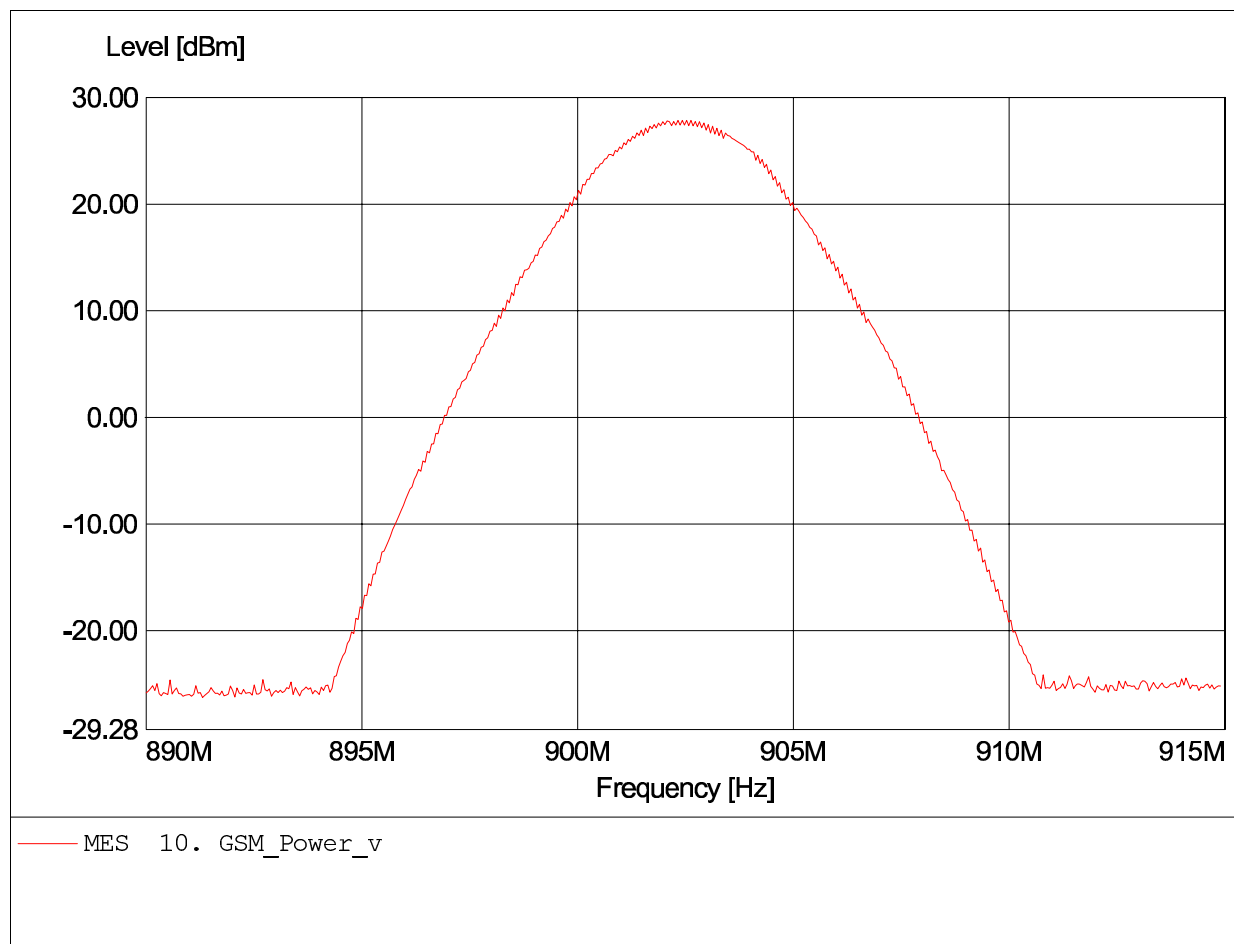
**4.Harmonic-MS allocated channel 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, High Pass
Comment 2: Freq:3.609GHz Pmax:-38.04dBm RBW:3MHz



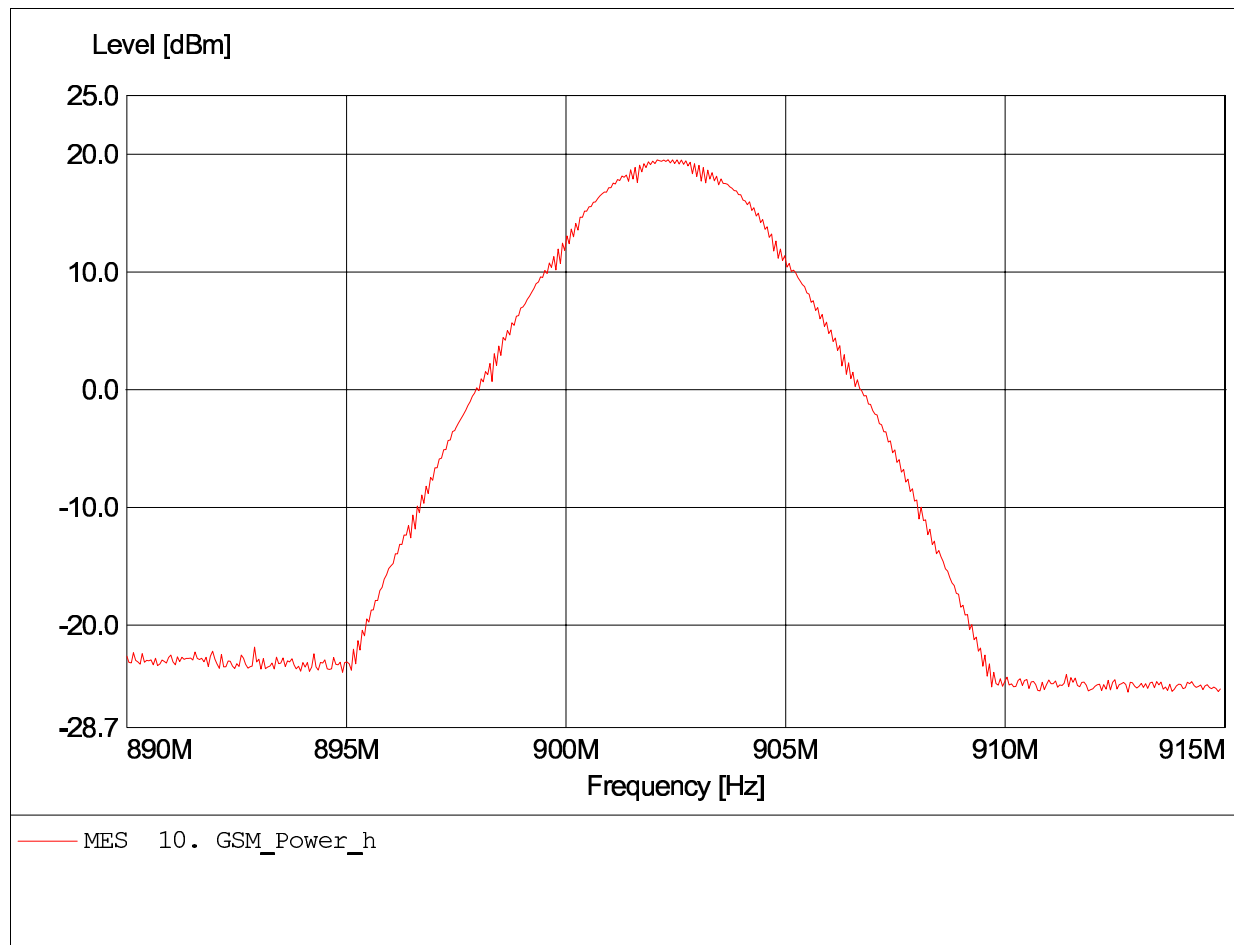
**Radiated TX Power-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: Power Control Level 5
Comment 1: Dist.: 3m, Ant.: HL 223,
Comment 2: Freq:902.325MHz Pmax:27.86dBm RBW:3MHz



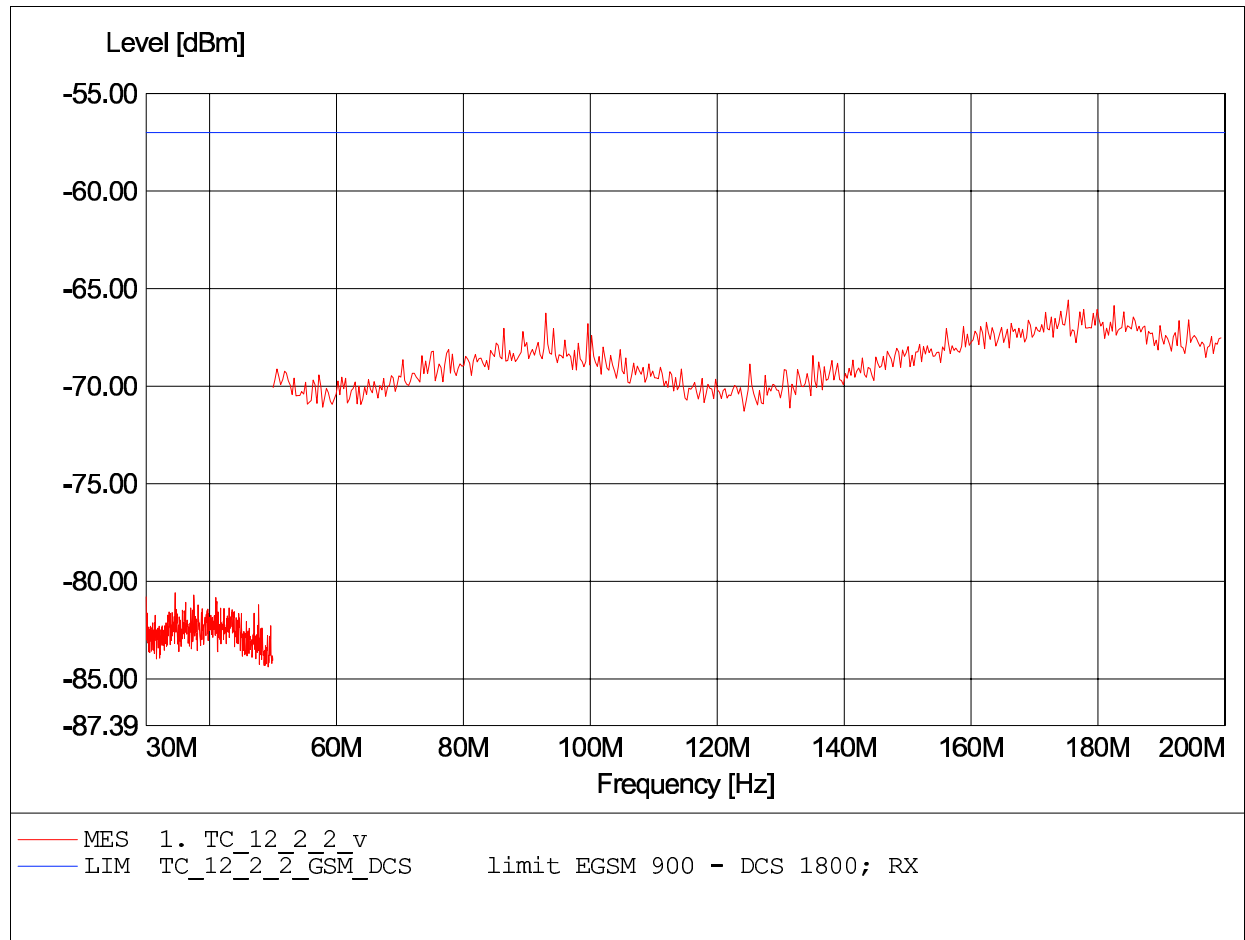
**Radiated TX Power-MS allocated ARFCN 62
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: Power Control Level 5
Comment 1: Dist.: 3m, Ant.: HL 223,
Comment 2: Freq:902.325MHz Pmax:19.55dBm RBW:3MHz



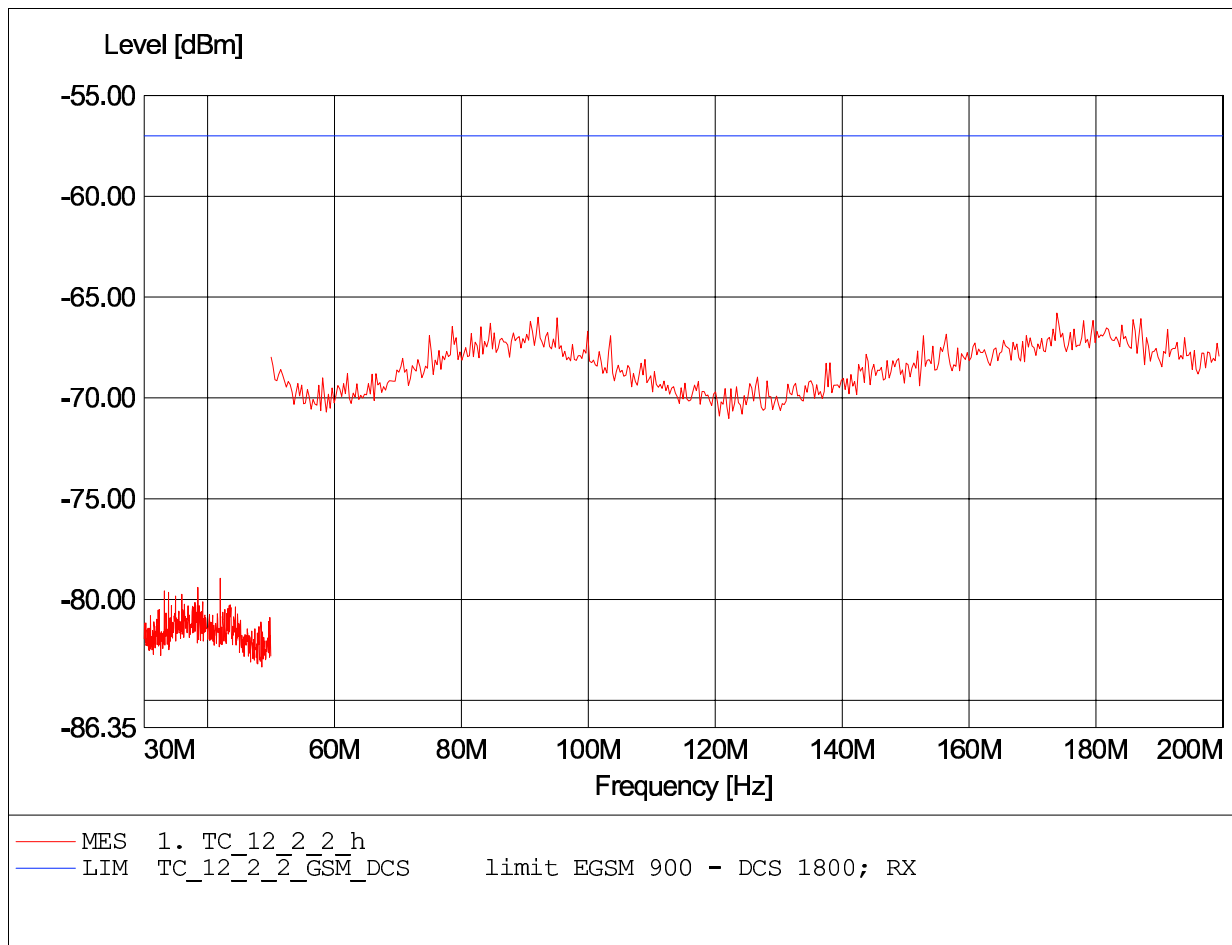
**Radiated spurious emissions-MS in idle mode
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
 EUT: GSM/GPRS/GPS-TRACKING UNIT
 Model: BOLERO-LT
 Test Site / Operator: ETS / Mr. Schlaps
 Operating Conditions: 23°C / Unom.: 13.50 V DC
 Test Specification: GSM 11.10-1 testcase 12.2.2
 Comment 1: Dist.: 3m, Ant.: HK 116, Ampl.: None
 Comment 2: Freq:175.351MHz Pmax:-65.58dBm RBW:10-100KHz



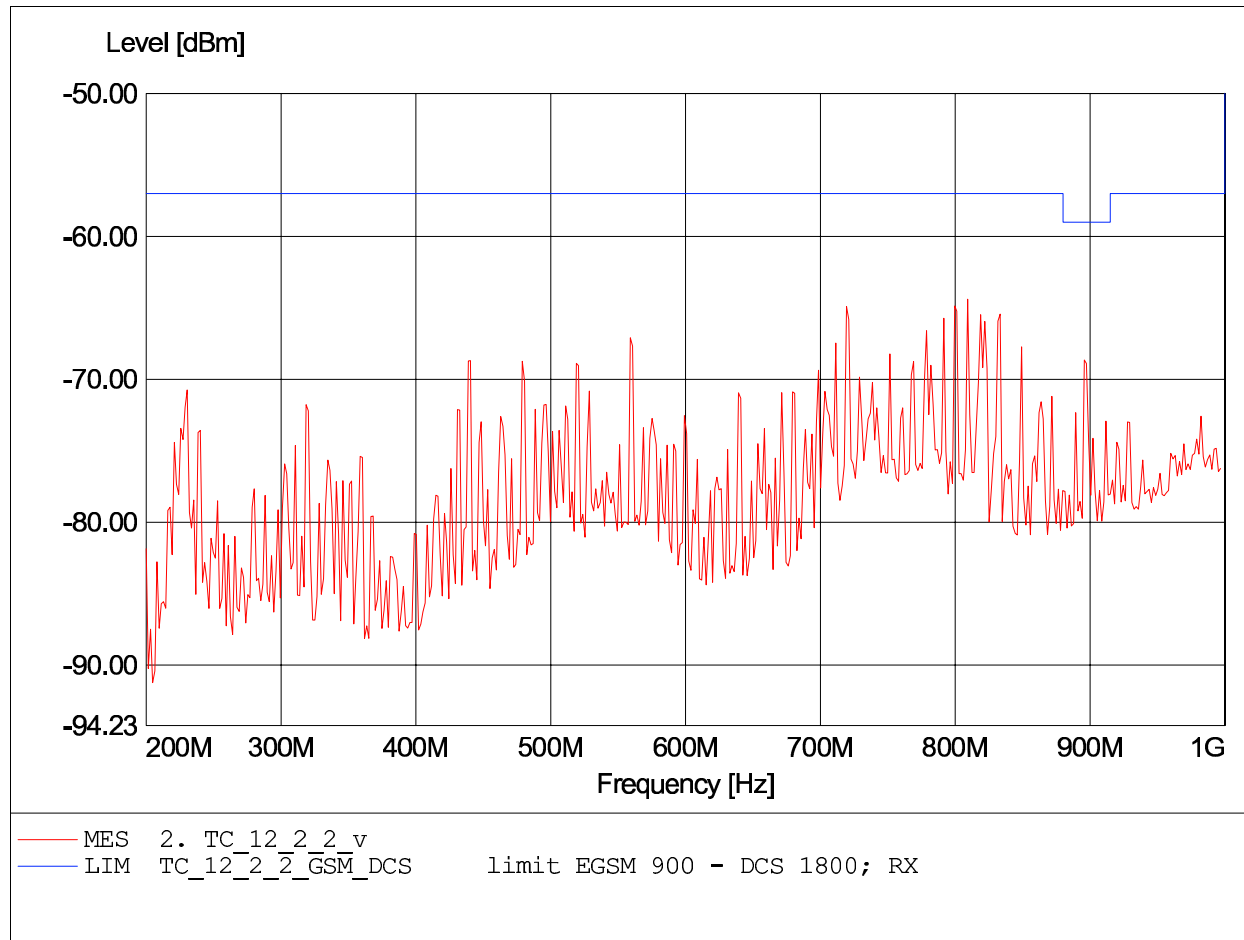
**Radiated spurious emissions-MS in idle mode
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HK 116, Ampl.: None
Comment 2: Freq:173.848MHz Pmax:-65.79dBm RBW:10-100KHz



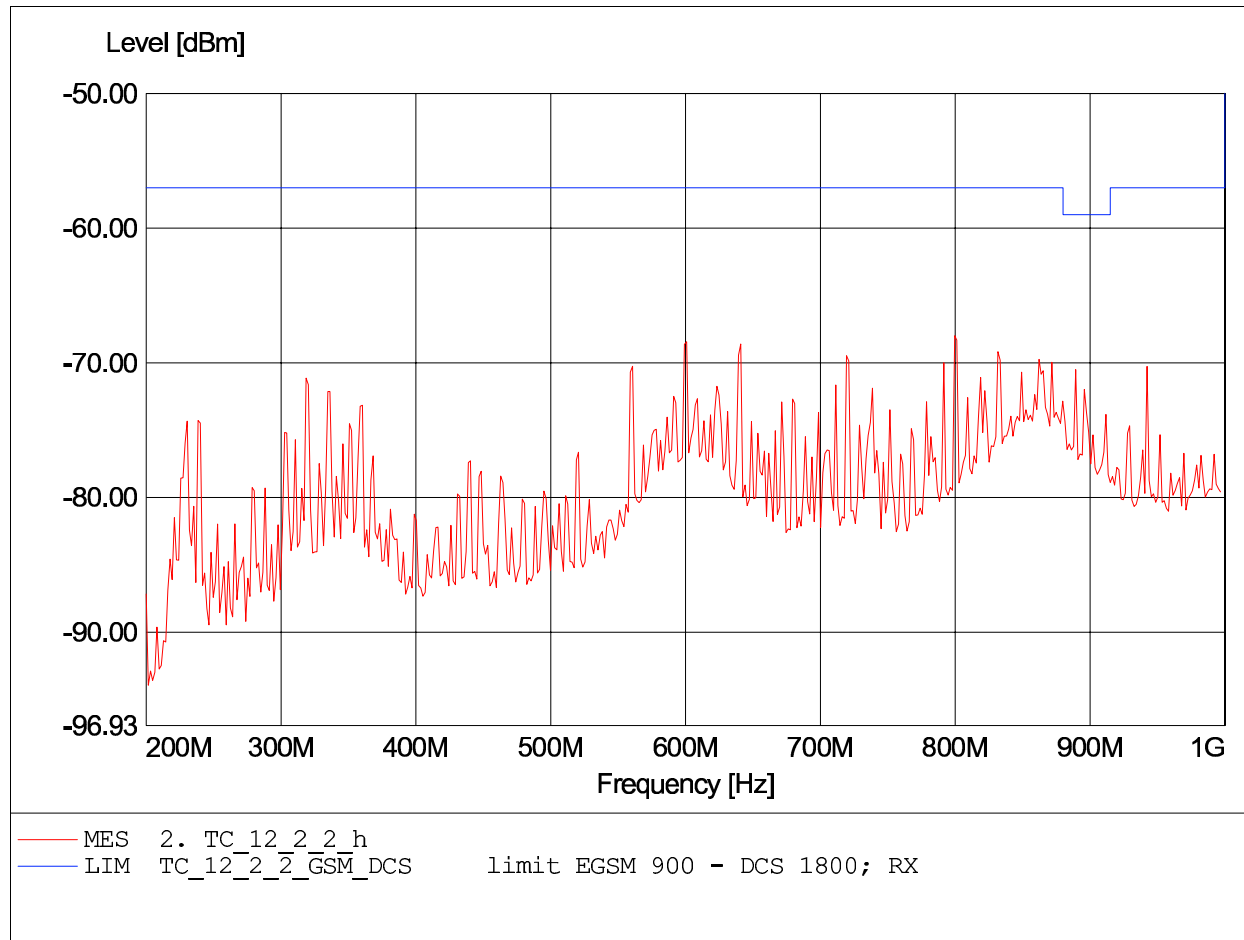
**Radiated spurious emissions-MS in idle mode
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.: 0.2-1GHz
Comment 2: Freq:809.218MHz Pmax:-64.40dBm RBW:100KHz



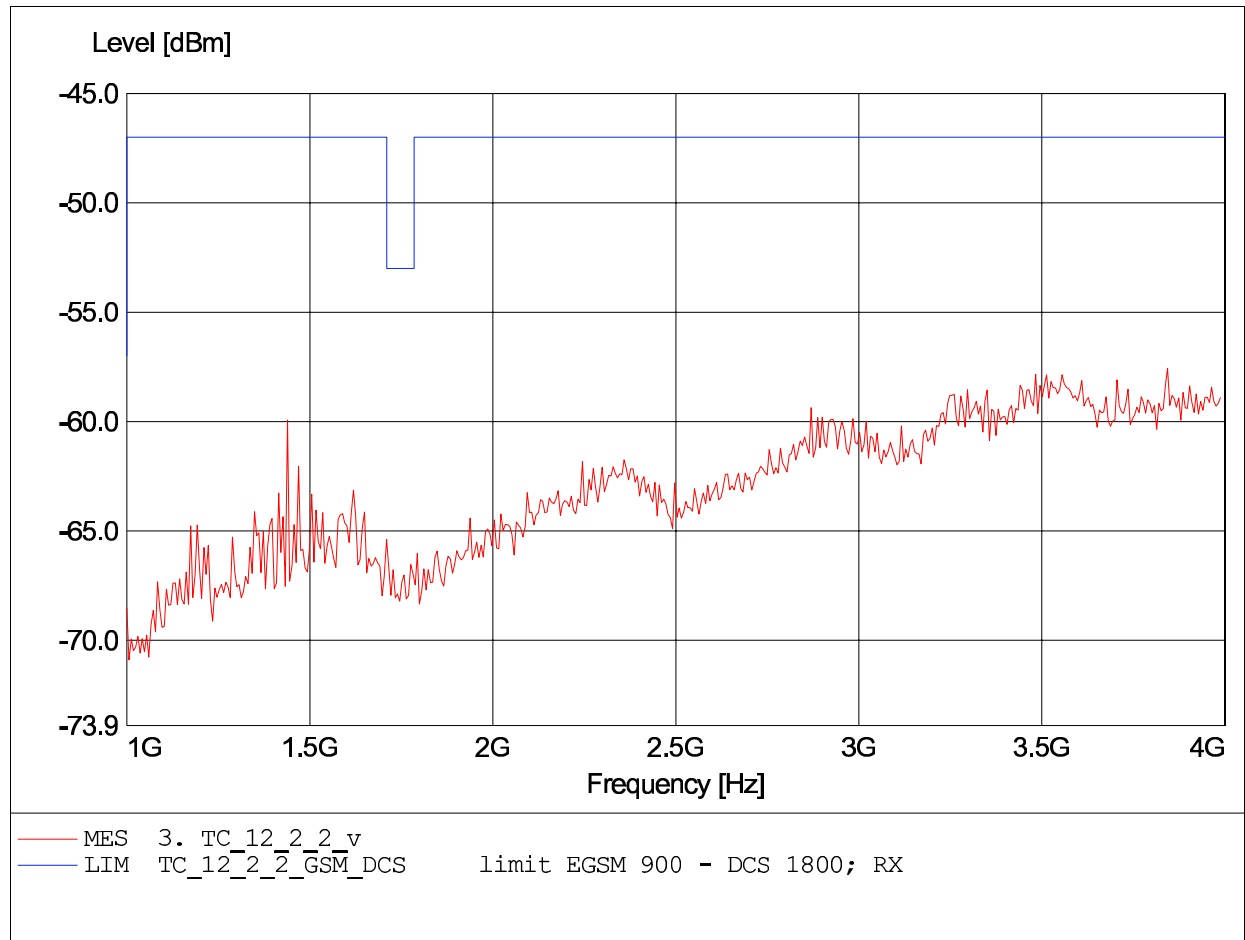
**Radiated spurious emissions-MS in idle mode
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.: 0.2-1GHz
Comment 2: Freq:799.599MHz Pmax:-67.98dBm RBW:100KHz



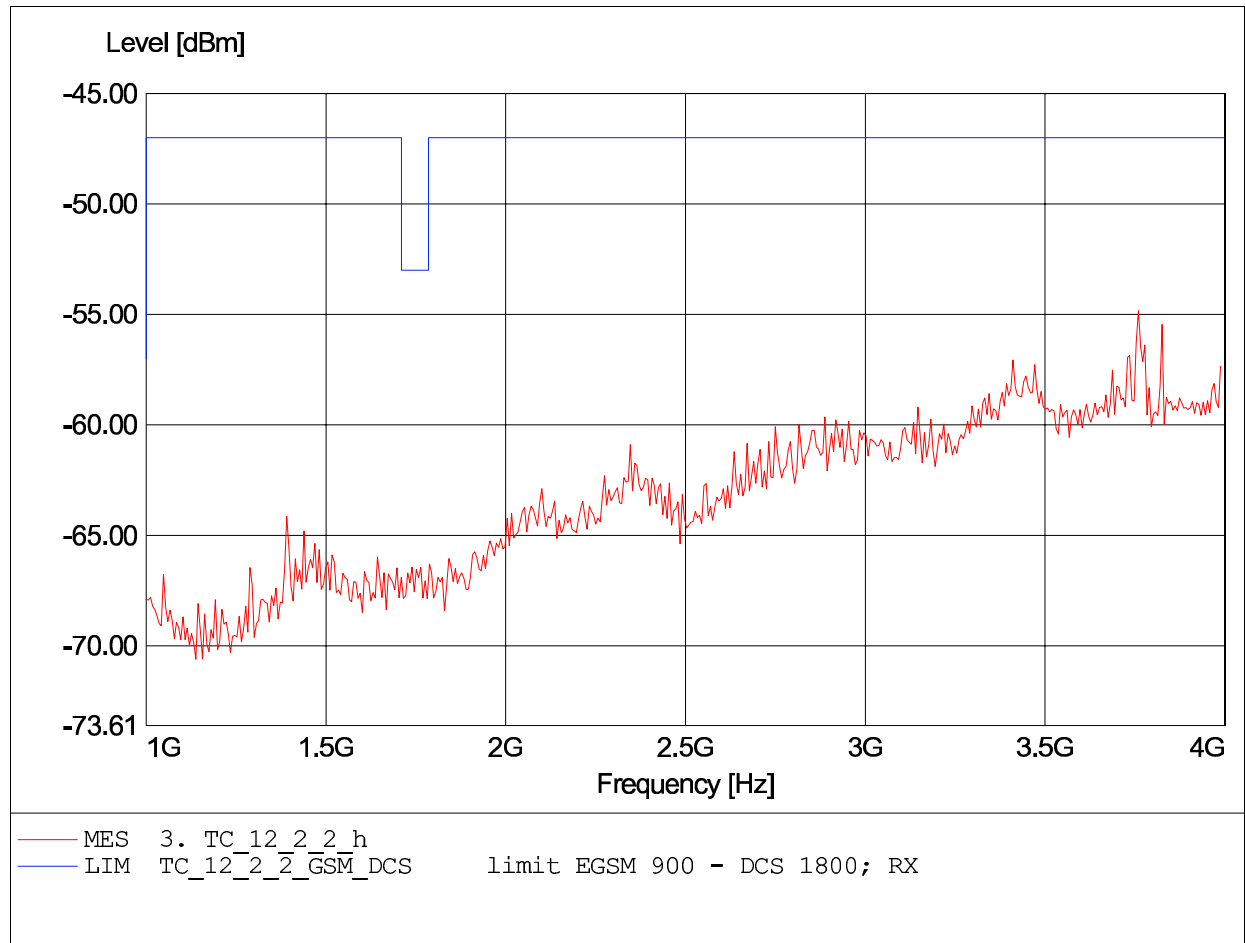
**Radiated spurious emissions-MS in idle mode
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.: 1-4GHz
Comment 2: Freq:3.844GHz Pmax:-57.57dBm RBW:100KHz



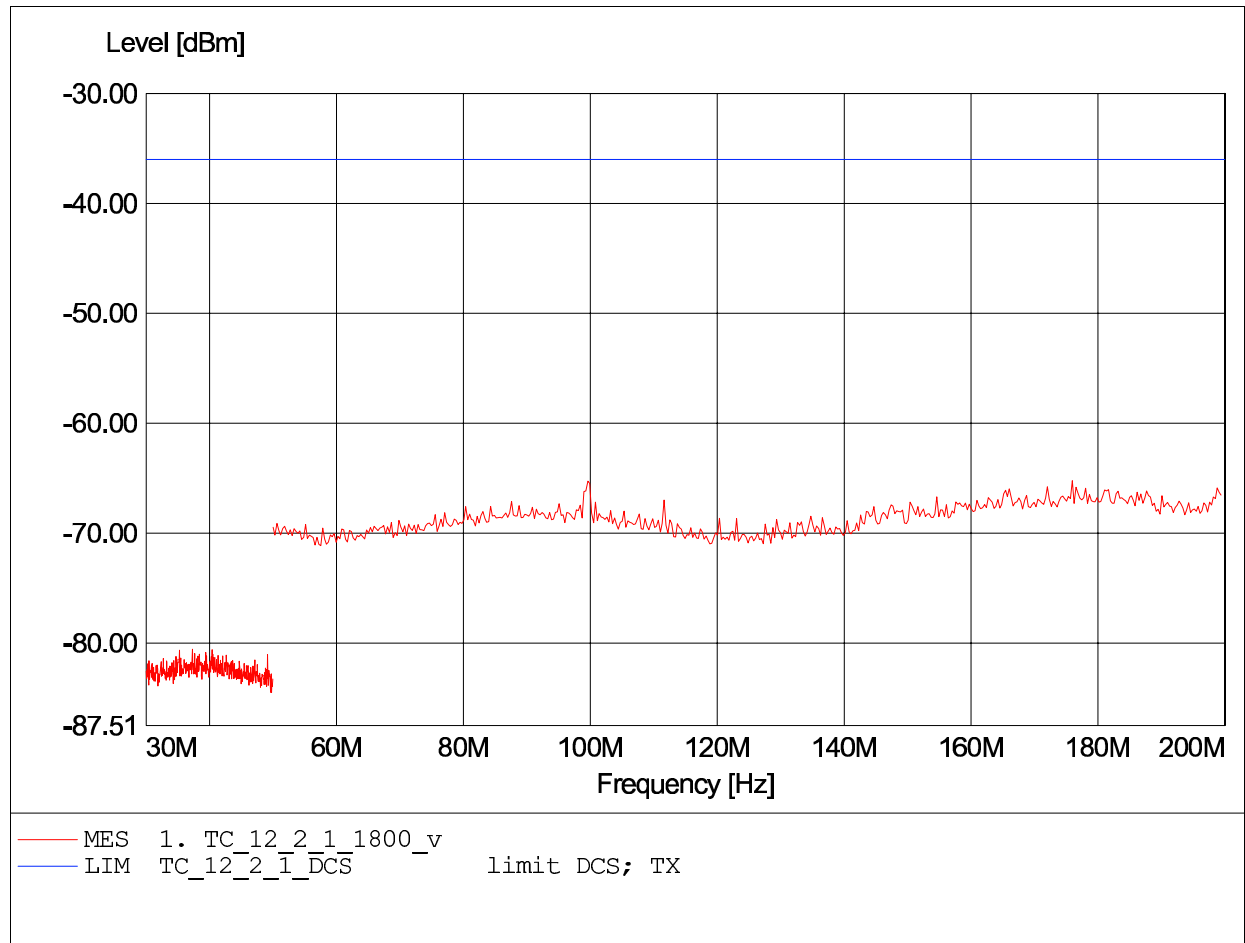
**Radiated spurious emissions-MS in idle mode
EGSM 900 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.: 1-4GHz
Comment 2: Freq:3.760GHz Pmax:-54.83dBm RBW:100KHz



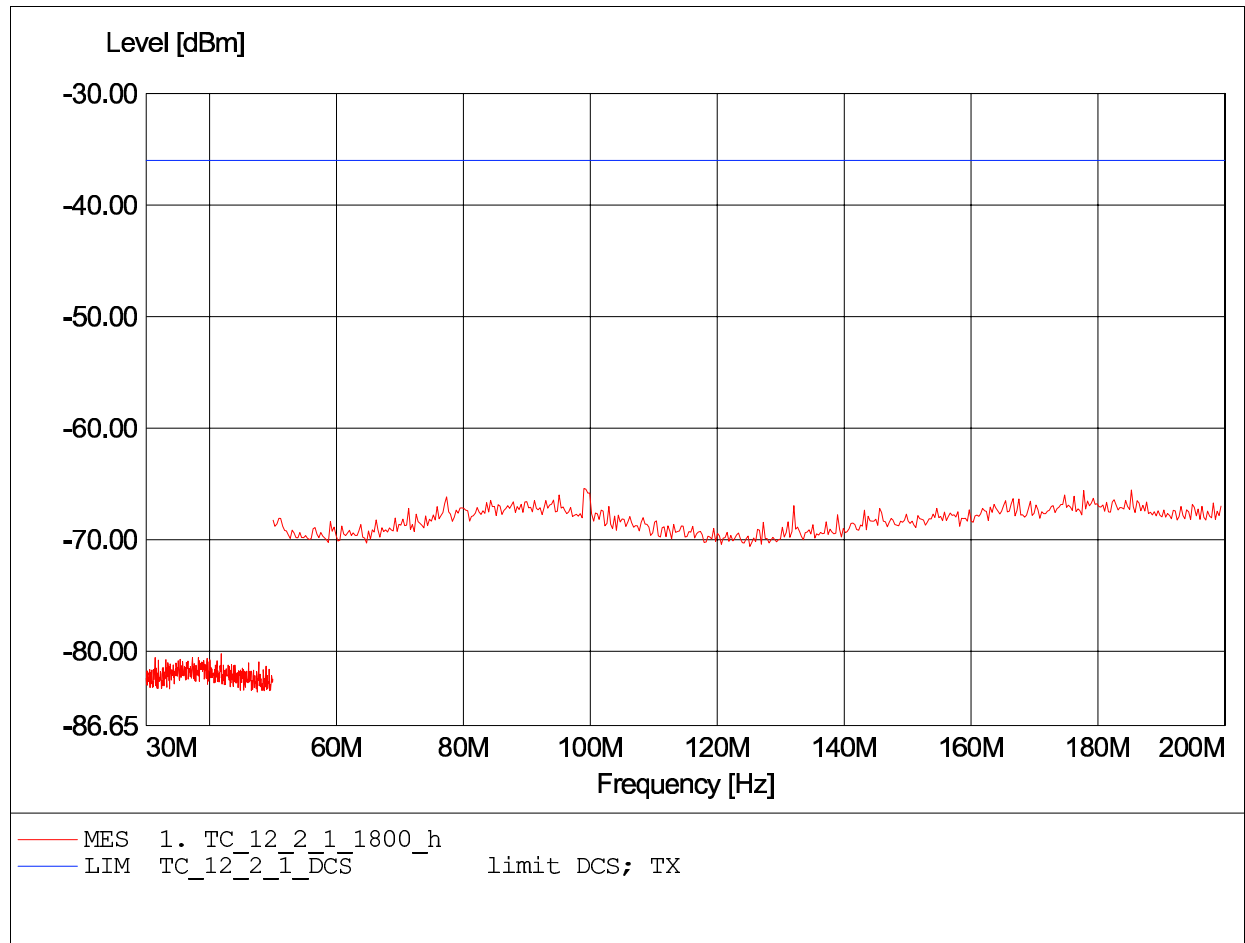
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq:175.952MHz Pmax:-65.23dBm RBW:10/100KHz



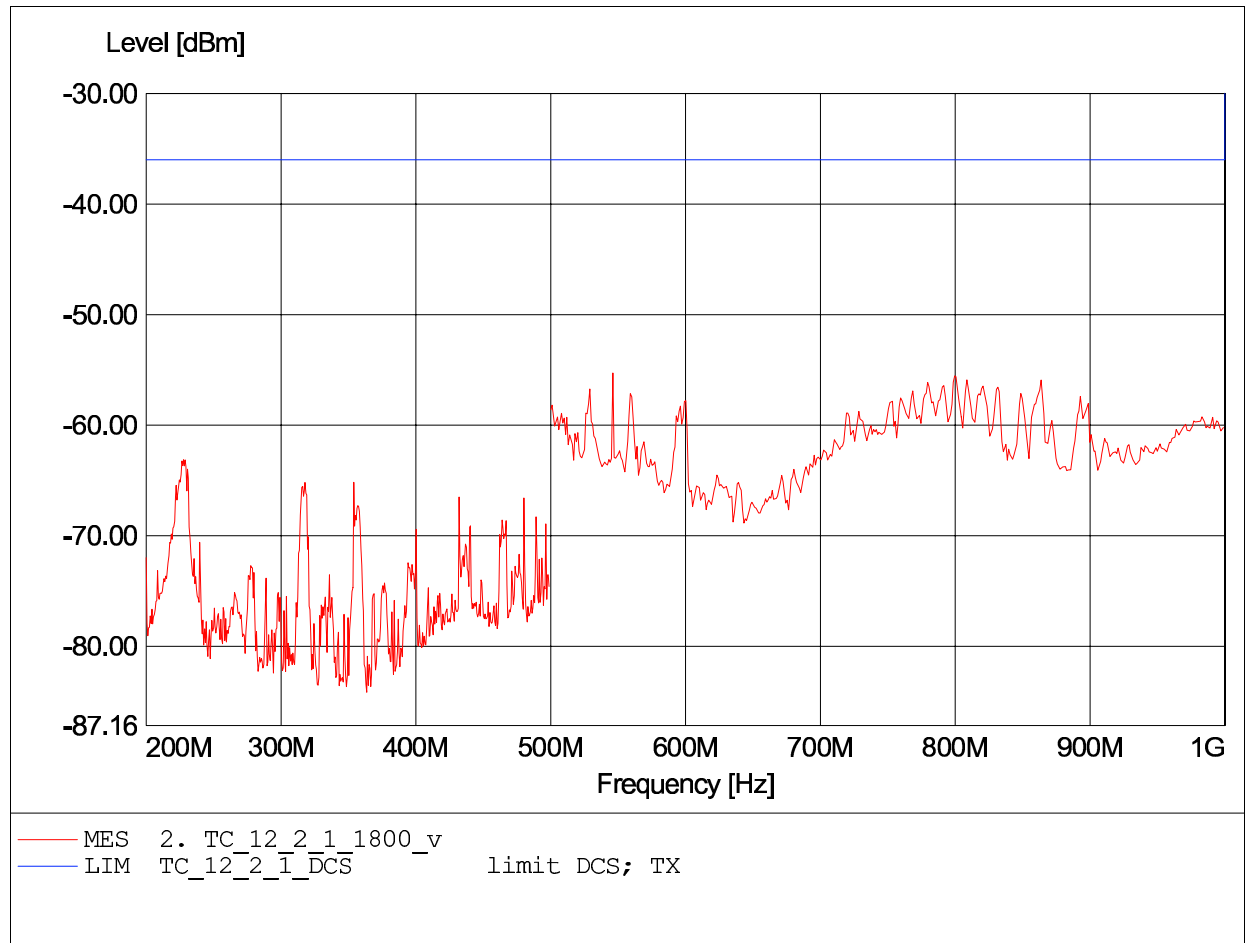
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HK 116
Comment 2: Freq:98.998MHz Pmax:-65.40dBm RBW:10/100KHz



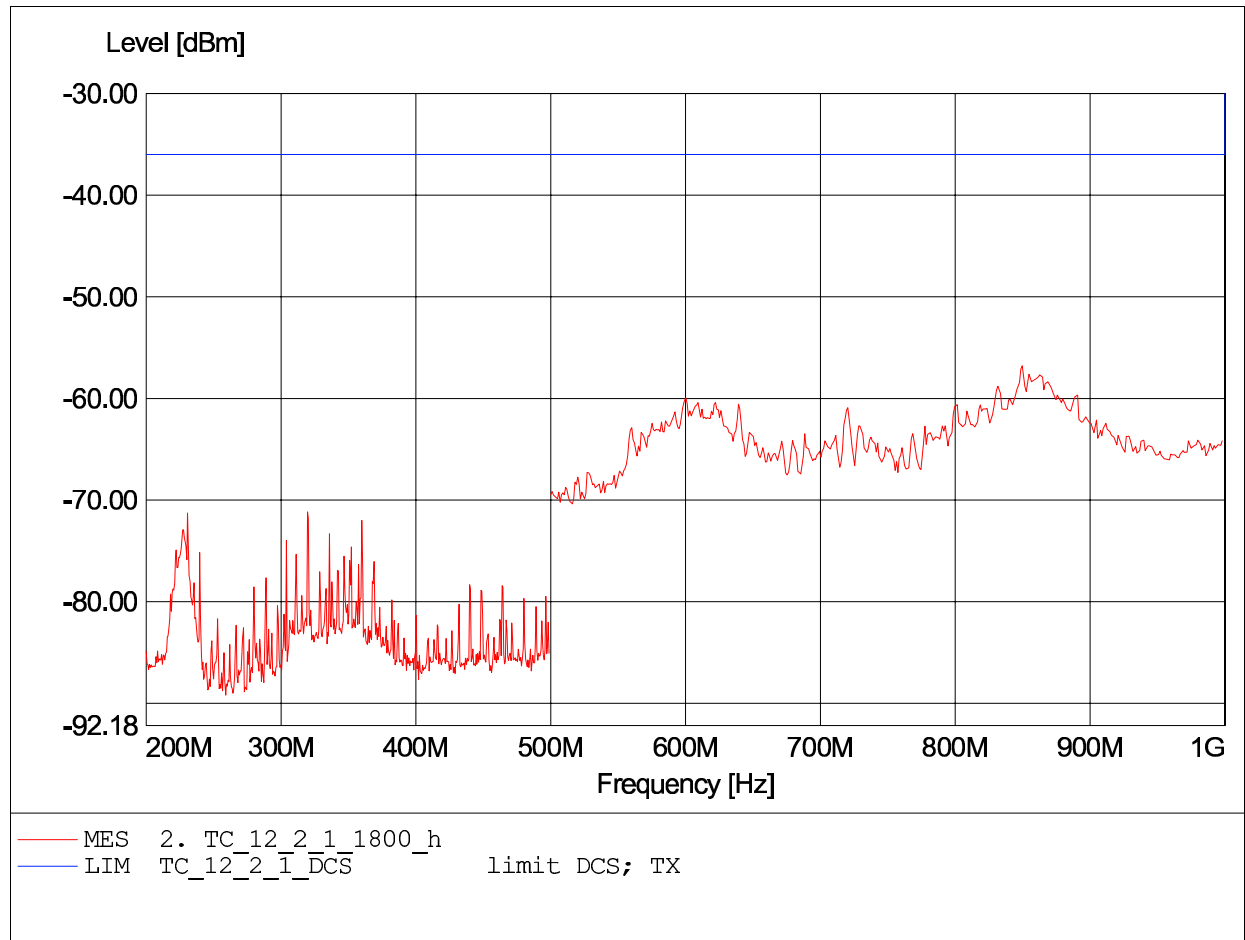
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.:0.2-1GHz
Comment 2: Freq:546.092MHz Pmax:-55.27dBm RBW:0.1/3MHz



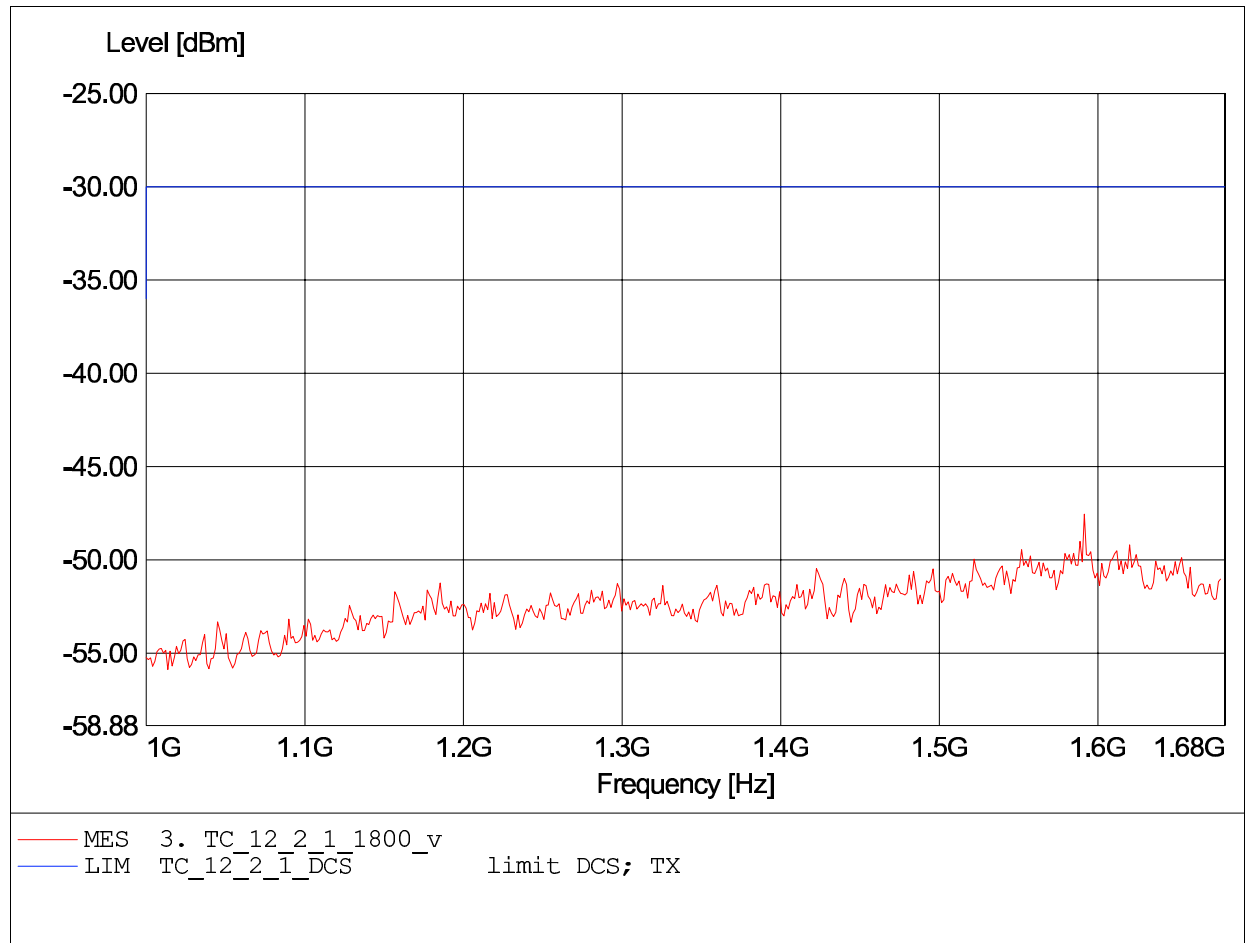
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.:0.2-1GHz
Comment 2: Freq:849.699MHz Pmax:-56.79dBm RBW:0.1/3MHz



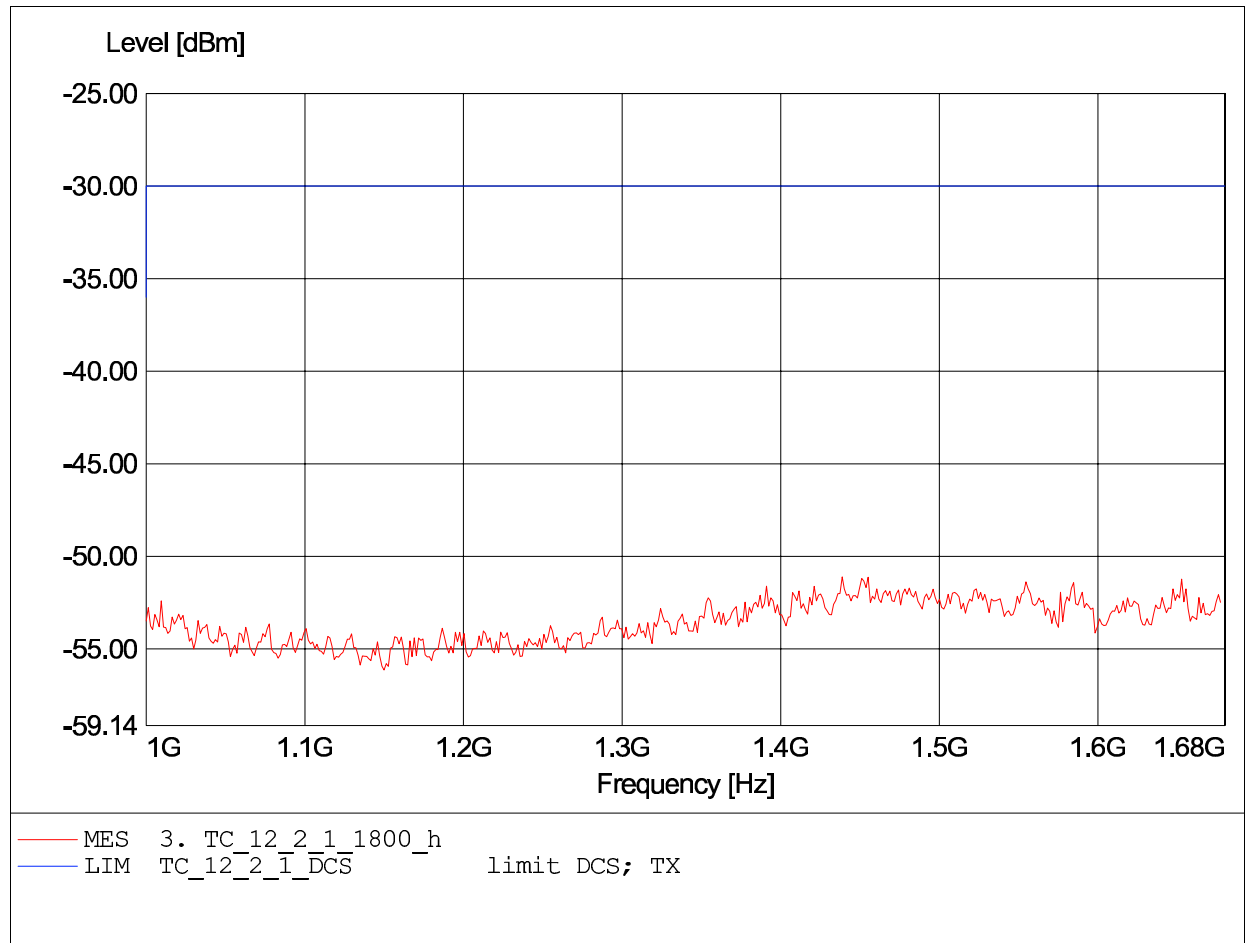
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, notch-f.
Comment 2: Freq:1.591GHz Pmax:-47.54dBm RBW:3MHz to 30KHz



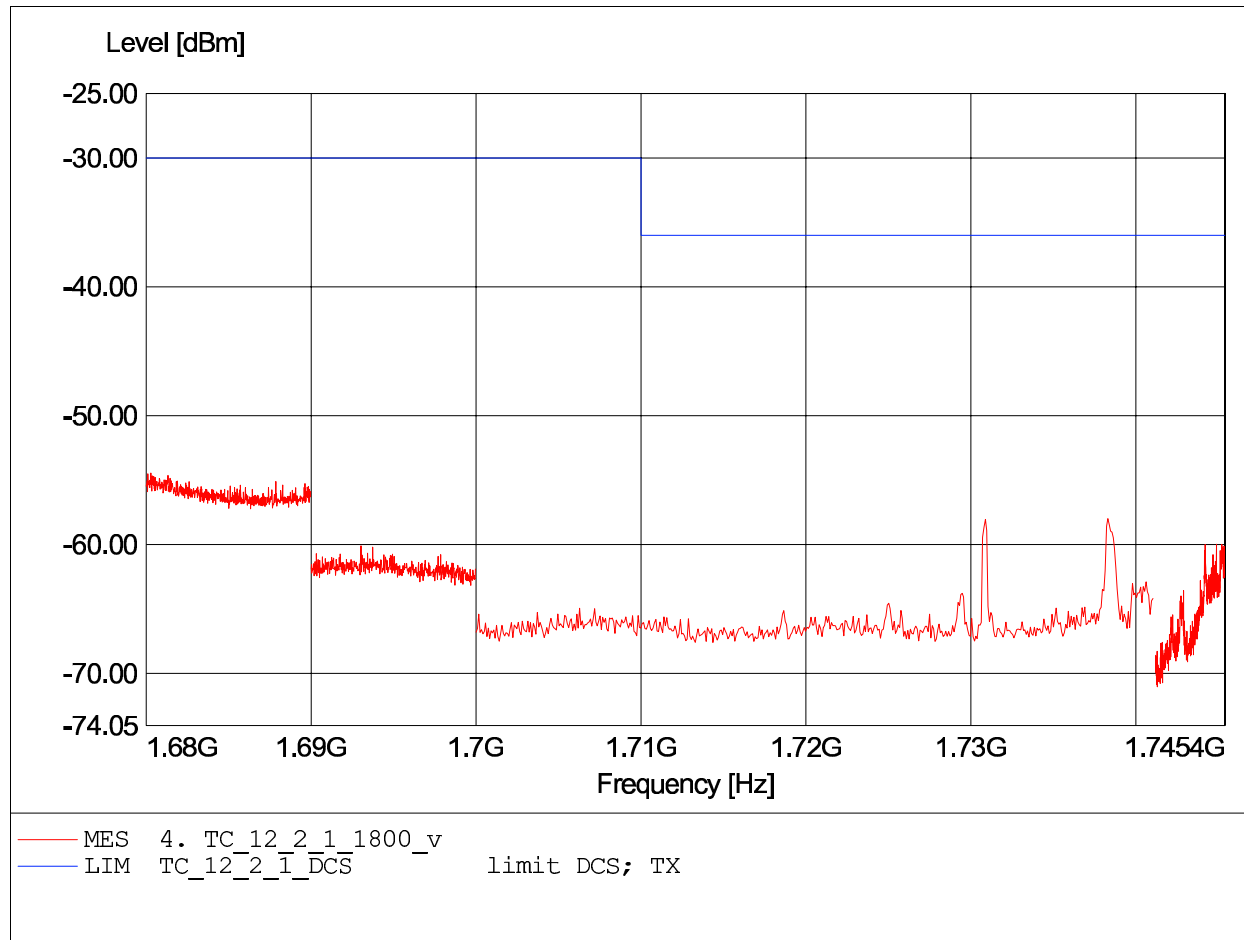
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, notch-f.
Comment 2: Freq:1.439GHz Pmax:-51.11dBm RBW:3MHz to 30KHz



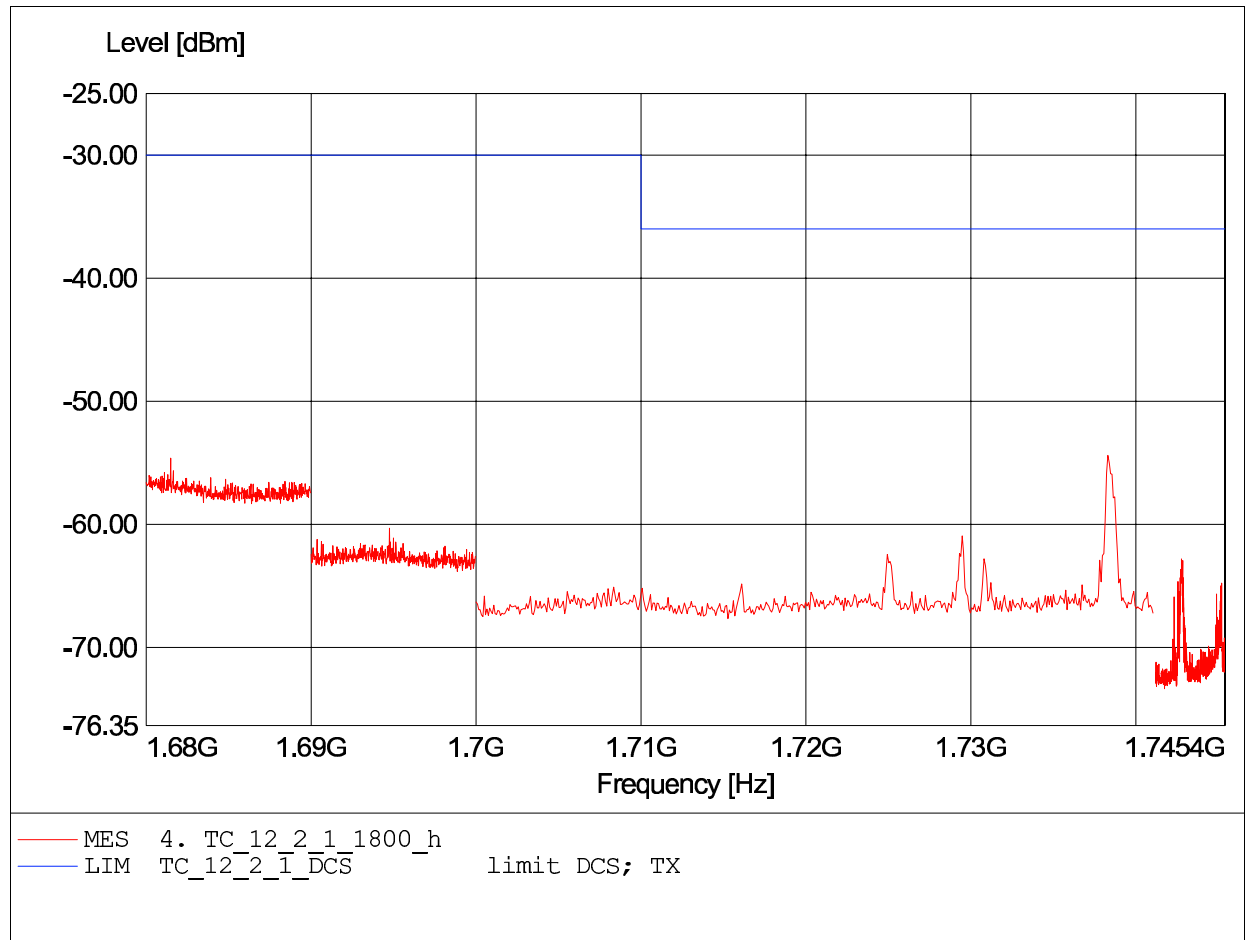
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, notch-f.
Comment 2: Freq:1.680GHz Pmax:-54.45dBm RBW:30KHz to 3MHz



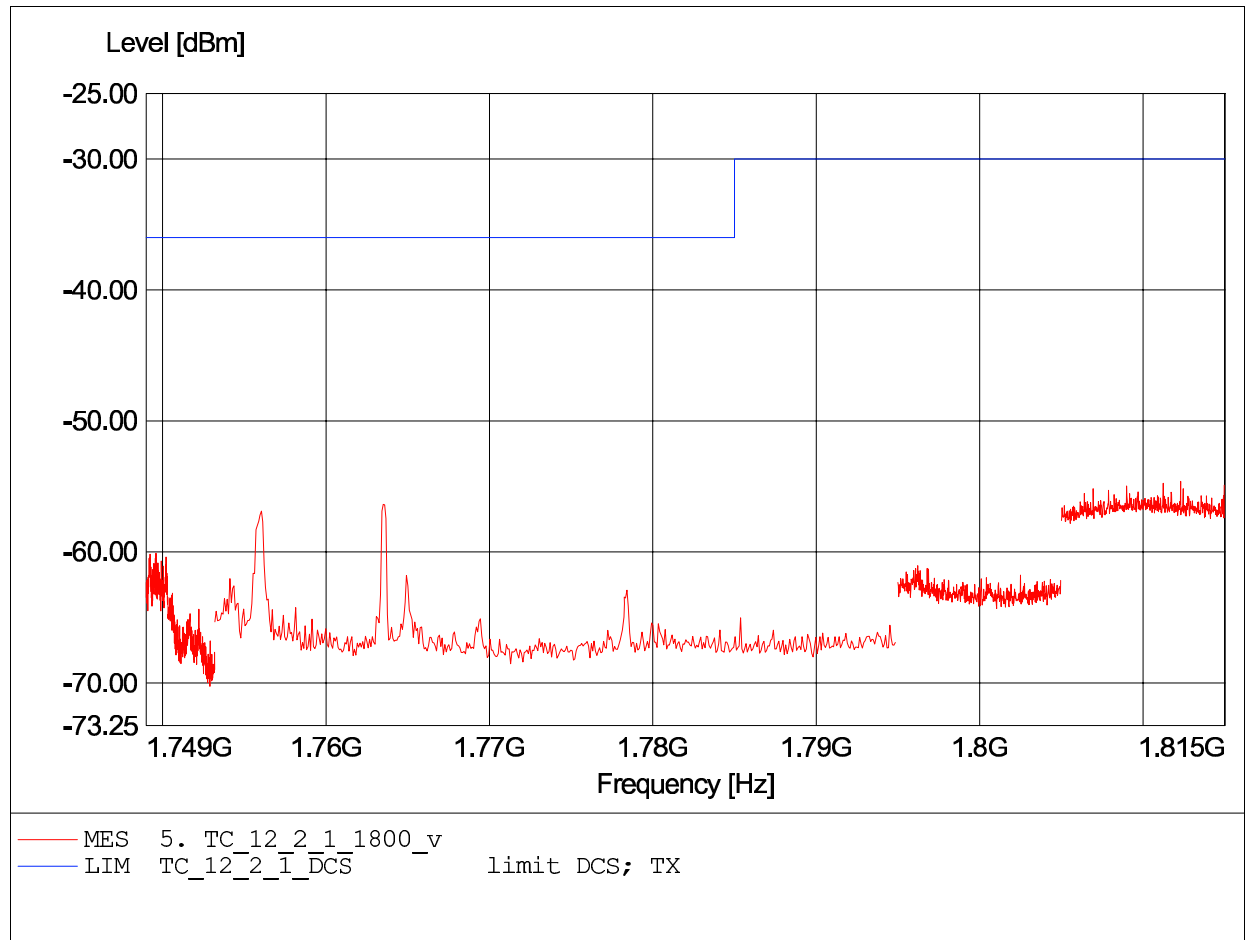
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, notch-f.
Comment 2: Freq:1.738GHz Pmax:-54.40dBm RBW:30KHz to 3MHz



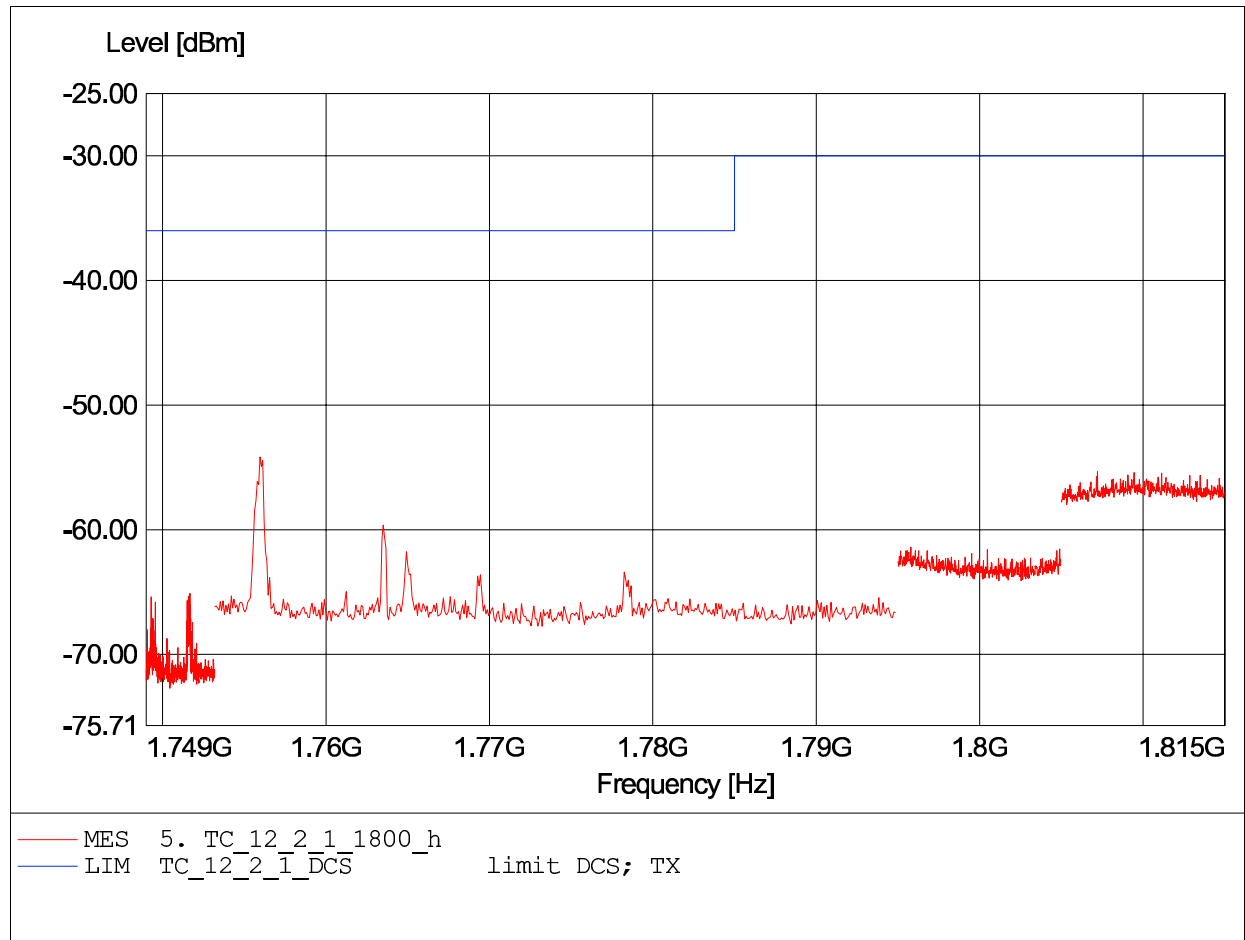
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz,notch-f.
Comment 2: Freq:1.812GHz Pmax:-54.61dBm RBW:1MHz



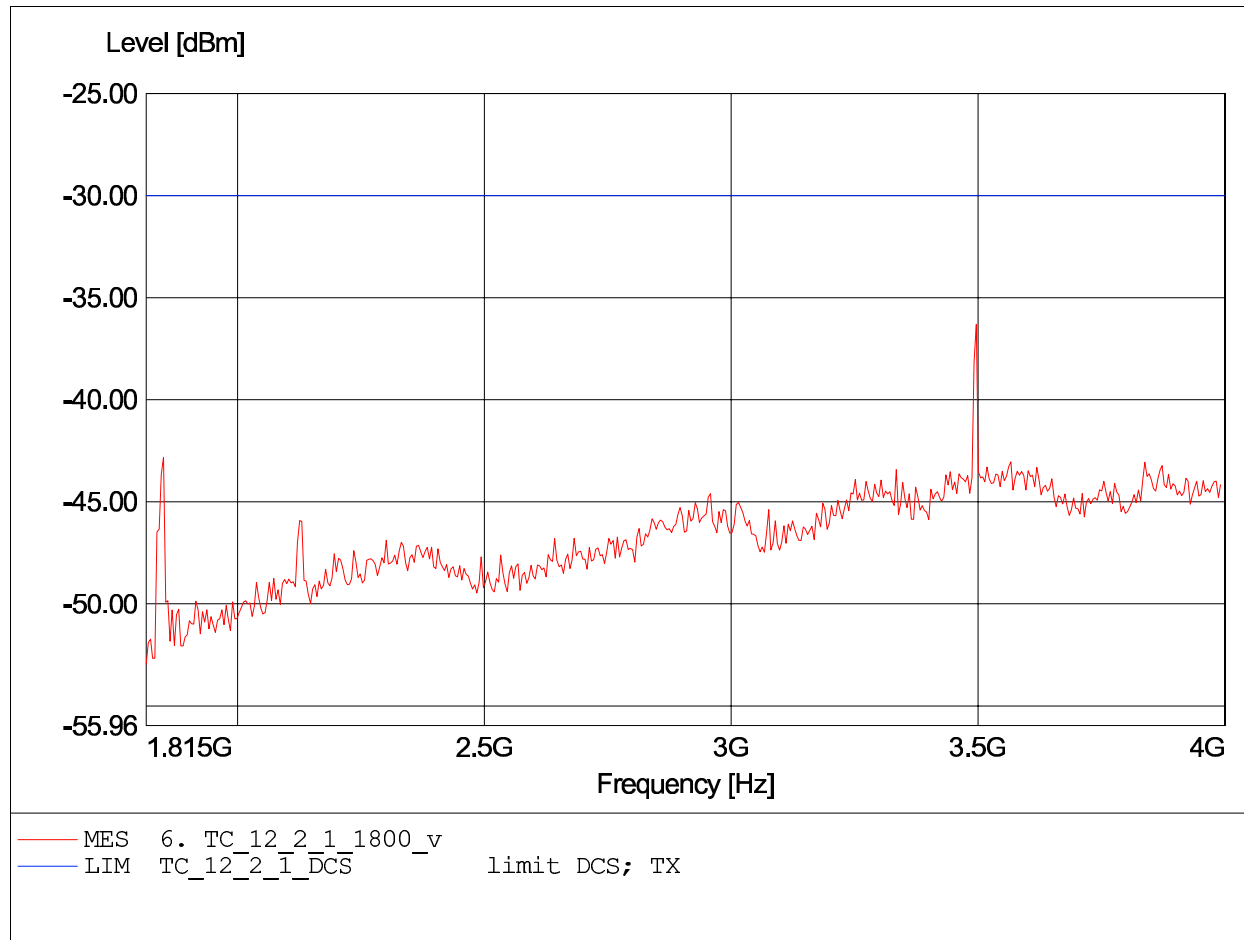
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz,notch-f.
Comment 2: Freq:1.756GHz Pmax:-54.15dBm RBW:1MHz



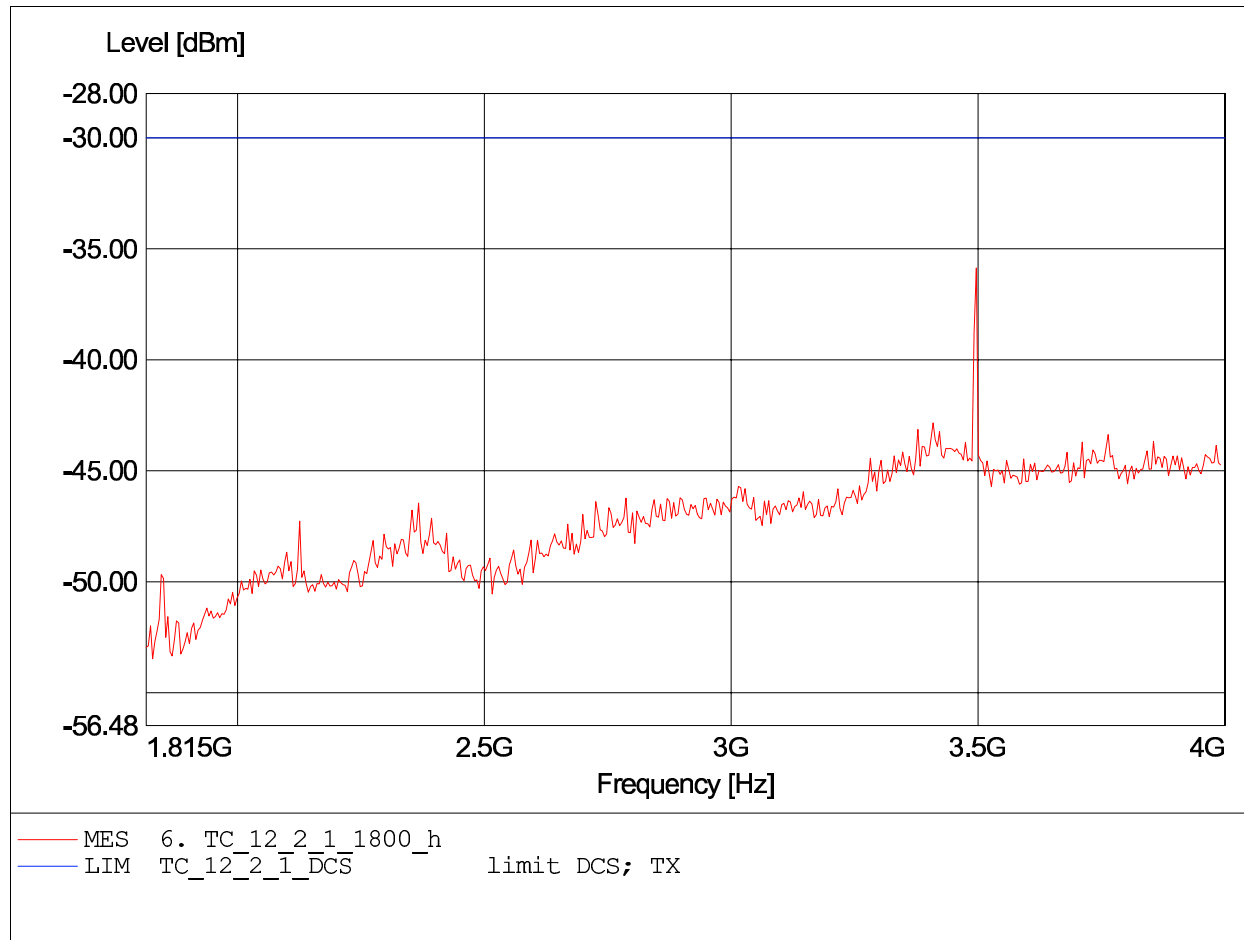
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz, notch-f., High Pass
Comment 2: Freq:3.496GHz Pmax:-36.30dBm RBW:3MHz



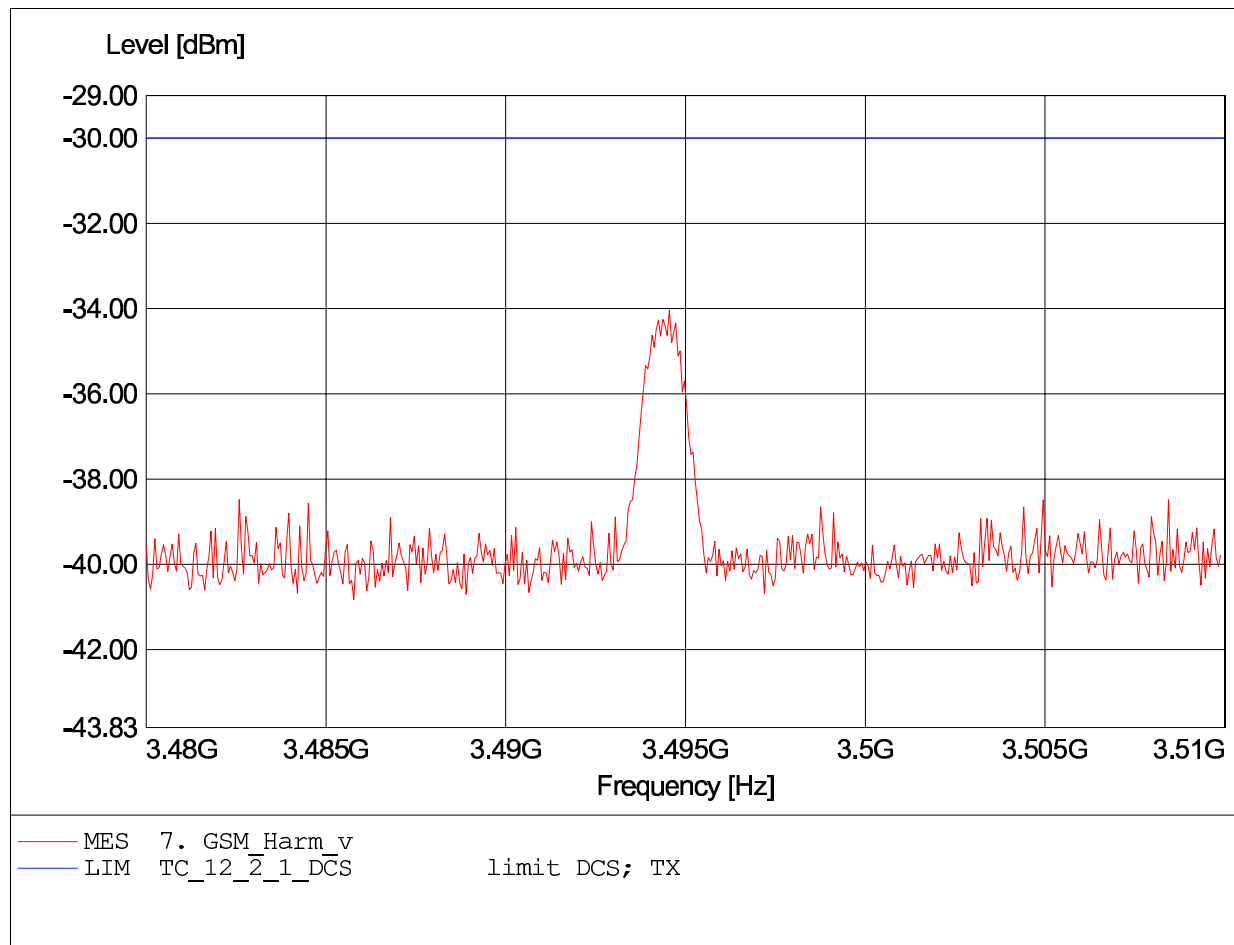
**Radiated spurious emissions-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz,notch-f.,High Pass
Comment 2: Freq:3.496GHz Pmax:-35.86dBm RBW:3MHz



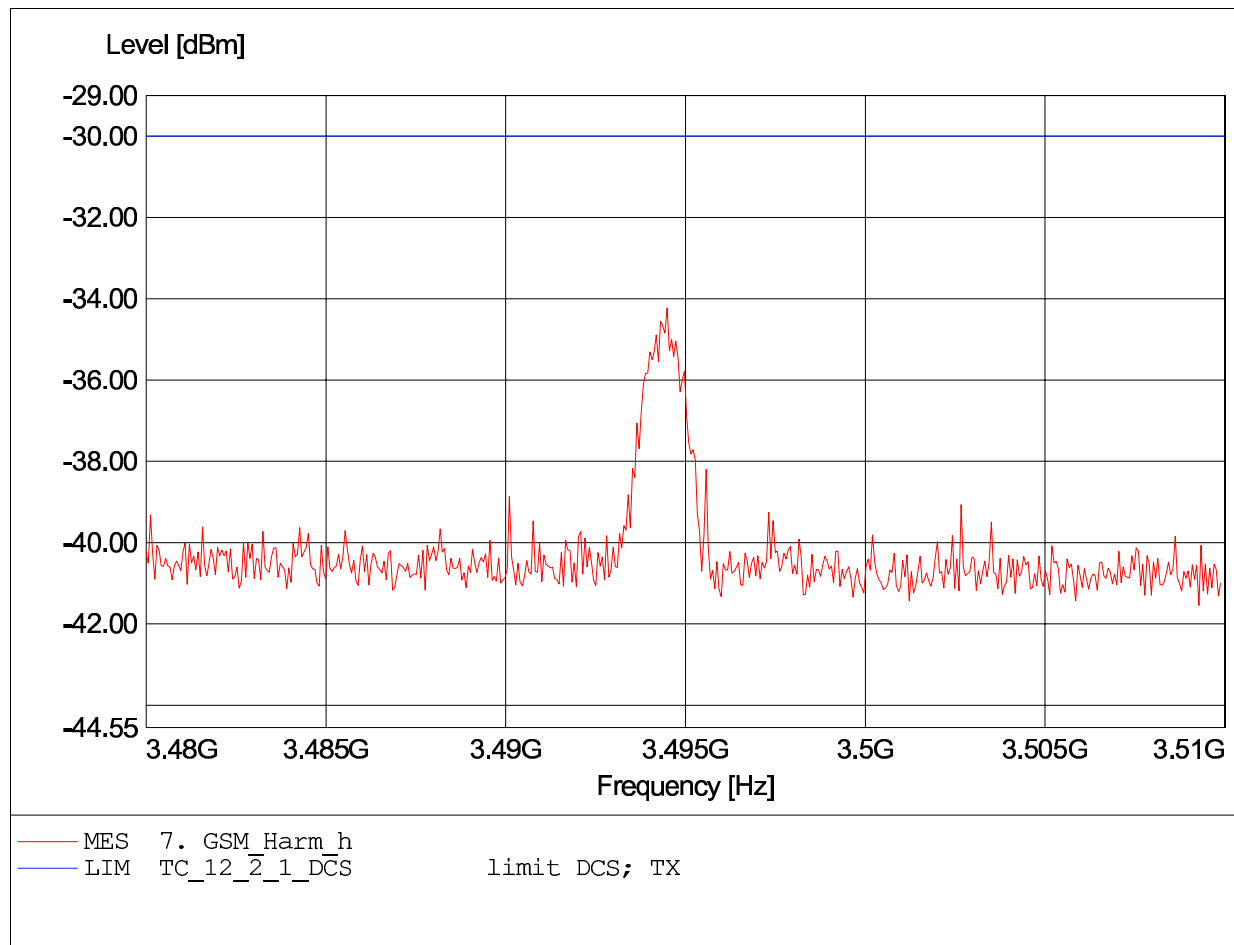
**2.Harmonic-MS allocated channel 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz,notch-f.,High Pass
Comment 2: Freq:3.495GHz Pmax:-34.03dBm RBW:3MHz



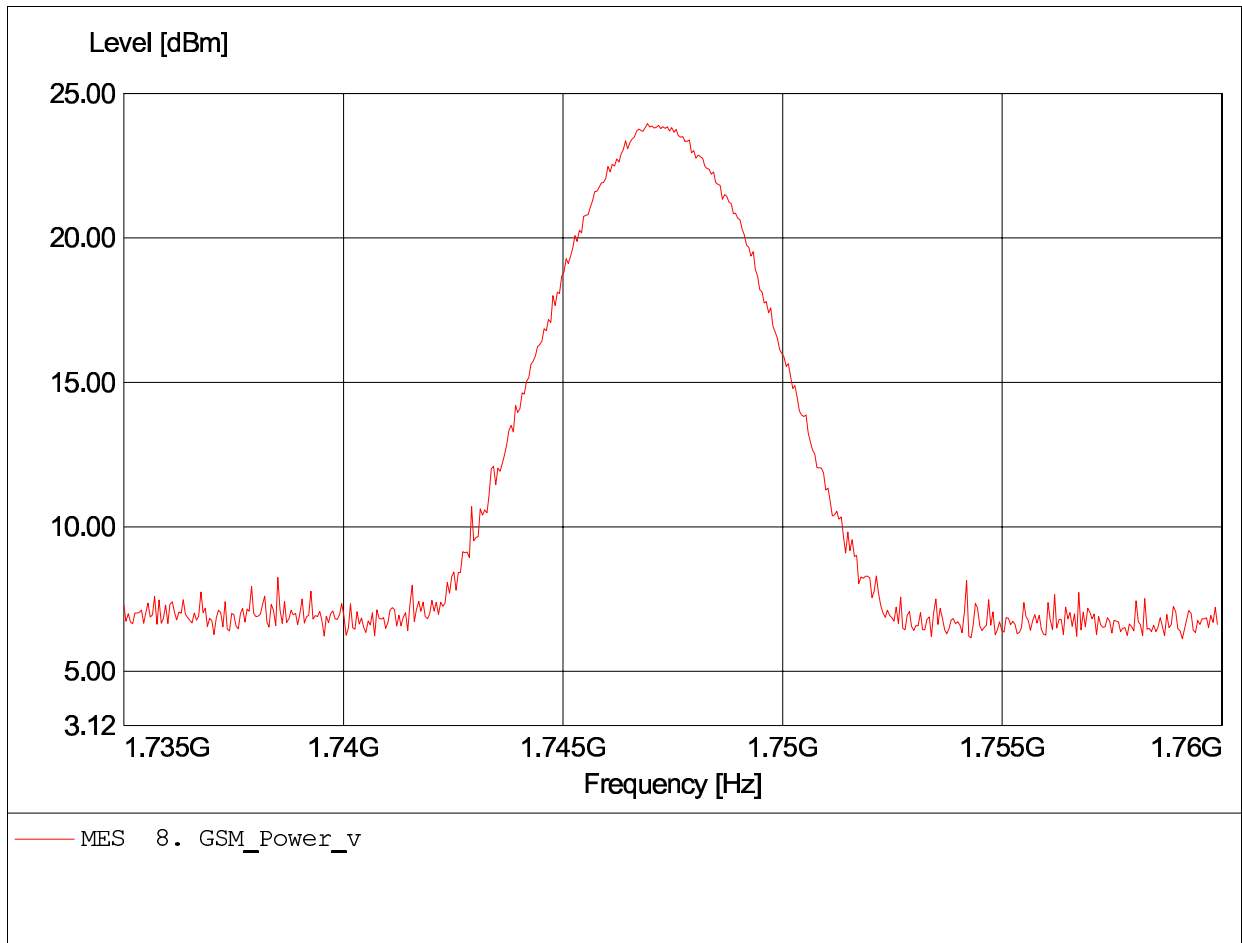
**2.Harmonic-MS allocated channel 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.1
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.:1-4GHz,notch-f.,High Pass
Comment 2: Freq:3.494GHz Pmax:-34.23dBm RBW:3MHz



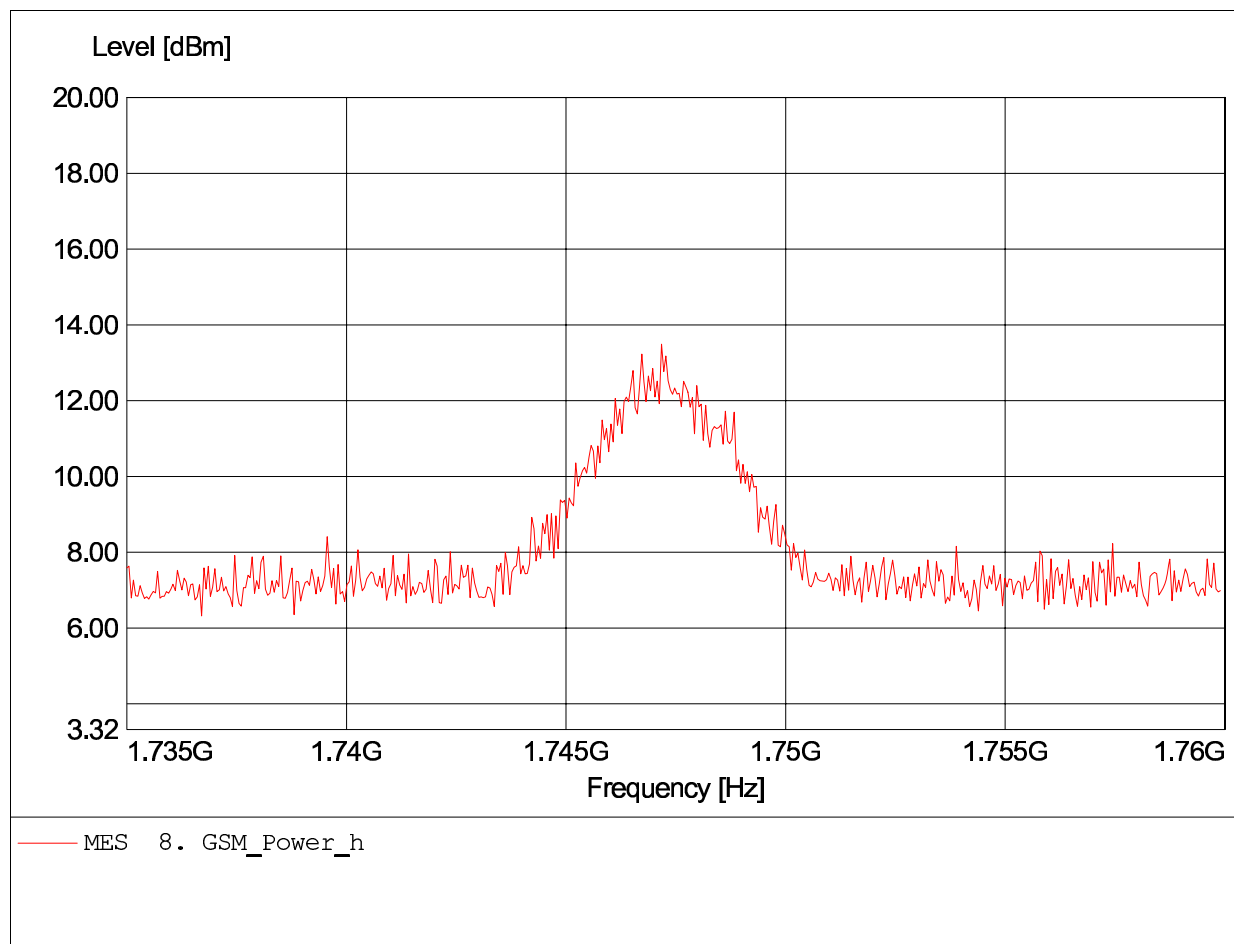
**Radiated TX Power-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: Power Control Level 0
Comment 1: Dist.: 3m, Ant.: HL 025,
Comment 2: Freq:1.747GHz Pmax:23.96dBm RBW:3MHz



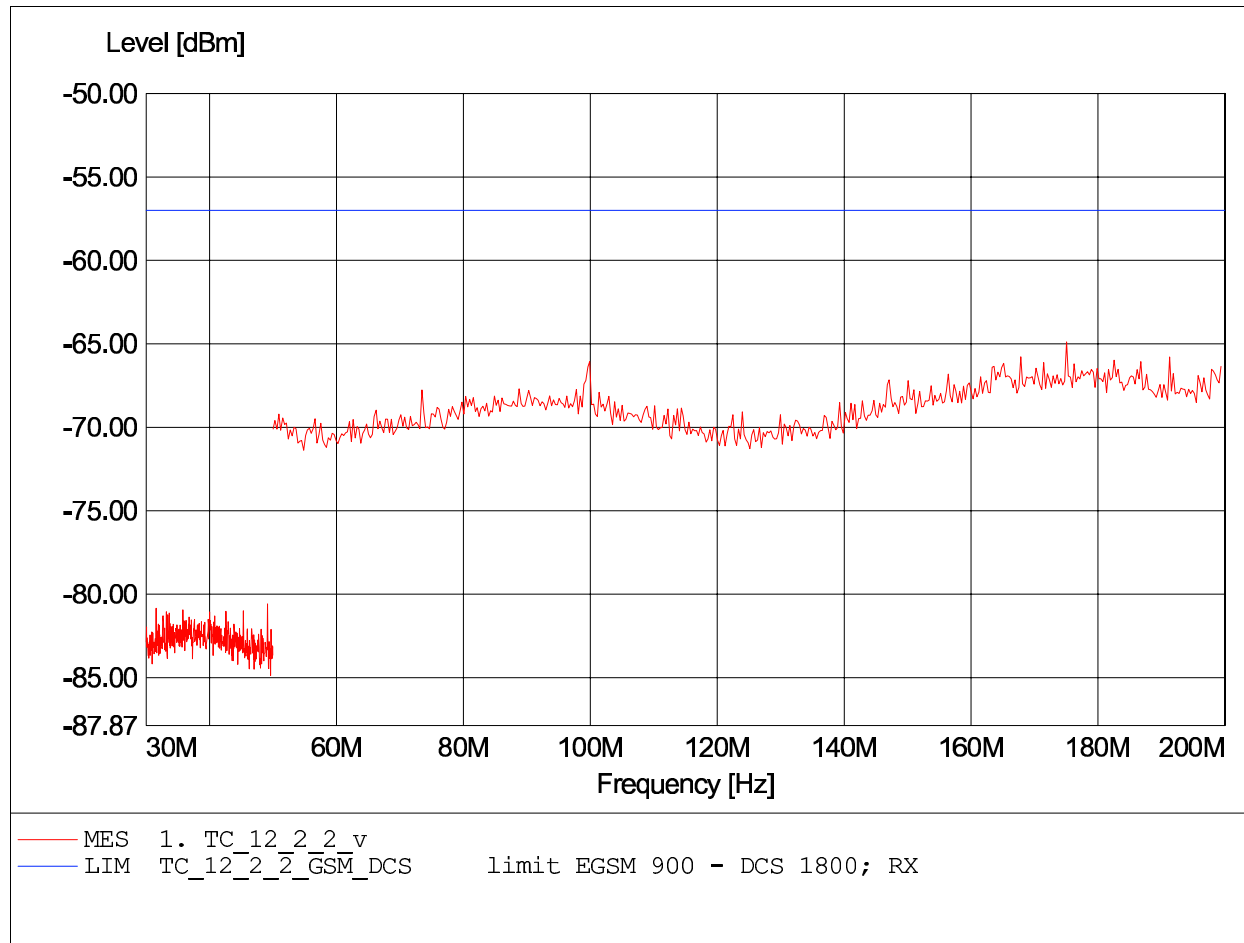
**Radiated TX Power-MS allocated ARFCN 697
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: Power Control Level 0
Comment 1: Dist.: 3m, Ant.: HL 025,
Comment 2: Freq:1.747GHz Pmax:13.49dBm RBW:3MHz



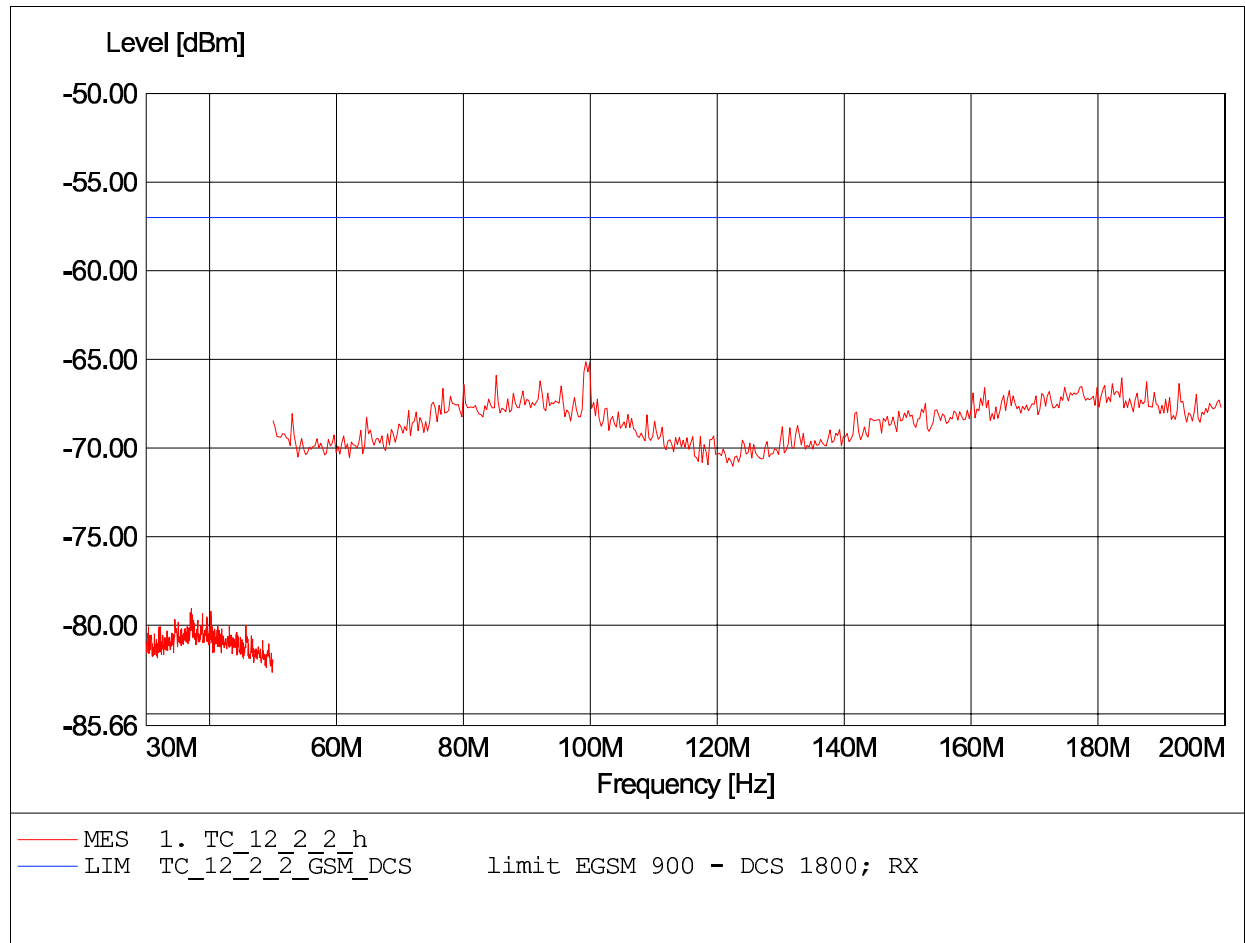
**Radiated spurious emissions-MS in idle mode
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HK 116, Ampl.: None
Comment 2: Freq:175.050MHz Pmax:-64.88dBm RBW:10-100KHz



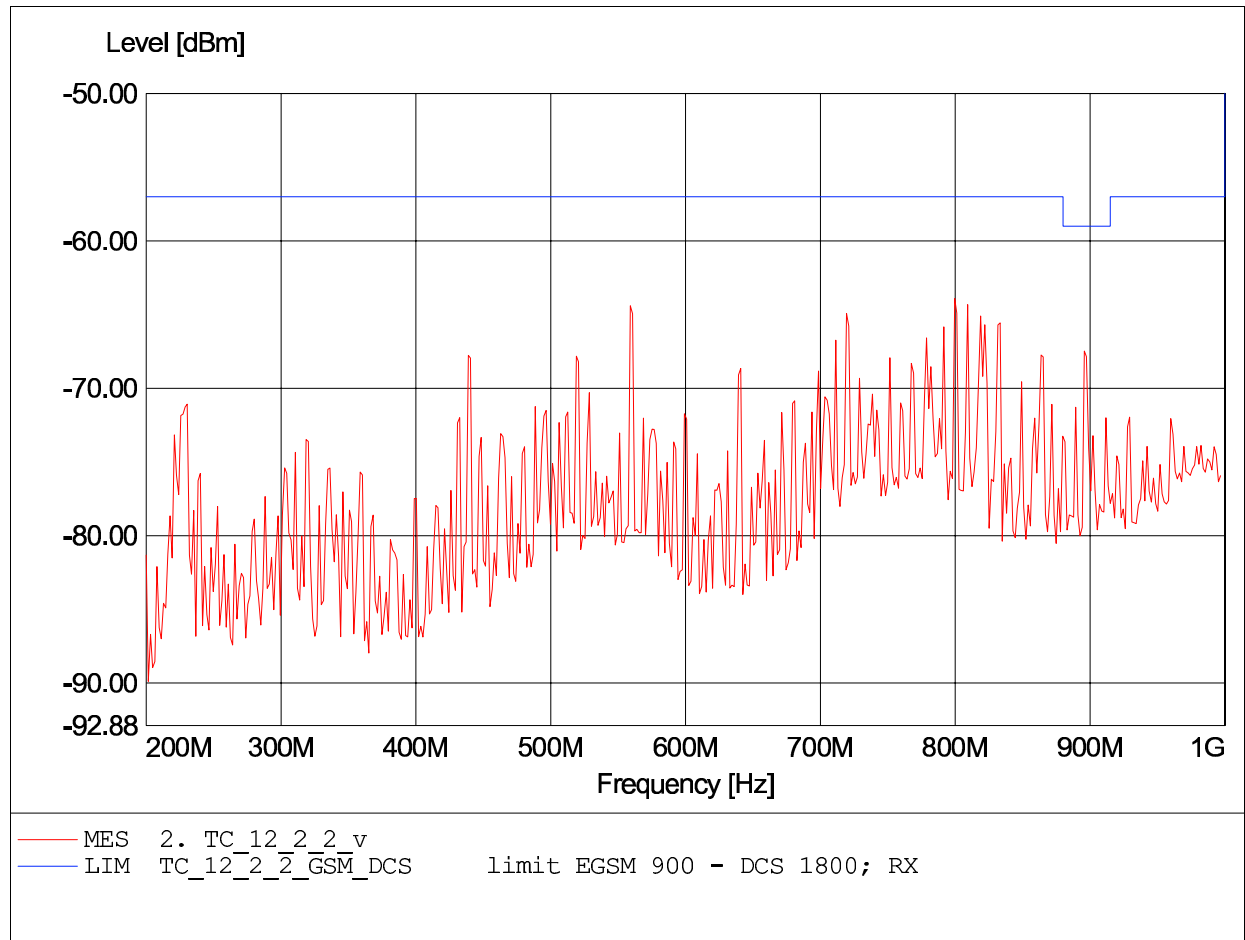
**Radiated spurious emissions-MS in idle mode
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HK 116, Ampl.: None
Comment 2: Freq:99.299MHz Pmax:-65.14dBm RBW:10-100KHz



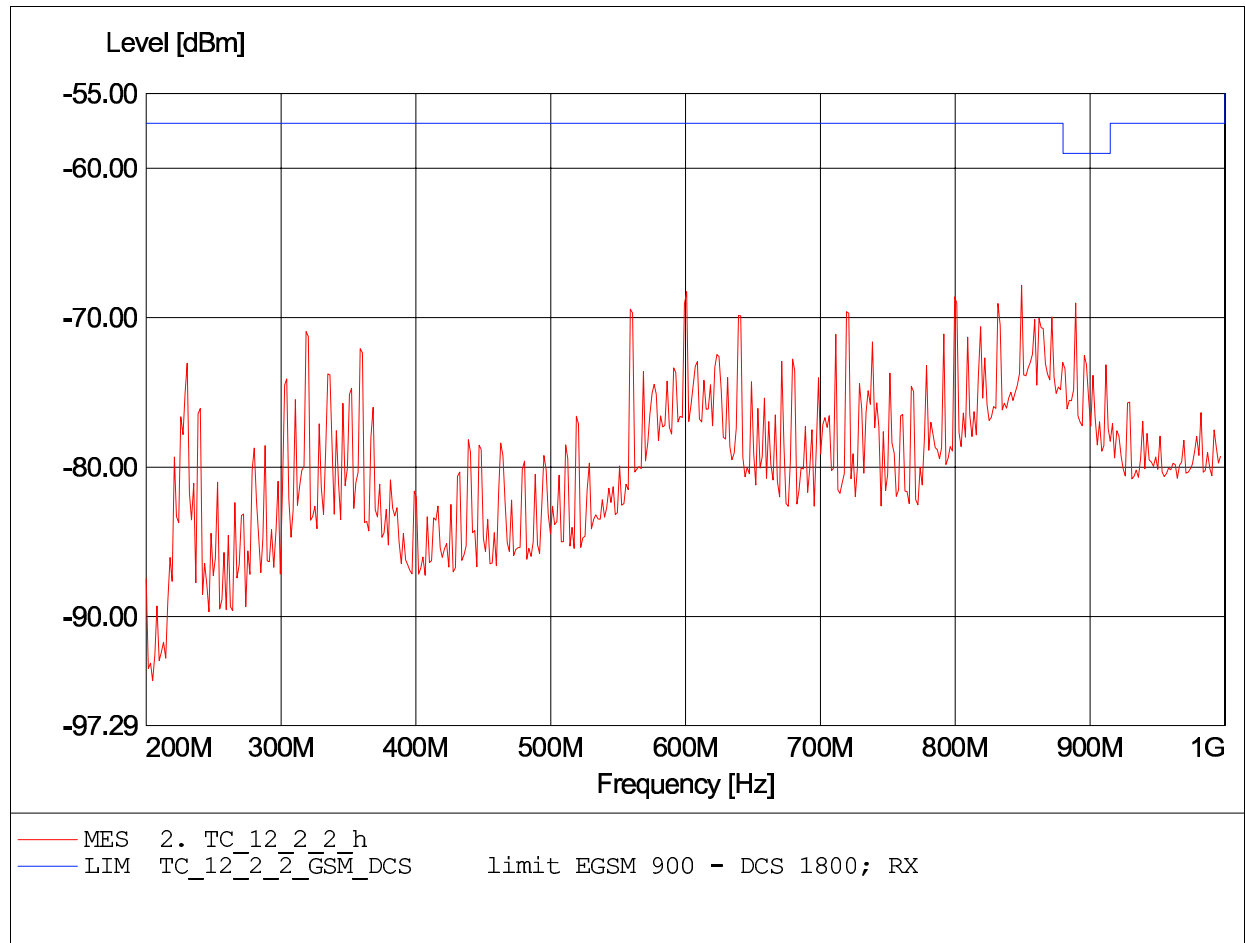
**Radiated spurious emissions-MS in idle mode
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.: 0.2-1GHz
Comment 2: Freq:799.599MHz Pmax:-63.91dBm RBW:100KHz



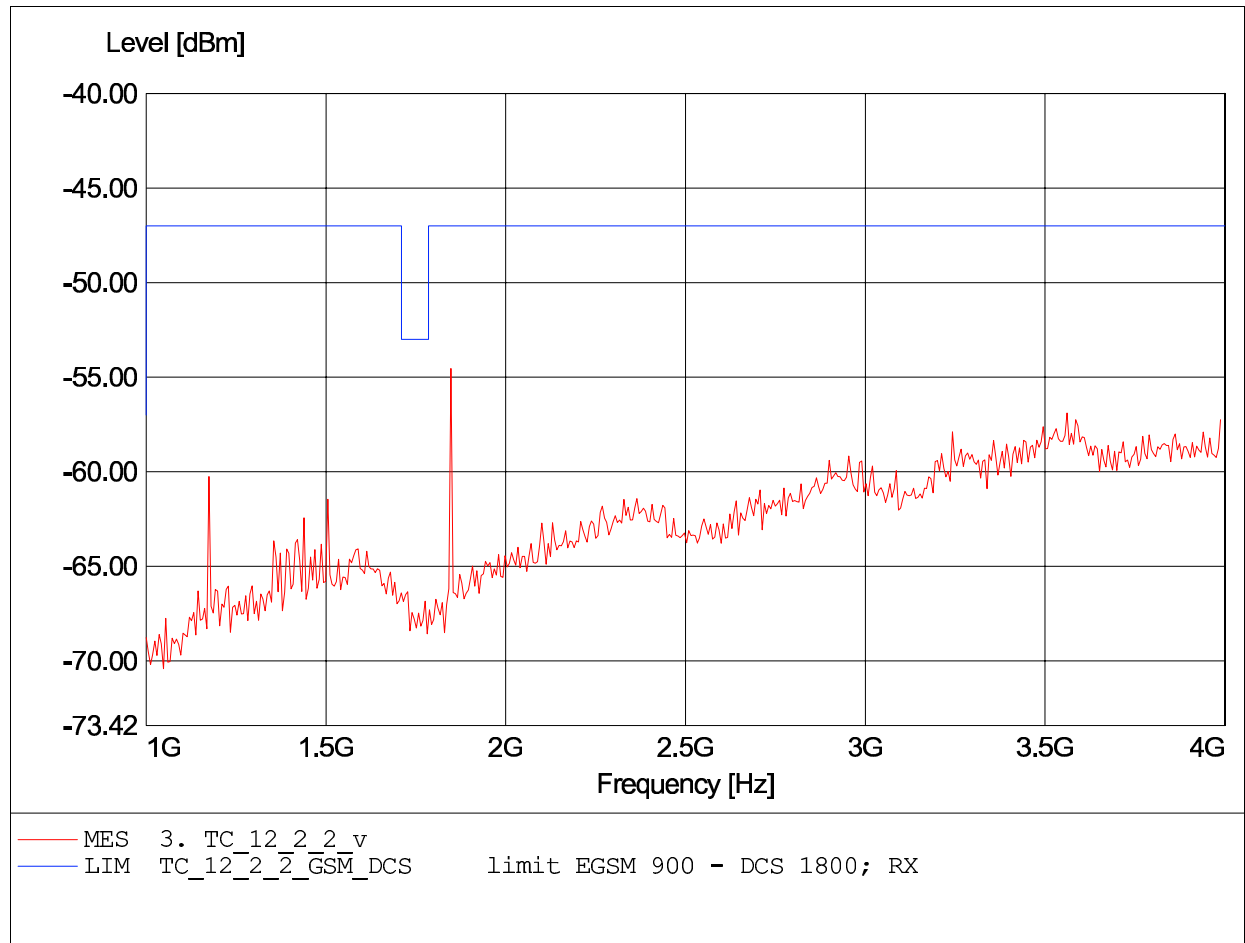
**Radiated spurious emissions-MS in idle mode
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HL 223, Ampl.: 0.2-1GHz
Comment 2: Freq:849.299MHz Pmax:-67.84dBm RBW:100KHz



**Radiated spurious emissions-MS in idle mode
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.: 1-4GHz
Comment 2: Freq:1.848GHz Pmax:-54.54dBm RBW:100KHz



**Radiated spurious emissions-MS in idle mode
DCS 1800 (Fully anechoic chamber)**

Approval Holder: FALCOM WIRELESS COMMUNICATIONS GmbH
EUT: GSM/GPRS/GPS-TRACKING UNIT
Model: BOLERO-LT
Test Site / Operator: ETS / Mr. Schlaps
Operating Conditions: 23°C / Unom.: 13.50 V DC
Test Specification: GSM 11.10-1 testcase 12.2.2
Comment 1: Dist.: 3m, Ant.: HL 025, Ampl.: 1-4GHz
Comment 2: Freq:3.393GHz Pmax:-57.52dBm RBW:100KHz

