

REPORTissued by an FCC listed Laboratory Reg. no93866The test site complies with RSS-Gen, IC file no. 3482A-aContact personDateJörgen Wassholm2013-09-04Electronics+46 10 516 57 06jorgen.wassholm@sp.se

Reference 3P04068-03-F22

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SO/IEC 17025

Ericsson AB Klaes Holm PDU HW 164 80 Stockholm

Radio measurements on RRUS 12 B5 850 MHz radio equipment with FCC ID TA8AKRC161321-2 and IC 287AB-AS1613212 (8 appendices)

Test object

Product name: RRUS 12 B5 Product number: KRC 161 321/2, R1B

Summary

See appendix 1 for details.

Standard		Compliant	Appendix
FCC CFR 47 / IC RS	S-132 ISSUE 3		
2.1046 / RSS-132 5.4	RF power output	Yes	2
2.1049 / RSS-Gen 4.6.1	Occupied bandwidth	Yes	3
2.1051 / RSS-132 5.5	Band edge	Yes	4
2.1051 / RSS-132 5.5	Spurious emission at antenna terminals	Yes	5
2.1053 / RSS-132 5.5	Field strength of spurious radiation	Yes	6
2.1055 / RSS-132 5.3	Frequency stability	Yes	7

Note: Above RSS-132 items are given as cross-reference only. Measurements were performed according to ANSI procedures referenced by FCC and covered by SP's accreditation.

SP Technical Research Institute of Sweden

Electronics – EMC

Prepared by

Jörgen Wassholm

Examined by

And

Bengt Andersson

SP Technical Research Institute of Sweden

Postal address SP Box 857 SE-501 15 BORÅS Sweden Office location Västeråsen Brinellgatan 4 SE-504 62 BORÅS Phone / Fax / E-mail +46 10 516 50 00 +46 33 13 55 02 info@sp.se Laboratories are accredited by the Swedish Board for Accreditation and Conformity Assessment (SWEDAC) under the terms of Swedish legislation. This report may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

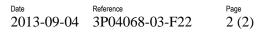




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Occupied bandwidth	Appendix 3
Band edge	Appendix 4
Spurious emission at antenna terminals	Appendix 5
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Appendix 1

Description of the test object

Equipment: Frequency range:	Product name: RRUS 12 B5, supporting GSM Product number KRC 161 321/2 FCC ID TA8AKRC161321-2 IC: 287AB-AS1613212 IC MODEL NO: AS1613212 TX: 869 - 894 MHz RX: 824 - 849 MHz	
Antenna ports:	2 TX/RX ports	
RF configurations:	Single and multi carrier	
Maximum nominal output power per antenna port:	Single carrier: 1x 47.8 dBm (1 x 60.0W) Multi carrier: 2x 44.8 dBm (2 x 30.0W) 3x 43.0 dBm (3 x 20W) 4x 41.8 dBm (4 x 15W)	
Antenna:	No dedicated antenna, handled during licensing	
Modulations :	GMSK, 8PSK, AQPSK, 16QAM and 32QAM,	
Nominal power voltage:	-48VDC	



Appendix 1

Operation modes during measurements

Measurements were performed with the test object transmitting following modulations: GMSK, AQPSK, 8-PSK, 16QAM and 32QAM.

Unless otherwise stated, all measurements were performed with the test object transmitting pseudorandom data in all timeslots and settings for maximum transmitter output power applicable for each configuration.

The settings below were deemed representative for all traffic scenarios when settings with different modulations and number of carriers has been tested to find the worst case setting. The settings below were used for all measurements if not otherwise noted.

Single carrier GMSK modulation

Multi carrier GMSK modulation

Conducted measurements

The test object was supplied with -48 VDC by an external power supply. Additional connections are documented in the set-up drawings below. All measurements were made on RF A and additional measurements on RF B to verify that the ports were electrical identical, as declared by the client.

Radiated measurements

The test object was powered with -48 VDC. All measurements were performed with the test object configured for maximum transmit power

Purpose of test

The purpose of the tests is to verify compliance to the performance characteristics specified in applicable items of FCC CFR 47 and Industry Canada RSS-132 and RSS-Gen.

References

Measurements were done according to relevant parts of the following standards: ANSI 63.4-2009 ANSI/TIA/EIA-603-C-2004 ANSI/TIA/EIA 136-280-D-2002 J-STD007A Vol 1 CFR 47 part 2, October 1st, 2012 CFR 47 part 22, October 1st, 2012 RSS-Gen Issue 3 RSS-132 Issue 3



Appendix 1

Test frequencies used for conducted and radiated measurements

TX test frequencies, conducted measurements

ARFCN	Frequency	Symbolic	Comment
Downlink Port	Port A and B	name	
A and B	[MHz]		
129	869.4	В	Single carrier TX bottom frequency
129	869.4	B2	2 carrier TX band bottom constellation
132	870.0		
129	869.4	B4	4 carrier TX band botttom constellation
132	870.0		
136	870.8		
139	871.4		
190	881.6	М	Single carrier TX mid frequency
190	881.6	M2	2 carrier TX band mid constellation
193	882.2		
250	893.6	Т	Single carrier TX top frequency
247	893.0	T2	2 carrier TX band top constellation
250	893.6		
185	880.6	$\mathbf{B}_{\mathrm{im}\ 1}$	2 carrier TX band configuration
250	893.6		
153	874.2	$\mathbf{B}_{\mathrm{im}2}$	2 carrier TX band configuration
185	880.6		
129	869.4	B _{im 3}	2 carrier TX band configuration
137	871.0		
129	869.4	T _{im 1}	2 carrier TX band configuration
194	882.4		
194	882.4	T _{im 2}	2 carrier TX band configuration
226	888.8		
242	892.0	T _{im 3}	2 carrier TX band configuration
250	893.6		

TX test frequencies, radiated measurements

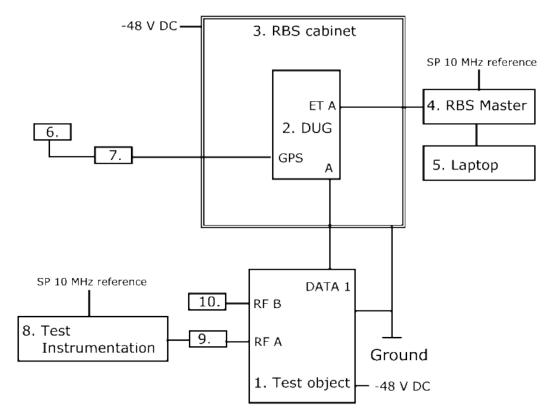
ARFCN	ARFCN	Frequency	Frequency	Symbolic	Comment
Downlink	Downlink	Port A	Port B	name	
Port A	Port B	[MHz]	[MHz]		
129	137	869.4	871.0	В	Single carrier TX bottom frequency
165	215	876.6	886.6	М	Single carrier TX mid frequency
242	250	892.0	893.6	Т	Single carrier TX top frequency
247	241	893.0	891.8	T2	2 carrier TX band top constellation
250	244	893.6	892.4		
144	129	872.4	869.4	T4	4 carrier TX band mid constellation
175	160	878.6	875.6		
220	205	887.6	884.6		
250	235	890.6	890.6		





Appendix 1

Test set-up conducted measurements GSM



Note: Unconnected test object interfaces were omitted in the picture for simplicity, but are listed in the interface table on page 6.

Test object:

1.	RRUS 12 B5, KRC 161321/2, rev. R1B, s/n: C827002288
	working software PIS CXP 901 7316/2, rev. R49DU with
	FCC ID TA8AKRC161321-2 and IC: 287AB-AS1613212

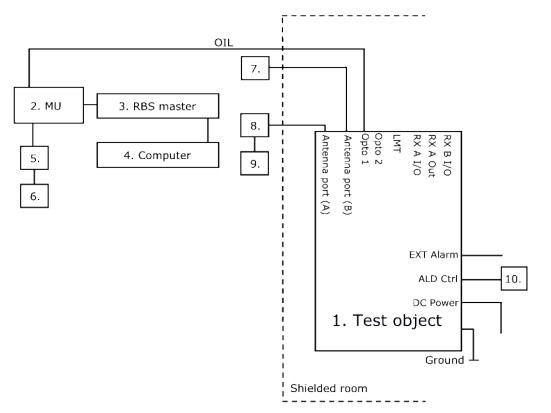
Functional test equipment:

3. RBS 6202 BAMS 1000961945 4. RBS Master LPY 107 1007/3 rev. R1C. BAMS 1001195170 5. Controlling computer HP EliteBook 8560 w, BAMS 1001236850 6. GPS Active Antenna, KRE 101 2082/1 7. GPS 02 01, NCD 901 41/1, rev. R1D, s/n: TU8K474887 8. SP Test Instrumentation according to measurement equipment list 9 Attenuator	2.	DUG 2001 KDU 137 569/1, R3D, A402019156
 Controlling computer HP EliteBook 8560 w, BAMS 1001236850 GPS Active Antenna, KRE 101 2082/1 GPS 02 01, NCD 901 41/1, rev. R1D, s/n: TU8K474887 SP Test Instrumentation according to measurement equipment list 	3.	RBS 6202 BAMS 1000961945
 6. GPS Active Antenna, KRE 101 2082/1 7. GPS 02 01, NCD 901 41/1, rev. R1D, s/n: TU8K474887 8. SP Test Instrumentation according to measurement equipment list 	4.	RBS Master LPY 107 1007/3 rev. R1C. BAMS 1001195170
 GPS 02 01, NCD 901 41/1, rev. R1D, s/n: TU8K474887 SP Test Instrumentation according to measurement equipment list 	5.	Controlling computer HP EliteBook 8560 w, BAMS 1001236850
8. SP Test Instrumentation according to measurement equipment list	6.	GPS Active Antenna, KRE 101 2082/1
	7.	GPS 02 01, NCD 901 41/1, rev. R1D, s/n: TU8K474887
9 Attenuator	8.	SP Test Instrumentation according to measurement equipment list
7. Intendutor	9.	Attenuator
10. Terminator, 50 ohm	10.	Terminator, 50 ohm



Appendix 1

Test set-up radiated measurements



Test object:

1. RRUS 12 B5, KRC 161 321/2, rev. R1B, s/n: C827002289 working software CXP 901 7316/2, rev. R49DU with FCC ID TA8AKRC161321-2 and IC: 287AB-AS1613212

Functional test equipment:

2.	Main Unit
	SUP 6601, 1/BFL 901 009/4, rev. R1E, s/n: BR82691785
	DUG 20 01, KDU 137 569/1, rev. R3D, s/n: A402019155
3.	RBS master 2E, LPY 107 1007/3, BAMS-1001195172
4.	Computer, EliteBook 8560w, BAMS – 1001236854
5.	GPS 02 01, NCD 901 41/1, rev. R1D, s/n: TU8K356490
6.	GPS Active Antenna, KRE 101 2082/1
7.	Terminator
8.	Attenuator
9.	Signal Analyzer FSIQ 40 for supervision purpose only
10.	RET – Remote Electrical Tilt unit, KRY 121 67/2, rev. R1N



Appendix 1

Interfaces:	Type of port:
Power: -48 VDC	DC Power
Antenna port (A), 7/16 connector, terminated	Antenna
Antenna port (B), 7/16 connector, terminated	Antenna
Opto 1, Optical Interface Link, single mode opto fibre	Telecom
Opto 2, Optical Interface Link, single mode opto fibre, not in use	Telecom
LMT, for maintenance use only, no cable attached	Telecom
RX A Out, no cable attached	Antenna
RX A I/O, no cable attached	Antenna
RX B I/O, no cable attached	Antenna
EXT Alarm, shielded multi-wire	Signal
ALD Ctrl, shielded multi-wire	Signal
Ground wire	Ground

RBS software:

Software	Revision
G13AG7	R71L





Appendix 1

Measurement equipment

	Calibration Due	SP number
Test site Tesla	2014-01	503 881
R&S ESU 26	2013-07	901 553
Control computer with	-	503 745
R&S software EMC32 version 8.52.0		
R&S FSQ 40	2014-03	504 143
Rohde & Schwarz signal analyzer FSW43	2013-10	902 073
High pass filter	2013-07	901 501
Boonton 4500A	2013-11	503 144
Peak Power Sensor	2013-11	503 258
High pass filter	2013-07	901 502
High pass filter	2013-07	504 199
High pass filter	2013-08	901 373
High pass filter	2014-08	503 739
High pass filter	2013-07	503 740
RF attenuator	2013-07	504 159
RF attenuator	2013-09	900 233
RF attenuator	2013-01	901 384
RF attenuator	2013-12	901 508
Chase Bilog Antenna CBL 6111A	2014-10	503 182
EMCO Horn Antenna 3115	2014-01	502 175
µComp Nordic, Low Noise Amplifier	2014-04	901 545
Temperature and humidity meter, Testo 635	2014-06	504 203
Temperature and humidity meter, Testo 625	2014-06	504 188
Temperature Chamber	2013-11	501 031
Datascan 7321	2013-11	502 698
Multimeter Fluke 87	2013-08	502 190



Appendix 1

Uncertainties

Measurement and test instrument uncertainties are described in the quality assurance documentation "SP-QD 10885". The uncertainties are calculated with a coverage factor k=2 (95% level of confidence). Compliance evaluation is based on a shared risk principle with respect to the measurement uncertainty.

Reservation

The test results in this report apply only to the particular test object as declared in the report.

Delivery of test object

The test object was delivered 2013-05-22.

Manufacturer's representative

Christer Gustavsson

Test engineers

Andreas Johnson, Tomas Lennhager, Tomas Isbring, Kexin Chen, Jörgen Wassholm and Martin Theorin, SP

Test participant

Adam Skoglund, Ericsson AB (partially)



Appendix 2

RF power output measurements according to CFR 47 2.1046 / IC RSS-132 5.4

Date	Temperature	Humidity
2013-05-24	$20 \ ^{\circ}C \pm 3 \ ^{\circ}C$	30% ± 5 %

Test set-up and procedure

The test object was connected to a signal analyzer measuring peak and RMS output power in CDF mode.

Measurement equipment	SP number
Boonton 4500A	503 144
Peak Power Sensor	503 258
RF attenuator	901 508
Testo 635 temperature and humidity meter	504 203

Measurement uncertainty: 0.7 dB

Results

Single carrier

Rated output power level at RF connector 1x 47.8 dBm.

Tested configuration BW and frequency	Port RF A [RMS dBm/ dB PAR]	Port RF B [RMS dBm/ dB PAR]
GMSK, B	47.32 / 0.81	47.58 / 0.82
GMSK, M	47.37 / 0.83	47.33 / 0.83
GMSK, T	47.35 / 0.80	47.42 / 0.83
8PSK, M	47.37 / 3.80	47.35 / 3.72
AQPSK, M	47.27 / 4.01	47.25 / 4.00
16QAM, M	47.33 / 5.01	47.21 / 5.07
32QAM, M	47.23 / 5.33	47.13 / 5.22



Appendix 2

Multi carrier Rated output power 2x 44.8 dBm.

Tested configuration Modulation and frequency	Port RF A [RMS dBm/ dB PAR]	Total nominal power RMS dBm
GMSK, B2	47.21 / 3.70	47.8
GMSK, M2	47.35 / 3.71	47.8
GMSK, T2	47.30 / 3.70	47.8
16QAM, M2	46.26 / 7.91	46.7

Multi carrier

Rated output power 4x 41.8 dBm. Total nominal power 47.8dBm.

Tested configuration	Port RF A
Modulation and frequency	[RMS dBm/ dB PAR]
GMSK, B4	47.43 / 6.49

Remark

This unit is tested without antenna. ERP/EIRP compliance is addressed at the time of licensing, as required by the responsible FCC/IC Bureau(s). Licensee's are required to take into account maximum allowed antenna gain used in combination with above power settings to prevent the radiated output power to exceed the limits.

Limits

CFR47 § 22.913: The effective radiated power ERP shall not exceed 1000 W.

RSS-132 5.4: The average equivalent isotropically radiated power (e.i.r.p.) limits in SRSP-503 apply, resulting in a maximum EIRP of 1640 W. The PAR (0.1%) shall not exceed 13 dB.

Complies?	Yes
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Appendix 3

Occupied bandwidth measurements according to CFR47 2.1049 / RSS-Gen 4.6.1

	perature	Humidity
2013-06-27	$21 \ ^{\circ}C \pm 3 \ ^{\circ}C$	$50\% \pm 5\%$

Test set-up and procedure

The measurements were made per definition in § 2.1049. The output was connected to a signal analyzer with the RMS detector activated. The signal analyzer was connected to an external 10 MHz reference standard during the measurements.

Measurement equipment	SP number
Rohde & Schwarz signal analyzer FSW43	902 073
RF attenuator	901 508
Testo 635 temperature and humidity meter	504 203

Measurement uncertainty: 3.7 dB

Results

Single carrier

Diagram	Modulation	Tested frequency	Tested Port	Occupied BW (99%) [KHz]
1	GMSK	В	RFA	241
2	GMSK	В	RFB	241
3	GMSK	М	RFA	241
4	GMSK	М	RFB	241
5	8 PSK	М	RFA	237
6	8 PSK	М	RFB	237
7	AQPSK	М	RFA	242
8	AQPSK	М	RFB	241
9	16 QAM	М	RFA	241
10	16 QAM	М	RFB	240
11	32 QAM	М	RFA	241
12	32 QAM	М	RFB	241
13	GMSK	Т	RFA	241
14	GMSK	Т	RFB	241

The diagrams are shown on the following pages.



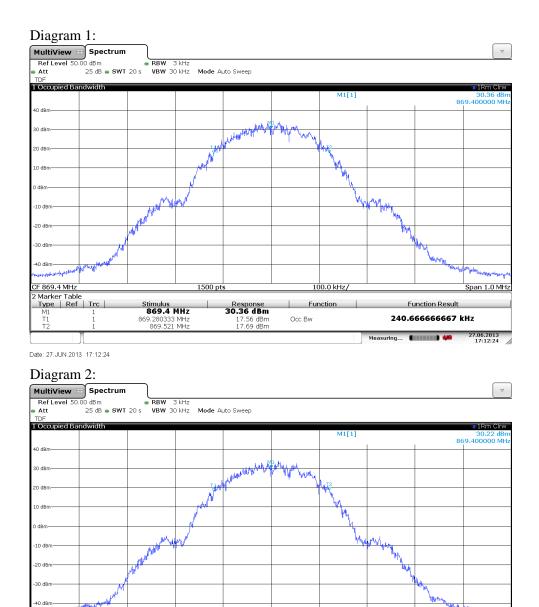
Appendix 3

Span 1.0 MHz

Function Result

240.666666667 kHz

Measuring... 17:13:34



100.0 kHz/

Function

Occ Bw

Response 30.22 dBm

16.76 dBm 18.69 dBm

 CF 869,4 MHz
 1500 pts

 2 Marker Table
 Type
 Ref
 Trc
 Stimulus

 Type
 Ref
 Trc
 Stimulus
 Train

 M1
 1
 869,4 MHz
 Train
 Train

 T1
 1
 869,20333 MHz
 Train
 Tr

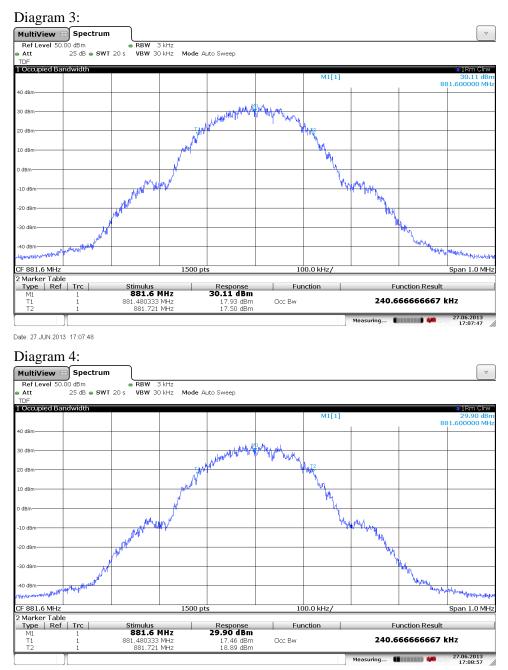
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hopenessan





Appendix 3

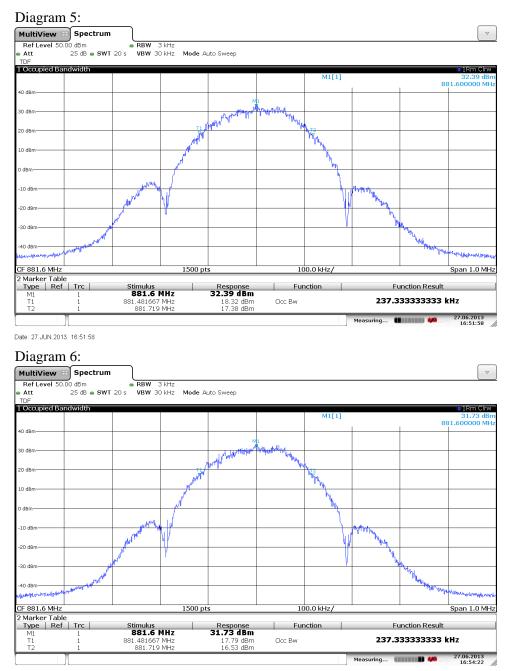


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Appendix 3

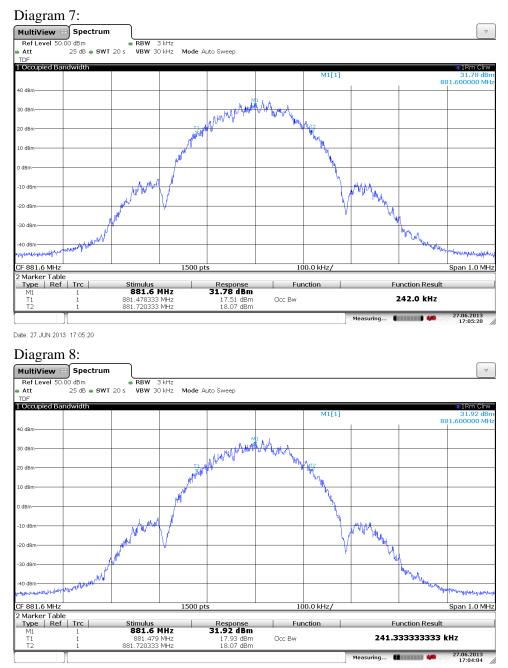


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Appendix 3

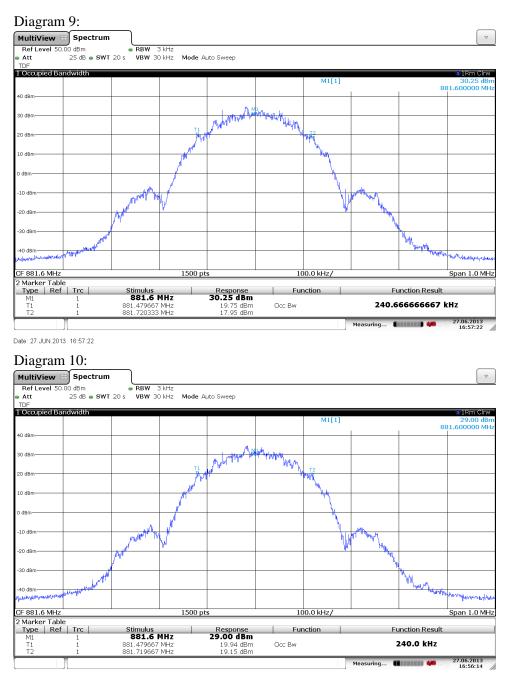


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Appendix 3

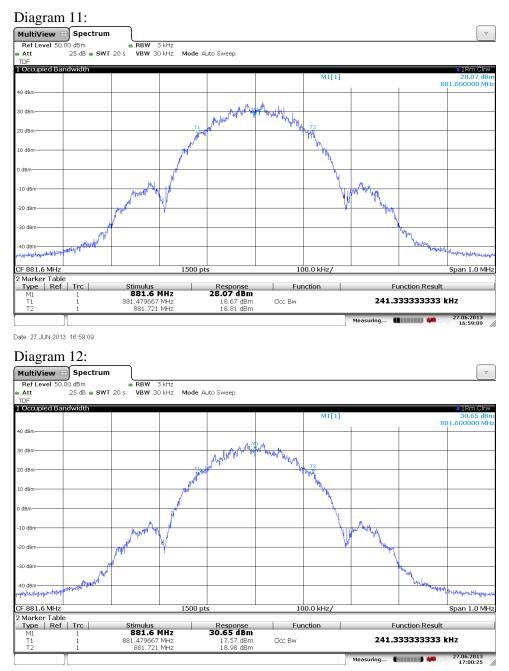


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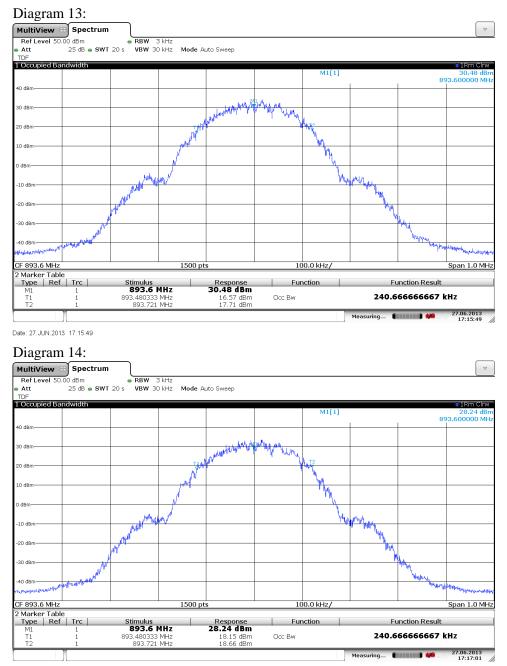
Appendix 3



Date: 27.JUN.2013 17:00:25



Appendix 3



Date: 27.JUN.2013 17:17:00



Appendix 4

Band edge measurements according to CFR 47 §2.1051 / IC RSS-132 5.5

Date	Temperature	Humidity
2013-05-24	$20 \ ^{\circ}C \pm 3 \ ^{\circ}C$	30% ± 5 %

Test set-up and procedure

The measurements were made per definition in § 22.917. The test object was connected to a spectrum analyzer with the RMS detector activated. The spectrum analyzer was connected to an external 10 MHz reference standard during the measurements.

FCC rules specify a RBW of at least 1% of the fundamental emission bandwidth (EBW) for offsets up to 1 MHz from the band edge and a RBW of 100 kHz for measurements of emissions more than 1 MHz away from the band edges.

Measurement equipment	SP number
Rohde & Schwarz signal analyzer FSW43	902 073
RF attenuator	901 508
Testo 635 temperature and humidity meter	504 203

Measurement uncertainty: 3.7 dB



Appendix 4

Results

Single carrier

Diagram	Modulation	Tested frequency	Tested Port
1 a-b	GMSK	В	RFA
2 a-b	16 QAM	В	RFA
3 a-b	GMSK	Т	RFA
4 a-b	16QAM	Т	RFA

The diagrams are shown on the following pages.

Remark

Where multiple requirements apply, the most stringent requirement is considered for compliance assessment.

Limits

CFR 47 § 22.917: Outside a licensee's frequency band(s) of operation the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P) dB$, resulting in a limit of -13 dBm per 100 kHz RBW.

IC RSS-132 5.5.1.2: Outside a licensee's frequency band(s) of operation the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P) dB$ per any 100 kHz RBW.

Complies?	Yes
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Appendix 4	ŀ
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ultiView	B Spectrum	■ RBW	3 kHz						
Att Sei Lever St			300 kHz Mode	Auto Sweep					
requency	Sweep					MILTI			• 1Rm Ma
						M1[1]	1	8	-44.04 dE 59.000000 M
dBm							N 1		
dBm							MW.		
dBm									
dBm						J.	<u> </u>		
10111						- J			
Bm-						1		h.	
dBm	H1 -13.000 dBm-				, MY	Υ	1	1114 <u>.</u>	
dBm	H1 -13.000 dBm				<u>, r</u>			<u> </u>	
					ſ			l ^{pp} Na.	
dBm					1				
dBm		and the loss of	and a second car	n marin at a bill	MANY .			NN NN	i Martinia ann bhili a
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dBm				v	1				
a: 24.MAY.20 iagran	n <u>1 b:</u>		4001 pt	is	20	0.0 kHz/	Measuring 🔳	S	24.05.2013 13:17:11
e: 24.MAY.20 Diagran JultiView	∬ n3 13:17:11 n 1 b: ⊞ Spectrum			15	20	10.0 kHz/	Measuring 🕊		24.05.2013 13:17:11
Ref Level 30 Att) n13 13:17:11 n 1 b: Spectrum 0.00 dBm	RBW	4001 pt 100 kHz 1 MHz Mode		20	00.0 kHz/	Measuring		24.05.2013 13:17:11
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e: 24.MAY.20 iagran ultiView Ref Level 30 Att DF	13 13:17:11 n 1 b: Spectrum 20 dB • SWT	RBW	100 kHz		20]	Measuring		• 1Rm Ma -34.19 di
9: 24.MAY.20 iagran ultiView Ref Level 30 Att prequency d8m d8m	13 13:17:11 n 1 b: Spectrum 20 dB • SWT	RBW	100 kHz		20]	Measuring		• 1Rm Ma -34.19 di
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e: 24 MAY 20 iagram ultiview Ref Level 30 Att Frequency 3 dam dam dam dam dam dam dam dam	313:17:11 1 1 b: 5 Spectrum 20 dB • SWT SWCED	RBW	100 kHz]	Meesuring		iop 870.0 MI 2405.2013 13:17:11 3:17:

Date: 24.MAY.2013 13:18:06





Appendix 4

Diagram 1 c:				
MultiView 🕀 Spectrum				
Ref Level 30.00 dBm	BW 1 MHz			
• Att 20 dB • SWT TDF	10 s VBW 10 MHz Mode Auto	o Sweep		
1 Frequency Sweep				●1Rm Max
		MI	1[1]	-24.01 dBm 862.92840 MHz
20 dBm				
10 dBm-				
0 dBm				
-10 dBm				
-20 dBm				MI
-30 dBm				
-40 dBm				
-50 dBm				
-60 dBm				_
-70 dBm				
-80 dBm				
Start 853.0 MHz	3001 pts	1.0 MHz/		Stop 863.0 MHz
Start 055.0 Minz	5001 pts	1.0 MHZ/	/ Measuring 🚺 🗰 🗍	24.05.2013

Date: 24.MAY.2013 13:18:59





Appendix 4	4
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Diagram 2									
MultiView 😁									▽
Ref Level 50.00 Att			3 kHz 00 kHz Mode	Auto Sweep					
DF		100 0 1011 0	So kinz Mode i	nace encop					
Frequency Swe	еер					M1[1]			 1Rm Max -41.58 dBr
									369.000000 MH
) dBm-						1			
) dBm						أندين	Malan I		
dom						AN THE	1 MA		
) dBm						M	<u> </u>		
						A	Γ <u>λ</u> .		
) dBm-						#	1		
dBm						1			
1011						1	1		
) dBm					Mu	II	↓	AL.	
H1	1 -13.000 dBm				<u></u>	W		17	
) dBm					Ń	P.		4 7.	
					l l'			1	
) dBm					1				
) dBm				N	a mala a second			1 WHL	
www.	an and the structure of	الماديمين فالتناطية ومعادله	international production of the second	undedtige stande op stand of the	ALC: NO			1 1	W AR PARTY AND IN A MARKED AND A MARKADINA
D dBm	international states of the state	an ala kan bere tas	concernations of the	1					
0 dBm									
				N N					
art 868.0 MHz									Stop 870.0 MH
			4001 pt	IS	20	00.0 kHz/	Measuring 🜗		24.05.2013 12:29:49
ate: 24.MAY.2013	12:29:49		4001 pt	.5	20		Measuring (24.05.2013
	12:29:49 2 b:		4001 pt	.5	20	JU.U KH2/	Measuring 【		24.05.2013
te: 24.MAY.2013 Diagram 2 MultiView E Ref Level 30.00 Att	12:29:49 2 b: Spectrum	• RBW 11 10 s VBW	00 kHz	S Auto Sweep	20	JU.U KHZ/	Measuring 📲		24.05.2013
tte: 24.MAY.2013 Diagram 2 AultiView == Ref Level 30.00 Att == DF	12:29:49 2 b: Spectrum ^{2 dBm} 20 dB swT		00 kHz		20	JU.U KH2/	Measuring 📲		24.05.2013 12:29:49
te: 24.MAY.2013 Diagram 2 fultiView == Ref Level 30.00 Att == DF	12:29:49 2 b: Spectrum ^{2 dBm} 20 dB swT		00 kHz		20	M1[1]	Measuring 📲		24.05.2013 12:29:49 ▼ ● 1Rm Max -34.33 dB
ie: 24.MAY.2013 Diagram 2 IultiView B Ref Level 30.00 Att DF Frequency Swa	12:29:49 2 b: Spectrum ^{2 dBm} 20 dB swT		00 kHz		2		Measuring (24.05.2013 12:29:49 ⊽
e: 24.MAY 2013 Diagram 2 IultiView B Ref Level 30.00 Att DF Frequency Swa	12:29:49 2 b: Spectrum ^{2 dBm} 20 dB swT		00 kHz				Measuring		24.05.2013 12:29:49 ▼ ● 1Rm Max -34.33 dB
e: 24.MAY 2013 iagram 1 ultiView B Ref Level 30.00 Att F requency Swo dBm	12:29:49 2 b: Spectrum ^{2 dBm} 20 dB swT		00 kHz		20		Measuring		24.05.2013 12:29:49 ▼ ● 1Rm Max -34.33 dB
e: 24 MAY 2013 iagram i lultiview B Ref Level 30.00 Att DF Frequency Swo dBm dBm	12:29:49 2 b: Spectrum ^{2 dBm} 20 dB swT		00 kHz				Measuring		24.05.2013 12:29:49 ▼ ● 1Rm Max -34.33 dB
ie: 24.MAY.2013	12:29:49 2 b: Spectrum ^{2 dBm} 20 dB swT		00 kHz				Measuring		24.05.2013 12:29:49 ▼ ● 1Rm Max -34.33 dB
te: 24.MAY.2013	12:29:49 2 b: Spectrum ^{2 dBm} 20 dB swT		00 kHz				Measuring		24.05.2013 12:29:49 ▼ ● 1Rm Max -34.33 dB
te: 24 MAY 2013 Diagram AultiView Aut Terequency Sw	12:29:49 2 b: Spectrum ^{2 dBm} 20 dB swT		00 kHz				Measuring		24.05.2013 12:29:49 ▼ ● 1Rm Max -34.33 dB
te: 24 MAY 2013 Diagram AultiView Aut Terequency Brequency Brequen	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ ● 1Rm Max -34.33 dB
te: 24 MAY 2013 Diagram AultiView Aut Terequency Brequency Brequen	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ ● 1Rm Max -34.33 dB
te: 24.MAY.2013	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ • 1Rm Max -34.53 dBr 867.81760 MH
te: 24. MAY 2013 Diagram Aultiview Aut Frequency Swe Gamma dBm dBm dBm dBm dBm dBm dBm	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ ● 1Rm Max -34.33 dB
te: 24. MAY 2013	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ • 1Rm Max -34.53 dBr 867.81760 MH
te: 24. MAY. 2013 Diagram IultiView Att DF Trequency Swo dam o dam o dam o dam o dam o dam	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ • 1Rm Max -34.53 dBr 867.81760 MH
te: 24.MAY.2013 Diagram AultiView Aut TFCqUancy Swo dBm dBm dBm dBm dBm dBm dBm dB	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ • 1Rm Max -34.53 dBr 867.81760 MH
te: 24.MAY 2013 Diagram Autiview Diagram Autiview Diagram dam dam dam dam dam dam o dam o dam o dam o dam o dam	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ • 1Rm Max -34.53 dBr 867.81760 MH
	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ • 1Rm Max -34.33 dBr 867.81760 MH
	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ • 1Rm Max -34.33 dBr 867.81760 MH
te: 24. MAY 2013 Diagram '	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ • 1Rm Max -34.33 dBr 867.81760 MH
te: 24.MAY 2013	12:29:49 2 b: Spectrum 0 dBm 20 dB • SWT cep		00 kHz				Measuring		24.05.2013 12:29:49 ▼ • 1Rm Max -34.33 dBr 867.81760 MH
te: 24.MAY.2013 Diagram MultiView MultiView Att TDF Frequency Swe dam dam dam dam	12:29:49 2 b: Spectrum 20 dB • SWT cep		00 kHz	Auto Sweep			Measuring		24.05.2013 12:29:49 ▼ • 1Rm Max -34.33 dBr 867.81760 MH

Date: 24.MAY.2013 11:52:37



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Appendix 4

Diagram 2 c:				
Ref Level 30.00 dBm	BBW 1 MHz			
Att 20 dB . SWT	10 s VBW 10 MHz M	ode Auto Sweep		
DF Frequency Sweep				●1Rm Ma
Frequency Sweep			M1[1]	-24.02 dB
				862.76840 MI
D dBm				
D dBm				
dBm				
0 dBm H1 -13.000 dBm				
20 dBm				
o upin				M1
30 dBm				
+0 dBm				
50 dBm				
lo ubin				
i0 dBm				
r0 dBm				
30 dBm				
tart 853.0 MHz	20	01 pts	1.0 MHz/	Stop 863.0 MI
	30	orpus		ring

Date: 24.MAY.2013 11:54:39





Appendix 4

	🛯 😁 Spectrum								
RefLevel	50.00 dBm	- RBW	3 kHz						
vtt)F		10 s 🖶 VBW 3	00 kHz Mode	Auto Sweep					
requency	/ Sweep					M1[1]			• 1Rm N -43.39
dBm							I	8	94.000000
JBM-			κ.						
dBm			MAL .						
dBm			1 THIN IS						
10111		A ^{rr}	1						
dBm		- M	h						
3m			, M.						
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	36	1	N N	. الملك					
dBm	H1 -13.000 dBm	wr.	1						
dBm	<u>N</u>								
	/ !			M _d .					
dBm	- *'								
dBm				<u> </u>	1.				
فسيسمل	And And A			M	The breath	A lastil de trouble de la	har ablaha sa marat	harana an	يدارين الم
	<i>r</i>				. and so in the first	deleniyiledi. Heresiyinda juda	a sanan ana ana ana ana ana ana ana ana	delt fing to be transition.	an water the second
dBm									
				V	á				
rt 893.0	MHz		4001 pt	's	2	00.0 kHz/	1	5	stop 895.0
: 24.MAY.:	2013 13:31:41 m 3 b:						Measuring 📲		24.05.201
e: 24.MAY.: iagra: ultiView	2013 13:31:41 m 3 b:						Measuring 📲		24.05.201
a: 24.MAY.: 1agra: ultiView Ref Level	2013 13:31:41 m 3 b: Spectrum 30.00 dBm	RBW 1	00 kHz				Measuring 📲		24.05.201
e: 24.MAY.: iagra: ultiView Ref Level Att	2013 13:31:41 m 3 b: Spectrum 30:00 dBm 20 dB • SWT		00 kHz				Measuring 📲		24.05.201 13:31:4
iagra	2013 13:31:41 m 3 b: Spectrum 30:00 dBm 20 dB • SWT	RBW 1	00 kHz			M1[1]	Measuring 📲		24.05.201 13:31:4
a: 24.MAY. 1agra: ultiView Ref Level att F requency	2013 13:31:41 m 3 b: Spectrum 30:00 dBm 20 dB • SWT	RBW 1	00 kHz				Measuring 📲		24.05.201 13:31:4
: 24.MAY.: iagra: ultiView ief Level itt F requency IBm	2013 13:31:41 m 3 b: Spectrum 30:00 dBm 20 dB • SWT	RBW 1	00 kHz				Meosuring 📲		24.05.201 13:31:4
: 24.MAY.: iagra: ultiView ief Level itt F requency IBm	2013 13:31:41 m 3 b: Spectrum 30:00 dBm 20 dB • SWT	RBW 1	00 kHz				Measuring (24.05.201 13:31:4
: 24.MAY.: agra ultiView tef Level ttt F requency IBm	2013 13:31:41 m 3 b: Spectrum 30:00 dBm 20 dB • SWT	. RBW 1	00 kHz				Measuring (24.05.201 13:31:4
:: 24.MAY iagra ultiView sef Level F requence IBm 	2013 13:31:41 m 3 b: Spectrum 30:00 dBm 20 dB • SWT	. RBW 1	00 kHz				Measuring (24.05.201 13:31:4
: 24.MAY. agra ultiView ef Level tt F requence IBm 	2013 13:31:41 m 3 b: Spectrum 30:00 dBm 20 dB • SWT	. RBW 1	00 kHz				Measuring (24.05.201 13:31:4
: 24.MAY.: agra altiView ef Level tt F requence iBm dBm dBm	2013 13.31.41 m 3 b: Spectrum 20 dB • swr 20 dB • swr 20 dB • swr	. RBW 1	00 kHz				Measuring		24.05.201 13:31:4
24.MAY.: 24.MAY	2013 13.31.41 m 3 b: Spectrum 20 dB • swr 20 dB • swr 20 dB • swr	. RBW 1	00 kHz				Measuring		24.05.201 13:31:4
: 24.MAY.: agra ultiView sef Level F requency JBm dBm dBm dBm dBm	2013 13.31.41 m 3 b: Spectrum 20 dB • swr 20 dB • swr 20 dB • swr	. RBW 1	00 kHz				Measuring		24.05.201 13:31:4
: 24.MAY.: agra ultiView sef Level F requency JBm dBm dBm dBm dBm	2013 13.31.41 m 3 b: Spectrum 20 dB • swr 20 dB • swr 20 dB • swr	. RBW 1	00 kHz				Measuring (24.05.201 13:31:4
: 24.MAY.: iagra ultiView ultiView tef Level ttt fBm dBm dBm dBm dBm dBm dBm	2013 13.31.41 m 3 b: Spectrum 20 dB • swr 20 dB • swr 20 dB • swr	. RBW 1	00 kHz				Meosuring (24.05.201
: 24.MAY.: iagra: ultiview sef Level F requency 48m dBm dBm dBm dBm dBm dBm dBm	2013 13.31.41 m 3 b: Spectrum 20 dB • swr 20 dB • swr 20 dB • swr	. RBW 1	00 kHz				Meosuring (24.05.201 13:31:4
: 24.MAY.: iagra: ultiview sef Level F requency 48m dBm dBm dBm dBm dBm dBm dBm	2013 13.31.41 m 3 b: Spectrum 20 dB • swr 20 dB • swr 20 dB • swr	. RBW 1	00 kHz				Meosuring (24.05.201 13:31:4
e: 24.MAY.: iagra: ultiView Ref Level Att	2013 13.31.41 m 3 b: Spectrum 20 dB • swr 20 dB • swr 20 dB • swr	. RBW 1	00 kHz				Meosuring (24.05.201 13:31:4
24.MAY: iagra ultiview lef Level tf requence dBm dBm dBm dBm dBm dBm dBm dBm	2013 13.31.41 m 3 b: Spectrum 20 dB • swr 20 dB • swr 20 dB • swr	. RBW 1	00 kHz				Meosuring ()		24.05.201 13:31:4
: 24.MAY: iagra ultiView sef Level tt fBm dBm dBm dBm dBm dBm dBm dBm dBm	2013 13.31.41 m 3 b: Spectrum 20 dB • swr 20 dB • swr 20 dB • swr	. RBW 1	00 kHz				Meosuring ()		24.05.201 13:31:4

Date: 24.MAY.2013 13:32:51



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Appendix 4

Diagram 3 c:	_		_
1ultiView 🔠 Spectrum			
Ref Level 30.00 dBm	• RBW 1 MHz		
Att 20 dB SWT 10 TDF	s VBW 10 MHz Mode Auto Sw	/eep	
Frequency Sweep			●1Rm Ma
		M1[1]	-23.88 dB 900.03170 MI
0 dBm			
0 dBm			
dBm			
10 dBm			
H1 -13.000 dBm			
20 dBm			
30 dBm			
40 dBm			
50 dBm			
50 dBm			
70 dBm			
30 dBm			
tart 900.0 MHz	3001 pts	1.0 MHz/	 Stop 910.0 MF 24.05.2013

Date: 24.MAY.2013 13:33:24





Appendix 4

	B Spectrum								
tt	50.00 dBm 20 dB e SWT	 RBW 10 s VBW 	3 kHz 300 kHz Mode	Auto Sweep					
equency	Sweep								●1Rm í
						M1[1]		8	-41.79 94.000000
m			1						
m		, "Nu	MMM						
		M	1 W W						
m		, Mr	The second secon						
m		_	<u> </u>						
		1							
3m	H1 -13.000 dBm	V		M					
5m	<u> </u>	*		<u> </u>					
	1 1								
sm				W.					
3m	- Lour M			W M	1				
ette miljøret telst	1			m, 1	high and the state of the state	handhirdhirda karilan paraya	a hall disting the second		and the states
sm						Transfer to the left of the	and the second se	and the second	1
3m									
				V					
t 893.0				te	2	00.0 kHz/		5	Stop 895.0
24.MAY.:	12:25:10 m 4 b:		4001 p				Measuring		24.05.201
24.MAY.: agrai	2013 12:25:10		4001 b				Measuring		24.05.201
24.MAY. agrai ItiView f Level :	2013 12:25:10 m 4 b: Bectrum 30.00 dBm	- RBW	100 kHz				Measuring		24.05.201
24.MAY.: agrai ItiView f Level	m 4 b: Spectrum 30.00 dBm 20 dB • SWT	- RBW					Measuring		24.05.201 12:25:1
24.MAY.: agrai tiView f Level :	m 4 b: Spectrum 30.00 dBm 20 dB • SWT	- RBW	100 kHz				Measuring		● 1Rm -35,00
24.MAY. 29 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	m 4 b: Spectrum 30.00 dBm 20 dB • SWT	- RBW	100 kHz				Measuring		● 1Rm -35,00
24.MAY. 29 tiView f Level : : : :	m 4 b: Spectrum 30.00 dBm 20 dB • SWT	- RBW	100 kHz				Measuring		● 1Rm -35,00
24.MAY. agra itiView f Level : t c c c c c c c c	m 4 b: Spectrum 30.00 dBm 20 dB • SWT	- RBW	100 kHz				Measuring		● 1Rm -35,00
24.MAY.2 2gfa tiView f Level : : : : : :	m 4 b: Spectrum 30.00 dBm 20 dB • SWT	- RBW	100 kHz				Measuring		● 1Rm -35,00
24.MAY.: agrai tiView fLevel : t equency	m 4 b: Spectrum 30.00 dBm 20 dB • SWT	- RBW	100 kHz				Measuring		● 1Rm -35,00
24.MAY. 1gra tiView f Level aquency n	m 4 b: Spectrum 30.00 dBm 20 dB • SWT	- RBW	100 kHz				Measuring		24.05.201 12:25:1
24.MAY.: agta: tiView f Level : t cquency m	0003 12:25:10 m 4 b: Spectrum 20 dB ● swr Sweep	- RBW	100 kHz				Measuring		● 1Rm -35,00
24.MAY.: agra: tiView fLevel: t cquency m	0003 12:25:10 m 4 b: Spectrum 20 dB ● swr Sweep	- RBW	100 kHz				Measuring		● 1Rm -35,00
24.MAY :	0003 12:25:10 m 4 b: Spectrum 20 dB ● swr Sweep	- RBW	100 kHz				Measuring		24.05.201 12:25:1
224.MAY :: agg1a: f Level : equency m m m a a a a m a a m	0003 12:25:10 m 4 b: Spectrum 20 dB ● swr Sweep	- RBW	100 kHz				Measuring		24.05.201 12:25:1
224 MAY .: . 3g[7a] f Level : c guency m m m m m m m m m m m m m	0003 12:25:10 m 4 b: Spectrum 20 dB ● swr Sweep	- RBW	100 kHz				Measuring		24.05.201 12:25:1
224 MAY .: . agra : tiView f Level : : : : : : : : : : : : : :	0003 12:25:10 m 4 b: Spectrum 20 dB ● swr Sweep	- RBW	100 kHz				Measuring		24.05.201 12:25:1
224 MAY .: agra: tiView f Level : c c am m m m m m m m m m m m m m	0003 12:25:10 m 4 b: Spectrum 20 dB ● swr Sweep	- RBW	100 kHz				Measuring		24.05.201 12:25:1
24.MAY.: agrai	0003 12:25:10 m 4 b: Spectrum 20 dB ● swr Sweep	- RBW	100 kHz				Measuring		24,05,201 12:25:1 -35.00 895,08580
22 MAY .: agra: ItiView if Level : agruency amm amm amm amm amm amm amm am	0003 12:25:10 m 4 b: Spectrum 20 dB ● swr Sweep	- RBW	100 kHz				Meosuring		24.05.201 12:25:1
22 MAY.	0003 12:25:10 m 4 b: Spectrum 20 dB ● swr Sweep	- RBW	100 kHz				Meosuring		24.05.201 12:25:1

Date: 24.MAY.2013 12:27:10



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Appendix 4

Diagram 4 c:				
1ultiView 😁 Spectrum				
	BBW 1 MHz VBW 10 MHz Mode Auto St VBW 10 MHz	veen		
TDF	VDW TOTALZ MODE Acto S	чсср		
Frequency Sweep			M1[1]	• 1Rm Ma
			M1[1]	-23.65 dB 900.05500 MF
0 dBm				
0 dBm-				
dBm				
10 dBm				
H1 -13.000 dBm				
20 dBm				
30 dBm				
40 dBm				
50 dBm				
50 dBm				
70 dBm				
30 dBm				
	2001 - 1-		41-4	010.014
tart 900.0 MHz	3001 pts	1.0 N	Measuring	Stop 910.0 MH 24.05.2013

Date: 24.MAY.2013 12:05:47



Appendix 5

Conducted spurious emission measurements according to CFR 47 2.1051 / IC RSS-132 5.5

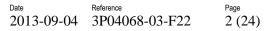
Date	Temperature	Humidity
2013-05-24	$20 \ ^{\circ}C \pm 3 \ ^{\circ}C$	30% ± 5 %

Test set-up and procedure

The measurements were made per definition in § 22.917, but with a conservative 1 MHz RBW. The output was connected to a spectrum analyzer with the RMS detector activated. The spectrum analyzer was connected to an external 10 MHz reference standard during the measurements.

Measurement equipment	SP number
Rohde & Schwarz signal analyzer FSW43	902 073
RF attenuator	901 508
High pass filter	901 501
Testo 635 temperature and humidity meter	504 203

Measurement uncertainty: 3.7 dB





Appendix 5

Results

C ' 1	•
Vingla	OOTTOT
Single	CALLEL

Diagram	Modulation	Tested frequency	Tested Port
1 a+b	GMSK	В	RFA
2 a+b	GMSK	М	RFA
3 a+b	16QAM	М	RFA
4 a+b	GMSK	Т	RFA

Multi carrier

Diagram	Modulation	Tested frequency	Tested Port
5 a+b	GMSK	M2	RFA
6 a+b	16QAM	M2	RFA
7 a+b+c	GMSK	B _{im 1}	RFA
8 a+b+c	GMSK	B _{im 2}	RFA
9 a+b+c	GMSK	B _{im 3}	RFA
10 a+b+c	16QAM	B _{im 3}	RFA
11 a+b+c	GMSK	T _{im 1}	RFA
12 a+b+c	GMSK	$T_{im 2}$	RFA
13 a+b+c	GMSK	T _{im 3}	RFA
14 a+b+c	16QAM	T _{im 3}	RFA

Remarks

The emission at 9 kHz on some of the plots was not generated by the test object. A complementary measurement with a smaller RBW showed that it was related to the LO feed-through. The upper frequency boundary covers 10x the highest TX fundamental frequency.

Limits

CFR 47 § 22.917: Outside a licensee's frequency band(s) of operation the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P) dB$, resulting in a limit of -13 dBm per 100 kHz RBW.

IC RSS-132 5.5.1.2: Outside a licensee's frequency band(s) of operation the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P) dB$ per any 100 kHz RBW.

Complies?	Yes
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SP	irtnet
رنوب رنوب	ur Quinn

	Reference	Page
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Appendix 5

ultiView 🕀 Spectr						
efLevel 60.00 dBm tt 20 dB ● 5 F	BWT 10 s VBW 10 MHz	Mode Auto Sweep				
requency Sweep						●1Rm Max
			MI	[1]		47.49 dBm 869.400 MHz
lBm					M1 Y	
Bm						
3m						
3m						
m						
śm						
H1 -13.000 dt	Bm					
m					hr	
3m						
3m						
biii						
dBm						
rt 9.0 kHz		6001 pts	100.0 MHz	2/		Stop 1.0 GHz
iagram 1b:						24.05.2013 13:22:59
: 24.MAY.2013 13:22:59 agram 1b: altiview B Spectr						24,05,2013 13:22:59 //
agram 1b: ultiView B Spectre ef Level 10.00 dBm (tt 10 dB 6 5	Offset 1.90 dB . RBW 1					13:22:59
agram 1b: ItiView B Spectre of Level 10.00 dBm C tt 10 dB e S	Offset 1.90 dB . RBW 1	MHz	,	Measuring	••••••••••••••••••••••••••••••••••••••	13:22:59 ▼ • 1Rm Max
agram 1b: ItiView Spectre Itiview 10.00 dBm (t 10 dB s equency Sweep	Offset 1.90 dB . RBW 1	MHz	,		••••••••••••••••••••••••••••••••••••••	13:22:59 //
Agram 1b: tiView B Spectro f Level 10.00 dBm (10 dB = 5 squency Sweep	Offset 1.90 dB . RBW 1	MHz	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: ItiView Spectr If Level 10.00 dBm (t 10 dB s 5 equency Sweep	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: Ittiview Spectro of Level 10.00 dBm C tt 10 dB e S requency Sweep m dBm +1 -13.000 df	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: IttView Spectr Sf Level 10.00 dBm of requency Sweep m IBm H1 -13.000 dB	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: spectra fLevel 10.00 dBm of tt 10 dB e s requency Sweep m dBm +11 -13.000 df dBm	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: IttView Spectre of Level 10.00 dBm C tt 10 dB s cquency Sweep m H1 -13.000 dd dBm	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: spectra fLevel 10.00 dBm of tt 10 dB e s requency Sweep m dBm H1 -13.000 dd dBm dBm	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: Iltiview Spectr ef Level 10.00 dBm (tt 10 dB s) F requency Sweep	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: Spectro of Level 10.00 dbm of tt 10 dB e s Frequency Sweep am dbm H1 -13.000 db dbm dbm	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
Agram 1b: Spectro of Level 10.00 dBm of tt 10 dB e s requency Sweep am dBm H1 -13.000 df dBm dBm dBm dBm	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
Agram 1b: Spectr of Level 10.00 dBm 0 tt 10 dB = S requency Sweep m dBm +11 -13.000 df dBm dBm dBm	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
Agram 1b: Spectro of Level 10.00 dBm (tt 10 dB e s requency Sweep am dBm H1 -13.000 df dBm dBm dBm	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: Ittiview Spectre of Level 10.00 dBm C tt 10 dB s cquency Sweep m dBm H1 -13.000 dd dBm dBm dBm dBm dBm dBm dBm	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: spectra f Level 10.00 dBm (f Level 10.00 dBm (requency Sweep) m dBm (dBm	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
agram 1b: Spectro of Level 10.00 dBm (ter tevel 10.00 dBm (requency Sweep) am (dBm (Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring		13:22:59 √ ▼ • 1Rm Max -31.31 dBm
Agram 1b: Spectro S	Diffset 1.90 dB • RBW 1 SWT 10 s VBW 10	MHz MHz Mode Auto Sweep	,	Measuring [1]		13:22:59 √ ▼ • 1Rm Max -31.31 dBm

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Appendix 5

ultiView 🕀 Spectr	um							
Ref Level 60.00 dBm	• RBW	1 MHz						
Att 20 dB 🕳 \$	SWT 10 s VBW	10 MHz Mode A	uto Sweep					
DF Frequency Sweep								• 1Rm Max
requercy owcep					M1[1]			47.57 dBm
dBm-						-	M1	881.600 MHz
							Ī	
Bm							-	
Bm								
Bm								
Bm							_	
m								
n								
H1 -13.000 dl							_	
	511							
Bm								
3m-								
im								
18m								
t 0 0 kl la								Stop 1.0 GHz
		6001 pt	5	10	IU.U MHZ/			
24.MAY.2013 13:43:40 iagram 2b:		6001 pt	S	1(00.0 MHz/	Measuring		24.05.2013 13:43:40
24.MAY.2013 13:43:40 iagram 2b: ultiView (3) Spectr			S	1(JUJU MHZ	Measuring		24.05.2013
24 MAY 2013 13:43:40 iagram 2b: ultiView Spectr kef Level 10.00 dBm	Offset 1.90 dB 🕳 F	RBW 1 MHz		1(JU.U MHZ/	Measuring		24.05.2013 13:43:40
24.MAY.2013 13:43:40 iagram 2b: ultiView Spectr lef Level 10:00 dBm (tr F	Offset 1.90 dB 🕳 F			10	U.U MHZ/	Measuring		24.05.2013 13:43:40
24.MAY.2013 13:43:40 agram 2b: ItiView B Spectre ef Level 10.00 dBm 6 tt 10 dB 6	Offset 1.90 dB 🕳 F	RBW 1 MHz			M1[1]	Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY.2013 13:43:40 agram 2b: ItiView Spectr fLevel 10:00 dBm of t 10 dB e s equency Sweep	Offset 1.90 dB 🕳 F	RBW 1 MHz				Measuring	(IIIIIII) 40	24.05.2013 13:43:40 ∕⁄ ⊽ ● 1Rm Max
24.MAY 2013 13:43:40 agram 2b: tiView Spectr f Level 10:00 dBm of 10 dB of sectors aguency Sweep	Offset 1.90 dB 🕳 F	RBW 1 MHz				Measuring	(IIIIIII) (A	24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY. 2013 13:43:40 agram 2b: ItiView Spectr fLevel 10.00 dBm of t 10 dB s t aquency Sweep	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24.MAY.2013 13:43:40 agram 2b: ItiView Spectr of Level 10.00 dBm of t 10 dB of 10 aguency Sweep	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24.MAY.2013 13:43:40 agram 2b: ItiView Spectr of Level 10.00 dBm of t 10 dB of 10 aguency Sweep	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: ItiView Spectr If Level 10:00 dBm of t 10 dB of squency Sweep 10 Bm H1 -13:000 df Bm	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz		10		Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: ItiView Spectro It Level 10:00 dBm of t 10 dB e 12 2000 cm of t 10:00 dBm of 10 dB e 12 2000 cm of t 10:00 dBm of 10 dB e 12 2000 cm of t 10:00 dBm of t 10:00 dB	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: Spectro Spectro State 10:00 dBm or course Sweep m Hit -13:000 dbm Hit -13:000 dbm Hit -13:000 dbm Hit -13:000 dbm	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: ItiView Spectr fLevel 10:00 dBm G it 10 dB s equency Sweep n H1 -13:000 d Bm Bm	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: httview E Spectr fLevel 10:00 dBm 9 tt 10 dB 9 Eequency Sweep m H1 -13:000 d IBm 41 -13:000 d IBm 41 -13:000 d	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: IttiView E Spectr of Level 10:00 dBm c ccquency Sweep m H1 -13:000 d Bm H8m H8m H8m H8m H8m H8m H8m	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: ItiView Spectr fLevel 10:00 dBm of t 10 dB of gquency Sweep n Bm H1 -13:000 dB Bm Bm Bm Bm Bm	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24.MAY 2013 13:43:40 agram 2b: ItiView Spectros Spectros sciences cequency Sweep n H1 -13.000 db Bm H1 -13.000 db Bm Bm Bm Bm Bm	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: Ittiview E Spectr fLevel 10:00 dBm c c cduency Sweep m H1 -13:000 d Bm H8m H8m H8m H8m H8m H8m H8m H8m H8m H8	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: ItiView Spectr fLevel 10.00 dBm of t 10 dB s equency Sweep m H1 -13.000 d Bm	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: IttiView Spectr fLevel 10:00 dBm of control of the second seco	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24 MAY 2013 13:43:40 agram 2b: Ittiview Spectr sfLevel 10:00 dBm gequency Sweep m H1 -13:000 d Bm H8m H8m H8m H8m H8m H8m H8m H8m H8m H8	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
24. MAY. 2013 13:43:40 agram 2b: IlliView Spectr of Level 10.00 dbm of tt 10 dB s requency Sweep m H1 -13.000 dbm JBm JBm JBm JBm JBm JBm JBm JB	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz				Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max
Att 10 dB • 5	Offset 1.90 dB • F SWT 10 s N	RBW 1 MHz	de Auto Sweep	ML		Measuring		24.05.2013 13:43:40 ∕ ⊽ ●1Rm Max

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Appendix 5

ultiView 🔠 Spectrum				
ef Level 60.00 dBm	• RBW 1 MHz			
.tt 20 dB ● SWT 10 F	Os VBW 10 MHz Mod	e Auto Sweep		
requency Sweep			M1[1]	●1Rm 47.40
			MILI	881.60
IBm				Ť
Bm				
Bm				
IBm				
m				
Bm				
H1 -13.000 dBm				
am				
im				
Bm				
3111				
t 9.0 kHz	6001	pts	100.0 MHz/	Stop 1.0
agram <u>3b:</u>			Measu	ıring (1999) 🦇 💎 24.05.20 11:03:
24.MAY 2013 11.03:11 agram 3b: altiView III Spectrum ef Level 10.00 dBm Offset	1.90 dB • RBW 1 MHz		Measu	rring (24.05.20 11:03:
agram 3b: Spectrum ef Level 10.00 dBm Offset tt 10 dB = SWT F	1.90 dB RBW 1 MHz 10 s VBW 10 MHz		Measu	rring (24.05.20 11:03:
agram 3b: IltiView Spectrum ef Level 10.00 dBm Offset tt 10 dB s SWT	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz			• 18m
agram 3b: ItiView Spectrum If Level 10:00 dBm Offset t 10 dB sWT equency Sweep	1.90 dB e RBW 1 MHz 10 s VBW 10 MHz		Measu M1[1]	inng 11:03:
agram 3b: tiView Spectrum fLevel 10.00 dBm Offset 10 dB sWT squency Sweep	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz			• 1Rm -31.31
agram 3b: tiview Spectrum fLevel 10:00 dBm Offset t 10 dB sWT cquency Sweep	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz			• 1Rm -31.31
Agram 3b: ItiView Spectrum If Level 10.00 dBm Offset t 10 dB s SWT Equency Sweep M H1 -13.000 dBm	1.90 dB = RBW 1 MHz 10 s VBW 10 MHz			• 1Rm -31.31
Agram 3b: ItiView Spectrum If Level 10.00 dBm Offset t 10 dB s SWT Equency Sweep M H1 -13.000 dBm	1.90 dB = RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
agram 3b: ItiView Spectrum If Level 10.00 dBm Offset t 10 dB s SWT squency Sweep H1 -13.000 dBm Bm H1 -13.000 dBm	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz			• 1Rm -31.31
Agram 3b: ItiView Spectrum of Level 10.00 dBm Offset t 10 dB SWT cquency Sweep m Bm H1 -13.000 dBm Bm	1.90 dB = RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
Agram 3b: ItiView Spectrum of Level 10.00 dBm Offset t 10 dB SWT cquency Sweep m Bm H1 -13.000 dBm Bm	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
agram 3b: ItiView Spectrum of Level 10.00 dBm Offset t 10 dB = SWT cequency Sweep m H1 -13.000 dBm Bm Bm	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
Agram 3b: Iltiview B Spectrum of Level 10.00 dbm Offset to db s SWT cquency Sweep m H1 -13.000 dbm IBm IBm	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
Agram 3b: IltiView Spectrum Sf Level 10.00 dBm Offset tet 10 dB s SWT cequency Sweep m IBm H1 -13.000 dBm IBm IBm IBm IBm IBm	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
Agram 3b: IltiView Spectrum Sf Level 10.00 dBm Offset tet 10 dB s SWT cequency Sweep m IBm H1 -13.000 dBm IBm IBm IBm IBm IBm	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
Agram 3b: Spectrum of Level 10.00 dBm Offset t 10 dB s SWT cequency Sweep m dBm H1 -13.000 dBm dBm dBm dBm dBm	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
Agram 3b: Spectrum of Level 10.00 dbm Offset tt 10 db s SWT cquency Sweep m dbm dbm dbm dbm dbm dbm dbm	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
Agram 3b: Ittiview ED Spectrum of Level 10.00 dBm Offset tt 10 dB SWT cquency Sweep m dBm H1 -13.000 dBm dBm dBm dBm dBm dBm	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
Agram 3b: Spectrum ef Level 10.00 dBm Offset to dB e SWT requency Sweep am dBm H1 -13.000 dBm dBm dBm dBm dBm dBm dBm dBm	1.90 dB RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31
agram 3b: Ittiview B Spectrum ef Level 10.00 dBm Offset tt 10 dB SWT F requency Sweep	1.90 dB • RBW 1 MHz 10 s VBW 10 MHz	Mode Auto Sweep		• 1Rm -31.31

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Appendix 5

ultiView 😁 Spectrun	n					
	BBW 1 MHz T 10 s VBW 10 MHz	z Mode Auto Sweep				
DF Frequency Sweep						●1Rm Ma>
				M1[1]		47.52 dB 893.600 MF
dBm						M1 Y
IBm						
IBm						
IBm						
im						
n						
H1 -13.000 dBm-						
3m						
sm-						
Bm						
dBm						
't 9.0 kHz		6001 pts	1	00.0 MHz/		Stop 1.0 G
agram 4b:				, r	Aeasuring (1999)	■ ₩ 24.05.2013 13:40:24
iagram 4b: ultiView 🕮 Spectrum		1. MHz		N	Aeasuring (1999)	13:40:24
agram 4b: ultiView B Spectrum sef Level 10.00 dBm Offi- tt 10 dB • SW	set 1.90 dB 🕳 RBW 🔅	1 MHz) MHz Mode Auto Sv	veep	Ν	Aeasuring	13:40:24
agram 4b: ultiView Spectrum ef Level 10.00 dBm Offi tt 10 dB • sw F	set 1.90 dB 🕳 RBW 🔅	1.MHz D.MHz Mode Auto Sy	veep		deasuring	• 18:40:24
agram 4b: IttiView Spectrum ef Level 10:00 dBm offi- tt 10 dB = SW cquency Sweep	set 1.90 dB 🕳 RBW 🔅	1 MHz D MHz Mode Auto Sv	veep	M1[1]	leasuring	• 13:40:24 ▼
agram 4b: ItiView Spectrum If Level 10.00 dBm offi- t 10 dB = SW cquency Sweep	set 1.90 dB 🕳 RBW 🔅	1 MHz D MHz Mode Auto Sv	veep		leasuring	• 18:40:24
agram 4b: ItiView Spectrum If Level 10.00 dBm offs t 10 dB = SW Equency Sweep	set 1.90 dB 🕳 RBW 🔅	1 MHz MHz Mode Auto Sv	veep		leasuring	• 18:40:24
agram 4b: Ittiview Spectrum fLevel 10.00 dBm Offr ttt 10 dB s SW cequency Sweep m Ittin 13.000 dBm	set 1.90 dB 🕳 RBW 🔅	I MHz MHz Mode Auto Sv	veep		Jeasuring	• 18:40:24
agram 4b: ItiView Spectrum fLevel 10.00 dBm Offr tt 10 dB s SW cquency Sweep n H1 -13.000 dBm-	set 1.90 dB 🕳 RBW 🔅	I MHz Miłz Mode Auto Sv			Jeasuring	• 18:40:24
agram 4b: Ittiview Spectrum af Level 10.00 dBm Offi 10 dB • SW equency Sweep m H1 -13.000 dBm- IBm	set 1.90 dB 🕳 RBW 🔅	I MHz Mode Auto Sv	weep		Jeasuring	• 18:40:24
agram 4b: Ittiview Spectrum ef Level 10.00 dBm Offr tte 10 dB sw cquency Sweep m dBm H1 -13.000 dBm- IBm	set 1.90 dB 🕳 RBW 🔅	I MHz Mode Auto Sv			Jeasuring	• 18:40:24
agram 4b: stevel 10.00 dbm offi ef Level 10.00 dbm offi 10 db e sw requency Sweep m dbm H1 -13.000 dbm- dbm	set 1.90 dB 🕳 RBW 🔅	I MHz Mode Auto Sv			Jeasuring	• 18:40:24
agram 4b: Ittiview Spectrum af Level 10.00 dBm Offi 10 dB • SW cequency Sweep m H1 -13.000 dBm- IBm IBm	set 1.90 dB 🕳 RBW 🔅	i MHz Mode Auto Sv			Aeasuring	• 18:40:24
agram 4b: IttiView Spectrum of Level 10.00 dBm offi to dB sw cquency Sweep m H1 -13.000 dBm dBm dBm dBm	set 1.90 dB 🕳 RBW 🔅	I MHz MHz Mode Auto Sv			Aeasuring	• 18:40:24
agram 4b: Ittiview Spectrum ef Level 10.00 dBm Offr ttt 10 dB s SW requency Sweep m dBm H1 -13.000 dBm- dBm dBm dBm	set 1.90 dB 🕳 RBW 🔅	I MHz MHz Mode Auto Sv			Aeasuring	• 18:40:24
agram 4b: Ittiview Spectrum off Level 10.00 dBm offr tet 10 dB s SW cquency Sweep m H1 -13.000 dBm- IBm H1 -13.000 dBm- IBm IBm IBm	set 1.90 dB 🕳 RBW 🔅	I MHz MHz Mode Auto Sv			Aeasuring	• 18:40:24
agram 4b: Ittiview Spectrum of Level 10.00 dBm Offi tr 10 dB sw requency Sweep m dBm dBm dBm dBm dBm dBm	set 1.90 dB 🕳 RBW 🔅	I MHz MHz Mode Auto Sv			Aeasuring	• 18:40:24
agram 4b: Ittiview Spectrum ef Level 10.00 dBm Offr ttt 10 dB s SW cquency Sweep m H1 -13.000 dBm dBm dBm dBm dBm dBm	set 1.90 dB 🕳 RBW 🔅	I MHz MHz Mode Auto Sv			Aeasuring	• 18:40:24
Agram 4b: Ittiview Constraints Spectrum of Level 10.00 dbm Offi tt 10 db s Sw requency Sweep Im dbm H1 -13.000 dbm dbm dbm dbm dbm dbm	set 1.90 dB 🕳 RBW 🔅	I MHz MHz Mode Auto Sv			Aeasuring	• 18:40:24
iagram 4b: ultiView Spectrum ter Level 10.00 dBm Offi ttt 10 dB * SW prequency Sweep am dBm dBm dBm dBm dBm dBm dBm dB	set 1.90 dB 🕳 RBW 🔅	I MHz MHz Mode Auto Sv			Aeasuring	• 18:40:24
DF requency Sweep	set 1.90 dB 🕳 RBW 🔅	1 MHz MHz Mode Auto Sv			Aeasuring	• 18:40:24

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Appendix 5

ultiView 😁 Spectrun	n						
RefLevel 60.00 dBm Att 20 dB = SW	RBW 1 MHz	Mode Auto Sweep					
DF Frequency Sweep							●1Rm Max
				M1[1]			45.95 dBn 881.600 MH;
dBm				M2[1]		Ma	45.70 dBm
				1	1	T I	882.200 MH:
Bm							
3m							
3m-							
n							
H1 -13.000 dBm-							
m							
m							
m							
Bm							
t 9.0 kHz		6001 pts	10	0.0 MHz/			Stop 1.0 GHz
					Measuring 💷		27.05.2013
							10:19:16
iagram 5b:	n						
agram 5b: IltiView B Spectrum	set 1.90 dB	WHz					□ 10:19:16
agram 5b: IltiView B Spectrum ef Level 10.00 dBm Offe tt 10 dB • SW	set 1.90 dB	MHz MHz Mode Auto Swe	ep				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
agram 5b: ItiView Spectrum of Level 10.00 dBm Offer t 10 dB • SW	set 1.90 dB	MHz Mode Auto Swe	ep				⊽ ● 1Rm Max
tiView C Spectrun fLevel 10.00 dBm Offe 10 dB • SW	set 1.90 dB	ViHz ViHz Mode Auto Swe	ep	M1[1]			
tiView ED Spectrun f Level 10.00 dBm offs 10 dB e SW	set 1.90 dB	ViHz ViHz Mode Auto Swe	ep				● 1Rm Max -31.33 dBn
tiview ESpectrum Level 10.00 dBm offs 10 dB e sw aquency Sweep	set 1.90 dB	ViHz ViHz Mode Auto Swe	ep				● 1Rm Max -31.33 dBn
agram 5b: ItiView B Spectrum If Level 10.00 dBm Offs t 10 dB s sw squency Sweep	set 1.90 dB	VIHZ Mode Auto Swe	ep				● 1Rm Max -31.33 dBn
agram 5b: ItiView Spectrun f Level 10.00 dBm Offs t 10 dB s SW Squency Sweep n H1 -13.000 dBm-	set 1.90 dB	VHz VHz Mode Auto Swe	ep				● 1Rm Max -31.33 dBn
agram 5b: ItiView Spectrum of Level 10.00 dBm offi t 10 dB s SW equency Sweep m Bm H1 -13.000 dBm- Bm	set 1.90 dB	VIHz Mode Auto Swe					● 1Rm Max -31.33 dBn
agram 5b: ItiView B Spectrum f Level 10.00 dBm offi 10 dB s SW equency Sweep 	set 1.90 dB	VIHz Mode Auto Swe	ep Mi				● 1Rm Max -31.33 dBn
Agram 5b: tiview C Spectrum Level 10.00 dBm Offs 10 dB s Sw squency Sweep m H1 -13.000 dBm m	set 1.90 dB	VIHz. VIHz Mode Auto Swe					● 1Rm Max -31.33 dBn
agram 5b: titiView Spectrum f Level 10.00 dBm Offs t 10 dB S SW cquency Sweep am H1 -13.000 dBm- am	set 1.90 dB	VIHz Mode Auto Swe					● 1Rm Max -31.33 dBn
agram 5b: stitview Spectrum ef Level 10.00 dBm offs ttt 10 dB s sw requency sweep m dBm H1 -13.000 dBm- dBm	set 1.90 dB	VIHz Mode Auto Swe					● 1Rm Max -31.33 dBn
Agram 5b: Spectrum ef Level 10.00 dBm Offi tt 10 dB s SW requency Sweep am dBm H1 -13.000 dBm dBm dBm	set 1.90 dB	VIHZ VIHZ Mode Auto Swe					● 1Rm Max -31.33 dBn
ABM	set 1.90 dB	VHz. VHz Mode Auto Swe					● 1Rm Max -31.33 dBn
Agram 5b: Spectrum FLevel 10.00 dBm Offs ttt 10 dB s SW cquency Sweep m H1 -13.000 dBm Bm H1 -13.000 dBm Bm Bm Bm	set 1.90 dB	VHz Mode Auto Swe					● 1Rm Max -31.33 dBn
agram 5b: Ittiview Spectrum sf Level 10.00 dBm Offs tt 10 dB s SW cquency Sweep m H1 -13.000 dBm IBm IBm IBm IBm IBm IBm	set 1.90 dB	VIHz Mode Auto Swe					● 1Rm Max -31.33 dBn
agram 5b: IttiView Spectrum of Level 10.00 dBm offs ittive 10 dB sw cquency Sweep m H1 -13.000 dBm IBm IBm IBm IBm	set 1.90 dB	VIHz Mode Auto Swe					● 1Rm Max -31.33 dBn
agram 5b: Ittiview Spectrum of Level 10.00 dBm Offs tt 10 dB S SW cquency Sweep m H1 -13.000 dBm IBm IBm IBm IBm IBm IBm	set 1.90 dB	VIHz Mode Auto Swe					● 1Rm Max -31.33 dBn
agram 5b: Ittiview Spectrum of Level 10.00 dBm Offs tt 10 dB S SW cquency Sweep m H1 -13.000 dBm IBm IBm IBm IBm IBm IBm	set 1.90 dB	VIHz Mode Auto Swe					● 1Rm Max -31.33 dBn
agram 5b:	set 1.90 dB	VIHZ VIHZ Mode Auto Swe					● 1Rm Max -31.33 dBn
Agram 5b: Ittiview Spectrum of Level 10.00 dBm Offs t 10 dB sw requency Sweep m dBm H1 -13.000 dBm- dBm dBm dBm dBm dBm dBm	set 1.90 dB	VHz VHz Mode Auto Swe					● 1Rm Max -31.33 dBn
PF requency Sweep	set 1.90 dB RBW 11 T 10s VBW 101	VHIZ HHZ Mode Auto Swe					● 1Rm Max -31.33 dBn

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Appendix 5

		1							
	B Spectrum	■ RBW	1 MHz						
Att		10 s VBW	10 MHz Mode A	Auto Sweep					
DF Frequency 1	Sween								●1Rm Max
r oquono,						M1[1]			44.65 dBn
									881.600 MH
dBm						M2[1]		M	44.45 dBn 882.200 MH
dBm									
dom									
dBm-								_	
dBm								-	
dBm									
Bm									
dBm									
	H1 -13.000 dBm							_	
dBm									
							ļ	N	h
dBm									
dBm									
dBm									
art 9.0 kHz			6001 p	ts	10	0.0 MHz/			Stop 1.0 GH
iagran	n 6b:						Measuring		27.05.2013 09:37:50
	1 6b: spectrum						Measuring		09:37:50
iagran	n 6b: Spectrum			nde Auto Sween			Measuring		
lultiView Ref Level 10 Att	n 6b: Spectrum		RBW 1 MHz BW 10 MHz M	ode Auto Sweep			Measuring		
iagran ultiView Ref Level 10 Att	n 6b: Spectrum			ode Auto Sweep	1		Measuring		⊽ ● 1Rm Max
lultiView Ref Level 10 Att	n 6b: Spectrum			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31.36 dBn
iagran ultiView Ref Level 10 Ktt requency	n 6b: Spectrum			ode Auto Sweep		M1[1]	Measuring		⊽ ● 1Rm Max
agran IltiView ef Level 10 tt = equency	n 6b: Spectrum			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31.36 dBn
agran IltiView ef Level 10 tt F requency	n 6b: Spectrum 10 dB offse 10 dB swT			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31.36 dBn
agram IltiView ef Level 10 ttt F requency	n 6b: Spectrum			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31.36 dBn
agran	n 6b: Spectrum 10 dB offse 10 dB swT			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31.36 dBn
agram IltiView ef Level 10 tt F requency d8m	n 6b: Spectrum 10 dB offse 10 dB swT			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31.36 dBn
agram IltiView ef Level 10 tt F requency d8m	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
agram ItiView ef Level 1(tt = requency dBm dBm dBm	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
iagram ultiView tef Level 10 tt Frequency dBm dBm dBm	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
agran ultiView tef Level 10 tf requency dBm	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
dBm	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
agran ultiView tef Level 10 F requency dBm dBm dBm dBm dBm	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
agram ultiview ter Level 10 F requency dam dam dam dam dam dam dam	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
iagram ultiView tef Level 10 ttt prequency: d8m	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
agran ultiView tef Level 10 F requency dBm dBm dBm dBm dBm dBm dBm	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
agran ultiView tef Level 10 F requency dBm dBm dBm dBm dBm dBm dBm	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
Agran	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
agram ultiview lef Level 10 F requency dBm dBm dBm dBm dBm dBm dBm dBm dBm	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
Iagran ultiView tef Level 10 Frequency dBm dBm dBm dBm dBm dBm dBm dBm dBm dBm	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn
iagran	n 6b: Spectrum 10 dB offse 10 dB swT					M1[1]	Measuring		● 1Rm Max -31.36 dBn

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Appendix 5

ultiView 😁 Specti	rum					
	• RBW 1 SWT 10 s VBW 10		:p			
DF Trequency Sweep						●1Rm Ma
				M1[1]		44.47 dB 880.600 MI
dBm				M2[1]	MIM	44.57 dB
				Í.	I T	2 893.600 MF
dBm						
dBm-						
dBm						
dBm						
3m						
dBm						
H1 -13.000 d	IBm-					
dBm					ليامر	
dBm-						
dBm						
dBm						
art 9.0 kHz		6001 pts	10	00.0 MHz/		Stop 1.0 G
e: 27.MAY.2013 10.45:02 iagram 7b:	rum				easuring 📲 💶 🗰	
iagram 7b: ultiView 😁 Specti Ref Level 10.00 dBm	Offset 1.90 dB . RBV	V 1 MHz V 10 MHz Mode Auto	Sween		eosuring 🧰 🗰 👘	0 10:45:03
iagram 7b: ultiView B Spectr Ref Level 10.00 dBm Att 10 dB	Offset 1.90 dB . RBV	V 1 MHz V 10 MHz Mode Auto	Sweep		easuring	10:45:03
iagram 7b: ultiView B Spectr Ref Level 10.00 dBm Att 10 dB	Offset 1.90 dB . RBV	V 1 MHz V 10 MHz Mode Auto	Sweep		easuring	● 1Rm Ma: -31.17 dB
iagram 7b: ultiView Spectr kef Level 10.00 dBm ttt 10 dB F requency Sweep	Offset 1.90 dB . RBV	V 1 MHz V 10 MHz Mode Auto	Sweep) M	easuring 🏼	● 1Rm Ma: -31.17 dB
iagram 7b: ultiView Spectre sef Level 10.00 dBm tt 10 dB Frequency Sweep	Offset 1.90 dB . RBV	V 1 MHz V 10 MHz Mode Auto	Sweep) M	eosuring IIIIIIIIII 🗰	● 1Rm Ma: -31.17 dB
iagram 7b: ultiView Spectre sef Level 10.00 dBm tt 10 dB Frequency Sweep	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto	Sweep) M	eosuring	● 1Rm Ma: -31.17 dB
dBm H1 -13.000 dB	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto	Sweep) M	eosuring	● 1Rm Ma: -31.17 dB
Adam H1 -13.000 d	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto	Sweep) M	eosuring	● 1Rm Ma: -31.17 dB
Adam H1 -13.000 d	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M	eosuring	● 10:45:03
ABM	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M	eosuring	● 1Rm Ma: -31.17 dB
iagram 7b: ultiView Spectri Sef Level 10.00 dBm F requency Sweep Bm dBm H1 -13.000 d dBm dBm	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M		● 1Rm Ma: -31.17 dB
iagram 7b: ultiView Spectro Sef Level 10.00 dBm requency Sweep Bm dBm H1 -13.000 d dBm dBm	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M		● 1Rm Ma: -31.17 dB
iagram 7b: ultiview Spectr Sef Level 10.00 dBm Att 10 dB • Frequency Sweep Bm dBm H1 -13.000 d dBm dBm	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M	easuring	● 1Rm Ma: -31.17 dB
iagram 7b: ultiview Spectro Sef Level 10.00 dBm Att 10 dB F requency Sweep Bm- dBm- dBm- dBm- dBm- dBm- dBm- dBm- dBm- dBm-	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M	easuring	● 1Rm Ma: -31.17 dB
ABM ABM ABM ABM ABM ABM ABM ABM	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M	easuring	● 1Rm Ma: -31.17 dB
iagram 7b: ultiview Spectr Sef Level 10.00 dBm 10 dB • Frequency Sweep Bm dBm +1 -13.000 d dBm	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M		● 1Rm Ma: -31.17 dB
iagram 7b: ultiview Spectra Sef Level 10.00 dB Att 10 dB Frequency Sweep Bm dBm dBm dBm dBm dBm dBm dBm	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M		● 1Rm Ma: -31.17 dB
iagram 7b: ultiview Spectr Ref Level 10.00 dBm Att 10 dB • F requency Sweep	Offset 1.90 dB • RBV SWT 10 s VBV	N 1 MHz V 10 MHz Mode Auto) M		● 1Rm Ma: -31.17 dB
iagram 7b: ultiView Spectr Sef Level 10.00 dBm Att 10 dB • Frequency Sweep IBm d dBm d dBm d dBm d dBm d dBm d dBm d dBm d dBm	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M		● 1Rm Ma: -31.17 dB
iagram 7b: ultiview Spectr Sef Level 10.00 dBm 10 dB • Frequency Sweep Bm 4t1 -13.000 d 0 dBm 0 dBm	Offset 1.90 dB • RBV SWT 10 s VBV	V 1 MHz V 10 MHz Mode Auto) M		● 1Rm Ma: -31.17 dB

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Appendix 5

Diagram 7c:				
	ctrum			
Ref Level 60.00 dBm	RBW 100 kHz			
Att 20 dB	• SWT 10 s VBW 1 MHz	Mode Auto Sweep		
TDF				
I Frequency Sweep			M1[1]	 1Rm Ma -30,85 dB
				867.6000 MI
50 dBm		M2	M2[1] _{M3}	42.61 dB
40 dBm		Ţ	X	880,6000 MI
		. I Ц		
30 dBm				
20 dBm				
10 dBm				
D dBm-				
-10 dBm				
-10 ubiii-				
-20 dBm				
H1 -23.0	D0 dBm M1			
-30 dBm	T			
-40 dBm		and the second second		
-to ubin				
-50 dBm			v	
	V1			
Start 849.0 MHz	1	4001 pts	6.5 MHz/	Stop 914.0 Mł
2 Marker Table				
Type Ref Trc M1 1	Stimulus 867.6 MHz	Response -30.85 dBm	Function	Function Result
M2 1	880.6 MHz	42.61 dBm		
M3 1	893.6 MHz	42.63 dBm		
			Measuri	ng 1 999 990 27.05.2013 10:58:08

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Appendix 5

	Spectrum							
ef Level 60.00 (tt 20		RBW 1 MHz /BW 10 MHz Mode	Auto Sweep					
equency Swee	ep							●1Rm Ma
					M1[1]			44.49 dE 874.200 M
Bm					M2[1]		M12	44.56 dB 880.600 M
_							1 1	880.000 Mi
im								
im								
							l M	
m								
n								
H1 -	-13.000 dBm							
m								
9.0 kHz		6001 p	its	10	0.0 MHz/			Stop 1.0 G
agram 8	b:					Measuring 【		
agram 8	b: Spectrum	Bedrw 1MHz				Measuring 📲		11:07:09
agram 8	b: Spectrum JBm Offset 1.90 df	3 • RBW 1 MHz s VBW 10 MHz M	Iode Auto Sweep			Measuring 📲		11:07:09
agram 8	B pectrum Bm Offset 1.90 di D dB s SWT 10	3 ● RBW 1 MHz s VBW 10 MHz M	lode Auto Sweep			Measuring		● 1Rm Ma: -31.35 dB
tiView E S	B pectrum Bm Offset 1.90 di D dB s SWT 10	3 ● RBW 1 MHz s VBW 10 MHz M	lode Auto Sweep		M1[1]	Measuring		● 11:07:09
siView == S Level 10.00 d	B pectrum Bm Offset 1.90 di D dB s SWT 10	3 ● RBW 1 MHz s VBW 10 MHz M	lode Auto Sweep		M1[1]	Measuring		● 1Rm Ma: -31.35 dB
gram 8	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 ⊕ RBW 1 MHz s VBW 10 MHz M	lode Auto Sweep		M1[1]	Measuring		● 1Rm Ma: -31.35 dB
gram 8	B pectrum Bm Offset 1.90 di D dB s SWT 10	3 ■ R8W 1 MHz s VBW 10 MHz M	lode Auto Sweep		M1[1]	Measuring		● 1Rm Ma: -31.35 dB
Level 10.00 (10)	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 RBW 1 MHz s VBW 10 MHz M	lode Auto Sweep		M1[1]	Measuring		● 1Rm Ma: -31.35 dB
m H1	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	B RBW 1 MHz S VBW 10 MHz M	lode Auto Sweep	MI	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
m H1	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	B RBW 1 MHz M	lode Auto Sweep	Ma	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
m H1	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 RBW 1 MHz S VBW 10 MHz M	lode Auto Sweep	M1	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
agram 8 tiView ::::::::::::::::::::::::::::::::::::	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 RBW 1 MHz M	lode Auto Sweep	Mi	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
sm H1	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 ⊕ RBW 1 MHz s VBW 10 MHz M	lode Auto Sweep	Ma	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
m H1	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 RBW 1 MHz s VBW 10 MHz M	lode Auto Sweep	Ma	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
m H1	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 RBW 1 MHz s VBW 10 MHz M	lode Auto Sweep	Mi	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
agram 8 ftevel 10.00 ft ftevel 10.00 ft am am am am am am	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 RBW 1 MHz M	lode Auto Sweep	Ma	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
Agram 8	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 RBW 1 MHz M	lode Auto Sweep	MI	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
Agram 8 ItiView E1 10.00 of If Level 10.00 of t 10 Caluency Sweat Bm H1 6 Bm H1 6 Bm Bm Bm Bm Bm Bm Bm Bm	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	B RBW 1 MHz M	lode Auto Sweep	MI	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
agram 8	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 RBW 1 MHz M	lode Auto Sweep	M1	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
Agram 8	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 ● RBW 1 MHz M	lode Auto Sweep	M3	M1[1]	Measuring		● 1Rm Ma: -31.35 dB
Agram 8 ItiView EI 10.00 It Level 10.00 Control of the second sec	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 • RBW 1 MHz M	lode Auto Sweep		M1[1]	Measuring		● 1Rm Ma: -31.35 dB
tt 10 equency Sweet	Brectrum Bm Offset 1.90 df 0 dB • SWT 10 BD	3 • RBW 1 MHz M			M1[1]	Measuring		● 1Rm Ma: -31.35 dB

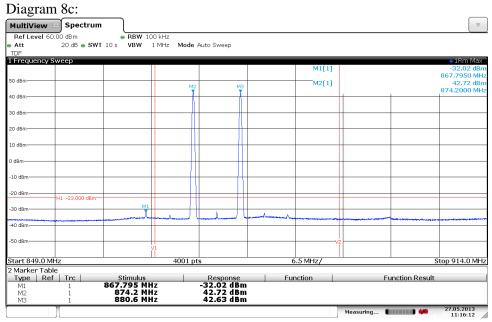
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Appendix	5
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Ref Level 60.0 Att	Spectrum								
	0 dBm 20 dB = SWT 1	• RBW 0 s VBW 1		uto Sweep					
DF Frequency Sw	/eep								● 1Rm Ma
						M2[1]			44.37 dB 871.000 MI
) dBm						M1[1]			44.42 dB
							1		2 869.400 MI
dBm									
dBm									
) dBm									
dBm									
3m									
5111									
dBm									
	1 -13.000 dBm								
dBm									
dBm-									
upili									
dBm									
dBm									
art 9.0 kHz			6001 pt	s	10	0.0 MHz/			Stop 1.0 G
iagram	9b:						Measuring	() 4	11:31:27
iagram	9b: Spectrum						Measuring		11:31:27
iagram	9b: Spectrum OdBm Offset	1.90 dB • Rf		ide Auto Sween			Measuring		11:31:27
lultiView == Ref Level 10.0 Att DF	9b: Spectrum OdBm Offset 10 dB • SWT		3W 1 MHz 3W 10 MHz Mo	ode Auto Sweep			Measuring		11:31:27
lultiView == Ref Level 10.0 Att DF	9b: Spectrum OdBm Offset 10 dB • SWT			ode Auto Sweep		M1[1]	Measuring		• 11:31:27
iagram IultiView B Ref Level 10.0 Att DF Trequency Sw	9b: Spectrum OdBm Offset 10 dB • SWT			o de Auto Sweep		M1[1]	Measuring		• 1Rm Mar -31.35 dB 4.323020 Gi
iagram ultiView B Ref Level 10.0 Att F requency Sw	9b: Spectrum OdBm Offset 10 dB • SWT			ode Auto Sweep		M1[1]	Measuring		• 11:31:27
iagram ultiView == RefLevel 10.0 Att rrequency Sw Bm	9b: Spectrum OdBm Offset 10dB = SWT			o de Auto Sweep		M1[1]	Measuring		• 11:31:27
iagram ultiView 39 Ref Level 10.0 Att F F Trequency Sw	9b: Spectrum OdBm Offset 10 dB • SWT			ode Auto Sweep		M1[1]	Measuring		• 11:31:27
iagram	9b: Spectrum OdBm Offset 10dB = SWT			ode Auto Sweep		M1[1]	Measuring		• 11:31:27
In the second se	9b: Spectrum OdBm Offset 10dB = SWT			ode Auto Sweep		M1[1]	Measuring		• 11:31:27
In the second se	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
iagram	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
Liagram	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
iagram	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
iagram ultiView P Ref Level 10.0 Att F Trequency Sw IBm IBm IBm IBm IBm IBm IBm IBm IBm IBm	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
Lidgram	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
Littiview Provide the second s	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
Jagram	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
LultiView P Ref Level 10.0 Att DF Frequency Sw Jam Jam Jam Jam Jam Jam Jam Jam Jam Jam	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
Jagram	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
Diagram JultiView 9 Ref Level 10.0 Att DF DF 9 dBm 0 0 dBm	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
Diagram	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27
DF Frequency Sw dBm 0 dBm	9b: Spectrum OdBm Offset 10dB = SWT					M1[1]	Measuring		• 11:31:27

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Appendix 5

Diagran	1 9c:						
MultiView	~						
Ref Level 60	UO dBm	BBW 100 -	:Hz				
 Att 	20 dB 🖷 SWT			Auto Sweep			
TDF							
1 Frequency S	Sweep						●1Rm Max
					M1[1]		-28.86 dBm
							867.8000 MHz
50 dBm-		M2	МЗ		M2[1]		42.73 dBm
		Ţ	T				869,4000 MHz
40 dBm							
			- ()				
30 dBm							
			11				
20 dBm							
10 dBm							
0 dBm							
-10 dBm							
-20 dBm	H1 -23.000 dBm						-
	Letter ability	M1					
-30 dBm							
·····			W William				
-40 dBm							
-50 dBm		V1				/2	
		l II					
Start 849.0 M	Hz		4001 pt	S	6.5 MHz/		Stop 914.0 MHz
2 Marker Tab							
Type Ref		Stimulus		Response	Function	F	Function Result
M1	1	867.8 MHz		-28.86 dBm			
M2	1	869.4 MHz		42.73 dBm			
M3	1	871.0 MHz		42.78 dBm			
r	Y					Measuring	27.05.2013
L	JL					measuring	13:55:39

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untrolew .	🗄 Spectrum					
Ref Level 60		• RBW 1 MHz				
Att	20 dB 😑 SWT 10 s	VBW 10 MHz Mode	Auto Sweep			
্য⊢ requency S	weep					●1Rm Ma
				M1[1]		43,42 dB 869,400 MF
dBm-				M2[1]		43.29 dB
					1	M2 871.000 MH
8m						
IBm						
Bm						
3m						
n						
in-	H1 -13.000 dBm					
						/\
Bm						
Bm						
dBm						
t 9.0 kHz		6001	pts	100.0 MHz/		Stop 1.0 G
					A CONTRACTOR OF A CONTRACTOR O	
					Measuring	27.05.2013 13:48:08
iagran	n 10b:				Measuring 🕊	
iagran ultiView	1 10b: Spectrum	90 dB ● RBW 1 MHz			Measuring	
iagran ultiView Ref Level 10	1 10b: Spectrum	90 dB • RBW 1 MHz 10 s VBW 10 MHz 1	Mode Auto Sweep		Measuring	13:48:08
iagram ultiView Ref Level 10 Att	Spectrum 10 dBm Offset 1.5 10 dB • SWT		Mode Auto Sweep		Measuring	
iagram ultiView Ref Level 10 Rtt	Spectrum 10 dBm Offset 1.5 10 dB • SWT		Mode Auto Sweep	M1[1]	Measuring	■ 1Rm Max -31.29 dB
agram IltiView ef Level 10 tt = requency S	Spectrum 10 dBm Offset 1.5 10 dB • SWT		Mode Auto Sweep	M1[1]	Measuring	⊽ ● 1Rm May
agram ItiView of Level 10 tt equency S	Spectrum 10 dBm Offset 1.5 10 dB • SWT		Mode Auto Sweep	M1[1]	Measuring	■ 1Rm Max -31.29 dB
agram IltiView ef Level 10 tt equency S	Spectrum 10 dBm Offset 1.5 10 dB • SWT		Mode Auto Sweep	M1[1]	Measuring	■ 1Rm Max -31.29 dB
agram IltiView ef Level 10 tt F requency S	Spectrum OdBm Offset 1.5 10 dB sWT weep		Mode Auto Sweep	M1[1]	Measuring	■ 1Rm Max -31.29 dB
agram IltiView ef Level 10 tt F requency S	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
agram IltiView ef Level 10 tt requencys m JBm	Spectrum OdBm Offset 1.5 10 dB sWT weep		Mode Auto Sweep	M1[1]	Measuring	■ 1Rm Max -31.29 dB
agram IltiView ef Level 10 tt F requency S m JBm JBm	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
agram altiView ef Level 10 tt F requency S am dam dam	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
Agran IltiView If Level 10 F Frequency S am	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
Agran IltiView If Level 10 F Frequency S am	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
Agram IltiView Icevel 10 F requency S d8m d8m d8m d8m	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
Agram IltiView ef Level 10 F requency 5 d8m d8m d8m d8m d8m d8m	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
Agram IltiView ef Level 10 F requency S d8m d8m d8m d8m d8m	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
agram ultiView lef Level 10 F requency dBm dBm dBm dBm dBm dBm dBm dBm	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
agram ultiView ief Level 10 if requency 5 am	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
iagram ultiView ter Level 10 Frequency S am	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
iagram ultiView RefLevel 10 Frequency 8 dBm dBm dBm dBm dBm dBm dBm dBm dBm dBm	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
iagram ultiView RefLevel 10 Frequency 8 dBm dBm dBm dBm dBm dBm dBm dBm dBm dBm	Spectrum OdBm Offset 1.5 10 dB sWT weep			M1[1]	Measuring	■ 1Rm Max -31.29 dB
ter 27. MAY.20 Diagram MultiView Ref Level 10 Att Dip Frequency S dam 20. d8m	Spectrum OdBm Offset 1.5 10 dB sWT weep		M1	M1[1]	Measuring	■ 1Rm Max -31.29 dB

Date: 27.MAY.2013 13:49:49





Appendix 5

Diagran	n 10c:						
MultiView	~						
Ref Level 60).00 dBm	RBW 100	kHz				
e Att	20 dB 🖷 SWT			Auto Sweep			
TDF							
1 Frequency S	Sweep						1Rm Max
					M1[1]		-30.80 dBm
50 dBm-							867.8000 MHz
SU dBm-			19 M9		M2[1]		41.93 dBm
		ľ	12 M3				869,4000 MHz
40 dBm			A A				
30 dBm							
20 dBm							
			1 (1				
10 dBm							
0 dBm							
			1 11				
-10 dBm							
			111				
-20 dBm	H1 -23.000 dBm						
	201000 4011	M1	111				
-30 dBm		Ţ	White				
			w with				
-40 dBm							
-50 dBm						2	
		V1					
Start 849.0 M	Hz		4001 pt	's	6.5 MHz/		Stop 914.0 MHz
2 Marker Tab							
Type Ref		Stimulus		Response	Function	Funct	ion Result
M1	1	867.8 MHz		-30.80 dBm	1 41154011	T direct	
M2	i	869.4 MHz		41.93 dBm			
M3	ī	871.0 MHz		41.87 dBm			
	1					Managerian 6	27.05.2013
	JL					Measuring	13:46:54

Date: 27.MAY.2013 13:46:54



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Appendix 5

1ultiView 🗄 Sp	ectrum						
Ref Level 60.00 dB	m e RBV	V 1 MHz					
Att 20 d	BeSWT 10 s VBV	V 10 MHz Mode Auto S	Sweep				
Frequency Sweep				141513			• 1Rm Ma
				M1[1]			44.57 dB 869.400 MF
I dBm-				M2[1]		M1M2	44.58 dB 882.400 MF
dBm						11	0021400 14
abiii							
dBm							
dBm							
dBm							
3m							
dBm							
H1 -13	.000 dBm						
dBm							
							
dBm							
dBm							
) dBm							
art 9.0 kHz		6001 pts	1	00.0 MHz/			Stop 1.0 GH
				M	easuring 💵		27.05.2013 12:45:19
iagram 11	b:			M	easuring 💵		
Diagram 11 IultiView == SF Ref Level 10.00 dB	b: pectrum m Offset 1.90 dB •			M	easuring 🔳		
biagram 11 IultiView = Sp Ref Level 10.00 dB Att 10 c	b: pectrum m Offset 1.90 dB •	RBW 1 MHz VBW 10 MHz Mode A	uto Sweep	M	easuring 🔳		
tiagram 11	b: Dectrum M Offset 1.90 dB B SWT 10 s		uto Sweep		easuring 💵		⊽ ● 1Rm Max
iagram 11 ultiView SF Ref Level 10.00 dB Att 10 c	b: Dectrum M Offset 1.90 dB B SWT 10 s		uto Sweep	M1[1]	easuring 💵		▼ ● 1Rm Max -31.33 dB
iagram 11 ultiView Sp Ref Level 10.00 dB Att 10 c F Trequency Sweep	b: Dectrum M Offset 1.90 dB B SWT 10 s		uto Sweep		easuring		▼ ● 1Rm Max -31.33 dB
iagram 11 ultiView SF Ref Level 10.00 dB Att 10 c DF Trequency Sweep Bm	b: Dectrum M Offset 1.90 dB B SWT 10 s		uto Sweep		easuring		▼ ● 1Rm Max -31.33 dB
iagram 11 ultiView SF Ref Level 10.00 dB Att 10 c F Tequency Sweep	b: Dectrum M Offset 1.90 dB B SWT 10 s		uto Sweep		easuring		▼ ● 1Rm Max -31.33 dB
In the second se	b: pectrum m Offset 1.90 dB • B • SWT 10 s		luto Sweep		easuring		▼ ● 1Rm Max -31.33 dB
And Antice Antic	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
And Antice Antic	b: pectrum m Offset 1.90 dB • B • SWT 10 s		Nuto Sweep		easuring		▼ ● 1Rm Max -31.33 dB
Hiagram 11 IultiView S SP Ref Level 10.00 dB Att 100 F F F G U B M H1 -12 0 dB M H1 -12 0 dB M	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
Hagram 11 Iultiview S SP Ref Level 10.00 dB Att 10 c DF Trequency Sweep dBm H1 -13 0 dBm D dBm	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
Diagram 11 Iultiview Sp Ref Level 10.00 dB Att 10 c DF Frequency Sweep dBm 0 dBm H1 -13 0 dBm 0 dBm 0 dBm	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
Att 11-13 D dBm H1 -13 D dBm D dBm	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
Diagram 11 Iultiview C Sp Ref Level 10.00 db DF Frequency Sweep dbm 0 dbm 0 dbm 0 dbm 0 dbm 0 dbm	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
Diagram 11 Iultiview S F Ref Level 10.00 dB Att 10 c DF Trequency Sweep dBm 0 dBm H1 -13 0 dBm	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
Att 1000 Att	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
Diagram 11 tultiView C SF Ref Level 10.00 dB Att 10.0 DF FFCquency Sweep dBm 0 dBm	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
Diagram 11 Jultiview Sp Ref Level 10.00 dB Sp Att 10 c D Bm D dBm	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
Diagram 11 Lultiview S Ref Level 10.00 dB Att 10 c DF Trequency Sweep dBm 0 dBm	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		▼ ● 1Rm Max -31.33 dB
Diagram 11	b: pectrum m Offset 1.90 dB • B • SWT 10 s				easuring		● 1Rm Max -31.33 dBr
DF Frequency Sweep dBm 0 dBm	b: pectrum m Offset 1.90 dB • B • SWT 10 s		M1		easuring		2719-2013 12:45:19 12:45:19 √ 1Rm Max -31.33 dBr -31.33 dB

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Appendix 5

Ref Level 6:00 dbm RBW 100 kHz Att 20 dB SWT 10 s VBW 1 MHz Mode Auto Sweep TPF 11 M2 M2[1] 42:87 dB 30 dbm 40 dm 411 M2 M2[1] 882,4000 M 20 dbm 40 dm 411 M2 M2[1] 882,4000 M 20 dbm 40 dm 40 dm 40 dm 40 dm 40 dm 20 dbm 40 dm 40 dm 40 dm 40 dm 40 dm 40 dm 20 dbm 40 dm 400 lpts 6.5 MHz/ Stop 914.0 MI 20 dbm V1 400 lpts 6.5 MHz/ Stop 914.0 MI 40 dm 40	Diagra	m 11c:					
Att 20 dB • SWT 10 s VBW 1 MHz Mode Auto Sweep TDF IFrequency Sweep Ifrequency Swee	MultiView	s 🕄 Spectrum					
TDF Iso Ma 10 dam 42.67 dB 40 dam 41 40 dam 42.67 dB 30 dam 42.67 dB 40 dam 42.67 dB 30 dam 42.57 dB 30 dam 42.67 dB 30 dam 40 dB 40 dam 40 dB 40 dBm 40 dD pts 50 dBm 4001 pts 50 dBm 4001 pts 6.5 MHz/ Stop 914.0 MI 21 B 822.4 MHz 42.87 dB m 21 B 822.4 MHz 42.87 dB m M1 1 869.4 MHz 42.87 dB m M2 1 895.4 MHz -34.30 dB m							
I Frequency Sweep • 1 Em Ma 42.9 7 48 50 dBm 411 M1[1] 42.9 7 48 40 dBm 411 M2 M2[1] 30 dBm 411 M2 M2[1] 42.9 7 48 30 dBm 401 pts 6.5 MHz/ Stop 914.0 MHz 20 dBm 4001 pts 6.5 MHz/ Stop 914.0 MHz	Att	20 dB 🖷 SWT	10 s VBW 1 MHz M	ode Auto Sweep			
90 dsm 40 dsm 41 M2 M2[1] 869.4000 M 30 dsm 30 dsm 882.4000 M 882.4000 M 20 dsm 401 m 401 m 401 m 401 m 30 dsm 400 m 400 m 400 m 400 m 10 dsm 400 m 400 m 400 m 400 m 10 dsm 400 m 400 m 400 m 400 m 10 dsm 400 m 400 m 400 m 400 m 10 dsm 400 m 400 m 400 m 400 m 10 dsm 400 m 400 m 400 m 400 m 10 dsm 400 m 400 m 400 m 400 m 10 dsm 400 m 400 m 400 m 400 m 10 dsm 400 m 400 m 400 m 400 m 10 dsm 400 m 50 m 50 m 50 m 10 dsm 400 m 50 m 50 m 50 m 10 dsm 400 m 50 m 50 m 50 m 10 dsm 400 m 50 m 50 m 50 m 10 dsm 42.57 dSm 50 m 50 m		y Sweep					●1Rm Max
90 dsm 42.55 dt 40 dsm 42.55 dt 90 dsm 882.4000 M 90 dsm 90 dsm					M1[1]		42.87 dBm
40 dsm	50 dBm				M2[1]		42.55 dBm
30 dBm	10.40-		T	T I I I I I I I I I I I I I I I I I I I			882.4000 MHz
20 dBm	40 0Bm-						
10 dBm	30 dBm						
10 dBm							
0 d8m. 10 d8m.	20 dBm-						
10 dBm	10 dBm						
10 dBm							
20 dBm H1 -23.000 dBm A1 - 23.000 dBm A1 - 23.0000 dBm A1 - 23.00000 dBm A1 - 23.00000 dBm A1 - 23.000000 dBm A1 - 23.000000 dBm A1 - 23.000000000000000000000000000000000000	0 dBm						
H1 -23.000 dBm 30 dBm 400 dBm 40 dBm 401 pts 50 dBm 72 Start 849.0 MHz 4001 pts 6.5 MHz/ Stop 914.0 MI Yarker Table 72 Type Ref Type Ref </td <td>-10 dBm</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	-10 dBm						
H1 -23.000 dBm 30 dBm 400 dBm 40 dBm 401 pts 50 dBm 72 Start 849.0 MHz 4001 pts 6.5 MHz/ Stop 914.0 MI Yarker Table 72 Type Ref Type Ref </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
40 dbm 70 dbm 72 72 40 dbm 400 dbm 72 72 50 dbm 71 72 72 Start 849.0 MHz 4001 pts 6.5 MHz/ Stop 914.0 MI Warker Table 71 72 72 M1 1 869.4 MHz 42.87 dBm 74.30 dBm M2 1 895.4 MHz 42.55 dBm 74.30 dBm	-20 dBm	H1 -23.000 dBm					
40 dbm 70 dbm 72 72 40 dbm 400 dbm 72 72 50 dbm 71 72 72 Start 849.0 MHz 4001 pts 6.5 MHz/ Stop 914.0 MI Warker Table 71 72 72 M1 1 869.4 MHz 42.87 dBm 74.30 dBm M2 1 895.4 MHz 42.55 dBm 74.30 dBm	-30 dBm						
S0 dBm V1 V2 V2 Start 849.0 MHz 4001 pts 6.5 MHz/ Stop 914.0 MHz 2 Marker Table Type Ref Trc Stimulus Response Function Function Result M1 1 869.4 MHz 42.87 dBm Function Function Result M2 1 882.4 MHz 42.55 dBm -34.30 dBm 27.05.2013				man a manager a h	marine and marine and		**************************************
Vi 6.5 MHz Stop 914.0 MHz 2 Marker Table Type 6.5 MHz/ Stop 914.0 MHz 2 Marker Table Type Function Function Result M1 1 869.4 MHz 42.87 dBm M2 1 882.4 MHz 42.55 dBm M3 1 895.4 MHz -34.30 dBm	-40 dBm						
Vi 6.5 MHz Stop 914.0 MHz 2 Marker Table Type 6.5 MHz/ Stop 914.0 MHz 2 Marker Table Type Function Function Result M1 1 869.4 MHz 42.87 dBm M2 1 882.4 MHz 42.55 dBm M3 1 895.4 MHz -34.30 dBm	-50 dBm						
Marker Table Function Function Result Type Ref Trc Stimulus Response Function Function Result M1 1 869.4 MHz 42.87 dBm 42.155 dBm 42.155 dBm M3 1 895.4 MHz -34.30 dBm -34.30 dBm 27.05.2013			Vi			Ĩ	
Marker Table Function Function Result Type Ref Trc Stimulus Response Function Function Result M1 1 869.4 MHz 42.87 dBm 42.155 dBm 42.155 dBm M3 1 895.4 MHz -34.30 dBm -34.30 dBm 27.05.2013	Start 849.0	MHz	40	01 pts	6.5 MHz/		Stop 914.0 MHz
M1 1 869.4 MHz 42.87 dBm M2 1 882.4 MHz 42.55 dBm M3 1 895.4 MHz -34.30 dBm							
M2 1 882.4 MHz 42.55 dBm M3 1 895.4 MHz -34.30 dBm				Response	Function	Funct	ion Result
M3 1 895.4 MHz -34.30 dBm		1		42.55 dBm			
		1	895.4 MHz	-34.30 dBm			
12:44:27						Measuring	27.05.2013 12:44:27

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Appendix 5

MultiView 8	Spectrum	1						
Ref Level 60 Att	00 dBm 20 dB = SWT 10	RBW S VBW 1		Auto Sweep				
TDF .			indu	nato ontoop				10m May
Frequency S	weep				M1[1]			1Rm Max 44.49 dBr
i0 dBm					M2[1]			882.400 MH 44.61 dBr
						1	Mt	² 888.800 MH
0 dBm								
0 dBm								
0 dBm								
) dBm								
dBm								
0 dBm	H1 -13.000 dBm							
0 dBm	HI -13.000 UBII							
0 UBIN								L
30 dBm								
+0 dBm								
o dom								
50 dBm								
					0.0 MHz/			Stop 1.0 GH
ite: 27.MAY.20 Diagram	12b:		6001 p			Measuring		27.05.2013
	12b: Spectrum					Measuring	••••	27.05.2013 12:52:00
ate: 27.MAY.20 Diagram MultiView 8 Ref Level 10	Spectrum 00 dBm Offset	1.90 dB • Ri	BW 1 MHz			Measuring		27.05.2013 12:52:00
ate: 27.MAY.20 Diagram MultiView Ref Level 10 Att DF	12b: Spectrum OO dBm Offset 10 dB = SWT	1.90 dB • Ri 10 s VI	BW 1 MHz	lode Auto Sweep		Measuring		27.05.2013 12:52:00 ⊽
te: 27.MAY.20 Diagram MultiView Ref Level 10 Att DF	12b: Spectrum OO dBm Offset 10 dB = SWT	1.90 dB ● RI 10 s VI	BW 1 MHz		M1[1]	Measuring	••••	27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
tte: 27.MAY.201 Diagram AultiView & Ref Level 10 Att DF Frequency S	12b: Spectrum OO dBm Offset 10 dB = SWT	1.90 dB e Ri 10 s VI	BW 1 MHz			Measuring	•••••	27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
tte: 27.MAY.201 Diagram MultiView R Ref Level 10 Att TDF Frequency S dBm	12b: Spectrum OO dBm Offset 10 dB = SWT	1.90 dB ● RI 10 s VI	BW 1 MHz			Measuring	••••	27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
de: 27.MAY.201 Diagram MultiView R Ref Level 10 Att TDF Frequency S dBm-	12b: Spectrum OO dBm Offset 10 dB = SWT	1.90 dB e Ri 10 s VH	BW 1 MHz			Measuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dBr
ate: 27.MAY.20' Diagram MultiView Ref Level 10 Att ToF Hrequency S dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB • Ri 10 s VI	BW 1 MHz			Measuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
dite: 27. MAY 201 Diagram MultiView Ref Level 10 Att DF Frequency S dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R I 10 s VI	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dBr
ate: 27. MAY 201 Diagram MultiView Ref Level 10 Att TDF Frequency S dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB RI 10 s VI	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dBr
ate: 27.MAY 20' Diagram MultiView Ref Level 10 Att TDF Hrequency S dBm 20 dBm 30 dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s VI	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
ate: 27. MAY 201 Diagram MultiView Ref Level 10 Att TFequency S I dBm 10 dBm 20 dBm 40 dBm 40 dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s VI	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
ate: 27. MAY 201 Diagram MultiView Ref Level 10 Att Trequency S dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s VI	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
ate: 27.MAY 20' Diagram MultiView Ref Level 10 Att TDF Frequency S dBm 20 dBm 30 dBm 40 dBm 50 dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s VI	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
te: 27.MAY 20' Diagram MultiView Ref Level 10 Att TDF Frequency S dBm dBm dBm dBm dBm s0 dBm 50 dBm 50 dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s V	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
te: 27.MAY 20' Diagram MultiView Ref Level 10 Att TDF Frequency S dBm dBm dBm dBm dBm s0 dBm 50 dBm 50 dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s V	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
Att Comparison C	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s V	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
ate: 27.MAY 20' Diagram MultiView Ref Level 10 Att TDF IFrequency S dBm 0 dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s V	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dB
ate: 27.MAY 201 Diagram MultiView Ref Level 10 Att IDF Frequency S dBm 20 dBm 30 dBm 50 dBm 50 dBm 70 dBm 80 dBm 90 dBm 90 dBm 90 dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s V	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dBr
Att Diagram Att DF Frequency S dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s V	BW 1 MHz			Meesuring		27.05.2013 12:52:00 ▼ ● 1Rm Max -31.32 dBr
ate: 27.MAY 20' Diagram MultiView Ref Level 10 Att TDF IFrequency S I dBm 20 dBm 30 dBm	Spectrum OO dBm Offset 10 dB • SWT	1.90 dB R 10 s VI	BW 1 MHz	lode Auto Sweep		Meesuring		27.05.2013 12:52:00

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Appendix 5

Diagra	m 12c:					
MultiView	, 🗄 Spectrum					
	60.00 dBm	 RBW 100 kHz 				
Att TDF	20 dB 🖷 SWT	10 s VBW 1 MHz M	fode Auto Sweep			
1 Frequenc	y Sweep					●1Rm Max
				M1[1]		42.65 dBm
50 dBm				M2[1]		882.4000 MHz 42.86 dBm
			M1			888.8000 MHz
40 dBm						
30 dBm						
20 dBm						
10 dBm						
0 dBm						
-10 dBm						
-10 0011						
-20 dBm	H1 -23.000 dBm					
-30 dBm	112 -23,000 0000				M3	
-30 UBIII-			- I wanted	hand hand have		
-40 dBm						
-50 dBm		V1		V	2	
Start 849.0	MUS	40	01 pts	6.5 MHz/		Stop 914.0 MHz
2 Marker Ta		40	or pre	0.3 MHZ/		3rop 914.0 MHz
Type R	Ref Trc	Stimulus	Response	Function	Functi	on Result
M1 M2	1	882.4 MHz 888.8 MHz	42.65 dBm 42.86 dBm			
M2 M3	1	895.2 MHz	-31.12 dBm			
	M				Measuring	27.05.2013
					,	12:51:00

Date: 27.MAY.2013 12:51:00



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Appendix 5

ultiView 😁 Spectr	um					
	• RBW 11 SWT 10 s VBW 101		5			
F requency Sweep						●1Rm Max
				M1[1]		44.42 dBn 892.000 MH;
18m-				M2[1]		44.51 dBm
10						893.600 MHz
Bm						
Bm						
Bm						
m						
H1 -13.000 dl	3m					
m						
m						
Bm						
dBm						
t 9.0 kHz		6001 pts	1	00.0 MHz/		Stop 1.0 GHz
TE FIO TUTE		000 x 000				
: 27.MAY.2013 12:54:00				M	easuring 🕊 🕬 🕬	
iagram 13b: .ItiView ⊕ Spectr				M	easuring	27.05.2013 12:54:01 //
agram 13b: ultiView B Spectre ef Level 10.00 dBm 10 dB 10	Offset 1.90 dB . RBW	/ 1 MHz / 10 MHz Mode Auto 9	Sweep	M	easuring 🕊	12:54:01
agram 13b: ItiView Spectre ItiView 10.00 dBm at 10 dB 9	Offset 1.90 dB . RBW	/ 1 MHz / 10 MHz Mode Auto S	Sweep		easuring W	■ 12:54:01 v
agram 13b: ItiView Spectre Itiview I 0.00 dBm of t 10 dB s cquency Sweep	Offset 1.90 dB . RBW	/ 1 MHz / 10 MHz Mode Auto (Sweep	M1[1]	easuring W	▼ 12:54:01
agram 13b: tiView Spectro f Level 10.00 dBm t 10 dB S squency Sweep	Offset 1.90 dB . RBW	/ 1 MHz / 10 MHz Mode Auto 9	Sweep		easuring	• 1 Rm Max
agram 13b: tiview Spectr fLevel 10.00 dBm (t c 10 dB (c c c c c c c c c c c c c c c c c c c	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (Sweep		easuring	• 1 Rm Max
agram 13b: IttView Spectr SfLevel 10.00 dBm of tet 10.00 dBm of cequency Sweep m H1 -13.000 dBm	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (Sweep		easuring	• 1 Rm Max
agram 13b: IttiView Spectr FLevel 10.00 dBm of requency Sweep m H1 -13.000 dB +11 -13.000 dB	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (Sweep		easuring	• 1 Rm Max
agram 13b: stitiview Spectro ef Level 10.00 dBm of tet 10.00 dBm of requency Sweep m dBm +11 -13.000 df HBm	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (Sweep		easuring	• 1 Rm Max
agram 13b: Spectro fLevel 10.00 dBm or ccquency Sweep m dBm +11 -13.000 d dBm	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto s			easuring	• 1 Rm Max
agram 13b: IltiView Spectre of Level 10.00 dBm of tt 10 dB s requency Sweep m dBm H1 -13.000 d dBm	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto S			easuring	• 1 Rm Max
agram 13b: altiview Spectr ef Level 10.00 dBm tt 10 dB s requency Sweep am dbm	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (easuring	• 1 Rm Max
Agram 13b: JILIView Spectro of Level 10.00 dbm of tt 10 db s requency Sweep Jam dam H1 -13.000 dd dam dam dam	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (easuring	• 1 Rm Max
agram 13b: spectro	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (easuring	• 1 Rm Max
Agram 13b: JILIView Spectro of Level 10.00 dbm of tt 10 db s requency Sweep Jam dam H1 -13.000 dd dam dam dam	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (easuring	• 1 Rm Max
Agram 13b: JILIView Spectr of Level 10.00 dBm of tt 10 dB s requency Sweep bm dBm H1 -13.000 d dBm dBm dBm dBm	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (easuring	• 1 Rm Max
Agram 13b: JILIView Spectro of Level 10.00 dBm of tt 10 dB s requency Sweep am dBm H1 -13.000 dd dBm dBm dBm dBm dBm dBm	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (easuring	• 1 Rm Max
agram 13b: JItiView Spectro of Level 10.00 dbm of terequency Sweep m dbm H1 -13.000 d dbm dbm dbm dbm dbm dbm dbm db	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto (easuring	• 1 Rm Max
Agram 13b: JILIView Spectro of Level 10.00 dBm of tt 10 dB s requency Sweep am dBm H1 -13.000 dd dBm dBm dBm dBm dBm dBm	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto 3			easuring	• 1 Rm Max
Agram 13b: JItiView Spectro	Dffset 1.90 dB • RBW SWT 10 s VBW	/ 1 MHz / 10 MHz Mode Auto S	M1		easuring	• 1 Rm Max

Date: 27.MAY.2013 12:58:49



Appendix 5

Diagra	m 13c:				
MultiView	, ⇔ Spectrum				
Ref Level	60.00 dBm	 RBW 100 kHz 			
Att	20 dB 🖷 SWT	10 s VBW 1 MHz N	Iode Auto Sweep		
TDF 1 Frequence	vSweep				• 1Rm Clrw
				M1[1]	42.74 dBn
50 dBm				M2[1]	892.0000 MH 42.48 dBn
				M2[1] _{M2}	893.6000 MH
40 dBm					
30 dBm					
20 dBm-					
10 dBm					
0 dBm					
-10 dBm					
-20 dBm	H1 -23.000 dBm				
-30 dBm					M3
				mon when and will be the	
-40 dBm					
-50 dBm				10	
-50 0011		VI		v2	
Start 849.0	MHz	40	01 pts	6.5 MHz/	Stop 914.0 MH
2 Marker Ta	able				
Type R		Stimulus	Response	Function	Function Result
M1 M2	1	892.0 MHz 893.6 MHz	42.74 dBm 42.48 dBm		
M3	î	895.2 MHz	-29.55 dBm		
					Measuring 🗰 🗰 🚧 💋 27.05.2013 12:57:09
					- 12:57:09

Date: 27.MAY.2013 12:57:09

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Date	Reference	Page
2013-09-04	3P04068-03-F22	23 (24)

Appendix 5

1ultiView	🖽 Spectrum								
Ref Level 6	0.00 dBm	• RBW	1 MHz						
Att IDF	20 dB 😑 SWT 1	los VBW	10 MHz Mode /	Auto Sweep					
Frequency	Sweep								1Rm Max
						M1[1]			43.18 dBn 892.000 MH
D dBm						M2[1]			43.33 dBn
							I	1	a£ 893,600 MH: ▼I
) dBm									
0 dBm									
0 dBm									
uum									
I dBm									
dBm									
0 dBm	H1 -13.000 dBm								
0 dBm									
o ubili									·
0 dBm									
0 dBm									
50 dBm									
tart 9.0 kHz	:		6001 p	ts	10	0.0 MHz/			Stop 1.0 GH 27.05.2013
ite: 27.MAY.21 Diagrar	n 14b:						Measuring	•••	13:39:50
Diagrar	n <u>14b:</u>						Measuring		27.05.2013 13:39:50 ↓
Diagrar 1ultiView	n 14b: B Spectrum	1.90 dB • P	RBW 1 MHz				Measuring		13:39:50
Diagrar 1ultiView Ref Level 1 Att	n <u>14b:</u>		NBW 1 MHz NBW 10 MHz MI	ode Auto Sweep			Measuring		13:39:50
Diagran	n 14b: Spectrum 0.00 dBm Offset 10 dB • SWT			ode Auto Sweep			Measuring		✓ 13:39:50 ,
Diagrar 1ultiView Ref Level 1 Att	n 14b: Spectrum 0.00 dBm Offset 10 dB • SWT			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31,33 dBn
Diagrar AultiView Ref Level 1 Att TDF Frequency	n 14b: Spectrum 0.00 dBm Offset 10 dB • SWT			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31,33 dBn
Diagrar AultiView Ref Level 1 Att DF Frequency	n 14b: Spectrum 0.00 dBm Offset 10 dB • SWT			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 Att DF Frequency	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 Att DF Frequency dBm-	n 14b: Spectrum 0.00 dBm Offset 10 dB • SWT			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 Att DF Frequency	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep		M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagrar AultiView Ref Level 1 Att FFrequency dBm	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	MI	M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 Att DF Frequency dBm-	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	M1	M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 Att DF Frequency d8m 0 d8m 0 d8m 0 d8m 0 d8m	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	ML	M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagrar AultiView Ref Level 1 Att FFrequency dBm	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	Mi	M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 Att DF Frequency d8m 0 d8m 0 d8m 0 d8m 0 d8m	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	ML	M1[1]	Measuring		● 1Rm Max -31,33 dBn
Diagran AultiView Ref Level 1 Att DF Frequency dBm 0.0 dBm 0.0 dBm 0.0 dBm 0.0 dBm	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	M1	M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 DF TFrequency dam 0 dam 0 dam 0 dam 0 dam 0 dam 0 dam	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	MI	M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 Att DF Frequency 00 dBm 00 dBm 00 dBm 00 dBm 00 dBm 00 dBm	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	MI	M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 Att DF Frequency dBm 0.0 dBm 0.0 dBm 0.0 dBm 0.0 dBm	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	M1	M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 Att DF Frequency 00 dBm 00 dBm 00 dBm 00 dBm 00 dBm 00 dBm	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	M1	M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 Att DF FFrequency d8m 00 d8m	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	ML	M1[1]	Measuring		● 1Rm Max -31,33 dBr
Diagran AultiView Ref Level 1 DF TCF Frequency dBm 00 dBm	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	M1	M1[1]	Measuring		● 1Rm Max -31,33 dBn
Diagran AultiView Ref Level 1 DF DF DF OB 00 dBm 00 dBm	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	MI	M1[1]	Measuring		● 1Rm Max -31,33 dBn
Diagran AultiView Ref Level 1 Att DF FFrequency d8m 00 d8m	n 14b: Spectrum 10 dB = SWT Sweep			ode Auto Sweep	M1	M1[1]	Measuring		● 1Rm Max -31,33 dBn
Diagran AultiView Ref Level 1 DF DF DF OB 00 dBm 00 dBm	n 14b: Spectrum 10 dB = SWT Sweep H1 -13.000 dBm IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII					M1[1]	Measuring		✓ 13:39:50

Date: 27.MAY.2013 13:41:31





Appendix 5

Diagra	am 14c:				
MultiViev	w 🗄 Spectrum				
	60.00 dBm	 RBW 100 kHz 			
Att TDF	20 dB 🖷 SWT	10 s VBW 1 MHz N	Node Auto Sweep		
1 Frequence	cy Sweep				 1Rm Max
				M3[1]	-30.63 dBm 895.2160 MHz
50 dBm				M1[1]	41.85 dBm
40 dBm					892.0000 MHz
30 dBm					
20 dBm					
10 dBm					
10 0000					
0 dBm					
-10 dBm					
-20 dBm	H1 -23.000 dBm				
-30 dBm					43 7
					/
-40 dBm					
-50 dBm					
		V1			
Start 849.0		40	01 pts	6.5 MHz/	Stop 914.0 MHz
2 Marker T Type		Stimulus	Response	Function	Function Result
M1	1	892.0 MHz	41.85 dBm	1 and a of 1	, and to the total
M2 M3	1	893.6 MHz 895.216 MHz	41.82 dBm -30.63 dBm		
	Y				Measuring 12:29:49
					Measuring 13:38:49

Date: 27.MAY.2013 13:38:49



Field strength of spurious radiation measurements according to 47 CFR 2.1053 / IC RSS-132 5.5

Date	Temperature	Humidity
2013-05-27	$23^{\circ}C \pm 3^{\circ}C$	38 % ± 5 %
2013-05-28	$23^{\circ}C \pm 3^{\circ}C$	38 % ± 5 %

Test set-up and procedure

The test sites are listed at FCC, Columbia with registration number: 93866. The test site complies with RSS-Gen, Industry Canada file no. 3482A-1.

The measurements were performed with both horizontal and vertical polarization of the antenna. The antenna distance was 3 m in the frequency range 30 MHz - 9 GHz. The upper frequency boundary was chosen to comprise 10x the highest fundamental TX frequency.

In the frequency range 30 MHz - 9 GHz the measurement was performed in power with a RBW of 1 MHz. A propagation loss in free space was calculated. The used formula was

$$\gamma = 20 \log \left(\frac{4\pi D}{\lambda}\right)$$
, γ is the propagation loss and *D* is the antenna distance.

The measurement procedure was as the following:

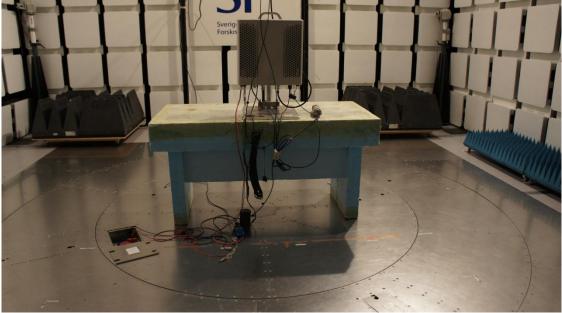
- 1. A pre-measurement was first performed with peak detector. The Test object was measured in eight directions and with the antenna at three heights, 1.0 m, 1.5 m and 2.0 m.
- 2. Spurious radiation on frequencies closer than 20 dB to the limit in the pre-measurement is scanned 0-360 degrees and the antenna is scanned 1-4 m for maximum response. The emission is then measured with the RMS detector and the RMS value is reported. Frequencies closer than 10 dB to the limit when measured with the RMS detector were
- 3. with the substitution method according to the standard.





Appendix 6

Representative test set-up during the spurious radiation measurements is shown in the picture below:



Measurement equipment

Measurement equipment	SP number
Semi anechoic chamber	503 881
R&S ESU 26	901 553
EMC 32 ver. 8.52.0	503 745
Chase Bilog Antenna CBL 6111A	502 181
EMCO Horn Antenna 3115	502 175
µComp Nordic, Low Noise Amplifier	901 545
High pass filter	901 373
Temperature and humidity meter, Testo 625	504 188

Tested configurations

В	
М	
Т	
T2	
T4	



Results

Multi carrier

Diagram	Modulation	Tested frequency
1 a+b	GMSK	T4

Frequency	Spurious emission level (dBm)		
(MHz)	Vertical	Horizontal	
30 - 9 000	All emissions > 20 dB below limit	All emissions > 20 dB below limit	

Measurement uncertainty: 3.2 dB

Remarks

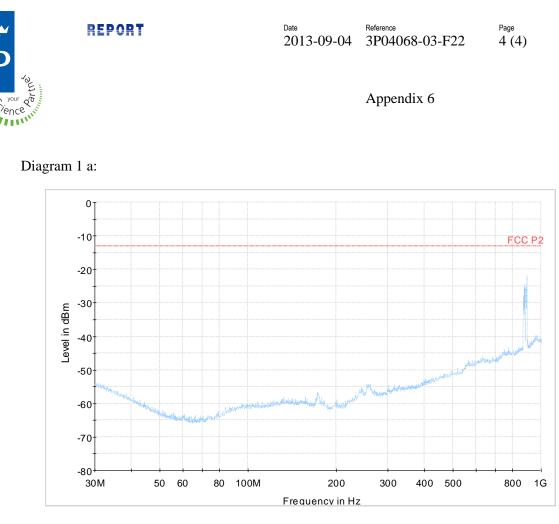
The upper frequency bound for verification was chosen as 9 GHz in order to cover 10 x the maximum fundamental TX frequency.

Limits

CFR 47 § 22.917 and IC RSS-132 5.5

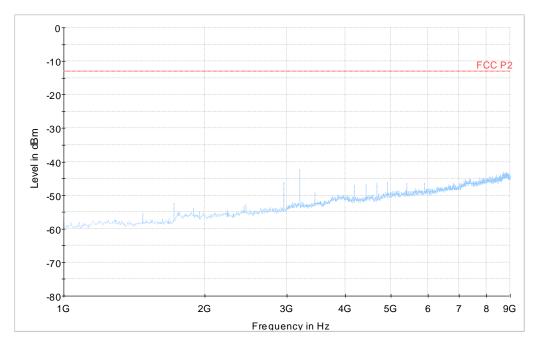
Outside a licensee's frequency band(s) of operation the power of any emission shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P) dB$, resulting in a limit of -13 dBm per any 100 kHz bandwidth.

Complies?	Yes



Note: The emission between 869 MHz and 894 MHz are the carrier frequencies and shall be ignored in this context.







Frequency stability measurements according to CFR 47 22.355 , 2.1055 / IC RSS 132 5.3

Date	Temperature (test equipment)	Humidity (test equipment)
2013-05-16	$23 \ ^{\circ}C \pm 3 \ ^{\circ}C$	37% ± 5 %
2013-05-17	$22 \ ^{\circ}C \pm 3 \ ^{\circ}C$	$45\%~\pm 5~\%$
2013-05-21	$22 \degree C \pm 3 \degree C$	43% ± 5 %

Test set-up and procedure

The measurements were made per J-STD-007A Vol 1 (GMSK)

The output was connected to a spectrum analyzer. The spectrum analyzer was connected to an external 10 MHz reference standard during the measurements.

Measurement equipment	SP number
R&S FSQ	504 143
EAB RF attenuator	-
Temperature Chamber	501 031
Datascan 7321	502 698
Testo 635, temperature and humidity meter	504 203
Multimeter Fluke 87	502 190



Appendix 7

Results

Nominal Voltage -48 V DC

Maximum output power at mid channel (M, 881.6 MHz)

Test conditions		Frequency error (Hz)	
Supply voltage DC (V)	T (°C)	riquency error (riz)	
-48.0	+20	-4	
-55.2	+20	+4	
-40.8	+20	-5	
-48.0	+30	+4	
-48.0	+40	0	
-48.0	+50	-4	
-48.0	+10	+4	
-48.0	0	-3	
-48.0	-10	+4	
-48.0	-20	+4	
-48.0	-30	+4	
Maximum freq.	error (Hz)	5	
Measurement un	ncertainty	$< \pm 1 \ge 10^{-7}$	

Remark

It was deemed sufficient to test one combination of TX frequency, channel bandwidth configuration and test model (modulation), as all combinations share a common internal reference to derive the TX frequency from.





Limits

Limit according to:

§22.355

The frequency stability shall be within \pm 1.5 ppm (\pm 1322.4 Hz).

RSS-132 5.3 Frequency:

The carrier frequency shall not depart from the reference frequency in excess of ± 1.5 ppm (± 1322.4 Hz) for base stations when tested to the temperature and supply voltage variations specified in RSS-Gen.

Complies? Yes	
---------------	--





External photos



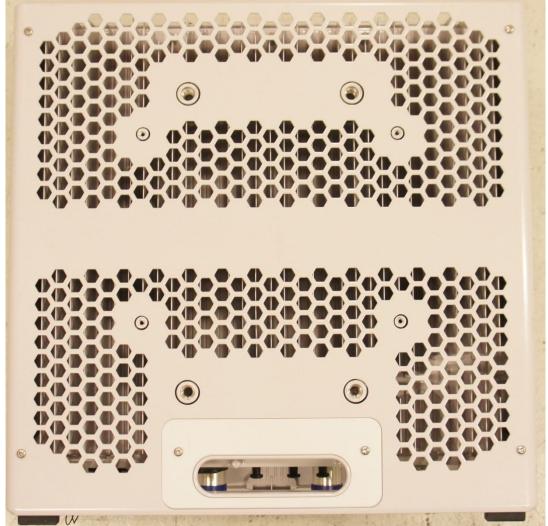
Product label







Rear side







Appendix 8







 Date
 Reference
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Appendix 8

Top side



