CETECOM ICT Services GmbH Saarbruecken, Germany



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Recognized by the Federal Communications Commission

Anechoic chamber registration no.: 90462 (FCC)

Anechoic chamber registration no.: IC 3462C-1

TCB ID: DE 0001



Accredited by the German Accreditation Council DAR–Registration Number DAT-P-176/94-D1



Accredited Bluetooth® Test Facility (BQTF)

Test report no. : 1-0648-01-25/08 A

Applicant : televic nv.

Type : Confidea DU

Test Standard : FCC Part 15.247

RSS 210 Issue 7

FCC ID : WM7CONFIDEADU IC Certification No.: 7932A-CONFIDEADU

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1. Administrative data

1.1. Administrative data of the test facility

1.1.1 Identification of the testing laboratory

Company name: Cetecom ICT Services GmbH Address: Untertürkheimerstr. 6-10

D-66117 Saarbruecken

Germany

Laboratory accreditation: DAR-Registration No. DAT-P-176/94-D1

Bluetooth Qualification Test Facility (BQTF)

Responsible for testing laboratory: Stefan Bös, Marco Bertolino

Phone: +49 681 598 0 Fax: +49 681 598 9075 email: info@ict.cetecom.de

Responsible for testing laboratory (Stafan Bös)

1.1.2 Organizational items

Reference No.: 1-0648-01-25/08 A

Order No.:

Responsible for test report and Stefan Bös, Marco Bertolino

project leader:

Receipt of EUT: 2008-08-18

Date(s) of test: 2008-08-18 to 2009-03-16

Date of report: 2009-03-16

Number of report pages: 69

Version of template: 1.6

Responsible for test report (Marco Bertolino)

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Note:

The test results of this test report relate exclusively to the item tested as specified in this report. The CETECOM ICT Services GmbH does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item.

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During the test no hardware and software changes are allowed to be performed at the EUT.

1.1.3 Applicant's details

Name: televic nv. Street: Leo Bekaertlaan 1 Town: 8870 Izegem Country: **BELGIUM** Telephone: +32 51 30 30 45 +32 51 33 18 86 Fax: Contact: John Gesquiere E-mail: j.gesquiere@televic.com +32 51 30 30 45 Telephone:

1.2 Administrative data of manufacturer / member

Name:	televic nv.	
Street:	Leo Bekaertlaan 1	
Town:	8870 Izegem	
Country:	BELGIUM	
Telephone:	+32 51 30 30 45	
Fax:	+32 51 33 18 86	
Contact:	John Gesquiere	
E-mail:	j.gesquiere@televic.com	
Telephone:	+32 51 30 30 45	

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1.3 Description of the Equipment under test (EUT)

1.3.1 EUT: Type, S/N etc.

Product nar	ne	Description	S/N serial number	HW hardware status	SW software status
Confidea DU		Wireless Discussion System 2.4 / 5 GHz	0x22 / 0x19	0.01	-/-
Frequency Band [MHz]	Type of Modulation	Number of channels	Antenna	Power Supply	Temperature Range
5725 - 5855	OFDM	4	Rod antenna	115 V / 15 V AC / DC power supply	-20°C to +55°C

1.3.2 If RF component testing only, description of additional used HW/SW

	Product name	Product ID	Description	S/N serial number	HW hardware status	SW software status
1						
2						

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1.3.3 Additional EUT information For IC Canada (appendix 2)

IC Certification Number:	7932A-CONFIDEADU
Model Name:	Confidea DU
Manufacturer (complete Address):	televic nv.
	Leo Bekaertlaan 1
	8870 Izegem
	BELGIUM
Tested to Radio Standards Specification (RSS) No.:	RSS-210 Issue 7
Open Area Test Site Industry Canada Number:	IC 3462C-1
Frequency Range (or fixed frequency) [MHz]:	ISM band 5725 MHz – 5855 MHz
RF: Power [W] (max):	OFDM:
	Rad. EIRP: 74.13 mW
	Conducted: 51.17 mW
Antenna Type:	Rod antenna
Occupied Bandwidth (99% BW) [MHz]:	OFDM 6 dB: 16.490
	OFDM 20 dB: 19.808
	OFDM 26 dB: 20.913
Type of Modulation:	OFDM
Emission Designator (TRC-43):	18M8G7D
Transmitter Spurious (worst case) [dBµV/m in 3m]:	49.50 @ 28.70 GHz PP
Receiver Spurious (worst case) [dBµV/m in 3m]:	50.67 @ 37.00 GHz PP

ATTESTATION:

I attest that the testing was performed or supervised by me; that the test measurements were made in accordance with the above-mentioned departmental standard(s), and that the radio equipment identified in this application has been subject to all applicable test conditions specified in the departmental standards and all of the requirements of the standards have been met.

Signature:

Test engineer: Marco Bertolino Date: 2009-03-16

M. Bortolino

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1.3.4 EUT operating modes

EUT operating mode no.*)	Description of operating modes	Additional information
Op. 0	normal mode	normal temperature and power source conditions
Op. 1		low temperature, low power source conditions
Op. 3		low temperature, high power source conditions
Op. 4		high temperature, low power source conditions
Op. 5		high temperature, high power source conditions

^{*)} EUT operating mode no. is used to simplify the test report.

1.3.5 Extreme conditions testing values

Description	Shortcut	Unit	Value
Nominal Temperature	T_{nom}	°C	20
Nominal Humidity	H_{nom}	%	54
Nominal Power Source	V _{nom}	V	115 V / 15 V

Type of power source: $\boldsymbol{AC\,/\,DC}$ power supply

Deviations from these values are reported in chapter 2

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Test standard & summary list of all performed test cases 2

TC identifier	Description	verdict	date	Remark
RF-Testing	FCC Part 15 §15.247 - CANADA RSS-210	passed	2009-03-16	-/-

Test Specification Clause	Test Case	Pass	Fail	Not applicable	Not performed
N		37			
None	Antenna Gain	Yes			
§15.247 (e)	Peak power spectral density	Yes			
§15.247(a2)	Spectrum Bandwidth of an OFDMSystem 6dB/20dB/26dB BW	Yes			
§ 15.247 (b) (3)	Maximum output power (conducted)	Yes			
§ 15.247 (b) (3)	Max. peak output power (radiated)	Yes			
§15.247 d)	Band-edge compliance of conducted emissions	Yes			
§15.205	Band-edge compliance of radiated emissions	Yes			
§15.247 (d)	Spurious Emission - conducted (Transmitter)	Yes			
§ 15.209	Spurious Emission -radiated (Transmitter)	Yes			
§ 15.247 (d)	Spurious Emissions-radiated (Receiver)	Yes			
§ 15.209	Spurious Emissions-radiated <30 MHz	Yes			
§ 15.107/207	Conducted Emissions <30 MHz	Yes			

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3 RF measurement testing

3.1 Description of test set-up

3.1.1 Radiated measurements

The radiated measurements are performed in vertical and horizontal plane in the frequency range from 9 kHz to 20 GHz in semi-anechoic chambers. The EUT is positioned on a non-conductive support with a height of 0.80 m above a conductive ground plane that covers the whole chamber.

The receiving antennas are confirmed with specifications ANSI C63.2-1996 clause 15 and ANSI C63.4-2003 clause 4.1.5. These antennas can be moved over the height range between 1.0 m and 4.0 m in order to search for maximum field strength emitted from EUT. The measurement distances between EUT and receiving antennas are indicated in the test set-ups for the various frequency ranges. For each measurement, the EUT is rotated in all three axes until the maximum field strength is received.

The wanted and unwanted emissions are received by spectrum analysers where the detector modes and resolution bandwidths over various frequency ranges are set according to requirement ANSI C63.4-2003 clause 4.2.

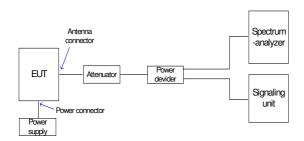
Antennas are confirmed with ANSI C63.2-1996 item 15.

9 kHz - 150 MHz: Quasi Peak measurement, 200 Hz Bandwidth, passive loop antenna. 150 kHz - 30 MHz: Quasi Peak measurement, 9 kHz Bandwidth, passive loop antenna. 30 MHz - 200 MHz: Quasi Peak measurement, 120 kHz Bandwidth, bi-conical antenna 200MHz - 1GHz: Quasi Peak measurement, 120 kHz Bandwidth, log periodic antenna >1GHz: Average, RBW 1MHz, VBW 10 Hz, wave guide horn

All measurement settings are according to FCC 15.209 and 15.207

3.1.2 Conducted measurements

The EUT's RF signal is coupled out by the antenna connector which is supplied by the manufacturer. The signal is connected to the spectrum analyzer. The specific losses for signal path are first checked within a calibration. The measurement readings on the spectrum analyzer are corrected by the specific test set-up loss. The attenuator, power divider, signalling unit and the spectrum analyzer are impedance matched on 50 Ohm.



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3.2 Referenced Documents

Confidea: Reference document for the initiation of the EUT's and further important settings.

This document is provided by televic n.v.!

Test report: 1-0648-01-26/08 Base station

3.3 Additional comments

All measurements are performed in high power mode with max. duty cycle.

3.4 Antenna gain

The antenna gain of the complete system is calculated by the difference of radiated power in EIRP and the conducted power of the module.

	low channel (149) 5745 MHz	mid channel (153) 5765 MHz	high channel (161) 5805 MHz
Conducted power [dBm] (measured)	17.09	16.60	16.44
Radiated power [dBm] (measured) 18.70		18.48	18.25
Gain [dBi] (calculated)	1.61	1.88	1.81

Note:

The radiated and conducted output power are measured with the following settings:

- Peak detector
- 50 MHz RBW / 30 MHz VBW
- Span 100 MHz
- Max. hold mode

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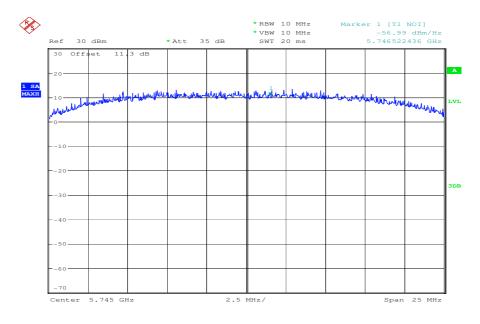


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3.5 Peak Power Spectral density

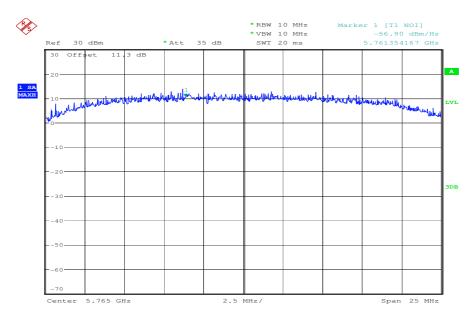
§15.247(e)

Plot 1: low channel



Date: 13.MAR.2009 12:28:03

Plot 2: mid channel



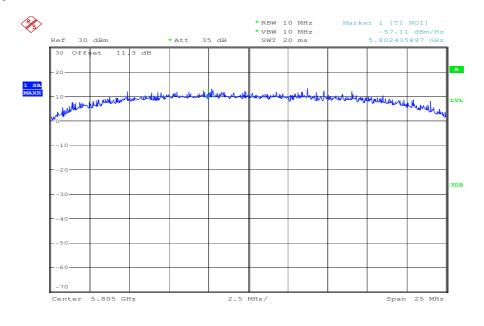
Date: 13.MAR.2009 12:31:13

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Plot 3: high channel



Date: 13.MAR.2009 12:35:48

Results: Plot 1: Power density : = -56.99 dBm / Hz = -22.19 dBm / kHz

Plot 2: Power density : = -56.90 dBm / Hz = -22.10 dBm / kHzPlot 3: Power density : = -57.11 dBm / Hz = -22.31 dBm / kHz

Correction factor to dBm / 3 kHz is +34.8 dB.

Limits:

·	For digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 KHz band during any time interval of
	continuous transmission

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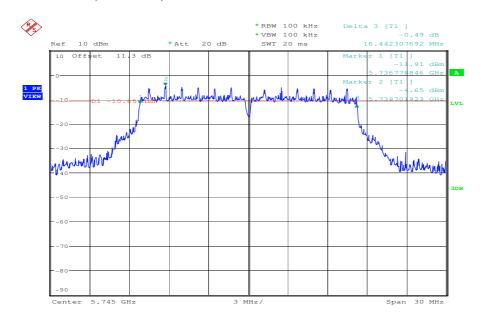


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3.6 Spectrum Bandwidth of an OFDM System

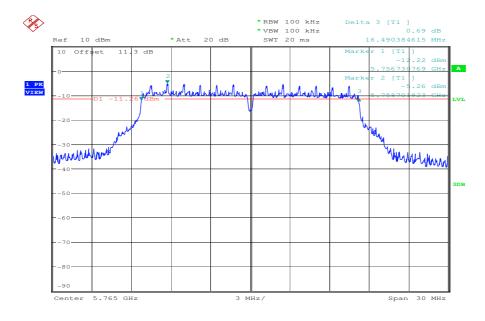
§15.247(a2)

Plot 1: 6 dB-Bandwidth (5745 MHz)



Date: 13.MAR.2009 12:50:53

Plot 2: 6 dB-Bandwidth (5765MHz)



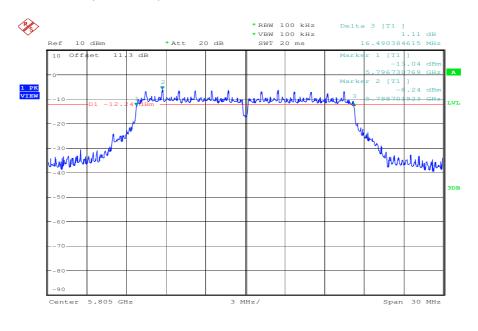
Date: 13.MAR.2009 12:41:57

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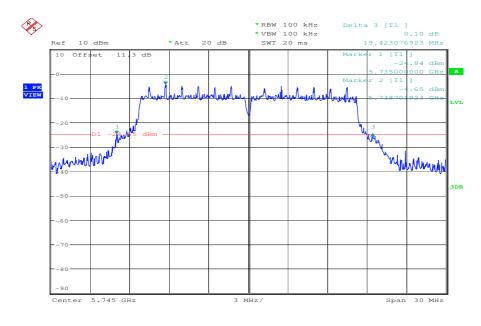
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Plot 3: 6 dB-Bandwidth (5805 MHz)



Date: 13.MAR.2009 12:39:11

Plot 4: 20 dB-Bandwidth (5745 MHz)



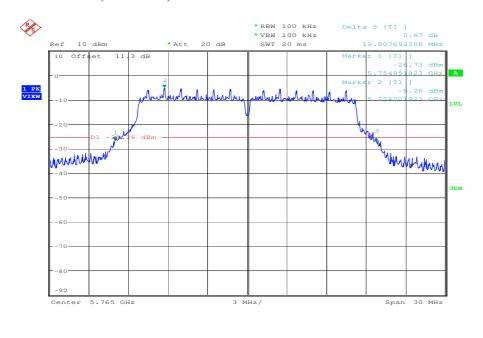
Date: 13.MAR.2009 12:51:24

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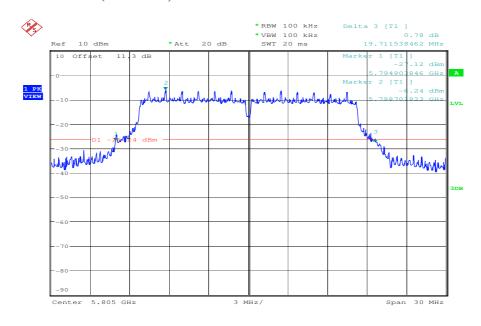
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Plot 5: 20 dB-Bandwidth (5765 MHz)



Date: 13.MAR.2009 12:42:44

Plot 6: 20 dB-Bandwidth (5805 MHz)



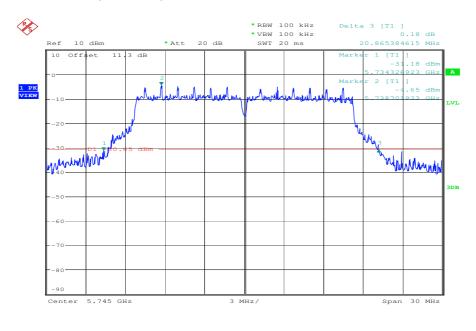
Date: 13.MAR.2009 12:39:47

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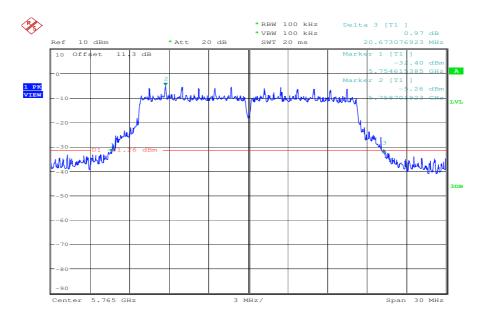
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Plot 7: 26 dB-Bandwidth (5745MHz)



Date: 13.MAR.2009 12:52:48

Plot 8: 26 dB-Bandwidth (5765 MHz)



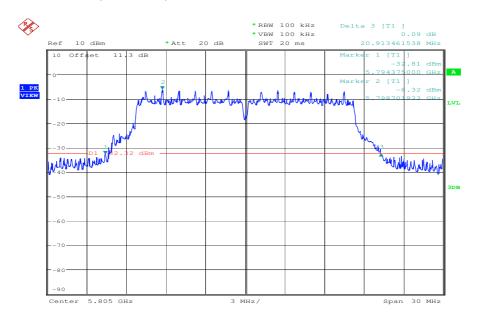
Date: 13.MAR.2009 12:54:03

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Plot 9: 26 dB-Bandwidth (5805 MHz)



Date: 13.MAR.2009 12:56:08

Results:

Test conditions	BANDWIDTH [MHz]			
Frequency [MHz]	5745	5765	5805	
6 dB - Bandwidth	16.442	16.490	16.490	
20 dB - Bandwidth	19.423	19.808	19.712	
26 dB - Bandwidth	20.865	20.673	20.913	
Measurement uncertainty	±100 kHz			

RBW: 100 kHz / VBW 100 kHz

Limits:

Under normal test conditions only	> 500 KHz
-----------------------------------	-----------

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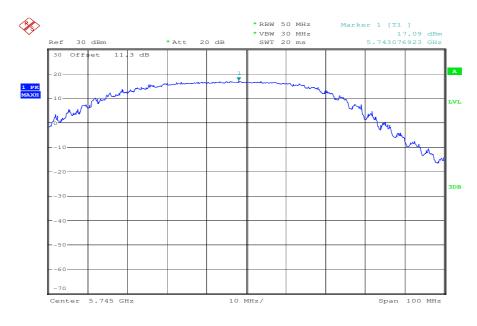


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3.7 Maximum output power (conducted) (OFDM)

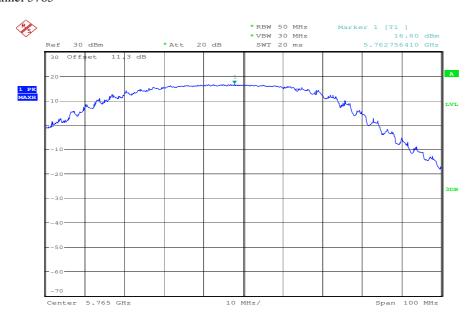
§15.247 (b) (3)

Plot 1: channel 5745



Date: 13.MAR.2009 13:02:25

Plot 2: channel 5765



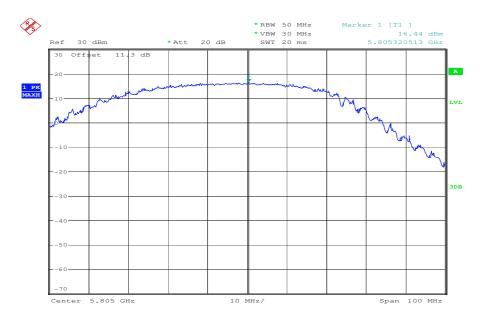
Date: 13.MAR.2009 13:00:27

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Plot 3: channel 5805



Date: 13.MAR.2009 12:58:31

Results:

Test conditions		Max. peak output power [dBm]			
Frequency [MHz]		5745	5765	5805	
T _{nom}	V _{nom}	17.09	16.60	16.44	
Measurement uncertainty		±3dB			

Limits:

Under normal test conditions only, for frequency range 5725 - 5850 MHz	Max. 1.0 Watt / 30 dBm
--	------------------------

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3.8 MPE calculation

These equations are generally accurate in the far field of an antenna but will over predict power density in the near field, where they could be used for making a "worst case" prediction.

$S = PG/4\pi R^2$

where S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units e.g. mW)

G = power gain of the antenna in the direction of interest relative to the isotropic radiator

R = distance to the center of radiation of the antenna (appropriate units e.g. cm)

Or

$S = EIRP/4\pi R^2$

where EIRP = equivalent isotropically radiated power

Calculation:

(Calculated for max. EIRP)

EIRP: 18.70 dBm = 74.13 mW

calculated at distance of 20 cm:

power density = $74.13 / 4\pi 20^2 = 0.01475 \text{ mW/cm}^2$

Limit:

1mW/ cm² is the reference level for general public exposure according to the OET Bulletin 65, Edition 97-01 Table 1.

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3.9 Max. peak output power (radiated)

§15.247 (b) (3)

Results:

Test conditions		Max. peak output power EIRP [dBm]			
Frequenc	cy [MHz]	5745	5765	5805	
T _{nom}	T _{nom} V _{nom}		18.48	18.25	
Measurement uncertainty		±3dB			

RBW / VBW : 50 MHz / 30 MHz

Limits:

ax. 1.0 Watt / 30 dBm

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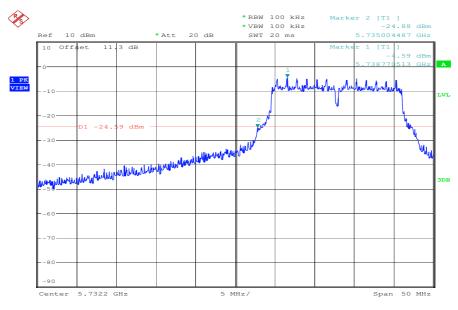


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3.10 Band-edge compliance of conducted emissions

§15.247 (d)

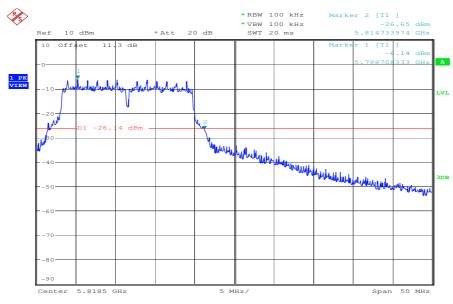
Plot 1: lowest channel



Date: 13.MAR.2009 13:08:54

The -20dBc point is at 5735.004 MHz

Plot 2: highest channel



Date: 13.MAR.2009 13:11:16

The -20dBc oint is at 5814.734 MHz

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Limits:

Under normal test conditions only

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 5.205(c)).

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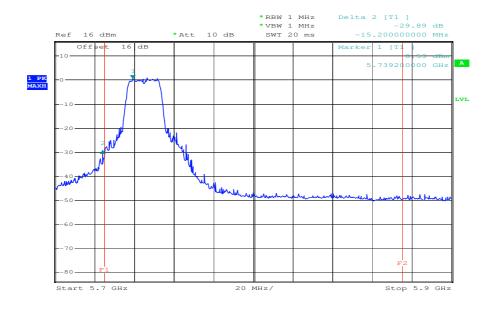
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3.11 Band-edge compliance of radiated emissions (OFDM)

§15.205

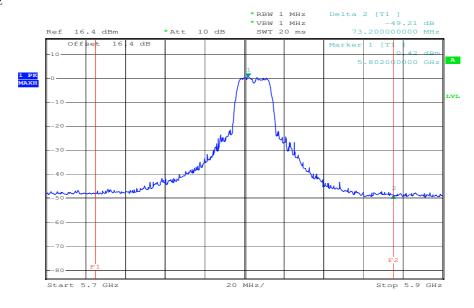
There are no restricted bands besides the tested frequency range.

5745 MHz



Date: 21.AUG.2008 11:31:30

5805 MHz



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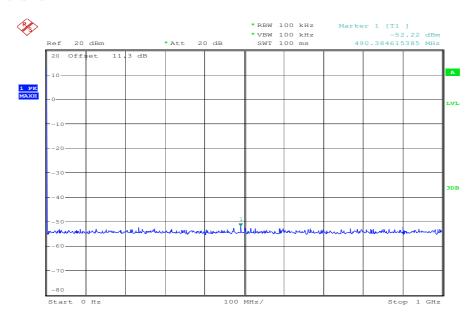


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3.12 Spurious Emissions - conducted (Transmitter)

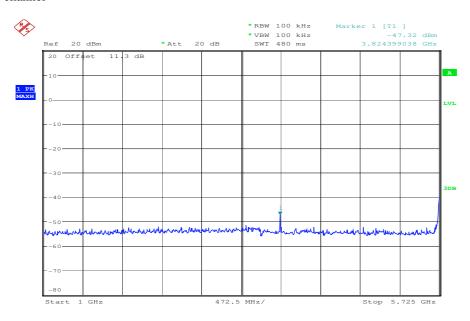
§15.247 (d)

Plot 1: low channel



Date: 16.MAR.2009 07:12:39

Plot 2: low channel



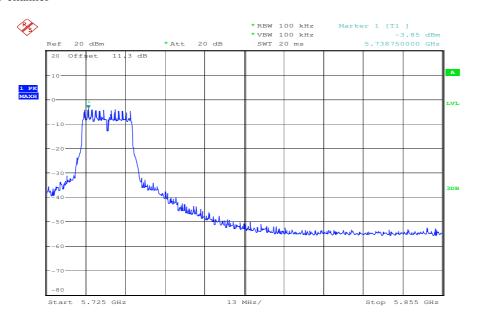
Date: 16.MAR.2009 07:29:59

CETECOM ICT Services GmbH Saarbruecken, Germany



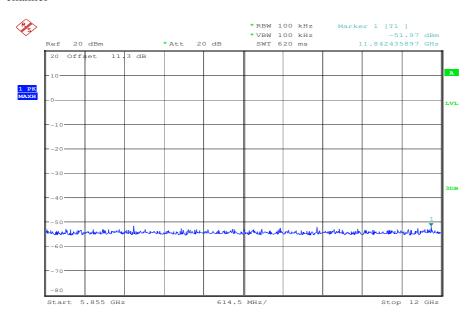
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Plot 3: low channel



Date: 16.MAR.2009 07:25:55

Plot 4: low channel



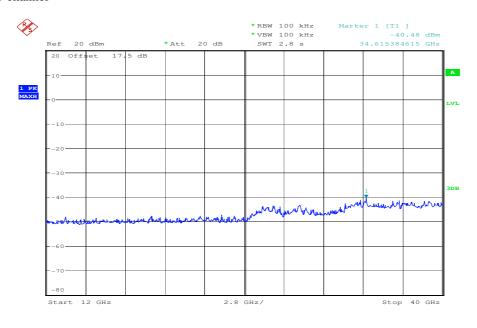
Date: 16.MAR.2009 07:32:10

CETECOM ICT Services GmbH Saarbruecken, Germany



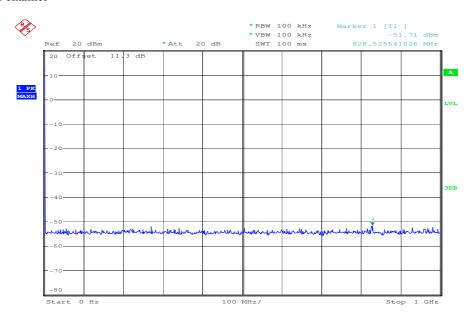
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Plot 5: low channel



Date: 16.MAR.2009 07:36:48

Plot 6: mid channel



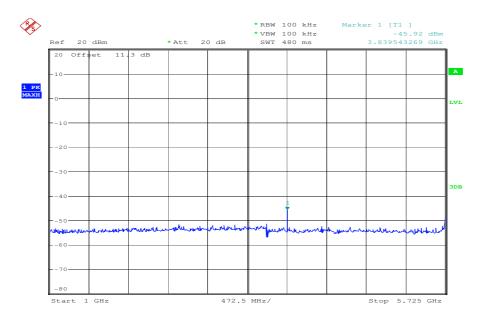
Date: 16.MAR.2009 07:13:59

CETECOM ICT Services GmbH Saarbruecken, Germany



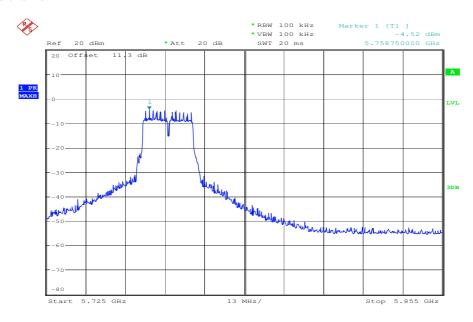
Test report No.: 1-0648-01-25/08 A Date: 2009-03-16 Page 28 of 69

Plot 7: mid channel



Date: 16.MAR.2009 07:29:11

Plot 8: mid channel



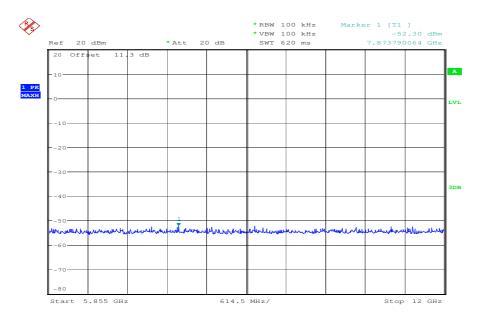
Date: 16.MAR.2009 07:26:45

CETECOM ICT Services GmbH Saarbruecken, Germany



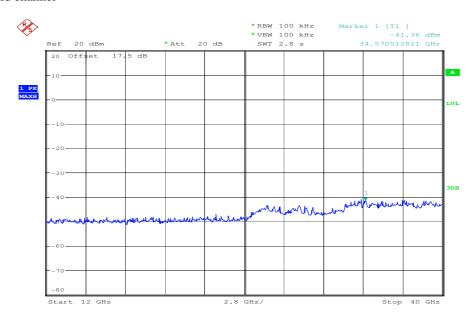
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Plot 9: mid channel



Date: 16.MAR.2009 07:32:58

Plot 10: mid channel



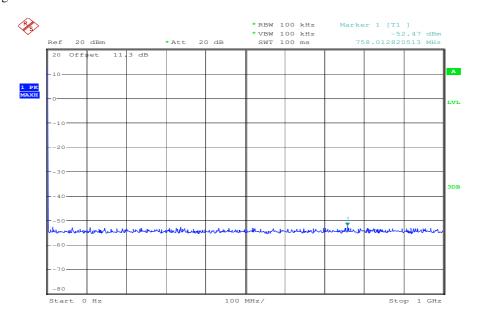
Date: 16.MAR.2009 07:36:15

CETECOM ICT Services GmbH Saarbruecken, Germany



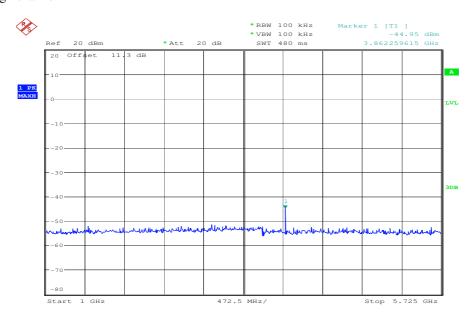
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Plot 11: high channel



Date: 16.MAR.2009 07:15:04

Plot 12: high channel



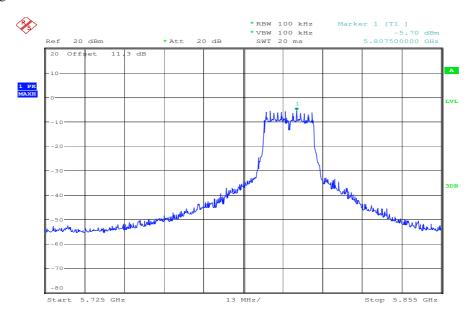
Date: 16.MAR.2009 07:28:16

CETECOM ICT Services GmbH Saarbruecken, Germany



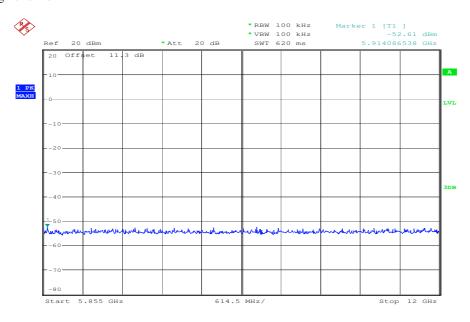
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Plot 13: high channel



Date: 16.MAR.2009 07:27:27

Plot 14: high channel



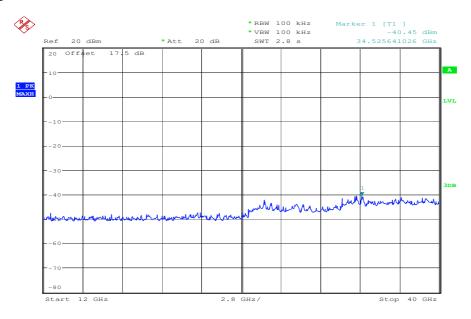
Date: 16.MAR.2009 07:33:48

CETECOM ICT Services GmbH Saarbruecken, Germany



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Plot 15: high channel



Date: 16.MAR.2009 07:35:25

Result & Limits

Emission Limitations (worst case)						
f [MHz]	Modulation (OFDM)	amplitude of emission [dBm]	limit max. allowed emmision power	actual attenuation below frequency of operation [dB]	results	
5745		-3.85	30 dBm		Operating frequency	
No critical peaks detected.		-20 dBc		-/-		
5765	-4.52		30 dBm		Operating frequency	
No critical peaks detected.		-20 dBc		- -		
5805		-5.70	30 dBm		Operating frequency	
No critical peaks detected.		-20 dBc		-/-		
Measureme	Measurement uncertainty $\pm 3 dB$			_		

RBW: 100 kHz VBW: 100 kHz

Under normal test conditions only

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Note: For emissions that fall into restricted bands you find the radiated emissions later in the report.

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3.13 Spurious Emissions - radiated (Transmitter)

§15.209

Plot 1: 0.03 - 1 GHz (lowest channel)

Information

EUT: SCDw 9000 AP + FRA012-S24-1 + confidea CIV + FRA030E-S15-I

Serial Number: 0x11 + R301212401 + 19 + R33E11501

Test Description: FCC @ 10 m

Operating Conditions: Transmit bottom frequency (5745 MHz)

Operator Name: Folz

Comment: Powered with AC 115V/ 60 Hz

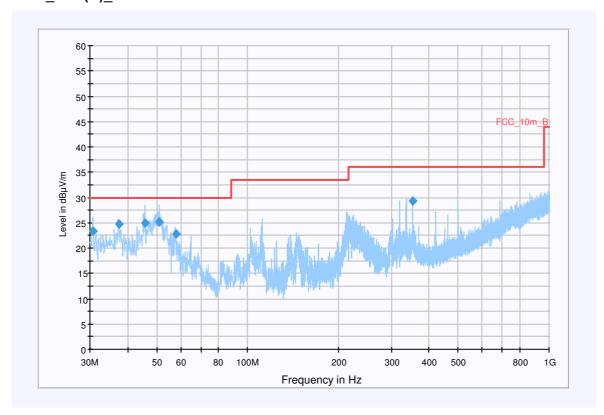
Scan Setup: FCC_Fin [EMI radiated]

Hardware Setup: EMI radiated\Electric Field (NOS)

Level Unit: dBµV/m

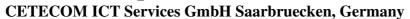
SubrangeDetectorsIF BandwidthMeas. TimeReceiver30MHz - 1GHzQuasiPeak120kHz15sReceiver

FCC_10m(B)_4



Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
30.654400	23.4	15000.000	120.000	100.0	V	240.0	12.7	6.6	30.0	
37.378500	24.7	15000.000	120.000	127.0	V	50.0	13.4	5.3	30.0	
45.767000	24.9	15000.000	120.000	128.0	V	159.0	13.5	5.1	30.0	
50.991700	25.2	15000.000	120.000	100.0	٧	219.0	13.5	4.8	30.0	
57.738950	22.7	15000.000	120.000	100.0	٧	249.0	12.5	7.3	30.0	
352.240650	29.4	15000.000	120.000	100.0	V	278.0	16.2	6.6	36.0	·





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Hardware Setup: EMI radiated\Electric Field (NOS) - [EMI radiated]

Subrange 1

Frequency Range: 30MHz - 2GHz

Receiver: Receiver [ESCI 3]

@ GPIB0 (ADR 20), SN 100083/003, FW 3.32, CAL 07.01.2009

Signal Path: without Notch

FW 1.0

Antenna: VULB 9163

SN 9163-295, FW ---, CAL 08.04.2010 Correction Table (vertical): VULP6113 Correction Table (horizontal): VULP6113 Correction Table: Cabel with switch (0408)

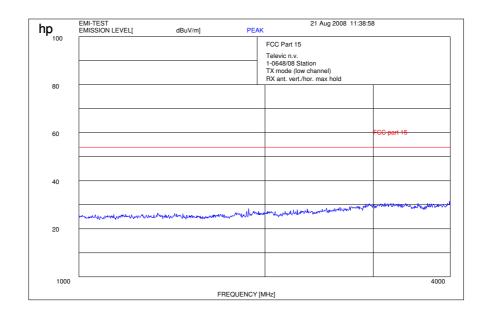
Antenna Tower: Tower [EMCO 2090 Antenna Tower]

@ GPIB0 (ADR 8), FW REV 3.12

Turntable: Turntable [EMCO Turntable]

@ GPIB0 (ADR 9), FW REV 3.12

Plot 2: 1 GHz - 4 GHz (lowest channel)

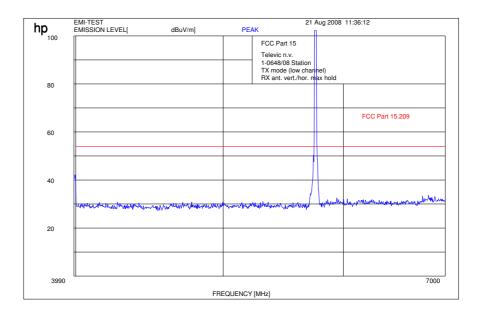


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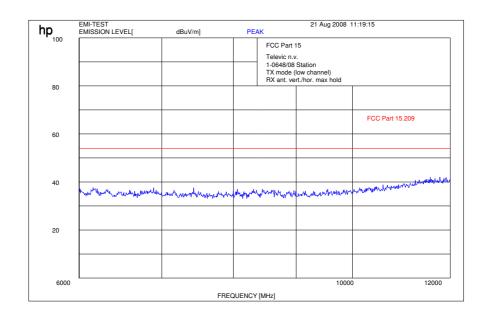


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Plot 3: 4 GHz - 7 GHz (lowest channel)



Plot 4: 6 GHz - 12 GHz (lowest channel)

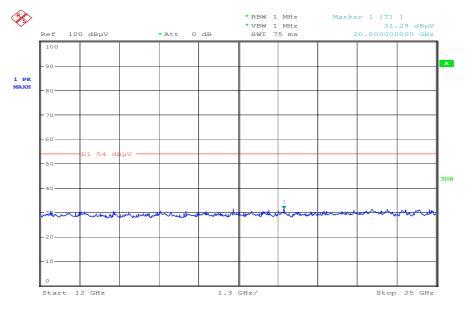


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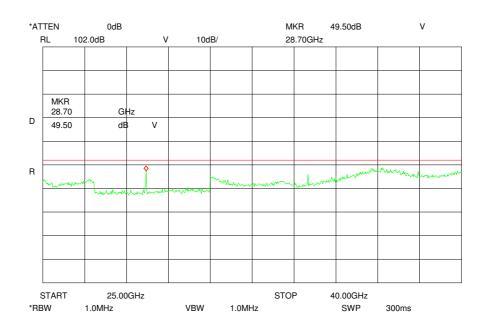
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Plot 5: 12 - 25 GHz (valid for all three channels)



Date: 28.AUG.2008 09:53:40

Plot 6: 25 - 40 GHz (valid for all three channels)

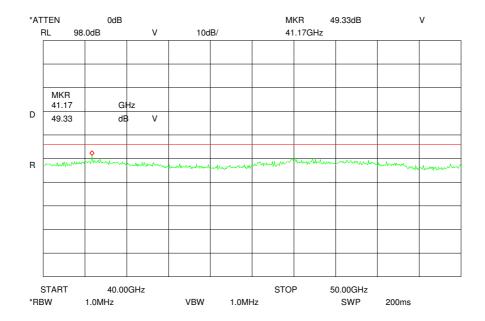


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Plot 7: 40 - 50 GHz (valid for all three channels)



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Plot 8: 30 MHz to 1 GHz (middle channel)

Information

EUT: SCDw 9000 AP + FRA012-S24-1 + confidea CIV + FRA030E-S15-I

Serial Number: 0x11 + R301212401 + 19 + R33E11501

Test Description: FCC @ 10 m

Operating Conditions: Transmit mid frequency (5765 MHz)

Operator Name: Fol

Comment: Powered with AC 115V/ 60 Hz

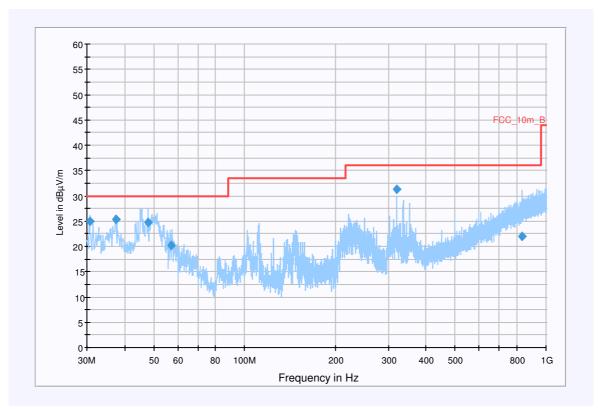
Scan Setup: FCC_Fin [EMI radiated]

Hardware Setup: EMI radiated\Electric Field (NOS)

Level Unit: dBµV/m

SubrangeDetectorsIF BandwidthMeas. TimeReceiver30MHz - 1GHzQuasiPeak120kHz15sReceiver

FCC_10m(B)_4



Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
30.616300	25.0	15000.000	120.000	100.0	V	143.0	12.7	5.0	30.0	
37.375650	25.4	15000.000	120.000	100.0	V	23.0	13.4	4.6	30.0	
47.831250	24.7	15000.000	120.000	100.0	V	231.0	13.6	5.3	30.0	
57.088850	20.2	15000.000	120.000	100.0	V	144.0	12.6	9.8	30.0	
319.474650	31.3	15000.000	120.000	100.0	V	277.0	15.3	4.7	36.0	
830.203250	22.1	15000.000	120.000	115.0	Н	131.0	25.0	13.9	36.0	





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Hardware Setup: EMI radiated\Electric Field (NOS) - [EMI radiated]

Subrange 1

Frequency Range: 30MHz - 2GHz

Receiver: Receiver [ESCI 3]

@ GPIB0 (ADR 20), SN 100083/003, FW 3.32, CAL 07.01.2009

Signal Path: without Notch

FW 1.0

Antenna: VULB 9163

SN 9163-295, FW ---, CAL 08.04.2010 Correction Table (vertical): VULP6113 Correction Table (horizontal): VULP6113 Correction Table: Cabel with switch (0408)

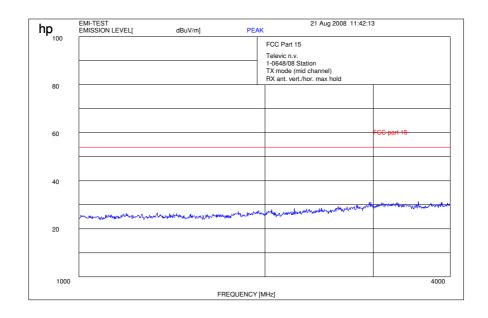
Antenna Tower: Tower [EMCO 2090 Antenna Tower]

@ GPIB0 (ADR 8), FW REV 3.12

Turntable: Turntable [EMCO Turntable]

@ GPIB0 (ADR 9), FW REV 3.12

Plot 9: 1 GHz to 4 GHz (middle channel)

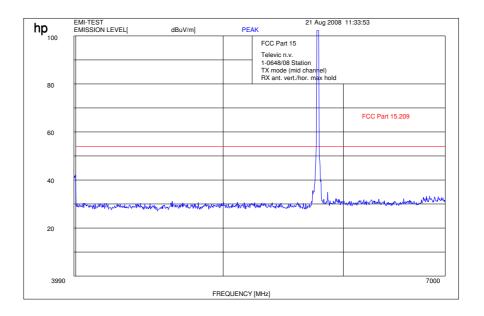


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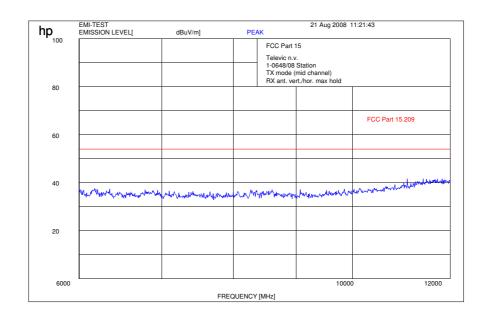


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Plot 10: 4 GHz to 7 GHz (middle channel)



Plot 11: 6 GHz to 12 GHz (middle channel)



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Plot 12: 30 MHz to 1 GHz (highest channel)

Information

EUT: SCDw 9000 AP + FRA012-S24-1 + confidea CIV + FRA030E-S15-I

Serial Number: 0x11 + R301212401 + 19 + R33E11501

Test Description: FCC @ 10 m

Operating Conditions: Transmit top frequency (5805 MHz)

Operator Name: Fol

Comment: Powered with AC 115V/ 60 Hz

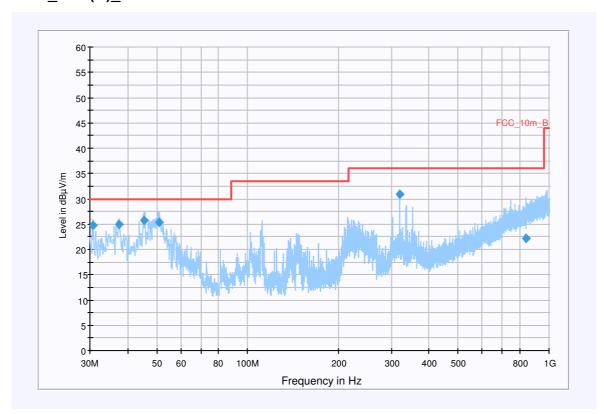
Scan Setup: FCC_Fin [EMI radiated]

Hardware Setup: EMI radiated\Electric Field (NOS)

Level Unit: dBµV/m

SubrangeDetectorsIF BandwidthMeas. TimeReceiver30MHz - 1GHzQuasiPeak120kHz15sReceiver

FCC 10m(B) 4



Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
30.628600	24.8	15000.000	120.000	100.0	V	5.0	12.7	5.2	30.0	
37.381000	25.0	15000.000	120.000	115.0	V	113.0	13.4	5.0	30.0	
45.233600	25.8	15000.000	120.000	114.0	٧	182.0	13.5	4.2	30.0	
50.982250	25.4	15000.000	120.000	100.0	٧	226.0	13.5	4.6	30.0	
319.476300	30.9	15000.000	120.000	100.0	V	266.0	15.3	5.1	36.0	
835.950850	22.2	15000.000	120.000	114.0	Η	253.0	25.1	13.8	36.0	

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Hardware Setup: EMI radiated\Electric Field (NOS) - [EMI radiated]

Subrange 1

Frequency Range: 30MHz - 2GHz

Receiver: Receiver [ESCI 3]

@ GPIB0 (ADR 20), SN 100083/003, FW 3.32, CAL 07.01.2009

Signal Path: without Notch

FW 1.0

Antenna: VULB 9163

SN 9163-295, FW ---, CAL 08.04.2010 Correction Table (vertical): VULP6113 Correction Table (horizontal): VULP6113 Correction Table: Cabel with switch (0408)

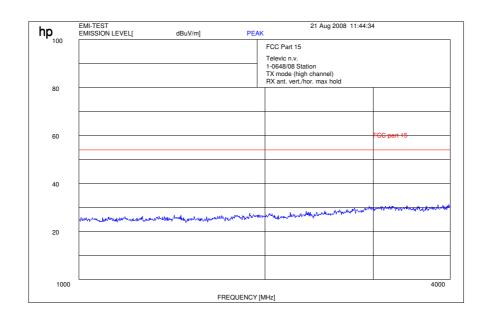
Antenna Tower: Tower [EMCO 2090 Antenna Tower]

@ GPIB0 (ADR 8), FW REV 3.12

Turntable: Turntable [EMCO Turntable]

@ GPIB0 (ADR 9), FW REV 3.12

Plot 13: 1 GHz to 4 GHz (highest channel)

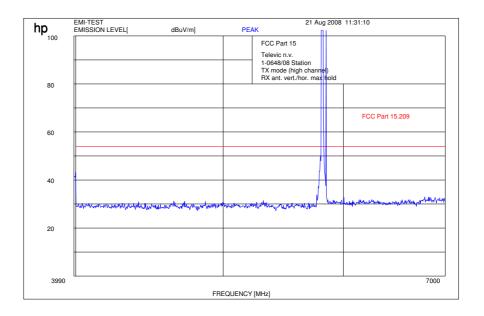


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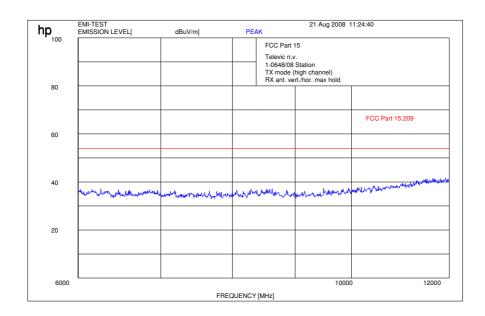


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Plot 14: 4 GHz to 7 GHz (highest channel)



Plot 15: 6 GHz to 12 GHz (highest channel)



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Results:

	Spurious Emissions level [μV/m]									
	5745 MHz		5765 MHz				5805 MHz			
F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]	F [MHz]	Detector	Level [dBµV/m]		
28.70	1 MHz	49.50	No crit	ical peaks de	tetcted.	No crit	No critical peaks detected.			
Measuremen	nt uncertainty		±3 dB		±3 dB					

f < 1 GHz: RBW/VBW: 100 kHz $f \ge 1 \text{GHz}$: RBW/VBW: 1 MHz

Limits: § 15.247 (d)

In any 100 kHz bandwidth outside the frequency band at least 20dB below the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Limits: § 15.209

Frequency [MHz]	Field strength [µV/m]	Measurement distance (m)
30 - 88	100 (40 dBμV/m)	3
88 - 216	150 (43.5 dBμV/m)	3
216 - 960	200 (46 dBμV/m)	3
above 960	500 (54 dBμV/m)	3

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3.13 Spurious Emissions - radiated Receiver

§15.109 / 209

Plot 1: 30 to 1000 MHz

Information

EUT: SCDw 9000 AP + FRA012-S24-1 + confidea CIV + FRA030E-S15-I

Serial Number: 0x11 + R301212401 + 19 + R33E11501

Test Description: FCC @ 10 m

Operating Conditions: Transmit bottom frequency (5745 MHz)

Operator Name: Folz

Comment: Powered with AC 115V/ 60 Hz

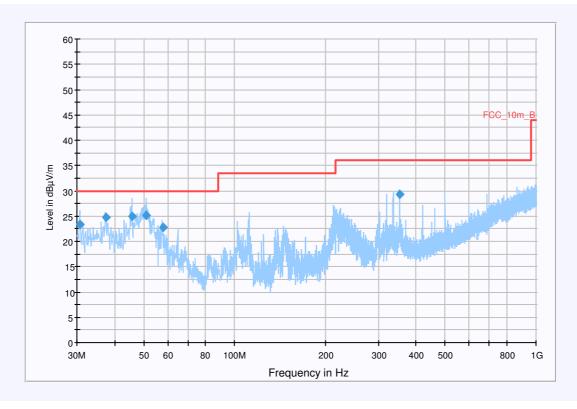
Scan Setup: FCC_Fin [EMI radiated]

Hardware Setup: EMI radiated\Electric Field (NOS)

Level Unit: dBµV/m

SubrangeDetectorsIF BandwidthMeas. TimeReceiver30MHz - 1GHzQuasiPeak120kHz15sReceiver

FCC_10m(B)_4



Final Measurement Detector 1

Frequency	QuasiPeak	Meas.	Bandwidth	Antenna	Polarity	Turntable	Corr.	Margin	Limit	Comment
(MHz)	(dBµV/m)	Time	(kHz)	height		position	(dB)	(dB)	(dBµV/m)	
		(ms)		(cm)		(deg)				
30.654400	23.4	15000.000	120.000	100.0	V	240.0	12.7	6.6	30.0	
37.378500	24.7	15000.000	120.000	127.0	V	50.0	13.4	5.3	30.0	
45.767000	24.9	15000.000	120.000	128.0	V	159.0	13.5	5.1	30.0	
50.991700	25.2	15000.000	120.000	100.0	V	219.0	13.5	4.8	30.0	
57.738950	22.7	15000.000	120.000	100.0	V	249.0	12.5	7.3	30.0	
352.240650	29.4	15000.000	120.000	100.0	V	278.0	16.2	6.6	36.0	

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Hardware Setup: EMI radiated\Electric Field (NOS) - [EMI radiated]

Subrange 1

Frequency Range: 30MHz - 2GHz

Receiver: Receiver [ESCI 3]

@ GPIB0 (ADR 20), SN 100083/003, FW 3.32, CAL 07.01.2009

Signal Path: without Notch

FW 1.0

Antenna: VULB 9163

SN 9163-295, FW ---, CAL 08.04.2010 Correction Table (vertical): VULP6113 Correction Table (horizontal): VULP6113 Correction Table: Cabel with switch (0408)

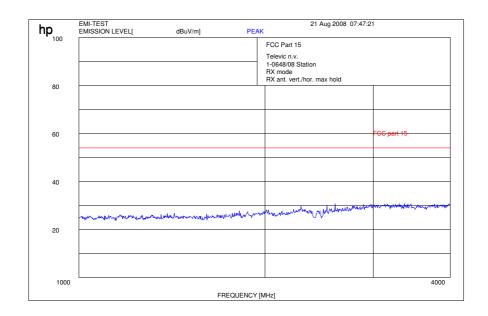
Antenna Tower: Tower [EMCO 2090 Antenna Tower]

@ GPIB0 (ADR 8), FW REV 3.12

Turntable: Turntable [EMCO Turntable]

@ GPIB0 (ADR 9), FW REV 3.12

Plot 2: 1 GHz to 4 GHz

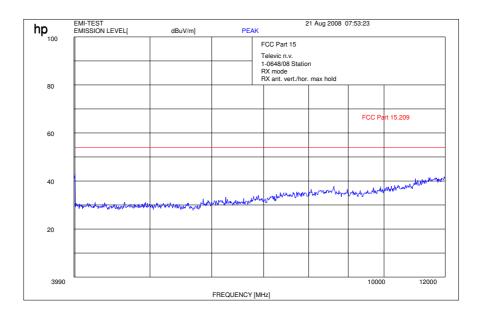


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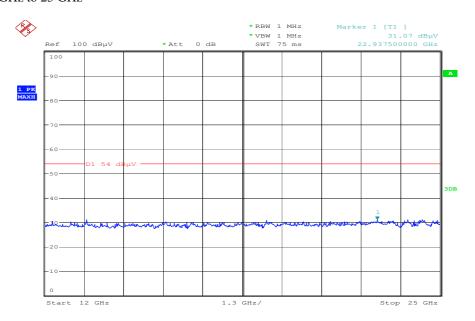


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Plot 3: 4 GHz to 12 GHz



Plot 4: 12 GHz to 25 GHz



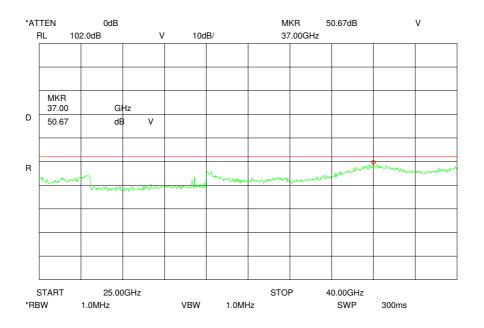
Date: 28.AUG.2008 15:53:56

CETECOM ICT Services GmbH Saarbruecken, Germany

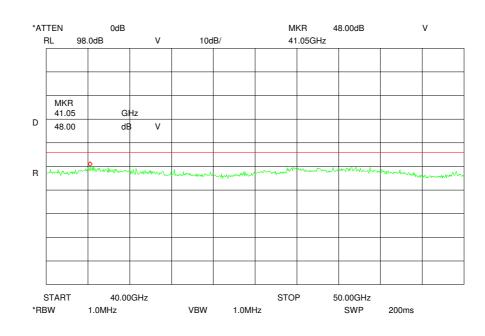


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Plot 5: 25 GHz to 40 GHz



Plot 6: 40 GHz to 50GHz





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Results:

	Spurious Emissions level [μV/m]									
	TX Idle mode									
f[MHz]	Detector	Level [µV/m]	f[MHz]	Detector	Level [µV/m]	f[MHz]	Detector	Level [µV/m]		
No cri	No critical peaks detetcted.									
Measureme	nt uncertainty		±3 dB							

f < 1 GHz : RBW/VBW: 100 kHz f ≥ 1GHz : RBW/VBW: 1 MHz

see above plots

Measurement distance see table

Limits: § 15.109 / 209

Frequency (MHz)	Field strength (μV/m)	Measurement distance (m)
30 - 88	100 (40 dBμV/m)	3
88 - 216	150 (43.5 dBµV/m)	3
216 - 960	200 (46 dBμV/m)	3
above 960	500 (54 dBuV/m)	3

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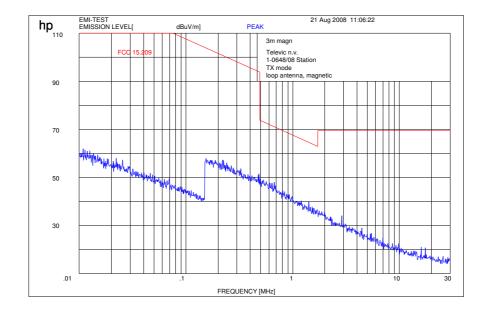
3.14 Spurious Emissions - radiated <30 MHz

§15.209

Transmit mode, valid for all three channels

Measured at 3 m distance.

Values recalculated with 40 dB/decade according to FCC rules.



Limits:

Frequency (MHz)	Field strength (µV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30 / 29.5 dBμV/m	30
30 - 88	100 / 40 dBμV/m	3
88 - 216	150 / 43.5 dBμV/m	3
216 - 960	200 / 46 dBμV/m	3
above 960	54 dBμV/m	3

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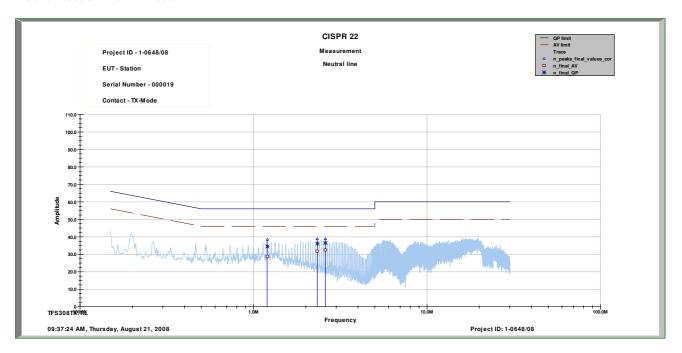


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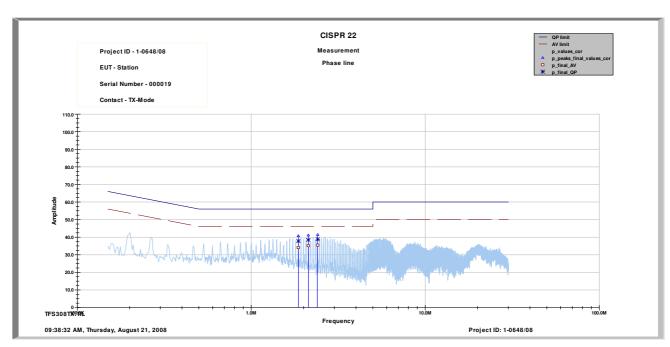
3.15 Conducted Emissions <30 MHz

§15.107/207

Plot 1: Neutral line TX mode



Plot 2: Phase line TX mode

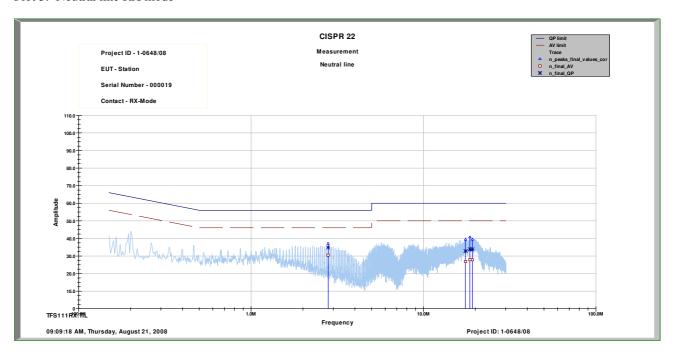


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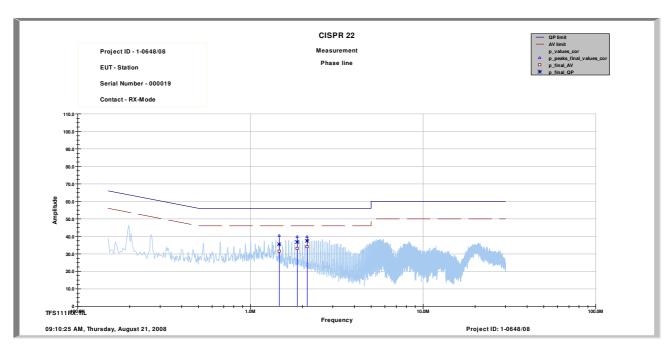


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Plot 3: Neutral line RX mode



Plot 4: Phase line RX mode



Limits:

Under normal test conditions only	See plots

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4 Test equipment and ancillaries used for tests

To simplify the identification on each page of the test equipment used, on each page of the test report, each item of test equipment and ancillaries such as cables are identified (numbered) by the Test Laboratory, below.

All reported calibration intervals are calibrations according to the EN/ISO/IEC 17025 standard. These calibrations were performed from an accredited external calibration laboratory.

Additional to these calibrations the laboratory performed comparison measurements with other calibrated systems and performed a weekly chamber inspection.

All used devices are connected with a 10 MHz external reference.

According to the manufacturers' instruction is it possible to establish a calibration interval for the FSP unit of 24 month, if the device has an external 10 MHz reference.

Anechoic chamber C:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last Calibration	Frequency (months)	Next Calibration
1	Anechoic chamber	MWB	87400/02	300000996	Monthly verification		-
2	System-Rack 85900	HP I.V.	*	300000222	n.a.		
3	Measurement System 1						
4	Spektrum Analyzer 8566B	HP	3138A07614	300001207	13.12.2007	24	13.12.2009
5	Spektrum Analyzer Display 85662A	HP	3144A28627	300001208	13.12.2007	24	13.12.2009
5	Quasi-Peak-Adapter 85650A	HP	2811A01204	300002308	13.12.2007	24	13.12.2009
7	RF-Preselector 85685A	HP	2837A00778	300002448	13.12.2007	24	13.12.2009
3	PC Vectra VL	HP		300001688	n.a.		
9	Software EMI	HP		300000983	n.a.		
10	Measurement System 2						
1	FSP 30	R&S	100886	300003575	25.08.2008	24	25.08.2010
12	PC	F+W			n.a.		
13	TILE	TILE			n.a.		
14	Biconical antenna	EMCO	S/N: 860 942/003		Monthly verifica	ation (System cal.)
15	Log. Period. Antenna 3146	EMCO	2130	300001603	Monthly verifica	ation (System cal.))
16	Double Ridged Antenna HP 3115P	EMCO	3088	300001032	Monthly verifica	ation (System cal.))
17	Active Loop Antenna 6502	EMCO	2210	300001015	Monthly verifica	ation (System cal.)
18	Power Supply 6032A	HP	2818A03450	300001040	12.05.2007	36	12.05.2010
19	Busisolator	Kontron		300001056	n.a.		
20	Leitungsteiler 11850C	HP		300000997	Monthly verifica	ation (System cal.)
21	Power attenuator 8325	Byrd	1530	300001595	Monthly verifica	ation (System cal.))
22	Band reject filter WRCG1855/1910	Wainwright	7	300003350	Monthly verification (System cal.)		
23	Band reject filter WRCG2400/2483	Wainwright	11	300003351	Monthly verification (System cal.)		



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Anechoic chamber A:

No.	Instrument/Ancillary	Manufacturer	Type	Serial-No.	Internal identification
	Radiated emission in cha	mber A			
A-1	Spectrum Analyzer	Rohde & Schwarz	ESU26	100037	300003555
A-2	Signal Generator	Rohde & Schwarz	SMR20B11	1104.0002.20	300003593
A-3	RF System Panel	Rohde & Schwarz	TS RSP		300003556
A-4	Relais Matrix	Rohde & Schwarz	PSN	860673/009	300001385
A-5	Horn Antenna	EMCO	3115	9709-5290	300000212
A-6	BilogLog. Antenna	Schwarzbeck	VULB 9163	02/00	300003696
A-7	Notch Filter GSM 900	Wainwright	WRCD 901.9/903.1EE	9	
A-8	Notch Filter GSM 1800	Wainwright	WRCD 1747/1748-5EE	1	
A-9	Notch Filter GSM 1900	Wainwright	WRCB 1879.5/1880.5EE	9	
A-10	Notch Filter GSM 850	Wainwright	WRCT 837-0.2/50-8EE	1	
A-11	Notch Filter UMTS	Wainwright	WRCD 1800/2000-0.2/40-	2	
		_	5EEK		
A-12	Notch Filter ISM 2400	Wainwright	WRCG 2400/2483-2375/	26	
			2505-50/10SS		
A-13	High Pass Filter 1.1 GHz	Wainwright	WHK 1.1/15G-10SS		
A-14	High Pass Filter 2.6 GHz	Wainwright	WHKX 2.6/18G-12SS		
A-15	High Pass Filter 7 GHz	Wainwright	WHKX 7.0/18G-8SS		
A-14	Amplifier	Miteq	AFS4-00201800-15-	US42-0050	300003204
			10P-6	2650-28-5A	
A-16	Controller	Inn co	CO 2000	2020507	
A-17	DC Power Supply	Hewlet Packard	HP6632A		300000924
A-18	Computer	F+W			300003303

System Rack Room 005:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last	Frequency	Next
					Calibration	(months)	Calibration
1	FSP 30	R&S	100886	300003575	25.08.2008	24	25.08.2010
2	CBT	R&S	100313	300003516	03.09.2008	24	03.09.2010
3	Switch Matrix	HP		300000929	n.a.		
4	Power Supply	HP	3041A00544	300002270	13.05.2007	36	13.05.2010
5	Signal Generator	R&S	836206/0092	300002680	30.05.2007	36	30.05.2010

Signalling Units:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last	Frequency	Next
					Calibration	(months)	Calibration
1	CBT	R&S	100313	300003516	03.09.2008	24	03.09.2010
2	CBT	R&S	100185	300003416	27.08.2008	24	27.08.2010
3	CMU-200	R&S	103992	300003231	04.06.2008	12	04.06.2009
4	CMU-200	R&S	106240	300003321	27.08.2008	24	27.08.2010
5	CMU-200	R&S	832221/0055	300002862	20.03.2008	24	20.03.2010

Climatic Box:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last	Frequency	Next
					Calibration	(months)	Calibration
1	Climatic box VT 4002	Heraeus Vötsch	58566046820010	300003019	11.05.2007	24	11.05.2009
2	Climatic box CTS T-40/50	CTS	064023	300003540	03.01.2007	24	03.01.2009



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SRD Laboratory Room 002:

Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last Calibration	Frequency (months)	Next Calibration
System Controller PSM 12	R&S	835259/007	3000002681-00xx	n.a.		
Memory Extension PSM-K10	R&S	To 1	3000002681	n.a.		
Operating Software PSM-B2	R&S	To 1	3000002681	n.a.		
19" Monitor		22759020-ED	3000002681	n.a.		
Mouse		LZE 0095/6639	3000002681	n.a.		
Keyboard		G00013834L461	3000002681	n.a.		
Spectrum Analyser FSIQ 26	R&S	835540/018	3000002681-0005	10.01.2008	24	10.01.2010
Tracking Generator FSIQ-B10	R&S	835107/015	3000002681	s.No.7		
RF-Generator SMIQ03 (B1 Signal)	R&S	835541/056	3000002681-0002	26.08.2008	36	26.08.2011
Modulation Coder SMIQ-B20	R&S	To 10	3000002681	s.No.10		
Data Generator SMIQ-B11	R&S	To 10	3000002681	s.No.10		
RF Rear Connection SMIQ- B19	R&S	To 10	3000002681	s.No.10		
Broadband horn antenna (1-18 GHz)	EMCO	9107-3696	300001604	16.04.2008	24	16.04.2010
Broadband horn antenna (1-18 GHz)	EMCO	9107-3697	300001605	21.08.2008	24	21.08.2010
26.5 GHz)	Narda	Model no. 638	3000000486	n.a.		
26.5 GHz)			3000000487	n.a.		
Model 3126-880	ETS- Lindgren		3000000	n.a.		
Fast CPU SM-B50	R&S		3000002681	s.No.10		
FM Modulator SM-B5	R&S	835676/033	3000002681	s.No.10		
RF-Generator SMIQ03 (B2 Signal)	R&S	835541/055	3000002681-0001	25.08.2008	36	25.08.2011
Modulation Coder SMIQ-B20	R&S	To 16	3000002681	s.No.16		
Data Generator SMIQ-B11	R&S	To 16	3000002681	s.No.16		
RF Rear Connection SMIQ- B19	R&S	To 16	3000002681	s.No.16		
Fast CPU SM-B50	R&S	To 16	3000002681	s.No.16		
FM Modulator SM-B5	R&S	836061/022	3000002681	s.No.16		
RF-Generator SMP03 (B3 Signal)	R&S	835133/011	3000002681-0003	26.08.2008	36	26.08.2011
Attenuator SMP-B15	R&S	835136/014	3000002681	S.No.22		
RF Rear Connection SMP-B19	R&S	834745/007	3000002681	S.No.22		
Power Meter NRVD	R&S	835430/044	3000002681-0004	26.08.2008	24	26.08.2010
Power Sensor NRVD-Z1	R&S	833894/012	3000002681-0013	26.08.2008	24	26.08.2010
Power Sensor NRVD-Z1	R&S	833894/011	3000002681-0010	26.08.2008	24	26.08.2010
Rubidium Standard RUB	R&S		3000002681-0009	27.08.2008	24	27.08.2010
Switching and Signal Conditioning Unit SSCU	R&S	338864/003	3000002681-0006	Verified with pat	th compensation	
Laser Printer HP Deskjet 2100	HP	N/A	3000002681-0011	n.a.		
19" Rack	R&S	11138363000004	3000002681	n.a.		
RF-cable set	R&S	N/A	3000002681	n.a.		
IEEE-cables	R&S	N/A	3000002681	n.a.		
Sampling System FSIQ-B70	R&S	835355/009	3000002681	s.No.7		
RSP programmable attenuator	R&S	834500/010	3000002681-0007	26.08.2008	24	26.08.2010
Signalling Unit	R&S	838312/011	3000002681	n.a.		
NGPE programmable Power Supply for EUT	R&S	192.033.41	3000002681			
Power Splitter 6005-3	Inmet Corp.	none	300002841	23.12.2006	24	23.12.2008
	Memory Extension PSM-K10 Operating Software PSM-B2 19'' Monitor Mouse Keyboard Spectrum Analyser FSIQ 26 Tracking Generator FSIQ-B10 RF-Generator SMIQ03 (B1 Signal) Modulation Coder SMIQ-B20 Data Generator SMIQ-B11 RF Rear Connection SMIQ-B19 Broadband horn antenna (1-18 GHz) Std gain horn antenna (1-18 GHz) Std gain horn antenna (18-26.5 GHz) Std gain horn antenna (18-26.5 GHz) Sleeve dipole antenna Model 3126-880 Fast CPU SM-B50 FM Modulator SM-B5 RF-Generator SMIQ-B11 RF Rear Connection SMIQ-B19 Past CPU SM-B50 FM Modulation Coder SMIQ-B20 Data Generator SMIQ-B11 RF Rear Connection SMIQ-B19 Fast CPU SM-B50 FM Modulator SM-B5 RF-Generator SMIQ-B11 RF Rear Connection SMIQ-B19 Fast CPU SM-B50 FM Modulator SM-B5 RF-Generator SMP03 (B3 Signal) Attenuator SMP-B15 RF Rear Connection SMP-B19 Power Meter NRVD Power Sensor NRVD-Z1 Rubidium Standard RUB Switching and Signal Conditioning Unit SSCU Laser Printer HP Deskjet 2100 19'' Rack RF-cable set IEEE-cables Sampling System FSIQ-B70 RSP programmable attenuator Signalling Unit NGPE programmable Power Supply for EUT	Memory Extension PSM-K10 Operating Software PSM-B2 R&S 19" Monitor Mouse Keyboard Spectrum Analyser FSIQ 26 Tracking Generator FSIQ-B10 RK-Generator SMIQ03 (B1 Signal) Modulation Coder SMIQ-B20 Broadband horn antenna (1-18 RF Rear Connection SMIQ-B19 Broadband horn antenna (1-18 GHz) Broadband horn antenna (1-18 GHz) Std gain horn antenna (18- 26.5 GHz) Std gain horn antenna (18- 26.5 GHz) Std gain horn antenna (18- 26.5 GHz) Steve dipole antenna Model 3126-880 Fax CPU SM-B50 R R&S FM Modulator SM-B5 RF-Generator SMIQ-B11 R&S RF-Generator SMIQ03 (B2 Signal) Modulation Coder SMIQ-B20 Data Generator SMIQ-B11 R&S RF Rear Connection SMIQ-B11 R&S RF-Generator SMP-B15 R&S RF Rear Connection SMP-B19 Power Meter NRVD R&S Power Sensor NRVD-Z1 R&S R&S Signal) Attenuator SMP-B15 R&S R&S RF-Generator SMRO-Z1 R&S R&S RF-Cable set R&S Switching and Signal Conditioning Unit SSCU Laser Printer HP Deskjet 2100 HP 19" Rack R&S Sampling System FSIQ-B70 R&S Signalling Unit R&S NGPE programmable attenuator Signalling Unit R&S NGPE programmable Power Supply for EUT	Memory Extension PSM-K10 R&S To 1 Operating Software PSM-B2 R&S To 1 19° Monitor 22759020-ED Mouse LZE 0095/6639 Keyboard G00013834L461 Spectrum Analyser FSIQ 26 R&S 835540/018 Tracking Generator FSIQ-B10 R&S 835107/015 RF-Generator SMIQ-B10 R&S 35541/056 Signal) Modulation Coder SMIQ-B20 R&S To 10 Data Generator SMIQ-B10 R&S To 10 Broadband horn SMIQ-B19 R&S To 10 Broadband horn antenna (1-18 GHz) EMCO 9107-3696 GHz) BMCO 9107-3697 Std gain horn antenna (18-26.5 GHz) Narda Model no. 638 Std gain horn antenna (18-26.5 GHz) Narda Model no. 638 Steeve dipole antenna ETS-Lindgren 00040887 Fast CPU SM-B50 R&S To 10 FM Modulator SM-B5 R&S 835576/033 RF-Generator SMIQ-B10 R&S To 16 Data Generator SMIQ-B11 R	Memory Extension PSM-K10 R&S To 1 3000002681 19" Monitor 22759020-ED 3000002681 19" Monitor 22759020-ED 3000002681 Mouse LZE 0095/6639 3000002681 Keyboard G00013834L461 3000002681 Spectrum Analyser FSIQ 26 R&S 835540/018 3000002681 Tracking Generator SMIQ03 (B1 Signal) R&S 835541/056 3000002681-0002 Modulation Coder SMIQ-B20 R&S 83541/056 3000002681 Data Generator SMIQ-B11 R&S To 10 3000002681 RF Rear Connection SMIQ-B19 R&S To 10 3000002681 Broadband horn antenna (1-18 GH2) EMCO 9107-3696 300001604 GH2) Broadband horn antenna (1-18 GH2) BMCO 9107-3697 300001605 Std gain horn antenna (18-20.5 GH2) Narda Model no. 638 3000000487 Std gain horn antenna (18-20.5 GH2) Narda Model no. 638 3000000487 Steve dipole antenna LB-S R&S To 10 3000002681 FM	Memory Extension PSM-K10 R&S To 1 3000002681 n.a.	Memory Extension PSM-K10

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45	SMA Cables SPS-1151-985- SPS	Insulated Wire	different	different	n.a.	
46	CBT32 with EDR Signaling Unit	R&S				
47	Coupling unit	Narda	N/A		n.a.	
48	2xSwitch Matrix PSU	R&S	872584/021	300001329	n.a.	
49	RF-cable set	R&S	N/A	different	n.a.	
50	IEEE-cables	R&S	N/A		n.a.	

Note: 3000002681-00xx inventoried as a system

SRD Laboratory Room 005:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last	Frequency	Next
					Calibration	(months)	Calibration
1	Spektrum Analyzer 8566B	HP	2747A05275	300000219	18.01.2008	24	18.01.2010
2	Spektrum Analyzer Display 85662A	HP	2816A16497	300001690	23.01.2008	24	23.01.2010
3	Quasi-Peak-Adapter 85650A	HP	2811A01135	300000216	23.01.2008	24	23.01.2010
4	Power Supply	Heiden	003202	300001187	12.05.2007	36	12.05.2010
5	Power Supply	Heiden	1701	300001392	12.05.2007	36	12.05.2010

SRD Laboratory Room 011:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last Calibration	Frequency (months)	Next Calibration
1	NRP Power Meter	R&S	100212	300003780	27.02.2008	24	27.02.2010

Anechoic chamber F:

No	Equipment/Type	Manuf.	Serial Nr.	Inv. No. Cetecom	Last	Frequency	Next
					Calibration	(months)	Calibration
1	Control Computer	F+W	FW0502032	300003303	-/-	-/-	-/-
2	Trilog Antenna VULB 9163	Schwarzbeck	295	300003787	01.04.2008	24	01.04.2010
3	Amplifier - 0518C-138	Veritech Micro- wave Inc.	-/-	-/-	-/-	-/-	-/-
4	Switch - 3488A	HP		300000368	-/-	-/-	-/-
5	EMI Test receiver - ESCI	R&S	100083	300003312	31.01.2007	24	31.01.2009
6	Turntable Controller - 1061 3M	EMCO	1218	300000661	-/-	-/-	-/-
7	Tower Controller 1051 Controller	EMCO	1262	300000625	-/-	-/-	-/-
8	Tower - 1051	EMCO	1262	300000625	-/-	-/-	-/-
10	Ultra Notch-Filter Rejected band Ch. 62	WRCD	9	-/-	-/-	-/-	-/-



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Photographs of test site 5

Photo documentation:

Photo 1:



Photo 2:





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Photo 3:



Photo 4:



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6 Photographs of equipment under test

Photo documentation

Photo 1:



Photo 2:





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Photo 3:



Photo 4:



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Photo 5:



Photo 6:





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Photo 7:



Photo 8:





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Photo 9:



Photo 10:





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Photo 11:



Photo 12:



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Photo 13:

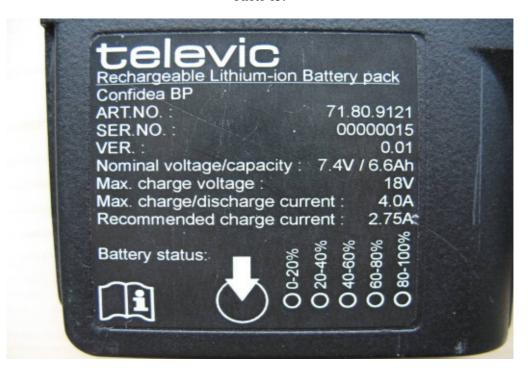


Photo 14:



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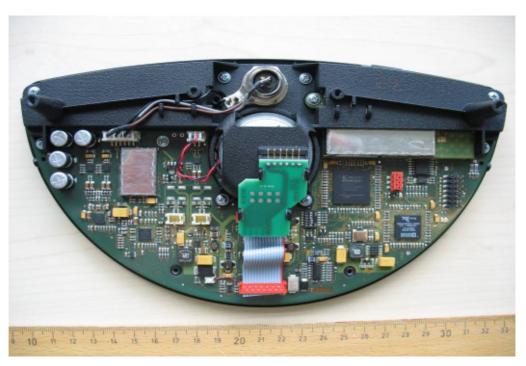


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Photo 15:



Photo 16:





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Photo 17:



Photo 18:



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Photo 19:



Photo 20:





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Photo 21:



Photo 22:

