Annex 1: Measurement diagrams to TEST REPORT

No.: 2-20757077c/08

According to:
FCC Regulations
Part 15.107 & 15.109
Part 15.207 & 15.209 & Part 15.247
IC Regulations:
RSS-gen, Issue 2
RSS-210e, Issue 7
RSS-310e, Issue 1

for

Option N.V.

GSM/EGPRS/FDD/WLAN Wireless Router GS0312
+
External Antenna Joymaxx CAF-6540FMXX

Laboratory Accreditation and Listings			
Deutscher Akkreditierungs Rat DAR DAT-P176/94-02	FCC Reg. No.: 99538 MRA US-EU 0003	Industry Canada Reg. No.: IC 3465	VCCI Reg. No.: R-2665, R-2666 C-2914, T-339
accredited according to DIN EN ISO/IEC 17025			

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1. ANNEX 1: Measurement diagrams

1.1. CONDUCTED EMISSIONS ON AC-POWER MAINS

1.1 CETECOM GmbH No. 2-20757077 07 Jan 2009 13:34

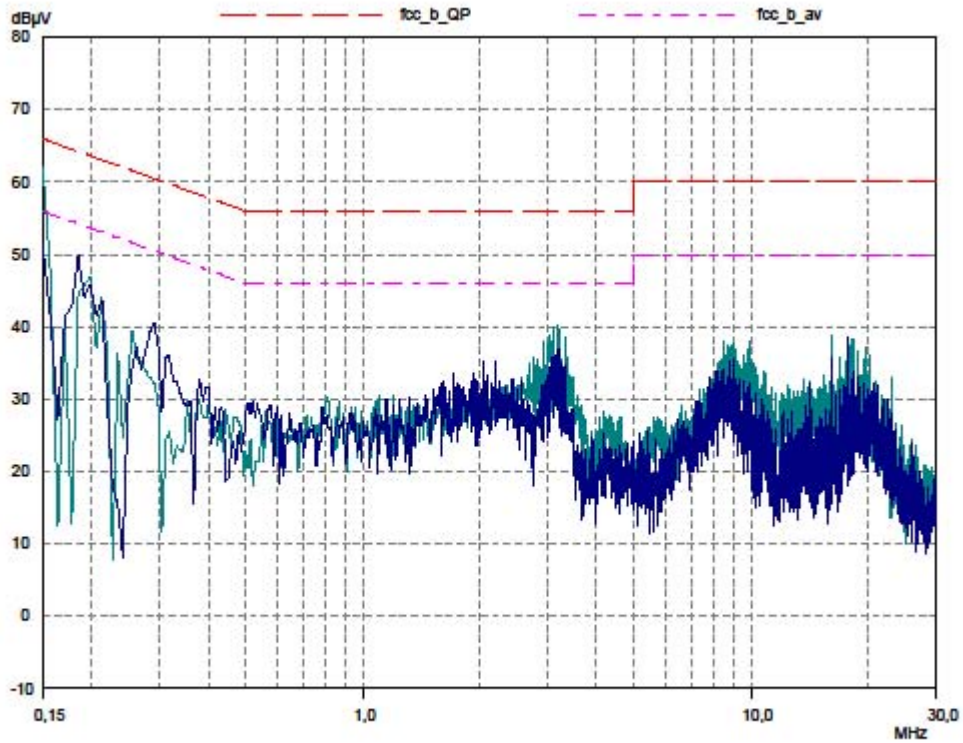
Conducted Interference Voltage Measurement

EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	Cannel 145 FDD 4 RMC
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:	Detector:	X PK
	Meas Time:	see scan settings
	Peaks:	8
	Acc Margin:	6 dB



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1.1 CETECOM GmbH No. 2-20757077

07 Jan 2009 13:34

Conducted Interference Voltage Measurement

EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	Cannel 145 FDD 4 RMC
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB

Peak Search Results

Frequency MHz	PK Level dBµV	PK Limit dBµV	PK Delta dB	Ref. Offset dB

No results

* limit exceeded

1.2 CETECOM GmbH No. 2-20757077 07 Jan 2009 13:49

Conducted Interference Voltage Measurement

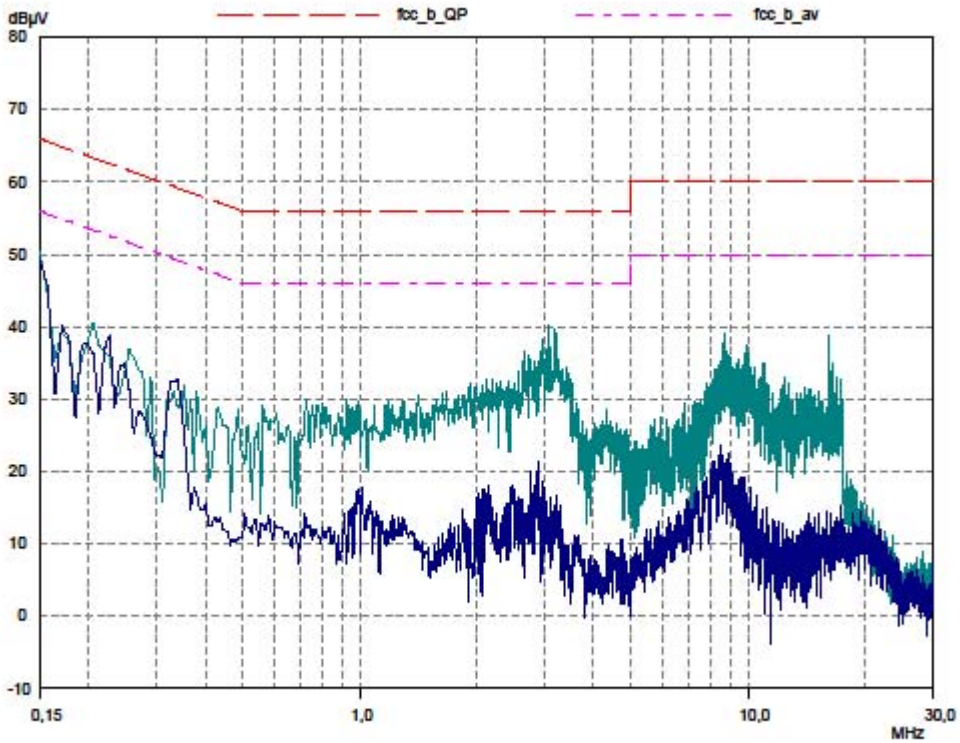
EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	Channel 9400 FDD 2 RMC +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB



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1.2 CETECOM GmbH No. 2-20757077

07 Jan 2009 13:49

Conducted Interference Voltage Measurement

EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	Channel 9400 FDD 2 RMC +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB

Peak Search Results

Frequency	PK Level	PK Limit	PK Delta	Ref. Offset
MHz	dBµV	dBµV	dB	dB

No results

* limit exceeded

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1.3 CETECOM GmbH No. 2-20757077 07 Jan 2009 14:11

Conducted Interference Voltage Measurement

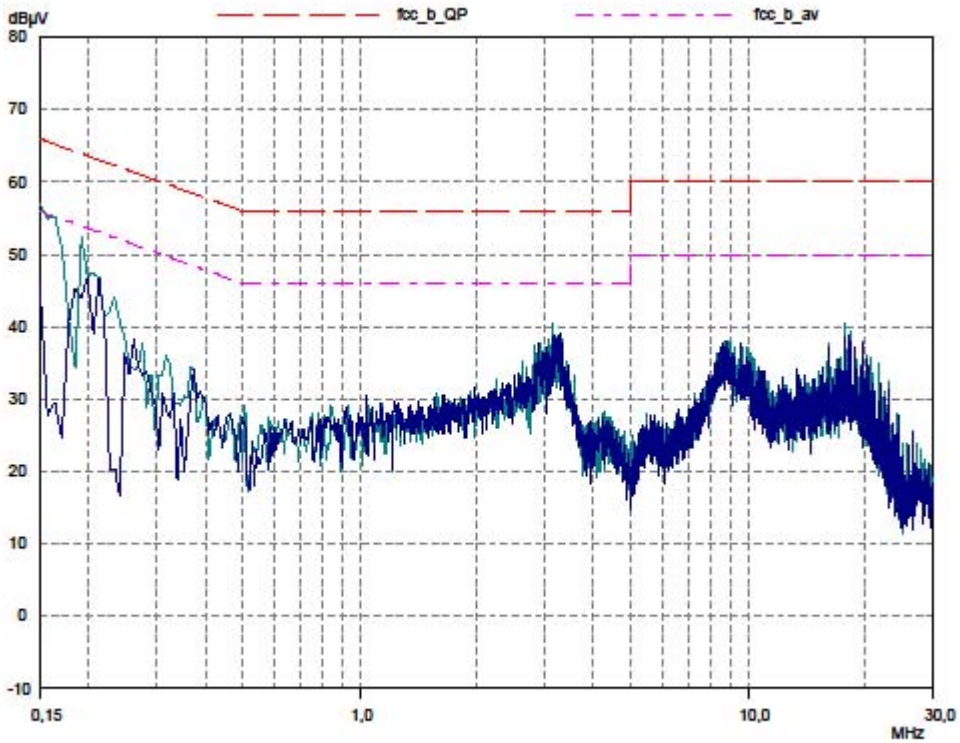
EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	Channel 4183 FDD 5 RMC +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB



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1.3 CETECOM GmbH No. 2-20757077

07 Jan 2009 14:11

Conducted Interference Voltage Measurement

EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	Channel 4183 FDD 5 RMC +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB

Peak Search Results

Frequency	PK Level	PK Limit	PK Delta	Ref. Offset
MHz	dBµV	dBµV	dB	dB

No results

* limit exceeded

PAGE 2

1.4 CETECOM GmbH No. 2-20757077 07 Jan 2009 14:20

Conducted Interference Voltage Measurement

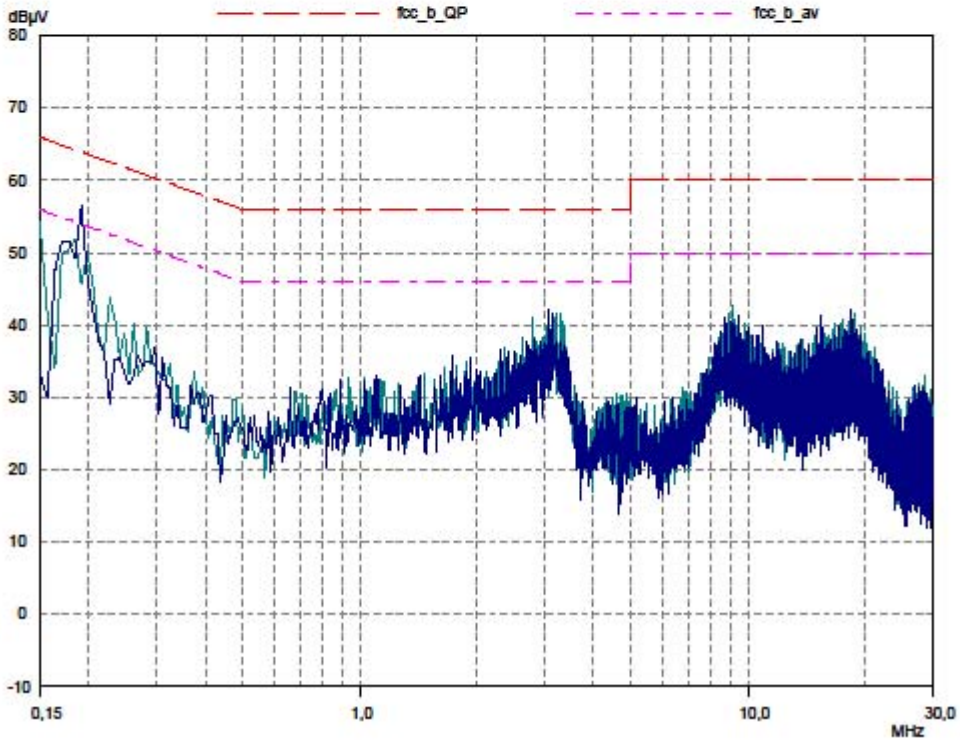
EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	Channel 192 GSM 850 +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB



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1.4 CETECOM GmbH No. 2-20757077

07 Jan 2009 14:20

Conducted Interference Voltage Measurement

EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	Channel 192 GSM 850 +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB

Peak Search Results

Frequency	PK Level	PK Limit	PK Delta	Ref. Offset
MHz	dBµV	dBµV	dB	dB

No results

* limit exceeded

PAGE 2

1.5 CETECOM GmbH No. 2-20757077 07 Jan 2009 14:44

Conducted Interference Voltage Measurement

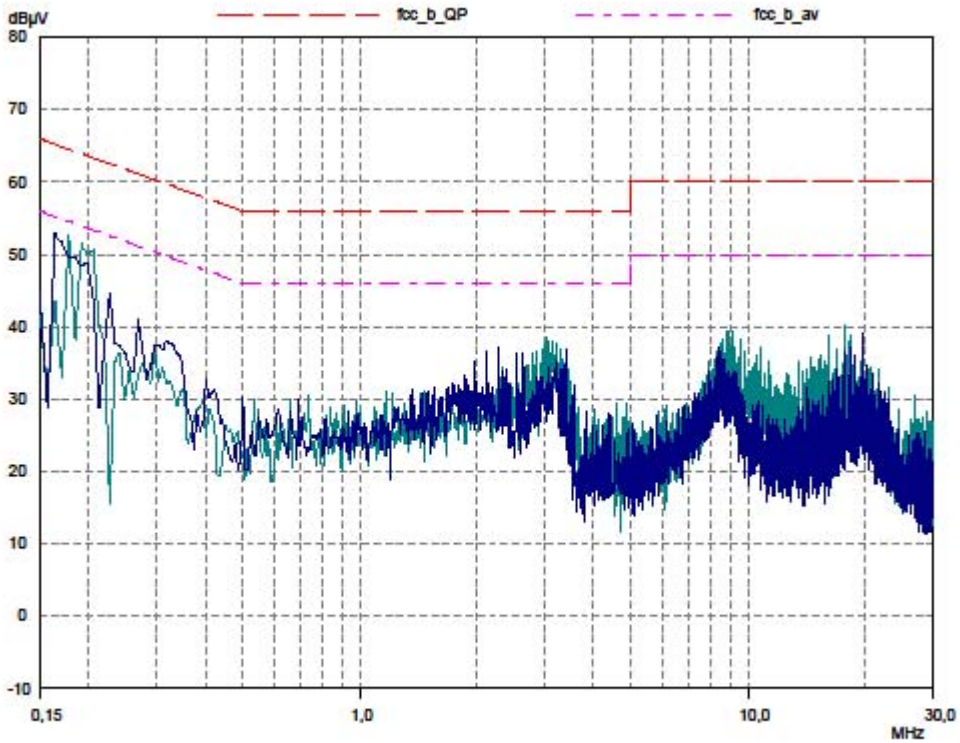
EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	Channel 661 GSM 900 +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB



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1.5 CETECOM GmbH No. 2-20757077

07 Jan 2009 14:44

Conducted Interference Voltage Measurement

EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	Channel 661 GSM 900 +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB

Peak Search Results

Frequency	PK Level	PK Limit	PK Delta	Ref. Offset
MHz	dBµV	dBµV	dB	dB

No results

* limit exceeded

PAGE 2

1.6 CETECOM GmbH No. 2-20757077 07 Jan 2009 15:07

Conducted Interference Voltage Measurement

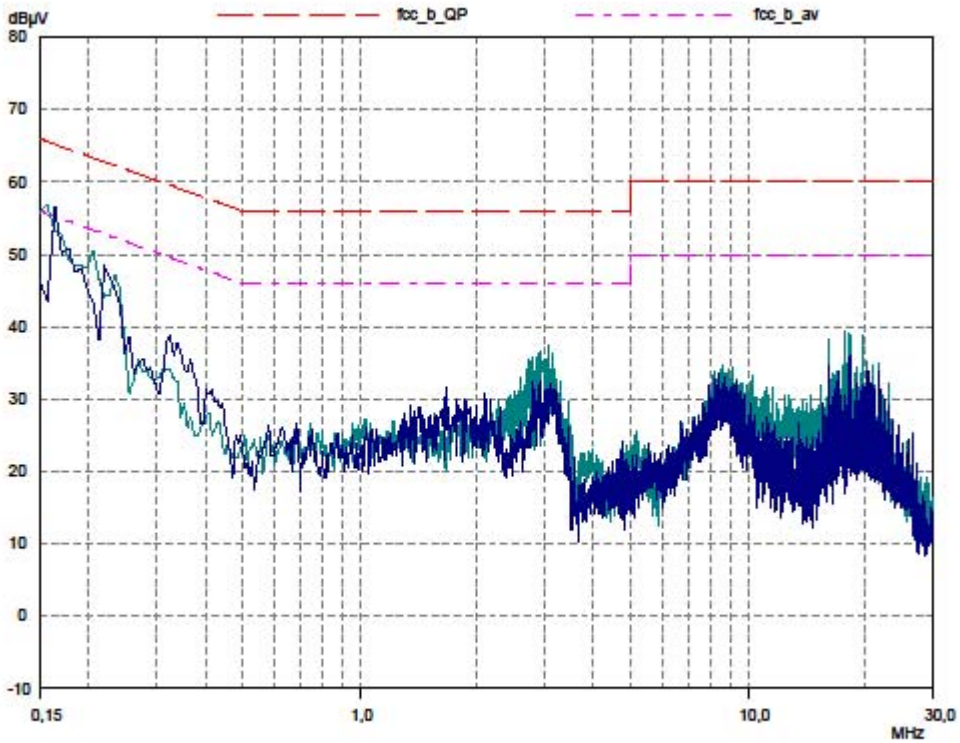
EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	IDLE 850 +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB



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1.6 CETECOM GmbH No. 2-20757077

07 Jan 2009 15:07

Conducted Interference Voltage Measurement

EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	IDLE 850 +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB

Peak Search Results

Frequency	PK Level	PK Limit	PK Delta	Ref. Offset
MHz	dBµV	dBµV	dB	dB

No results

* limit exceeded

PAGE 2

1.7 CETECOM GmbH No. 2-20757077 07 Jan 2009 15:18

Conducted Interference Voltage Measurement

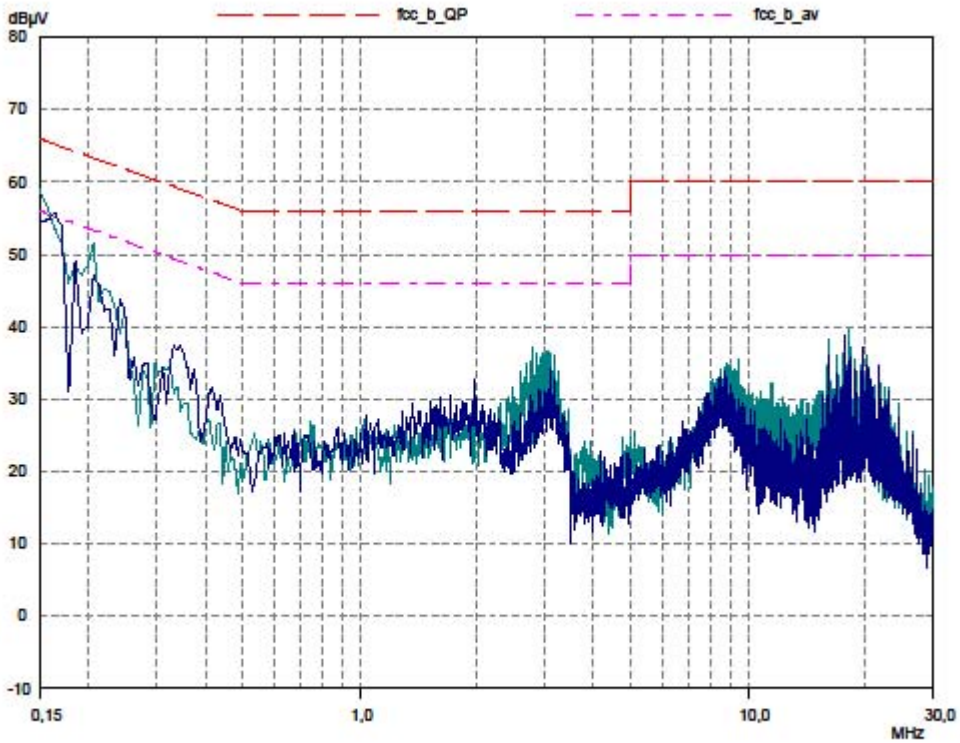
EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	IDLE FDD4 +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB



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1.7 CETECOM GmbH No. 2-20757077

07 Jan 2009 15:18

Conducted Interference Voltage Measurement

EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	IDLE FDD4 +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB

Peak Search Results

Frequency	PK Level	PK Limit	PK Delta	Ref. Offset
MHz	dBµV	dBµV	dB	dB

No results

* limit exceeded

PAGE 2

1.8 CETECOM GmbH No. 2-20757077 07 Jan 2009 14:55

Conducted Interference Voltage Measurement

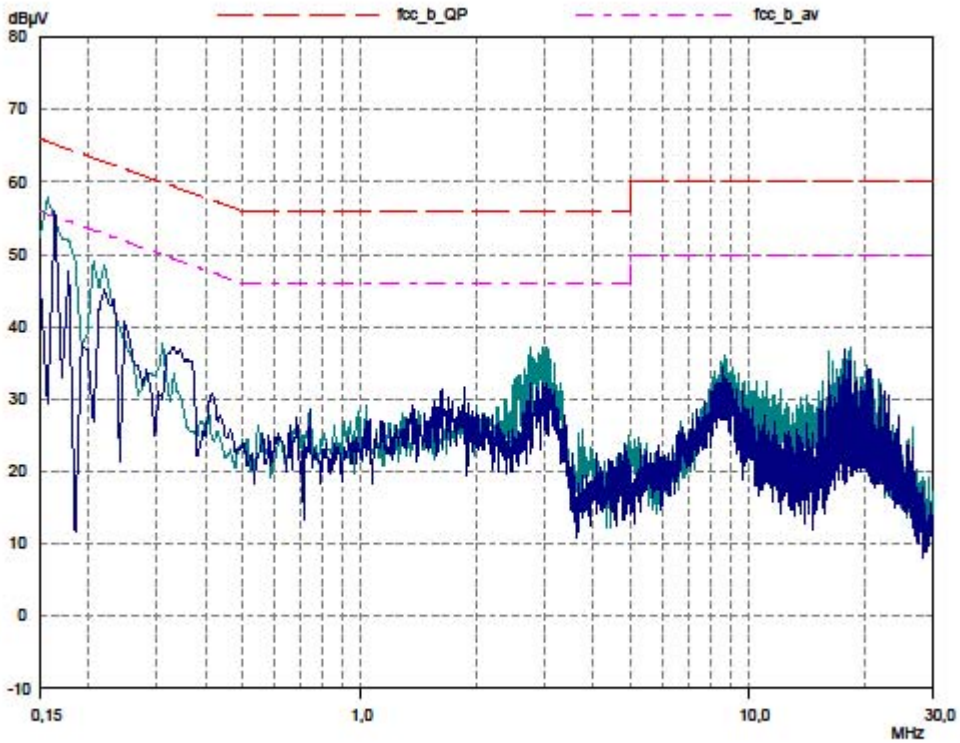
EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	IDLE 1900 +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB



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1.8 CETECOM GmbH No. 2-20757077 07 Jan 2009 14:55

Conducted Interference Voltage Measurement

EUT:	GS3 NAR +AC-Adapter -Handset Pots
Manuf:	Option
Op Cond:	IDLE 1900 +Wlan +Ping on Ethernet
Operator:	Bri
Test Spec:	FCC Part 15.107b (15.207)
Comment:	Measurement on N (green) and L1 (blue)
	Powered by 110 V AC / 60 Hz

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	PK	1msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X PK
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB

Peak Search Results

Frequency	PK Level	PK Limit	PK Delta	Ref. Offset
MHz	dBµV	dBµV	dB	dB

No results

* limit exceeded

PAGE 2

1.9 CETECOM GmbH No. 20757077 07 Jan 2009 15:45

Conducted Interference Voltage Measurement

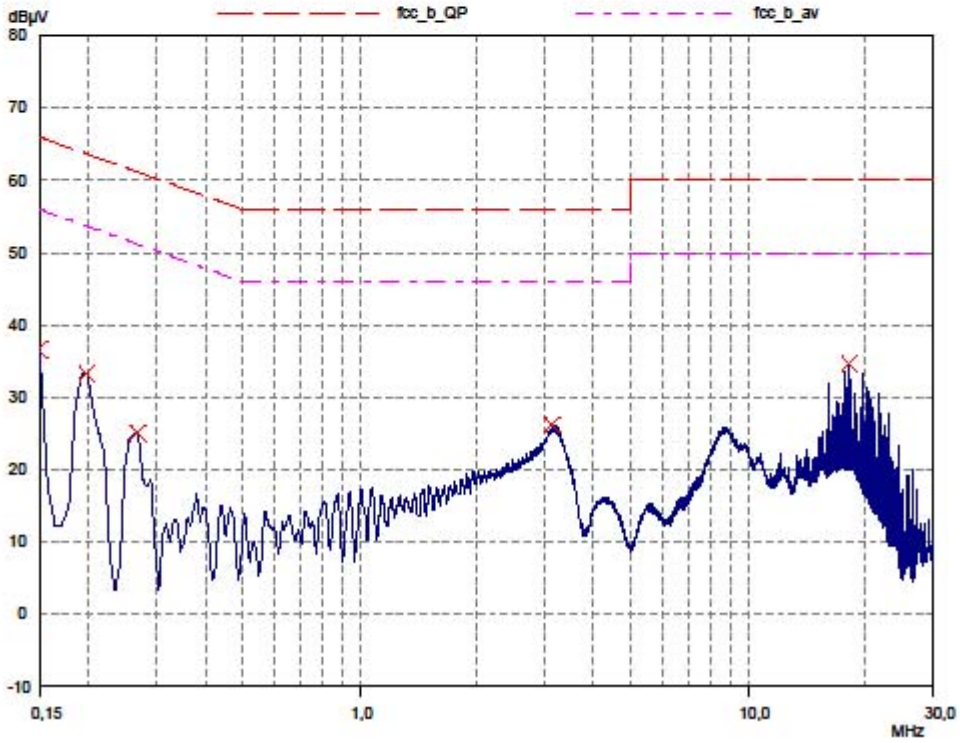
EUT:	GS3 NAR +AC-Adapter +Handset Pots
Manuf:	Option
Op Cond:	FDD 4 CH 1450 RMC
Operator:	Lor
Test Spec:	FCC Part 15.207
Comment:	Measurement on N
	Powered by 110 V AC / 60 Hz
Result File:	1_9.dat : New Measurement

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	AV	100msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X AV
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB



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1.9 CETECOM GmbH No. 20757077

07 Jan 2009 15:45

Conducted Interference Voltage Measurement

EUT:	GS3 NAR +AC-Adapter +Handset Pots
Manuf:	Option
Op Cond:	FDD 4 CH 1450 RMC
Operator:	Lor
Test Spec:	FCC Part 15.207
Comment:	Measurement on N
	Powered by 110 V AC / 60 Hz
Result File:	1_9.dat : New Measurement

Scan Settings (1 Range)

Frequencies			Receiver Settings					
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp	OpRge
150kHz	30MHz	7kHz	9kHz	AV	100msec	Auto	OFF	60dB

Prescan Measurement:

Detector:	X AV
Meas Time:	see scan settings
Peaks:	8
Acc Margin:	6 dB

Peak Search Results

Frequency MHz	AV Level dBµV	AV Limit dBµV	AV Delta dB
0,15	36,62	66,00	29,38
0,199	33,29	63,65	30,36
0,269	25,02	61,15	36,13
3,132	26,26	56,00	29,74
18,245	34,68	60,00	25,32

* limit exceeded

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1.2. RADIATED MAGNETIC FIELD STRENGTH MEASUREMENTS (F<30MHZ)

Diagram No. 3.01

Common Information

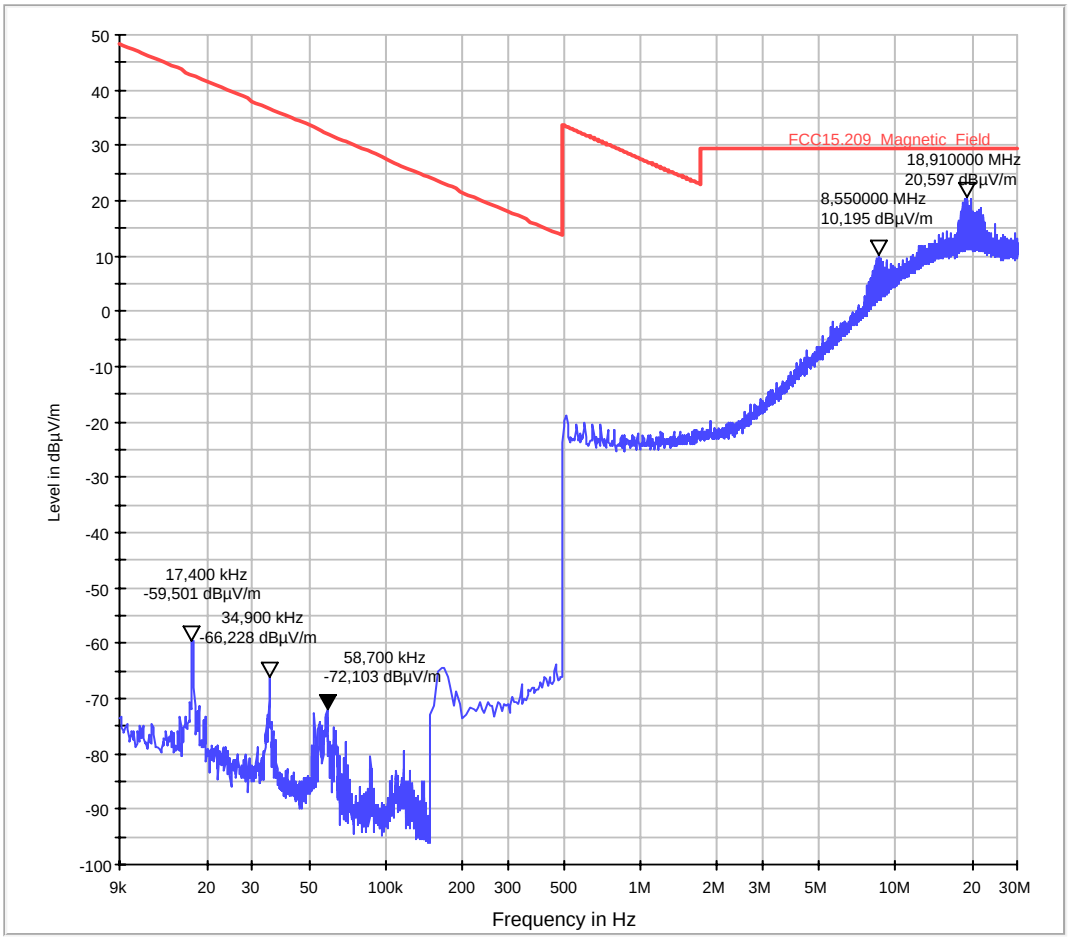
Test description:	Magnetic Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Test specification.:	FCC 15.205 § 15.209
Operator:	stt
Operating conditions:	TX-on FDD Band 4
Comment 1:	Channel low:1312

EUT Information

Description:

EUT Name:	GS3 NAR + Handset POTS + AC-ADapter + External Antenna
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	2.2
Software Rev:	

01_FCC_MG_FELD_PK_FAST_H&V_EUT



Scan Setup: 01_FCC_MG_FELD_PK_FAST_H&V_EUT [EMI radiated]

Hardware Setup:	HW25 FCC15109 ESCS MgFeld ohne SAR MATRIX
Level Unit:	dBµV/m

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
9 kHz - 150 kHz	MaxPeak	200 Hz	0,01 s	ESCS 30
150 kHz - 30 MHz	MaxPeak	10 kHz	0,01 s	ESCS 30

Diagram No. 03.02

Common Information

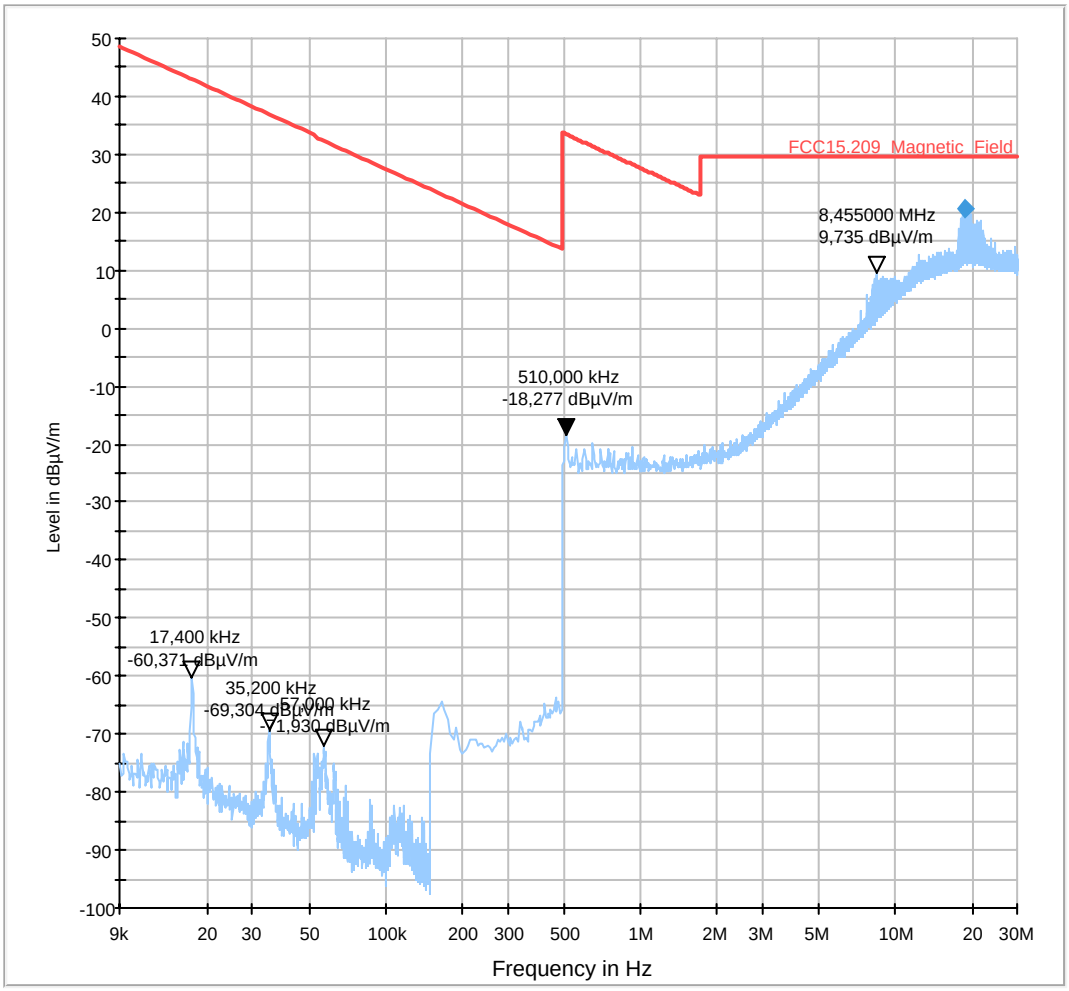
Test description:	Magnetic Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° polarisation to EUT
Turntable step:	90° during pre-scan, continuously turning during final measurement
Test specification.:	FCC 15.205 § 15.209
Operator:	stt
Operating conditions:	Tx-on: FDD 4
Comment 1:	Channel middle: 1450

EUT Information

Description:

EUT Name:	GS3 NAR + Handset POTS + AC-ADapter + External Antenna
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	2.2
Software Rev:	

FCC15.209_magn hor+vert



Final Result 1

Frequency (MHz)	MaxPeak-MaxHold (dBµV/m)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
18.865000	20.5	V	125.0	2.7	9.04	29.54	

EMI Auto Test Template: FCC15.209_magn hor+vert

Hardware Setup: HW25 FCC15109 ESCS MgFeld ohne SAR MATRIX
Measurement Type: Open-Area-Test-Site
Frequency Range: 9 kHz - 30 MHz
Graphics Level Range: -100 dBµV/m - 50 dBµV/m

Preview Measurements:
- Antenna height: 0 - 1000 cm , Step Size = 0 cm , Speed = 1
- Polarity: H + V
- Turntable position: 35 - 305 deg , Step Size = 90 deg , Speed = 0
- Scan Test Template: 01 FCC MG FELD PK FAST H&V EUT

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
9 kHz - 150 kHz	MaxPeak	200 Hz	0,01 s	ESCS 30
150 kHz - 30 MHz	MaxPeak	10 kHz	0,01 s	ESCS 30

Data Reduction:
- Limit Line #1: FCC15.209 Magnetic Field
- Peak Search: 20 dB , Maximum Results: 10
- Subrange Maxima: 10 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -10 dB
- Maximum Number of Results: 20

Report Settings:
- Report Template: FCC15 209 vert hor
- Create Electronic Report: PDF
- Document Name: EMI Report

Diagram No. 3.03

Common Information

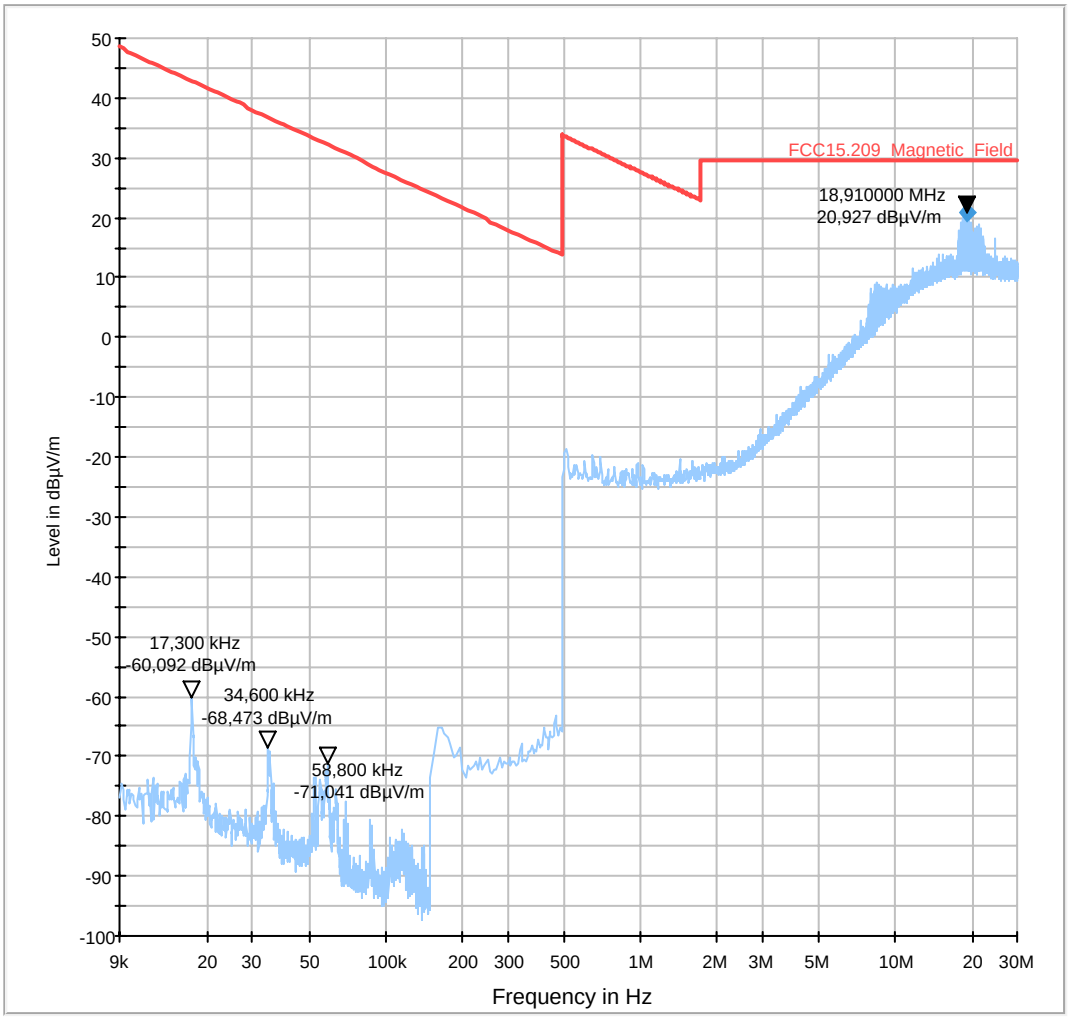
Test description:	Magnetic Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Turntable step:	90° during pre-scan, continuously turning during final measurement
Test specification.:	FCC 15.205 § 15.209
Operator:	Stt
Operating conditions:	TX-on FDD 4
Comment 1:	Channel high: 1513

EUT Information

Description:

EUT Name:	GS3 NAR + Handset POTS + AC-ADapter + External Antenna
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	2.2
Software Rev:	

FCC15.209_magn hor+vert



EMI Auto Test Template: FCC15.209_magn hor+vert

Hardware Setup:	HW25 FCC15109 ESCS MgFeld ohne SAR MATRIX
Measurement Type:	Open-Area-Test-Site
Frequency Range:	9 kHz - 30 MHz
Graphics Level Range:	-100 dBµV/m - 50 dBµV/m

Preview Measurements:

Antenna height:	0 - 1000 cm , Step Size = 0 cm , Speed = 1
Polarity:	H + V
Turntable position:	35 - 305 deg , Step Size = 90 deg , Speed = 0
Scan Test Template:	01 FCC MG FELD PK FAST H&V EUT

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
9 kHz - 150 kHz	MaxPeak	200 Hz	0,01 s	ESCS 30
150 kHz - 30 MHz	MaxPeak	10 kHz	0,01 s	ESCS 30

Data Reduction:

Limit Line #1:	FCC15.209 Magnetic Field
Peak Search:	20 dB , Maximum Results: 10
Subrange Maxima:	10 Subranges , Maxima per Subrange: 1
Acceptance Offset:	-10 dB
Maximum Number of Results:	20

Report Settings:

Report Template:	FCC15 209 vert hor
Create Electronic Report:	PDF
Document Name:	EMI Report

1.3. RADIATED FIELD STRENGTH (30MHz < f < 1000MHz)

Diagram No. 02.01

Common Information

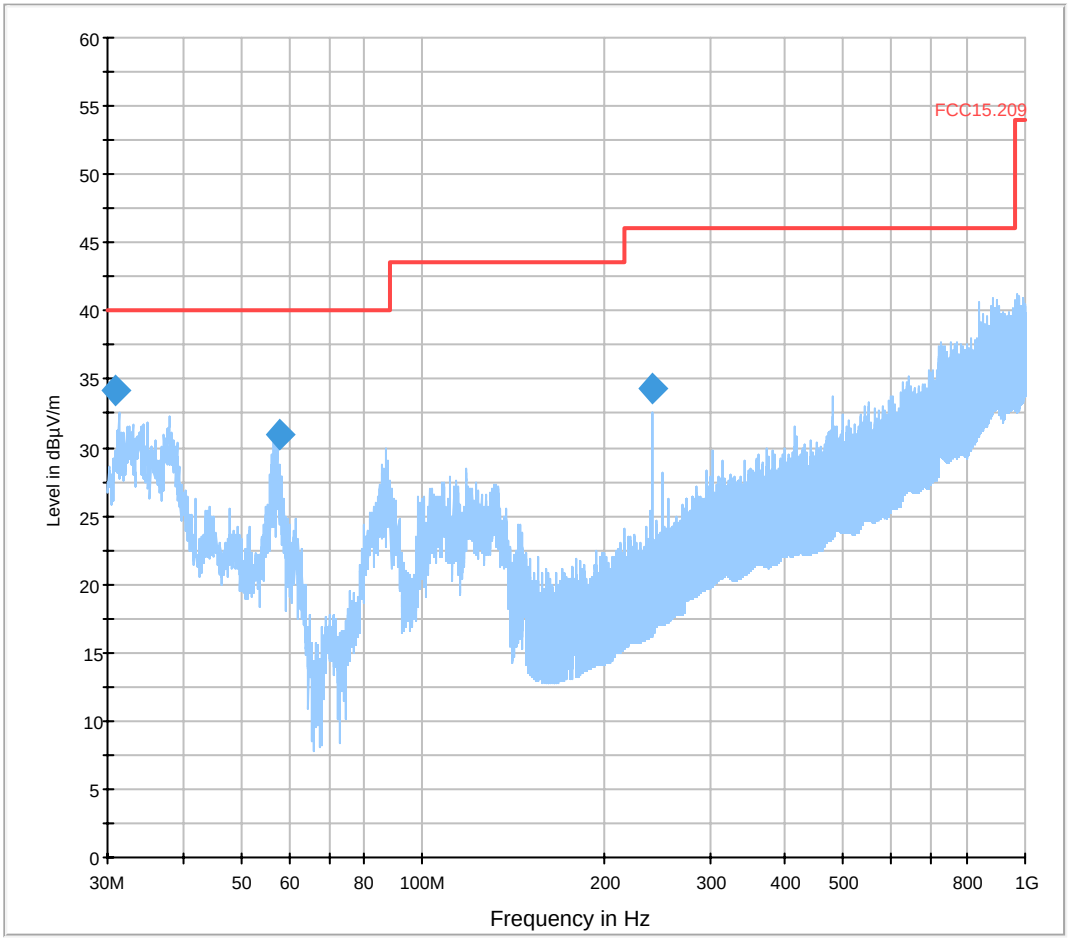
Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left, top, under
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.209&15.247 for WLAN/ 15.109 for IDLE FDD 4
Operator:	Lor
Operating conditions:	WLAN TX-on, channel low (1) + IDLE FDD Band 4
Signalling:	FDD channel uplink = 1450

EUT Information

Description:

EUT Name:	GS3 NAR + Handset POTS + AC-ADapter + External Antenna
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	2.2
Software Rev:	

01_FCC15.209_hor+vert_kipp



Data Reduction 1

Frequency (MHz)	MaxPeak-MaxHold (dBµV/m)	Antenna height (cm)	Polarity	Turntable position (deg)	Elevation (deg)	Corr. (dB)	Comment
31.320000	32.5	100.0	V	0.0	0.0	14.3	
56.720000	31.0	100.0	V	0.0	0.0	6.6	
239.960000	32.2	100.0	H	270.0	90.0	13.2	

EMI Auto Test Template: 01_FCC15.209_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Speed = 4
- Polarity: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,00005 s	ESCS 30

Data Reduction:
- Limit Line #1: FCC15.209
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Adjustment:
- Turntable position: Adjustment with full Range , Speed = 3
- Elevation: Adjustment with full Range , Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	QuasiPeak	120 kHz	1 s	ESCS 30

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Diagram No. 02.02

Common Information

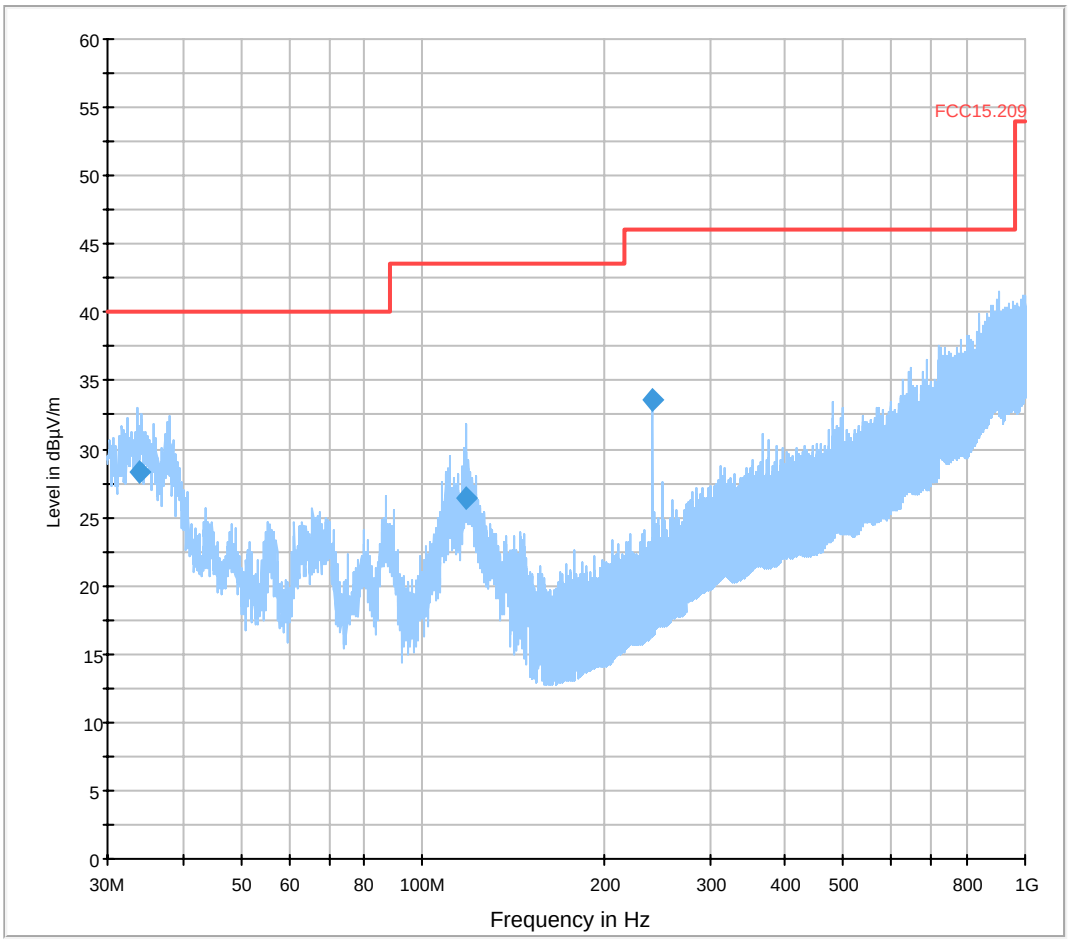
Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left, top, under
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.209&15.247 for WLAN/ 15.109 for IDLE FDD 4
Operator:	Lor
Operating conditions:	WLAN TX-on, middle channel (7) + IDLE FDD Band 4

EUT Information

Description:

EUT Name:	Globesurfer 3 NAR
Manufacturer:	Option
Serial Number:	GT24878057
Hardware Rev:	2.2
Software Rev:	
Comment:	IMEI 004401441050289

01_FCC15.209_hor+vert_kipp



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)
33.800000	28.3	1000.00	120.000	100.0	V	123.0	0.0	12.9	11.70
118.300000	26.5	1000.00	120.000	100.0	V	50.0	0.0	7.8	17.10
239.980000	33.6	1000.00	120.000	100.0	H	251.0	90.0	13.2	12.40

(continuation of the "Final Result 1" table from column 10 ...)

Frequency (MHz)	Limit (dBµV/m)	Comment
33.800000	40.00	
118.300000	43.50	
239.980000	46.00	

EMI Auto Test Template: 01_FCC15.209_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Speed = 4
- Polarity: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,00005 s	ESCS 30

Data Reduction:
- Limit Line #1: FCC15.209
- Interactive data reduction
- Peak Search: 6 dB
- Maximum Results: 10
- Subrange Maxima: 25
- Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Adjustment:
- Turntable position: Adjustment with full Range , Speed = 3
- Elevation: Adjustment with full Range , Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	QuasiPeak	120 kHz	1 s	ESCS 30

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Diagram No. 02.03

Common Information

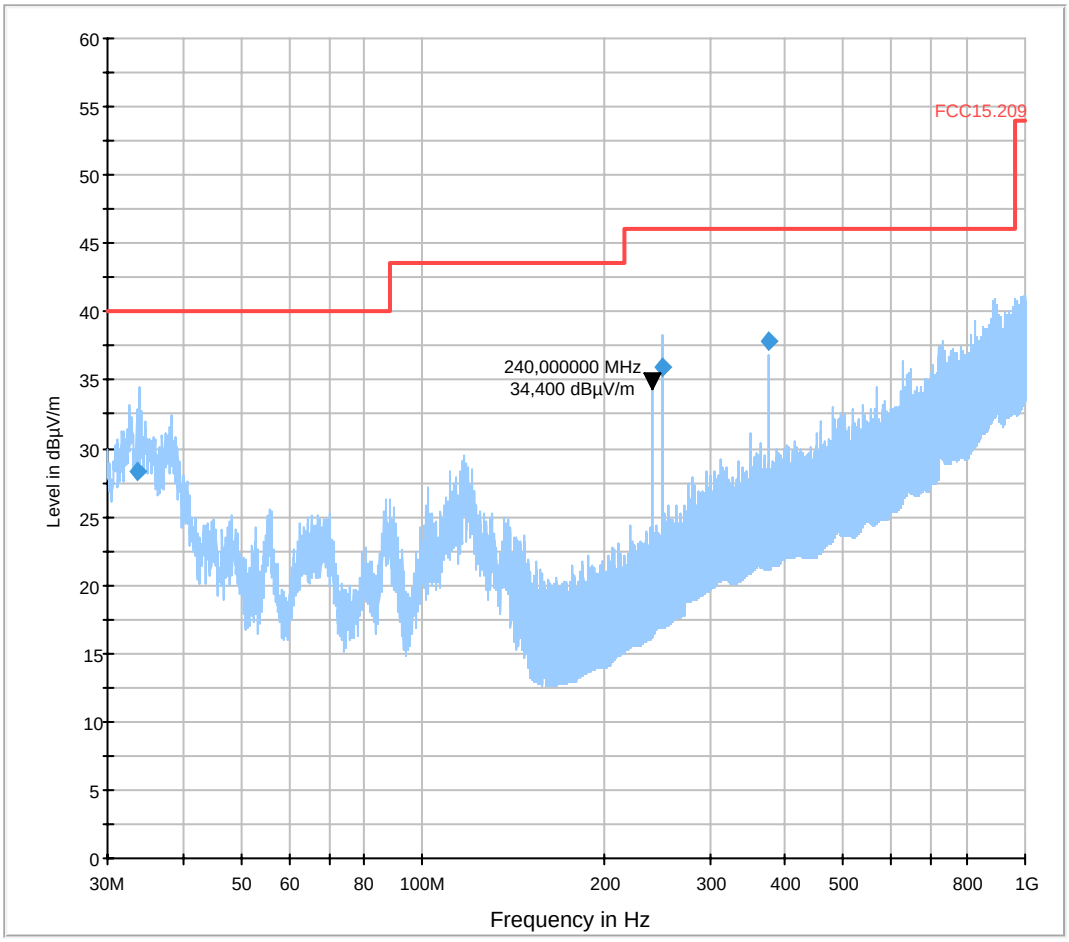
Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left, top, under
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.209&15.247 for WLAN/ 15.109 for IDLE FDD 4
Operator:	Lor
Operating conditions:	WLAN TX-on, channel 11 (high) + IDLE FDD4

EUT Information

Description:

EUT Name:	Globesurfer 3 NAR
Manufacturer:	Option
Serial Number:	GT24878057
Hardware Rev:	2.2
Software Rev:	
Comment:	IMEI 004401441050289

01_FCC15.209_hor+vert_kipp



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)
33.740000	28.3	1000.00	120.000	100.0	V	41.0	0.0	12.9	11.70
250.000000	36.0	1000.00	120.000	100.0	H	254.0	90.0	13.9	10.00
374.990000	37.9	1000.00	120.000	100.0	H	8.0	0.0	17.4	8.10

(continuation of the "Final Result 1" table from column 10 ...)

Frequency (MHz)	Limit (dBµV/m)	Comment
33.740000	40.00	
250.000000	46.00	
374.990000	46.00	

EMI Auto Test Template: 01_FCC15.209_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Speed = 4
- Polarity: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,00005 s	ESCS 30

Data Reduction:
- Limit Line #1: FCC15.209
- Interactive data reduction
- Peak Search: 6 dB
- Maximum Results: 10
- Subrange Maxima: 25
- Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Adjustment:
- Turntable position: Adjustment with full Range , Speed = 3
- Elevation: Adjustment with full Range , Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	QuasiPeak	120 kHz	1 s	ESCS 30

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Diagram No. 02.50

Common Information

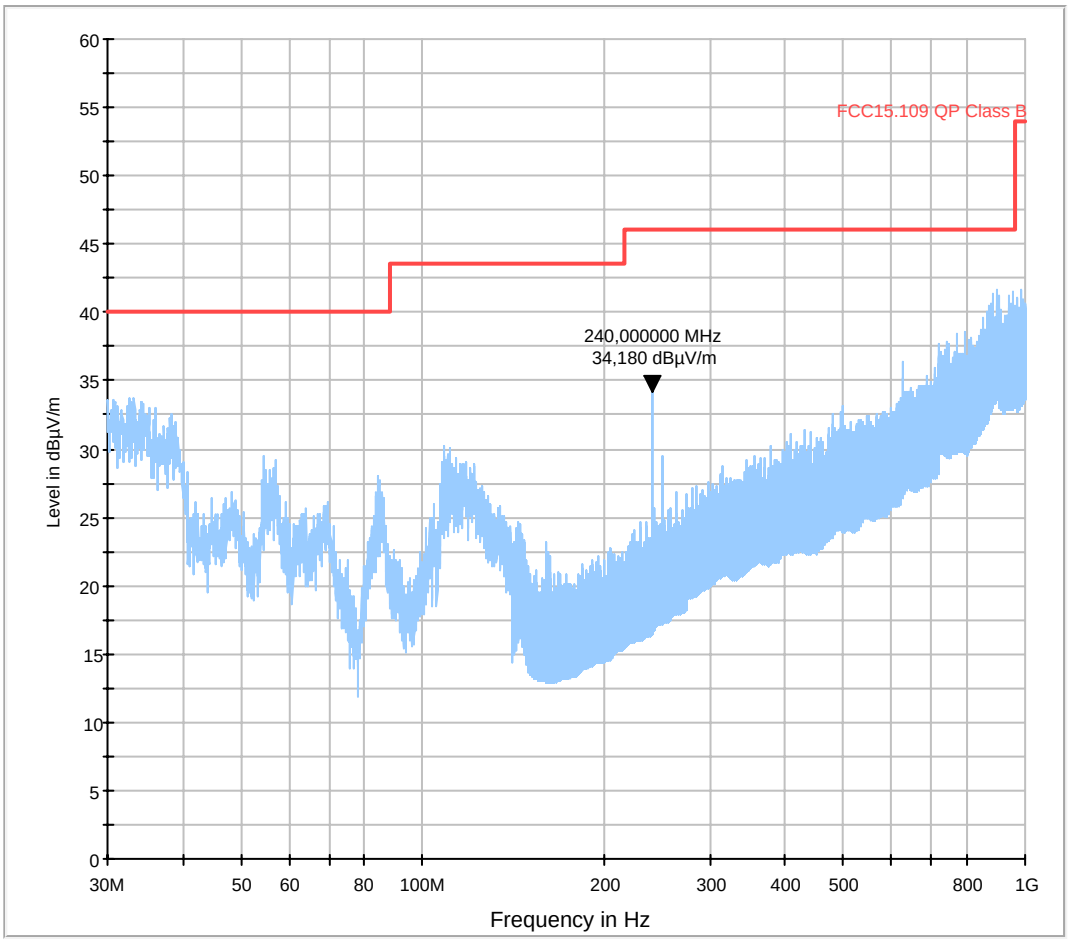
Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.109
Operator:	Mwa
Operating conditions:	IDLE GSM1900
Comment 1:	Channel middle

EUT Information

Description:

EUT Name:	GS3 NAR + Handset POTS + AC-ADapter
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	2.2
Software Rev:	

05_FCC15.109_hor+vert_kipp



EMI Auto Test Template: 05_FCC15.109_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Speed = 4
- Polarity: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,00005 s	ESCS 30

Data Reduction:
- Limit Line #1: FCC15.109 QP Class B
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Adjustment:
- Turntable position: Adjustment with full Range , Speed = 3
- Elevation: Adjustment with full Range , Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	QuasiPeak	120 kHz	1 s	ESCS 30

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Diagram No. 02.51

Common Information

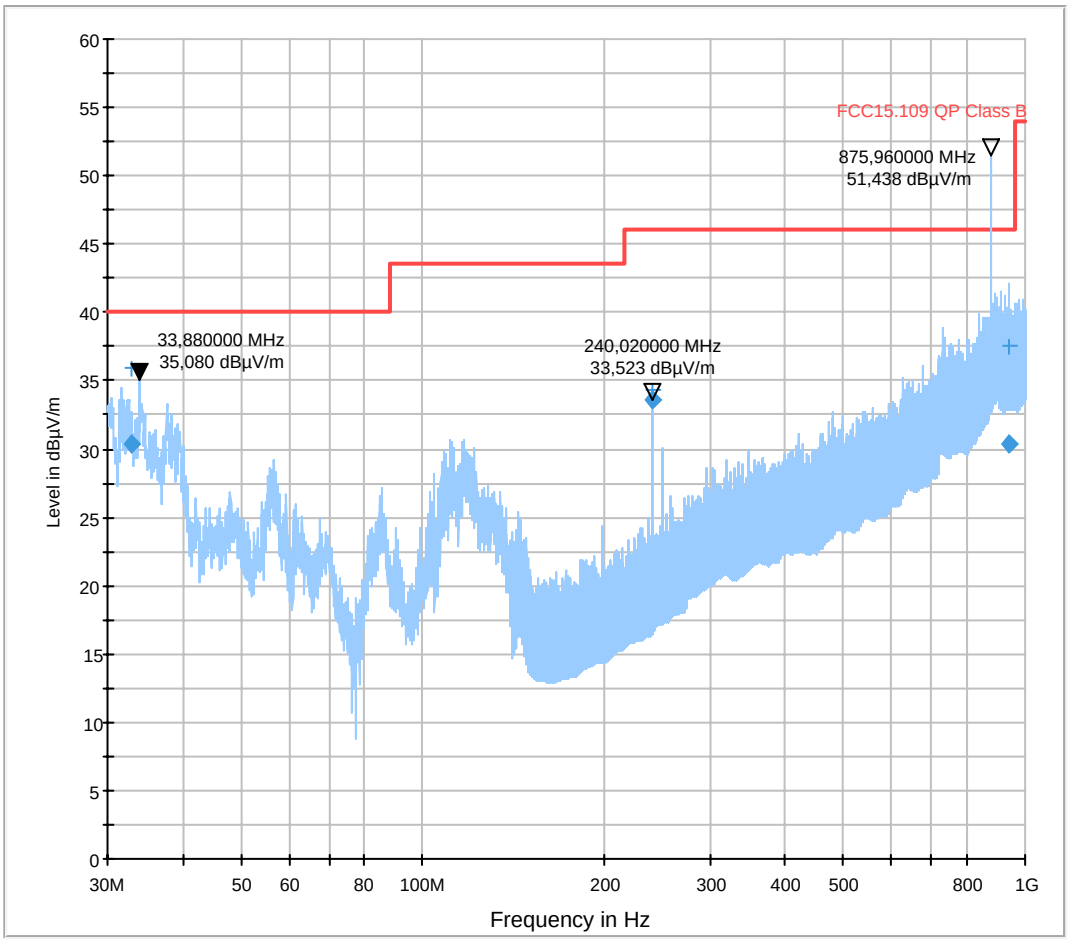
Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.109
Operator:	MWa
Operating conditions:	GSM 850 IDLE
Comment 1:	Channel middle

EUT Information

Description:

EUT Name:	GS3 NAR + Handset POTS + AC-ADapter
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	2.2
Software Rev:	

05_FCC15.109_hor+vert_kipp



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Elevation (deg)	Corr. (dB)
32.780000	30.4	1000.000	120.000	100.0	V	310.0	0.0	13.4
240.020000	33.5	1000.000	120.000	100.0	H	155.0	0.0	13.2
941.790000	30.4	1000.000	120.000	337.0	V	216.0	0.0	27.0

(continuation of the "Final Result 1" table from column 9 ...)

Frequency (MHz)	Margin (dB)	Limit (dBµV/m)	Comment
32.780000	9.6	40.0	
240.020000	12.5	46.0	
941.790000	15.6	46.0	

EMI Auto Test Template: 05_FCC15.109_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Speed = 4
- Polarity: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,00005 s	ESCS 30

Data Reduction:
- Limit Line #1: FCC15.109 QP Class B
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Adjustment:
- Turntable position: Adjustment with full Range , Speed = 3
- Elevation: Adjustment with full Range , Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	QuasiPeak	120 kHz	1 s	ESCS 30

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Diagram No. 02.52

Common Information

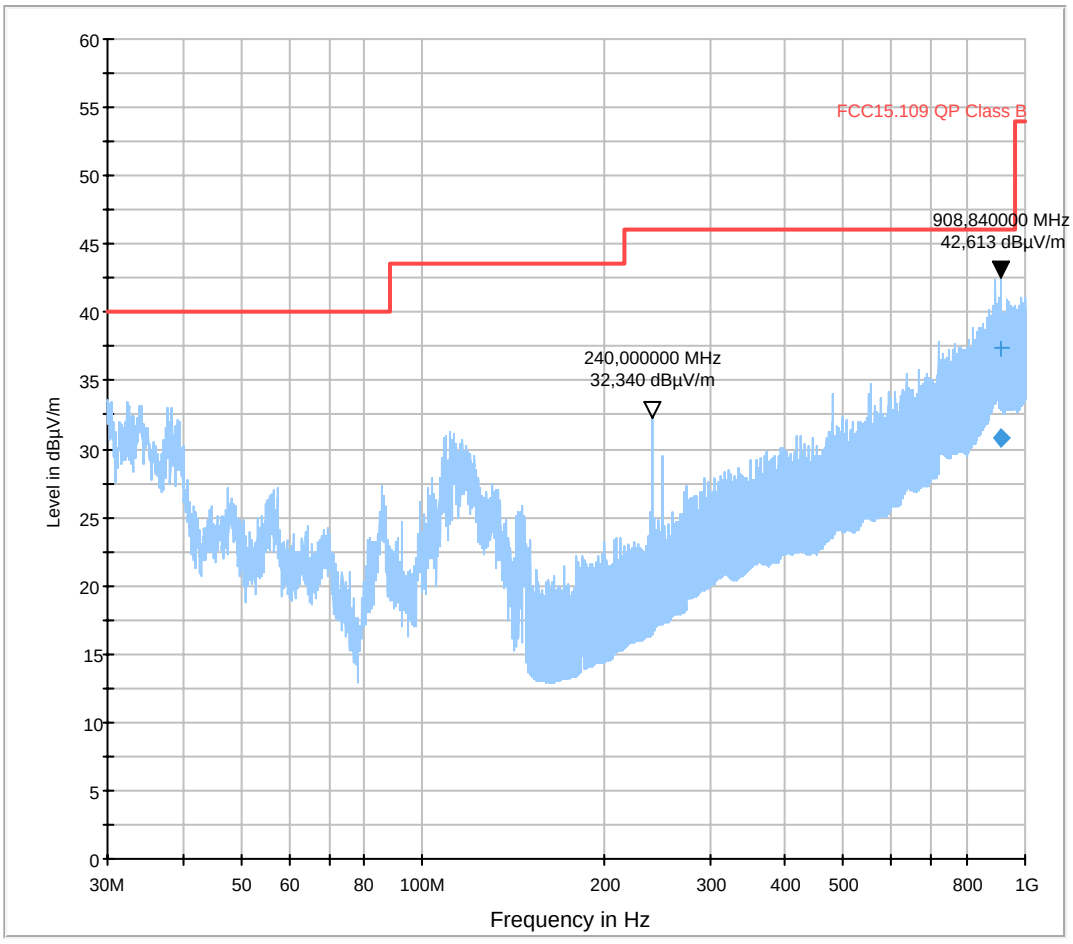
Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.109
Operator:	MWa
Operating conditions:	FDD Band 2 IDLE-Mode
Comment 1:	Channel middle

EUT Information

Description:

EUT Name:	GS3 NAR + Handset POTS + AC-Adapter + External Antenna
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	2.2
Software Rev:	

05_FCC15.109_hor+vert_kipp



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Elevation (deg)	Corr. (dB)
909.430000	30.8	1000.000	120.000	205.0	V	126.0	90.0	27.1

(continuation of the "Final Result 1" table from column 9 ...)

Frequency (MHz)	Margin (dB)	Limit (dBµV/m)	Comment
909.430000	15.2	46.0	

EMI Auto Test Template: 05_FCC15.109_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Speed = 4
- Polarity: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,00005 s	ESCS 30

Data Reduction:
- Limit Line #1: FCC15.109 QP Class B
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Adjustment:
- Turntable position: Adjustment with full Range , Speed = 3
- Elevation: Adjustment with full Range , Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	QuasiPeak	120 kHz	1 s	ESCS 30

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Diagram No. 02.53

Common Information

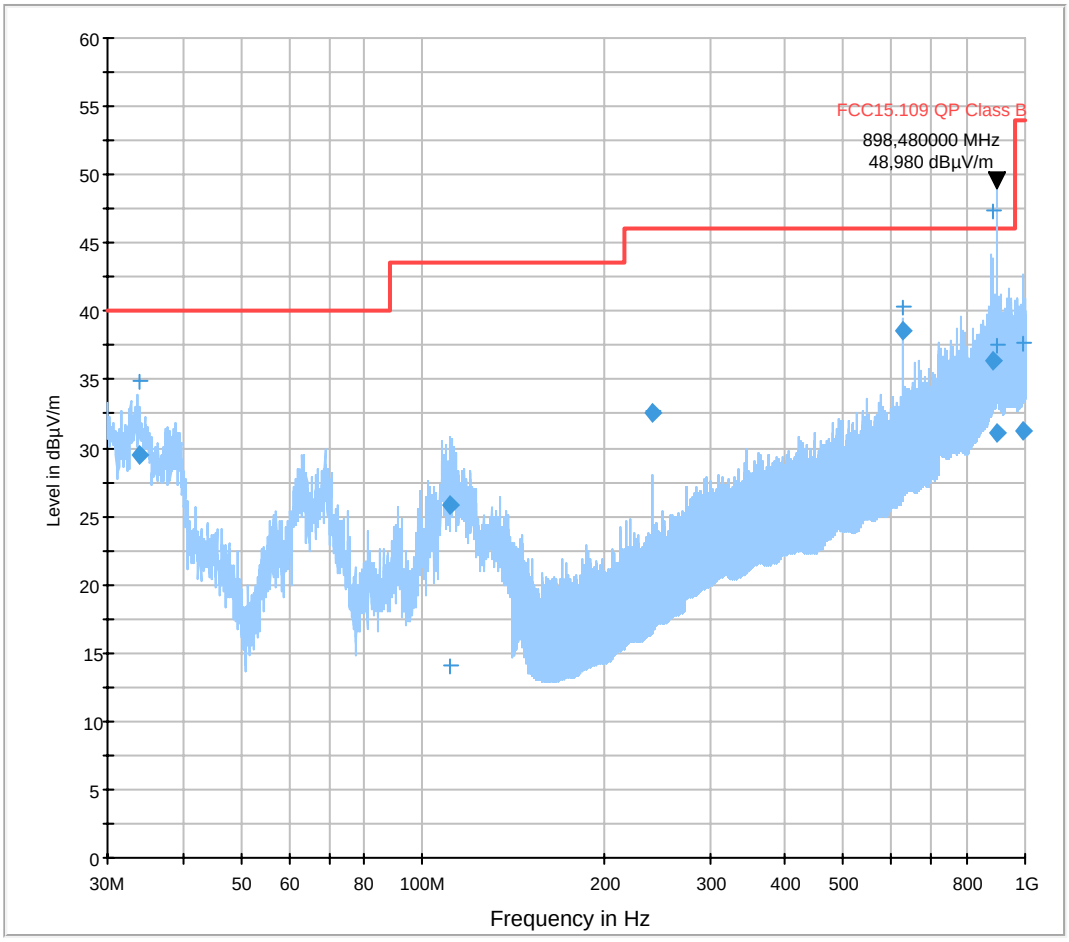
Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.109
Operator:	Lor
Operating conditions:	FDD 5, Idle Mode
Comment 1:	Channel middle

EUT Information

Description:

EUT Name:	GS3 NAR + Handset POTS + AC-Adapter + External Antenna
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	2.2
Software Rev:	

05_FCC15.109_hor+vert_kipp



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Elevation (deg)	Corr. (dB)
33.920000	29.6	1000.000	120.000	100.0	V	284.0	90.0	12.8
111.150000	25.9	1000.000	120.000	114.0	V	337.0	0.0	7.3
240.000000	32.6	1000.000	120.000	100.0	H	139.0	90.0	13.2
625.010000	38.7	1000.000	120.000	100.0	H	0.0	90.0	22.5
881.650000	36.4	1000.000	120.000	267.0	H	92.0	90.0	26.9
898.670000	31.0	1000.000	120.000	212.0	V	95.0	0.0	27.4
994.570000	31.2	1000.000	120.000	345.0	V	238.0	90.0	27.4

(continuation of the "Final Result 1" table from column 9 ...)

Frequency (MHz)	Margin (dB)	Limit (dBµV/m)	Comment
33.920000	10.4	40.0	
111.150000	17.6	43.5	
240.000000	13.4	46.0	
625.010000	7.3	46.0	
881.650000	9.6	46.0	
898.670000	15.0	46.0	
994.570000	22.8	54.0	

EMI Auto Test Template: 05_FCC15.109_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m

Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Speed = 4
- Polarity: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,00005 s	ESCS 30

Data Reduction:
- Limit Line #1: FCC15.109 QP Class B
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Adjustment:
- Turntable position: Adjustment with full Range , Speed = 3
- Elevation: Adjustment with full Range , Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	QuasiPeak	120 kHz	1 s	ESCS 30

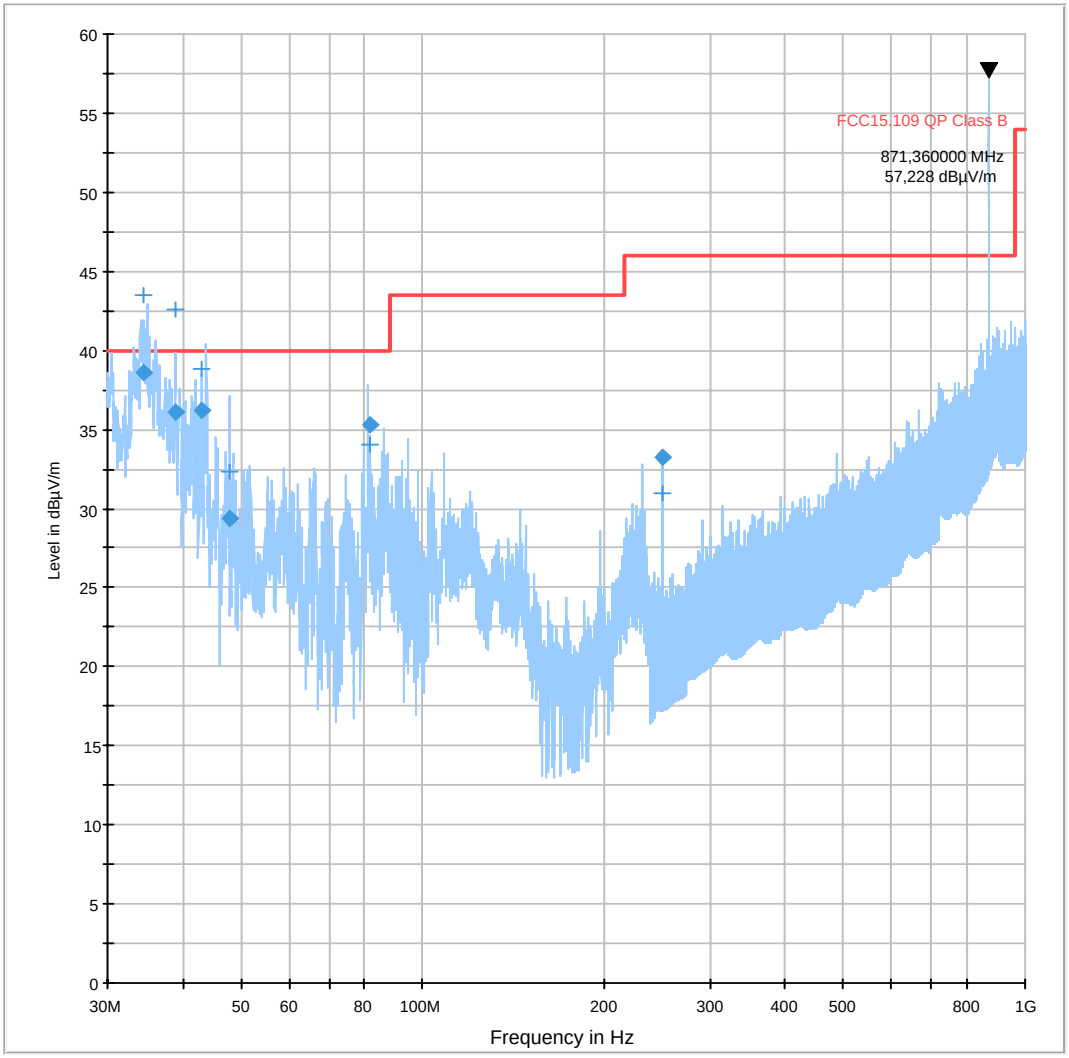
Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

Diagram No. 02.59

Common Information

Test description:	Electric Fieldstrength Measurement related to 3 m distance
Test site and distance:	Semi Anechoic Room (SAR) with 3 m measurement distance
Measured sides of EUT:	front, right, rear, left, top, under
Rec. antenna (pre-scan):	height 1.00 m and 1.82 m, horizontal and vertical polarisation
Rec. antenna (final):	height between 1 m to 4 m, polarisation according to pre-scan results
Turntable step:	90° during pre-scan, continuously turning during final measurement
Used filter:	lowpass 1200 MHz
Test specification.:	FCC 15.109
Operator:	Lor
Operating conditions:	IDLE Mode FDD Band 5 + Traffic on Ethernet
Comment 1:	Channel RX=middle

05_FCC15.109_hor+vert_kipp



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Elevation (deg)	Corr. (dB)
34.350000	38.6	1000.00	120.000	100.0	V	156.0	0.0	12.6
38.950000	36.0	1000.00	120.000	100.0	V	337.0	90.0	10.9
42.940000	36.3	1000.00	120.000	100.0	V	0.0	90.0	9.7
47.810000	29.4	1000.00	120.000	100.0	V	321.0	0.0	8.5
82.070000	35.3	1000.00	120.000	137.0	V	217.0	90.0	8.6
249.99000	33.2	1000.00	120.000	220.0	V	310.0	90.0	13.9

(continuation of the "Final Result 1" table from column 9 ...)

Frequency (MHz)	Margin (dB)	Limit (dBµV/m)	Comment
34.350000	1.4	40.0	
38.950000	4.0	40.0	
42.940000	3.7	40.0	
47.810000	10.6	40.0	
82.070000	4.7	40.0	
249.99000	12.8	46.0	

EMI Auto Test Template: 05_FCC15.109_hor+vert_kipp

Hardware Setup: HW11_FCC_ESCS30_TP1200_EUTkipp
Measurement Type: E(I)RP
Frequency Range: 30 MHz - 1 GHz
Graphics Level Range: 0 dBµV/m - 60 dBµV/m
Preview Measurements:
- Turntable position: 0 - 270 deg , Step Size = 90 deg , Speed = 8
- Elevation: 0 - 90 deg , Step Size = 90 deg , Speed = 4
- Polarity: H + V
- Scan Test Template: EMI Scan 01_fast_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,00005 s	ESCS 30

Data Reduction:
- Limit Line #1: FCC15.109 QP Class B
- Peak Search: 6 dB , Maximum Results: 10
- Subrange Maxima: 25 Subranges , Maxima per Subrange: 1
- Acceptance Offset: -6 dB
- Maximum Number of Results: 20
- After Data Reduction: Interactive data reduction

Frequency Zoom:
- Zoom Scan Template: EMI Scan 02_20ms_zoom_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Adjustment:
- Turntable position: Adjustment with full Range , Speed = 3
- Elevation: Adjustment with full Range , Speed = 5
- Template for Single Meas.: EMI Scan 02_20ms_FCC_15_209B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	MaxPeak	120 kHz	0,02 s	ESCS 30

Final Measurements:
- Template for Single Meas.: EMI Scan 03_1s_FCC_15_209 B

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
30 MHz - 1 GHz	QuasiPeak	120 kHz	1 s	ESCS 30

Report Settings:
- Report Template: FCC15_209_vert_hor
- Create Electronic Report: RTF PDF
- Document Name: EMI Report

1.4. RADIATED FIELD STRENGTH (1GHz < f < 18GHz)

Diagram No.: 2.04

Common Information

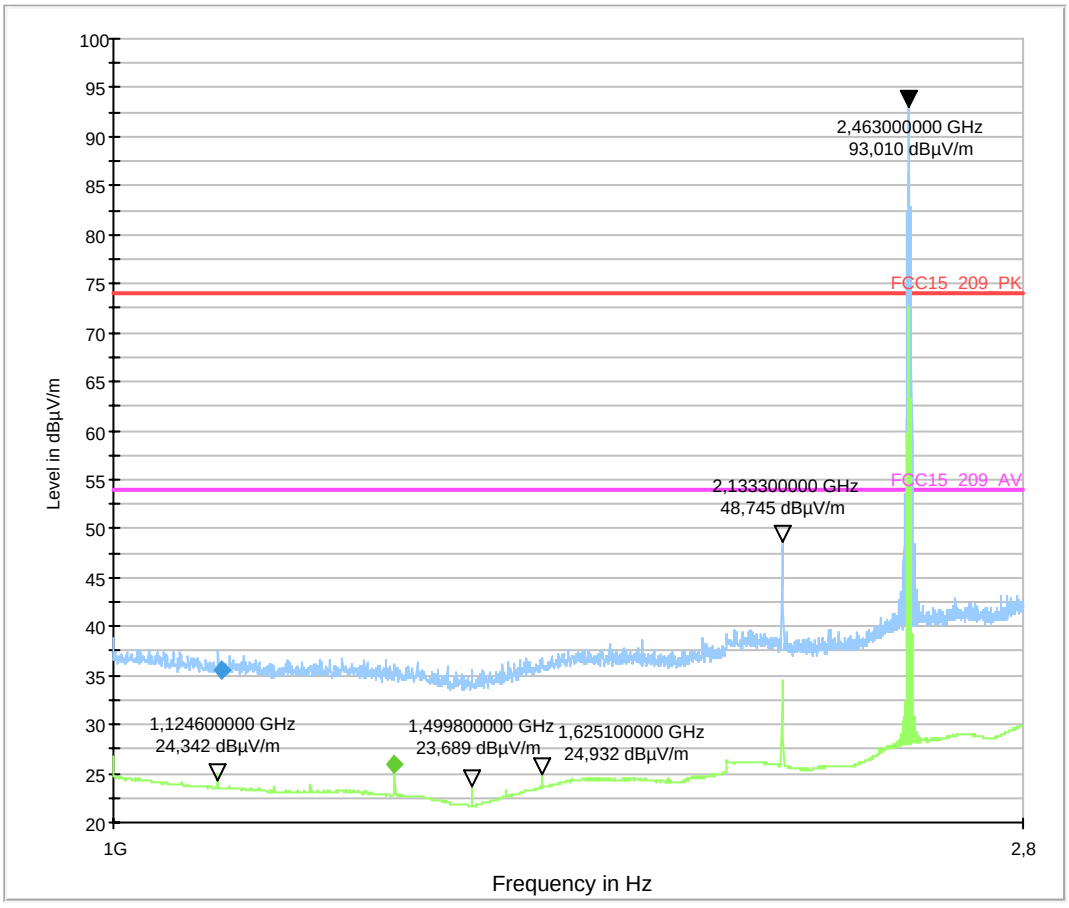
Test Description:	Part 15, Radiated field strength emission §15.205 & §15.209
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.209 Intentional Radiator WLAN/ 15.109 IDLE Mode FDD 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN Tx-on + IDLE FDD Band 4
Operator Name:	Brl
Comment:	WLAN Channel no. high(11), FDD4 Channel middle

EUT Information

Description:

EUT:	Globesurfer 3 NAR
Manufacturer:	Option
Serial Number:	
Operation cond.:	WLAN TX-on + IDLE FDD4
Operator:	Brl/Lor
Comment 1:	HW2.2
Comment 2:	

01_1_2.8G_ohne switch_mit_preAmp_dBuV_H&V



Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1129.40000	35.5	100.00	1000.000	155.0	H	293.0	-0.7	38.5	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1375.10000	26.0	100.00	1000.000	155.0	V	85.0	-1.5	28.0	54.0

EMI Auto Test Template: 01_1_2.8G_ohne switch_mit_preAmp_dBuV_H&V

Hardware Setup: 13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type: Open-Area-Test-Site
Frequency Range: 1 GHz - 2,8 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: 07_ESU_1_2.7G_pre

Data Reduction:
- Limit Line #1: FCC15_209_PK
- Limit Line #2: FCC15_209_AV
- Interactive data reduction
- Peak Search: 6 dB
- Maximum Results: 10
- Subrange Maxima: 50
- Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 30

Frequency Zoom:
- Zoom Scan Template: 09_ESU_1_2.7G_zoom

Adjustment:
- Template for Single Meas.: 07_ESU_1_2.7G_pre

Final Measurements:
- Template for Single Meas.: 11_ESU_1_2.7G_fin
- Template for Single Meas.:(>1GHz): 11_ESU_1_2.7G_fin

Report Settings:
- Report Template: Report Setup FCC 15_247

Actions:
- Test start
  - Notify: "Matrix richtig geschaltet ?!?"

Diagram No.:2.05

Common Information

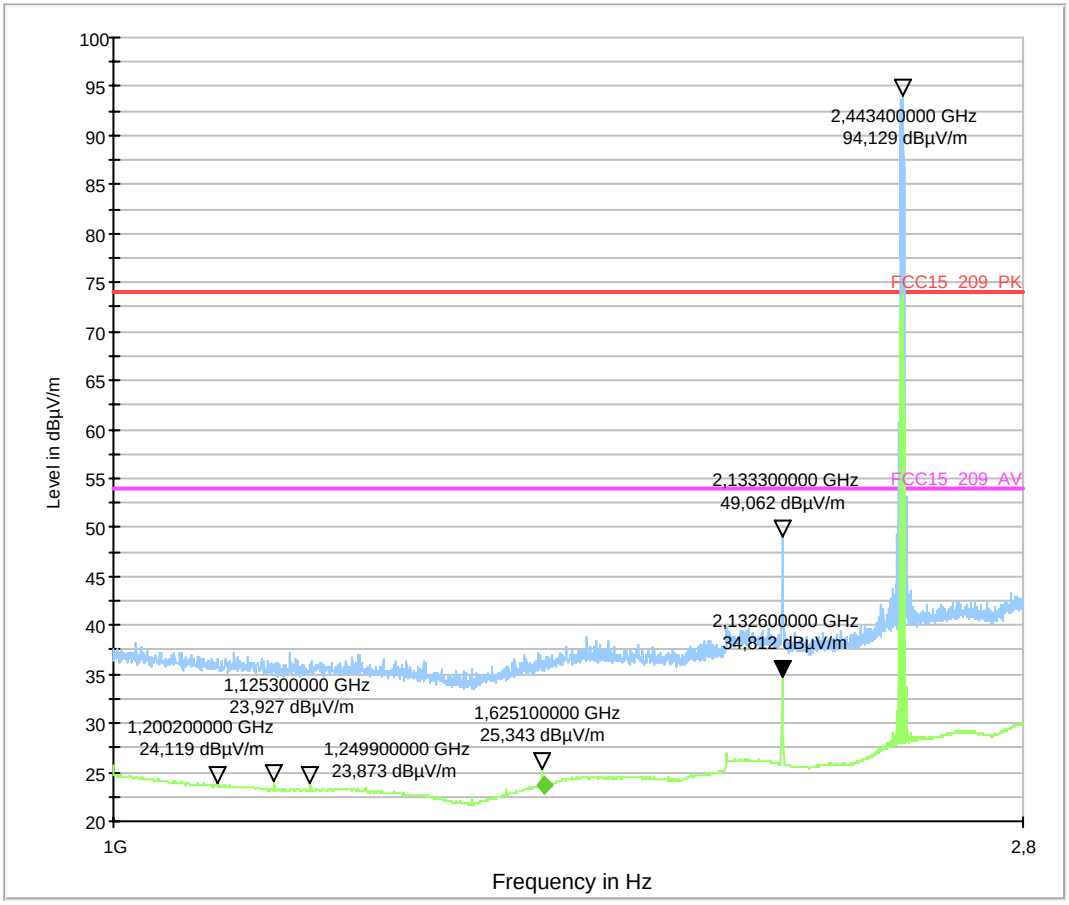
Test Description:	Part 15, Radiated field strength emission §15.205 & §15.209
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.209 Intentional Radiator WLAN/ 15.109 IDLE Mode FDD 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN TX-on + IDLE FDD Band 4
Operator Name:	Brl
Comment:	WLAN Channel no. middle(7)/ FDD4 channel middle

EUT Information

Description:

EUT:	Globesurfer 3 NAR
Manufacturer:	Option
Serial Number:	
Operation cond.:	WLAN TX-on + IDLE FDD4
Operator:	Brl/Lor
Comment 1:	HW2.2
Comment 2:	

01_1_2.8G_ohne switch_mit_preAmp_dBuV_H&V



Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1629.90000	23.6	100.00	1000.000	155.0	V	47.0	-0.6	30.4	54.0

(continuation of the "Final Result 2" table from column 10 ...)

Frequency (MHz)	Comment
1629.90000	

EMI Auto Test Template: 01_1_2.8G_ohne switch_mit_preAmp_dBuV_H&V

Hardware Setup: 13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type: Open-Area-Test-Site
Frequency Range: 1 GHz - 2,8 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: 07_ESU_1_2.7G_pre

Data Reduction:
- Limit Line #1: FCC15_209_PK
- Limit Line #2: FCC15_209_AV
- Interactive data reduction
- Peak Search: 6 dB
- Maximum Results: 10
- Subrange Maxima: 50
- Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 30

Frequency Zoom:
- Zoom Scan Template: 09_ESU_1_2.7G_zoom

Adjustment:
- Template for Single Meas.: 07_ESU_1_2.7G_pre

Final Measurements:
- Template for Single Meas.: 11_ESU_1_2.7G_fin
- Template for Single Meas.:(>1GHz) 11_ESU_1_2.7G_fin

Report Settings:
- Report Template: Report Setup FCC 15_247

Actions:
- Test start
  - Notify: "Matrix richtig geschaltet ?!?"

Diagram No.: 2.06

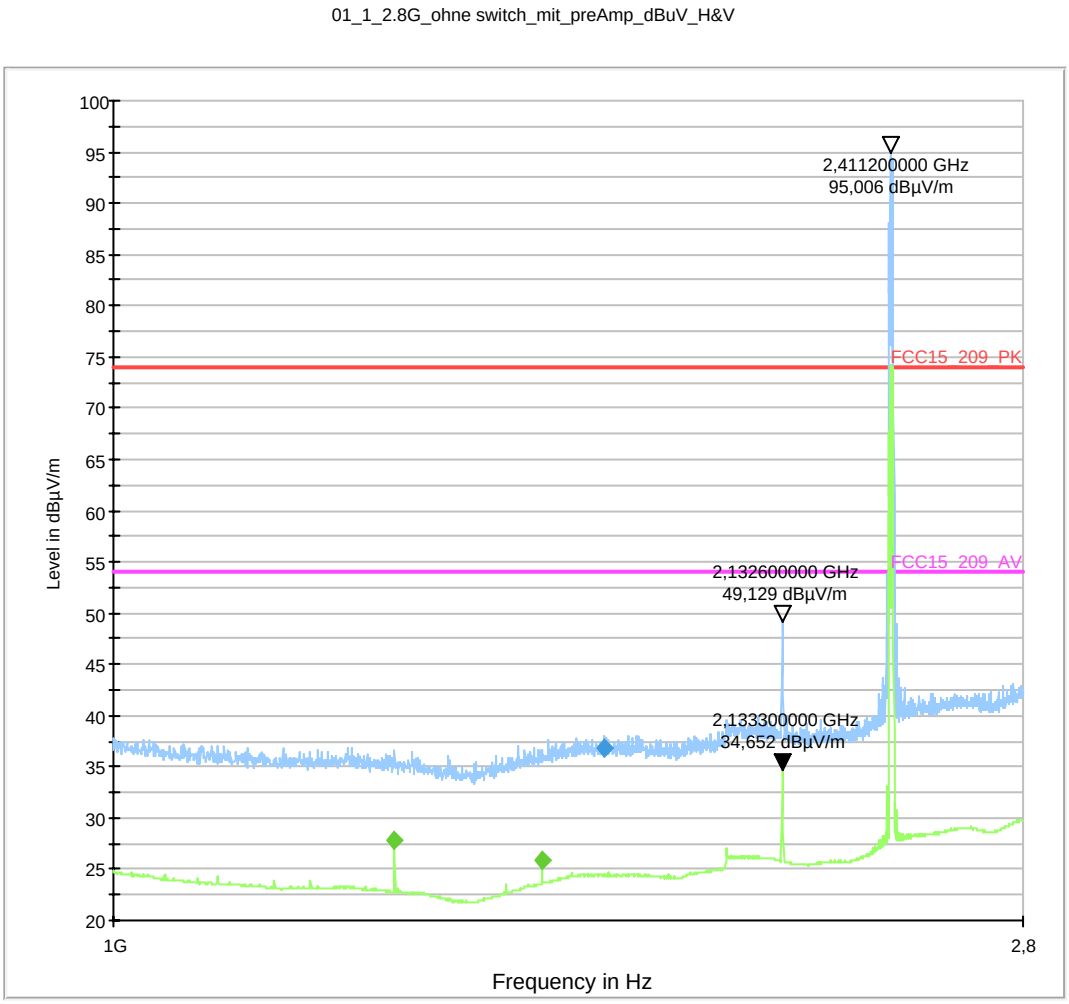
Common Information

Test Description:	Part 15, Radiated field strength emission §15.205 & §15.209
Test Site:	CETECOM GmbH Essen
Test Standard:	§15.209 Intentional Radiator WLAN/ 15.109 IDLE Mode FDD 4
Antenna polarisation:	horizontal/vertical
Operator Name:	Lor
Comment:	WLAN Channel low/ FDD 4 Channel middle

EUT Information

Description:

EUT:	Globesurfer 3 NAR
Manufacturer:	Option
Serial Number:	
Operation cond.:	WLAN TX-on + IDLE FDD4
Operator:	Brl/Lor
Comment 1:	HW2.2
Comment 2:	



Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1743.30000	36.7	100.00	1000.000	155.0	V	90.0	0.2	37.3	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1375.10000	27.7	100.00	1000.000	155.0	V	317.0	-1.5	26.3	54.0
1625.00000	25.8	100.00	1000.000	155.0	H	317.0	-0.7	28.2	54.0

EMI Auto Test Template: 01_1_2.8G_ohne switch_mit_preAmp_dBuV_H&V

Hardware Setup: 13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type: Open-Area-Test-Site
Frequency Range: 1 GHz - 2,8 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: 07_ESU_1_2.7G_pre

Data Reduction:
- Limit Line #1: FCC15_209_PK
- Limit Line #2: FCC15_209_AV
- Interactive data reduction
- Peak Search: 6 dB
- Maximum Results: 10
- Subrange Maxima: 50
- Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 30

Frequency Zoom:
- Zoom Scan Template: 09_ESU_1_2.7G_zoom

Adjustment:
- Template for Single Meas.: 07_ESU_1_2.7G_pre

Final Measurements:
- Template for Single Meas.: 11_ESU_1_2.7G_fin
- Template for Single Meas.:(>1GHz) 11_ESU_1_2.7G_fin

Report Settings:
- Report Template: Report Setup FCC 15_247

Actions:
- Test start
  - Notify: "Matrix richtig geschaltet ?!?"

Diagram No.: 2.07

Common Information

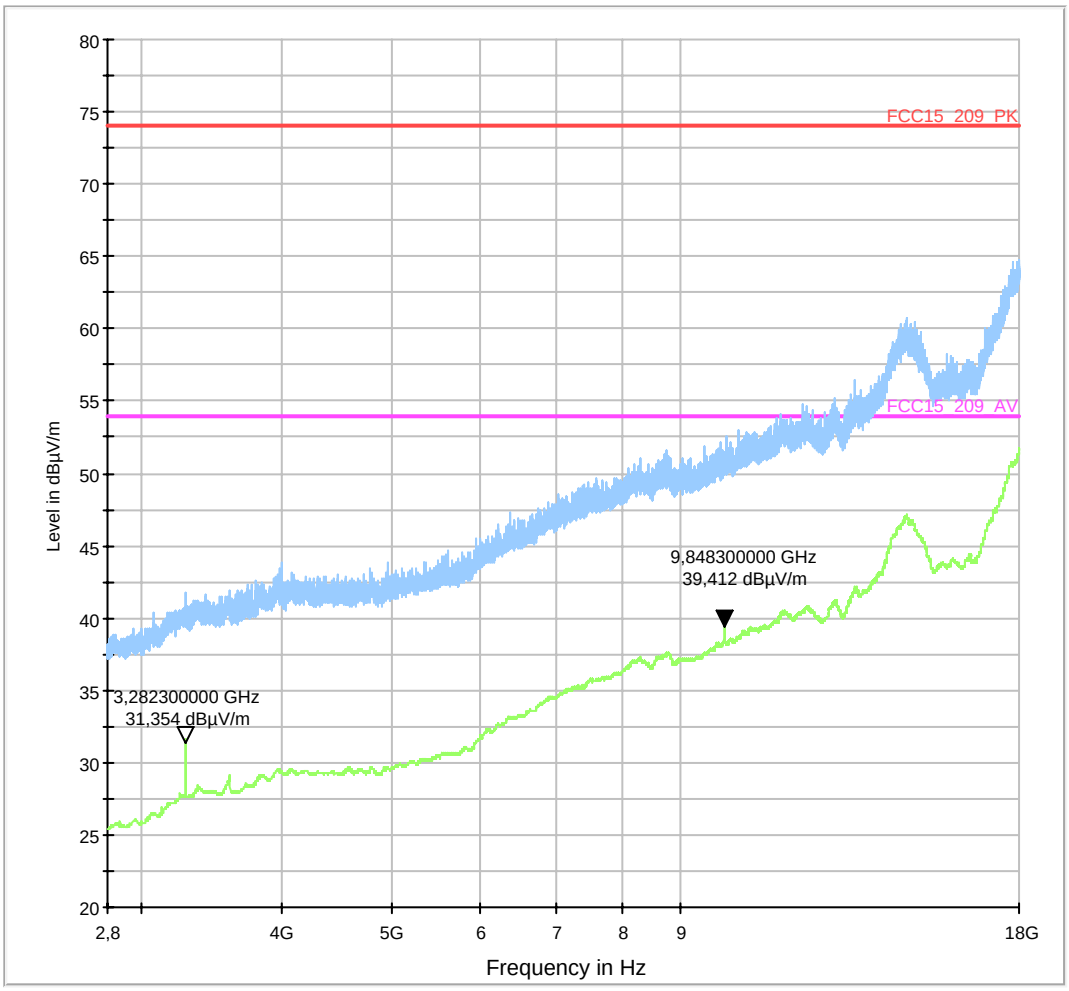
Test Description:	Radiated field strength emission §15.247
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.209 Intentional Radiator for WLAN/ FCC15.109 for FDD Band 4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN TX-on + IDLE FDD Band 4
Operator Name:	Brl
Comment:	WLAN Channel high(11)/ IDLE FDD BAnd4 Channel 1450

EUT Information

Description:

EUT Name:	GS3 NAR + AC-Adapter+POTS Handset
Manufacturer:	Option
Hardware Rev:	2.2

02_2.8_18G_ohne switch H&V



EMI Auto Test Template: 02_2.8_18G_ohne switch H&V

Hardware Setup:	13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type:	Open-Area-Test-Site
Frequency Range:	2.8 GHz - 18 GHz
Graphics Level Range:	20 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	08_ESU_ExtPreamp_2.7_18G_pre
Data Reduction:	
Limit Line #1:	FCC15_209_PK
Limit Line #2:	FCC15_209_AV
Interactive data reduction	
Peak Search:	6 dB
Maximum Results:	10
Subrange Maxima:	50
Maxima per Subrange:	1
Acceptance Offset:	-20 dB
Maximum Number of Results:	30
Frequency Zoom:	
Zoom Scan Template:	10_ESU_ExtPreamp_2.7_18G_zoom
Adjustment:	
Template for Single Meas.:	08_ESU_ExtPreamp_2.7_18G_pre
Final Measurements:	
Template for Single Meas.:	12_ESU_ExtPreamp_2.7_18G_fin
Template for Single Meas.:(>1GHz)	12_ESU_ExtPreamp_2.7_18G_fin
Report Settings:	
Report Template:	Report Setup FCC 15_209
Create Electronic Report:	PDF
Document Name:	dummy EMI Report

Diagram No.: 2.08

Common Information

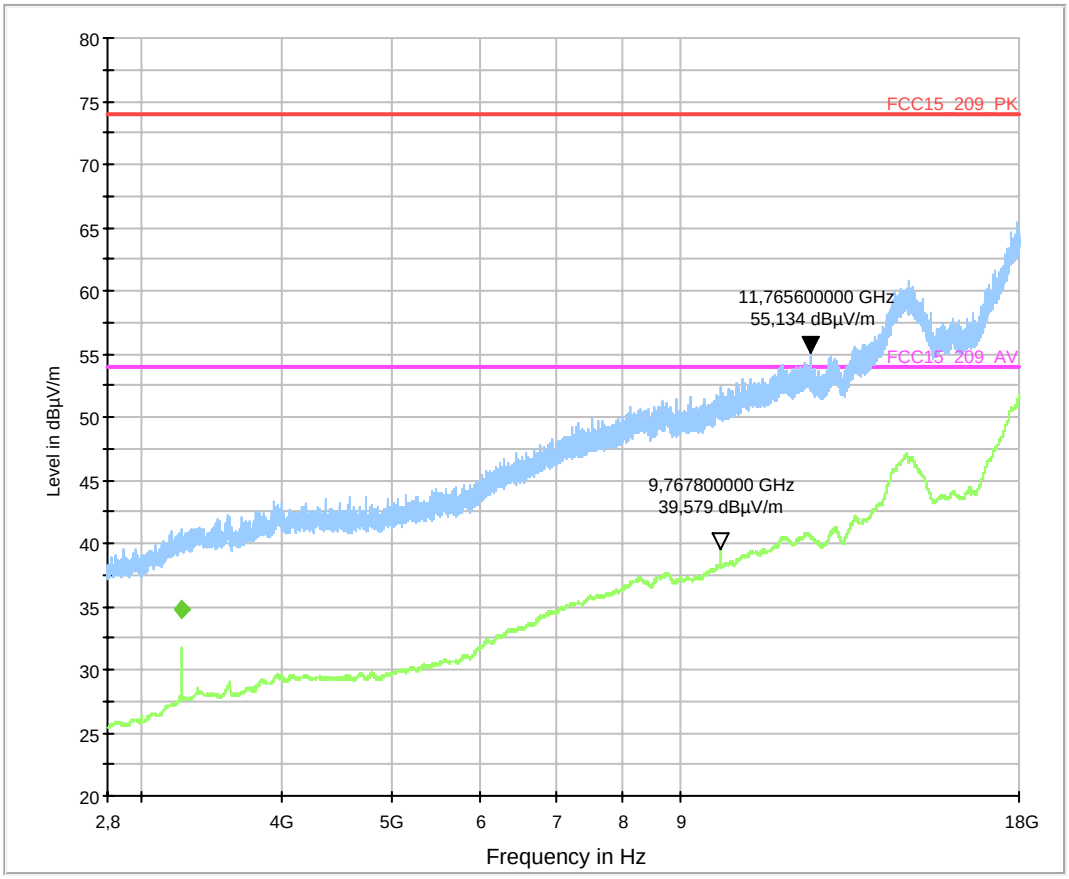
Test Description:	Radiated field strength emission §15.247
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.209 Intentional Radiator for WLAN/ FCC15.109 for FDD Band4
Antenna polarisation:	horizontal/vertical
Operation mode:	WLAN TX-on + IDLE FDD Band 4
Operator Name:	Brl
Comment:	WLAN Channel middle (7)/ FDD Band 4 channel middle=1450

EUT Information

Description:

EUT:	Globesurfer 3 NAR
Manufacturer:	Option
Serial Number:	
Operation cond.:	WLAN TX-on + IDLE FDD4
Operator:	Brl/Lor
Comment 1:	HW2.2
Comment 2:	

02_2.8_18G_ohne switch H&V



Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
3255.90000	34.7	100.00	1000.000	155.0	H	110.0	-3.7	19.3	54.0

EMI Auto Test Template: 02_2.8_18G_ohne switch H&V

Hardware Setup: 13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type: Open-Area-Test-Site
Frequency Range: 2.8 GHz - 18 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: 08_ESU_ExtPreamp_2.7_18G_pre

Data Reduction:
- Limit Line #1: FCC15_209_PK
- Limit Line #2: FCC15_209_AV
- Interactive data reduction
- Peak Search: 6 dB
- Maximum Results: 10
- Subrange Maxima: 50
- Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 30

Frequency Zoom:
- Zoom Scan Template: 10_ESU_ExtPreamp_2.7_18G_zoom

Adjustment:
- Template for Single Meas.: 08_ESU_ExtPreamp_2.7_18G_pre

Final Measurements:
- Template for Single Meas.: 12_ESU_ExtPreamp_2.7_18G_fin
- Template for Single Meas.:(>1GHz) 12_ESU_ExtPreamp_2.7_18G_fin

Report Settings:
- Report Template: Report Setup FCC 15_209
- Create Electronic Report: PDF
- Document Name: dummy EMI Report

Diagram No.: 2.09

Common Information

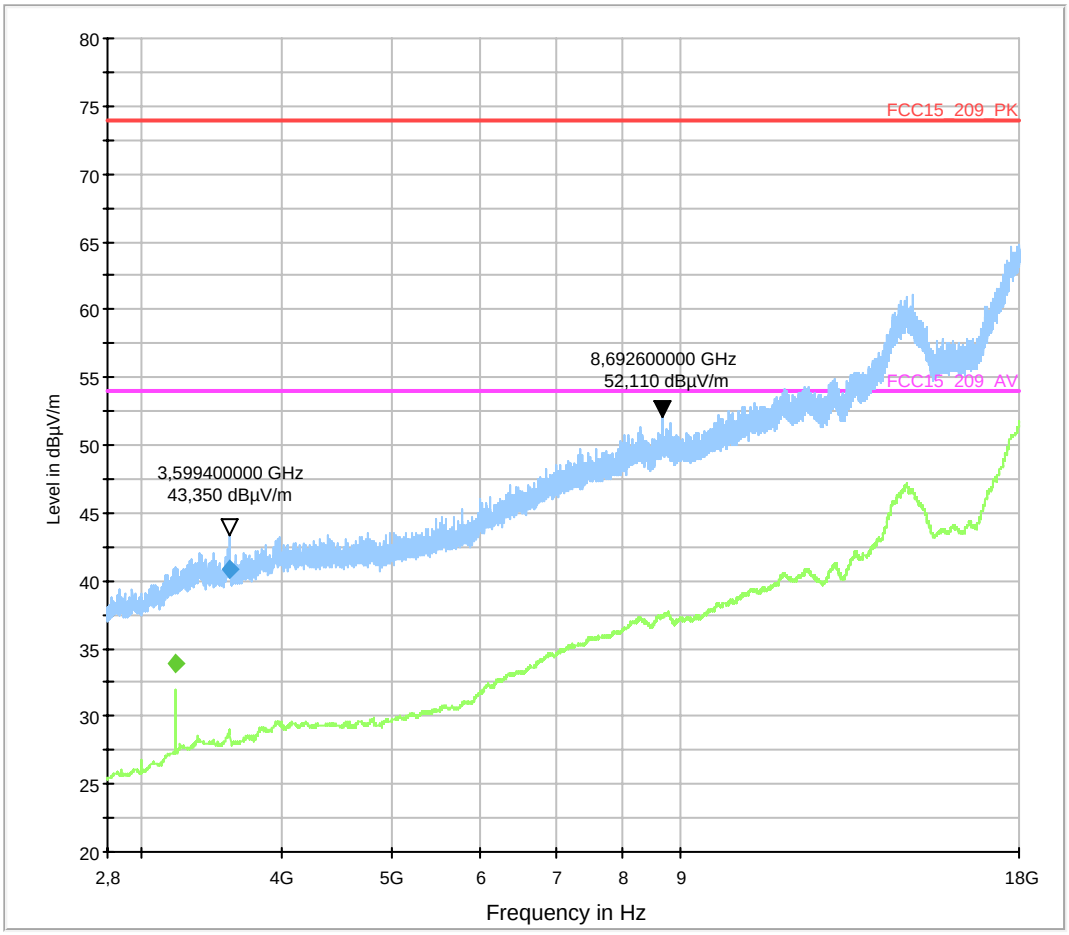
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.209 Intentional Radiator WLAN/ FCC 15.109 IDLE Mode FDD4
Antenna polarisation:	horizontal/vertical
Operator Name:	x_Fto
Comment:	WLAN Channel low(1)/ FDD Band 4 Channel middle =1450

EUT Information

Description:

EUT:	Globesurfer 3 NAR
Manufacturer:	Option
Serial Number:	
Operation cond.:	WLAN TX-on + IDLE FDD4
Operator:	Brl/Lor
Comment 1:	HW2.2
Comment 2:	

02_2.8_18G_ohne switch H&V



Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
3216.00	33.9	100.00	1000.000	155.0	V	-12.0	-3.8	20.1	54.0

EMI Auto Test Template: 02_2.8_18G_ohne switch H&V

Hardware Setup: 13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type: Open-Area-Test-Site
Frequency Range: 2.8 GHz - 18 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: 08_ESU_ExtPreamp_2.7_18G_pre

Data Reduction:
- Limit Line #1: FCC15_209_PK
- Limit Line #2: FCC15_209_AV
- Interactive data reduction
- Peak Search: 6 dB
- Maximum Results: 10
- Subrange Maxima: 50
- Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 30

Frequency Zoom:
- Zoom Scan Template: 10_ESU_ExtPreamp_2.7_18G_zoom

Adjustment:
- Template for Single Meas.: 08_ESU_ExtPreamp_2.7_18G_pre

Final Measurements:
- Template for Single Meas.: 12_ESU_ExtPreamp_2.7_18G_fin
- Template for Single Meas.:(>1GHz) 12_ESU_ExtPreamp_2.7_18G_fin

Report Settings:
- Report Template: Report Setup FCC 15_209
- Create Electronic Report: PDF
- Document Name: dummy EMI Report

Diagram No.: 02.12

Common Information

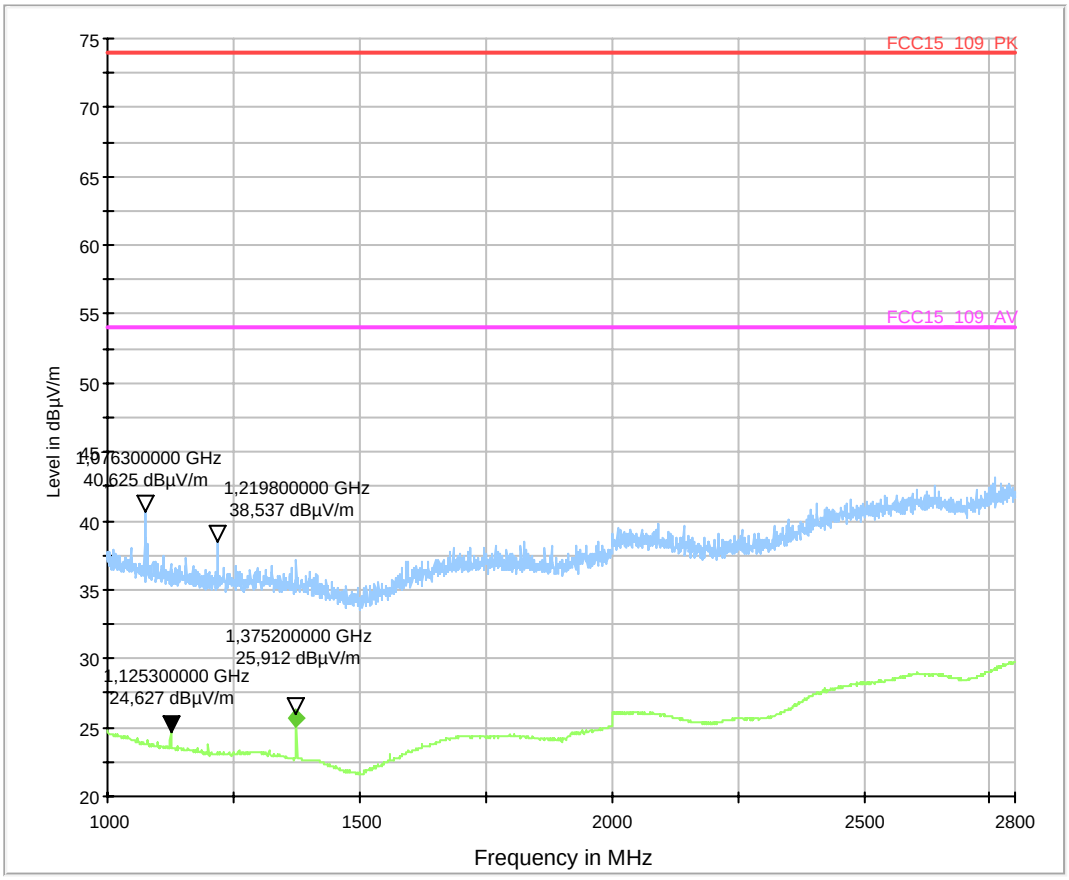
Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	IDLE Mode FDD Band 5
Operator Name:	Lor
Comment:	Uplink channel middle: 4183
	Downlink channel: 4408
	Internal Antenna used

EUT Information

Description:

EUT Name:	GS 3 NAR + Handset+AC-Adapter
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	
Software Rev:	
Comment:	Internal Antenna used

03_1_2.7G_ohne switch H&V



Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Elevation (deg)	Corr. (dB)	Margin (dB)
1375.10000	25.6	100.00	1000.000	155.0	V	88.0	0.0	-1.5	28.4

(continuation of the "Final Result 2" table from column 10 ...)

Frequency (MHz)	Limit (dBµV/m)	Comment
1375.10000	54.0	

EMI Auto Test Template: 03_1_2.7G_ohne switch H&V

Hardware Setup: 13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type: E(I)RP
Frequency Range: 1 GHz - 2,8 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: 07_ESU_1_2.7G_pre

Data Reduction:
- Limit Line #1: FCC15_109_PK
- Limit Line #2: FCC15_109_AV
- Interactive data reduction
- Peak Search: 6 dB
- Maximum Results: 10
- Subrange Maxima: 50
- Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 30

Frequency Zoom:
- Zoom Scan Template: 09_ESU_1_2.7G_zoom

Adjustment:
- Template for Single Meas.: 07_ESU_1_2.7G_pre

Final Measurements:
- Template for Single Meas.: 11_ESU_1_2.7G_fin
- Template for Single Meas.:(>1GHz) 11_ESU_1_2.7G_fin

Report Settings:
- Report Template: Report Setup FCC 15_109

Actions:
- Test start
  - Notify: "Matrix richtig geschaltet ?!? Spekki (ESU) angeschlossen ?"

Diagram No.: 02.13

Common Information

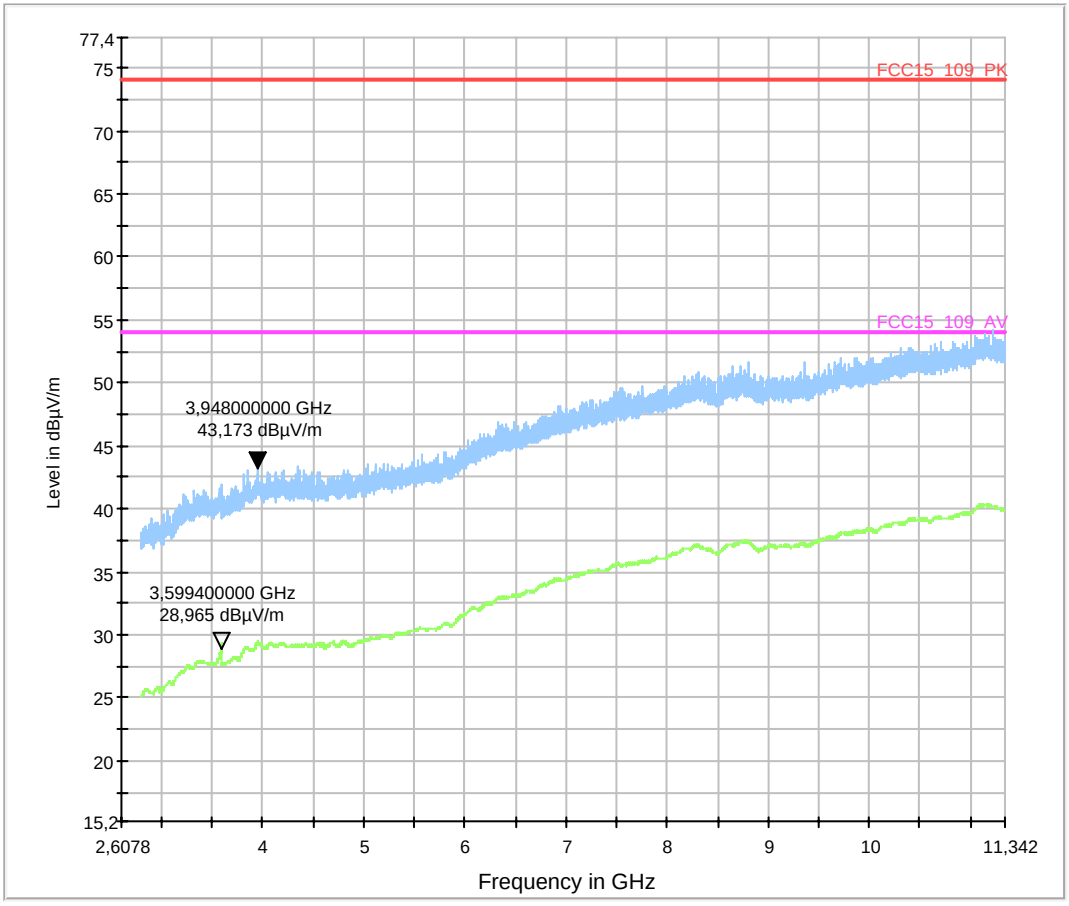
Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	IDLE Mode FDD Band 5
Operator Name:	Lor
Comment:	Middle Uplink channel 4183
	Downlink channel 4408

EUT Information

Description:

EUT Name:	GS 3 NAR + Handset+AC-Adapter
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	
Software Rev:	
Comment:	Internal Antenna used

04_2.7_18G_ohne switch H&V



EMI Auto Test Template: 04_2.7_18G_ohne switch H&V

Hardware Setup:	13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type:	Open-Area-Test-Site
Frequency Range:	2.8 GHz - 12,75 GHz
Graphics Level Range:	20 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	08_ESU_ExtPreamp_2.7_18G_pre
Data Reduction:	
Limit Line #1:	FCC15_109_PK
Limit Line #2:	FCC15_109_AV
Interactive data reduction	
Peak Search:	6 dB
Maximum Results:	10
Subrange Maxima:	50
Maxima per Subrange:	1
Acceptance Offset:	-20 dB
Maximum Number of Results:	30
Frequency Zoom:	
Zoom Scan Template:	10_ESU_ExtPreamp_2.7_18G_zoom
Adjustment:	
Template for Single Meas.:	08_ESU_ExtPreamp_2.7_18G_pre
Final Measurements:	
Template for Single Meas.:	12_ESU_ExtPreamp_2.7_18G_fin
Template for Single Meas.:(>1GHz)	12_ESU_ExtPreamp_2.7_18G_fin
Report Settings:	
Report Template:	Report Setup FCC 15_109
Create Electronic Report:	PDF
Document Name:	dummy EMI Report
Actions:	
Test start	
Notify:	"Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"

Diagram No.: 2.14

Common Information

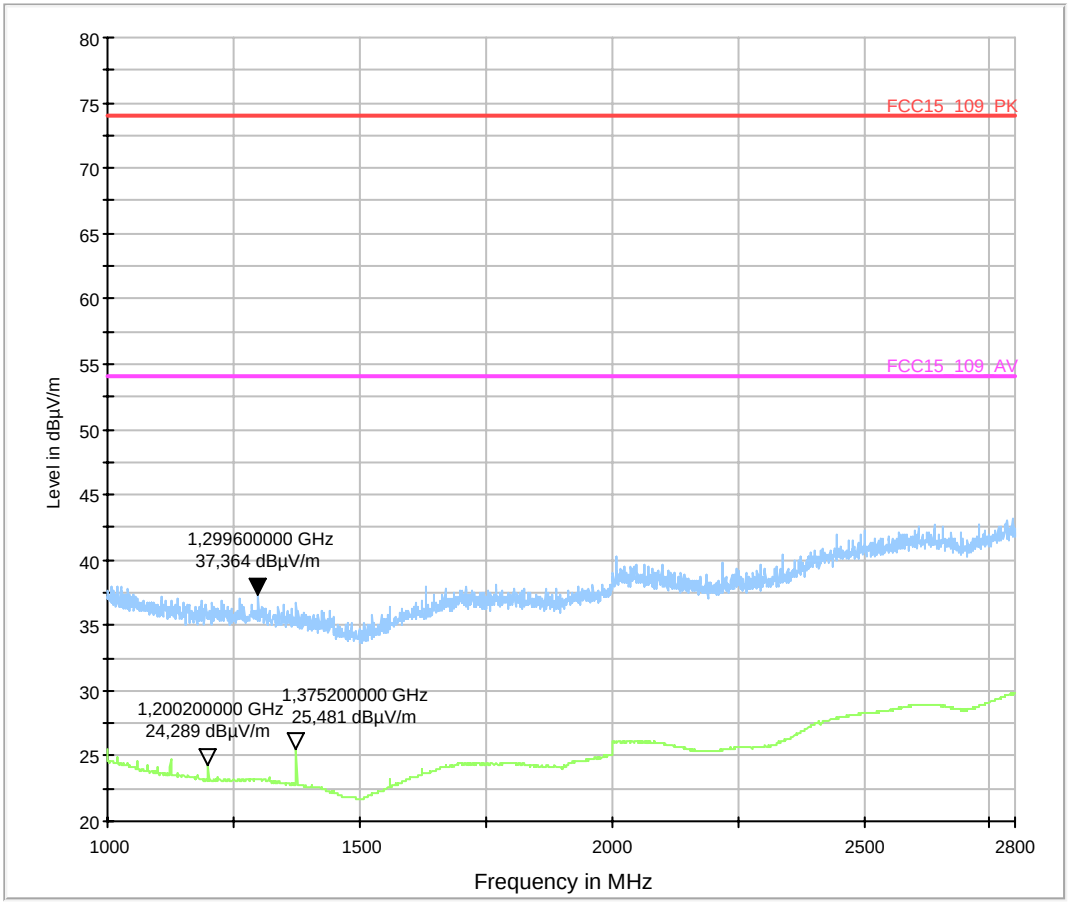
Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	IDLE Mode GSM850
Operator Name:	Lor
Comment:	Uplink channel middle: 192
	External Antenna of EUT used

EUT Information

Description:

EUT Name:	GS 3 NAR + Handset+AC-Adapter
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	
Software Rev:	
Comment:	Internal Antenna used

03_1_2.7G_ohne switch H&V



EMI Auto Test Template: 03_1_2.7G_ohne switch H&V

Hardware Setup:	13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type:	E(I)RP
Frequency Range:	1 GHz - 2,8 GHz
Graphics Level Range:	20 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	07_ESU_1_2.7G_pre
Data Reduction:	
Limit Line #1:	FCC15_109_PK
Limit Line #2:	FCC15_109_AV
Interactive data reduction	
Peak Search:	6 dB
Maximum Results:	10
Subrange Maxima:	50
Maxima per Subrange:	1
Acceptance Offset:	-20 dB
Maximum Number of Results:	30
Frequency Zoom:	
Zoom Scan Template:	09_ESU_1_2.7G_zoom
Adjustment:	
Template for Single Meas.:	07_ESU_1_2.7G_pre
Final Measurements:	
Template for Single Meas.:	11_ESU_1_2.7G_fin
Template for Single Meas.:(>1GHz)	11_ESU_1_2.7G_fin
Report Settings:	
Report Template:	Report Setup FCC 15_109
Actions:	
Test start	
Notify:	"Matrix richtig geschaltet ?!? Spekki (ESU) angeschlossen ?"

Diagram No.: 2.15

Common Information

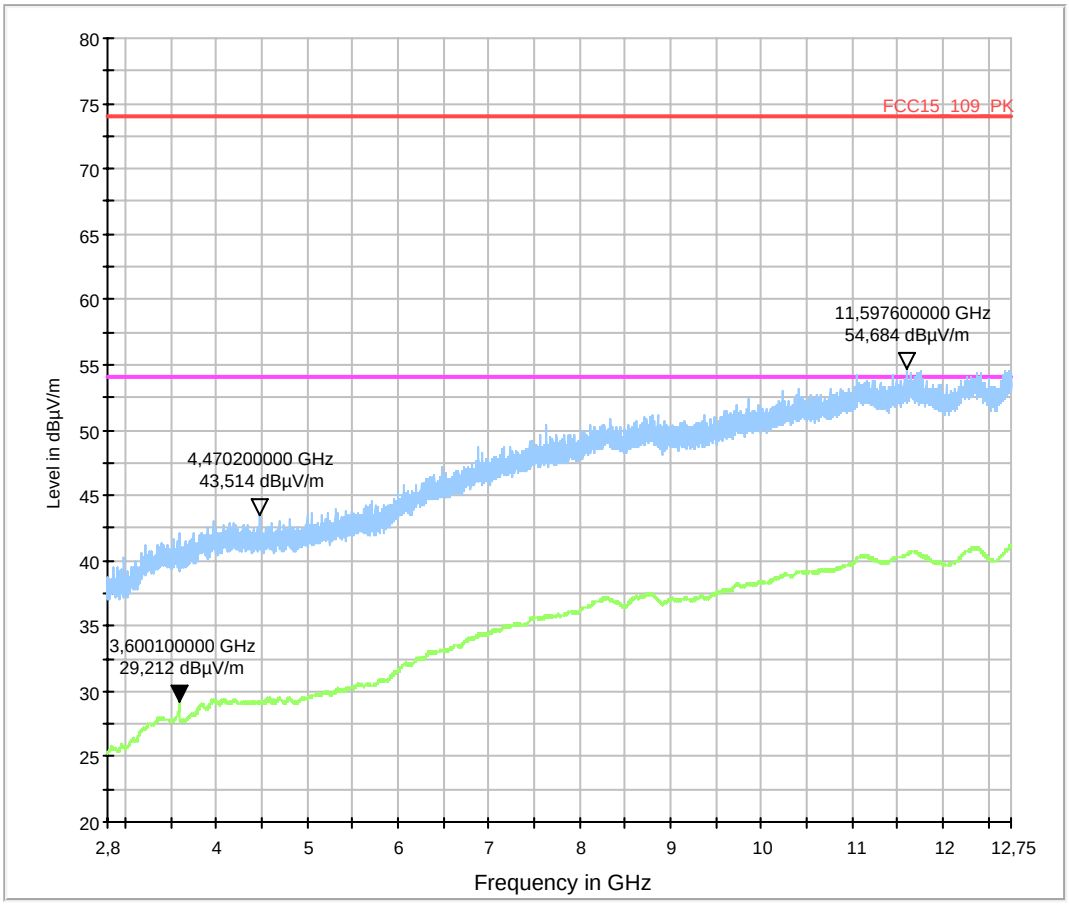
Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	IDLE Mode GSM850
Operator Name:	Maa
Comment:	Uplink channel middle: 192
	External Antenna of EUT used

EUT Information

Description:

EUT Name:	GS 3 NAR + Handset+AC-Adapter
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	
Software Rev:	
Comment:	Internal Antenna used

04_2.7_18G_ohne switch H&V



EMI Auto Test Template: 04_2.7_18G_ohne switch H&V

Hardware Setup:	13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type:	Open-Area-Test-Site
Frequency Range:	2.8 GHz - 12,75 GHz
Graphics Level Range:	20 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	08_ESU_ExtPreamp_2.7_18G_pre
Data Reduction:	
Limit Line #1:	FCC15_109_PK
Limit Line #2:	FCC15_109_AV
Interactive data reduction	
Peak Search:	6 dB
Maximum Results:	10
Subrange Maxima:	50
Maxima per Subrange:	1
Acceptance Offset:	-20 dB
Maximum Number of Results:	30
Frequency Zoom:	
Zoom Scan Template:	10_ESU_ExtPreamp_2.7_18G_zoom
Adjustment:	
Template for Single Meas.:	08_ESU_ExtPreamp_2.7_18G_pre
Final Measurements:	
Template for Single Meas.:	12_ESU_ExtPreamp_2.7_18G_fin
Template for Single Meas.:(>1GHz)	12_ESU_ExtPreamp_2.7_18G_fin
Report Settings:	
Report Template:	Report Setup FCC 15_109
Create Electronic Report:	PDF
Document Name:	dummy EMI Report
Actions:	
Test start	
Notify:	"Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"

Diagram No.: 2.54

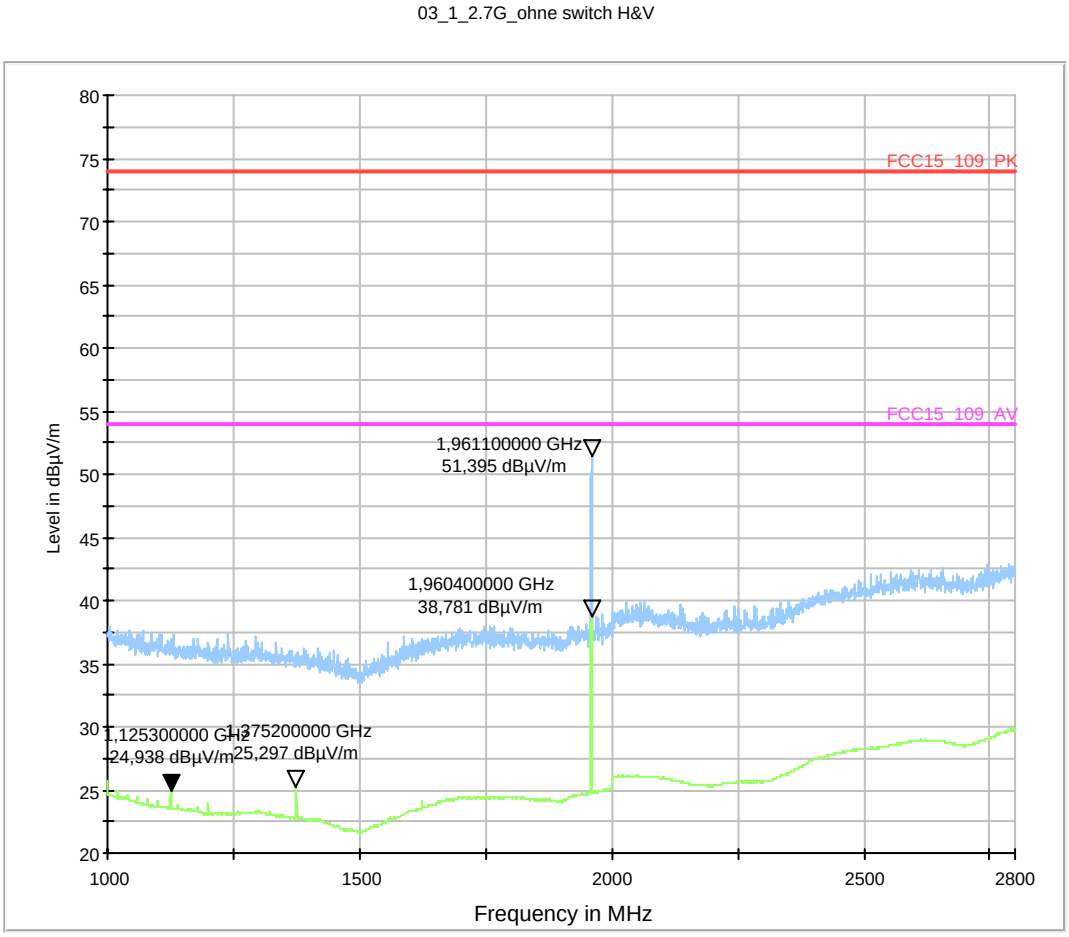
Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal + vertical
Operation mode:	IDLE Mode Band FDD II
Operator Name:	MWa
Comment:	Uplink channel middle: 9400
	Downlink channel middle: 9800
	Internal Antenna of EUT used

EUT Information

Description:

EUT Name:	GS 3 NAR + Handset+AC-Adapter
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	
Software Rev:	
Comment:	Internal Antenna used



EMI Auto Test Template: 03_1_2.7G_ohne switch H&V

Hardware Setup:	13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type:	E(I)RP
Frequency Range:	1 GHz - 2,8 GHz
Graphics Level Range:	20 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	07_ESU_1_2.7G_pre
Data Reduction:	
Limit Line #1:	FCC15_109_PK
Limit Line #2:	FCC15_109_AV
Interactive data reduction	
Peak Search:	6 dB
Maximum Results:	10
Subrange Maxima:	50
Maxima per Subrange:	1
Acceptance Offset:	-20 dB
Maximum Number of Results:	30
Frequency Zoom:	
Zoom Scan Template:	09_ESU_1_2.7G_zoom
Adjustment:	
Template for Single Meas.:	07_ESU_1_2.7G_pre
Final Measurements:	
Template for Single Meas.:	11_ESU_1_2.7G_fin
Template for Single Meas.:(>1GHz)	11_ESU_1_2.7G_fin
Report Settings:	
Report Template:	Report Setup FCC 15_109
Actions:	
Test start	
Notify:	"Matrix richtig geschaltet ?!? Spekki (ESU) angeschlossen ?"

Diagram No.: 2.55

Common Information

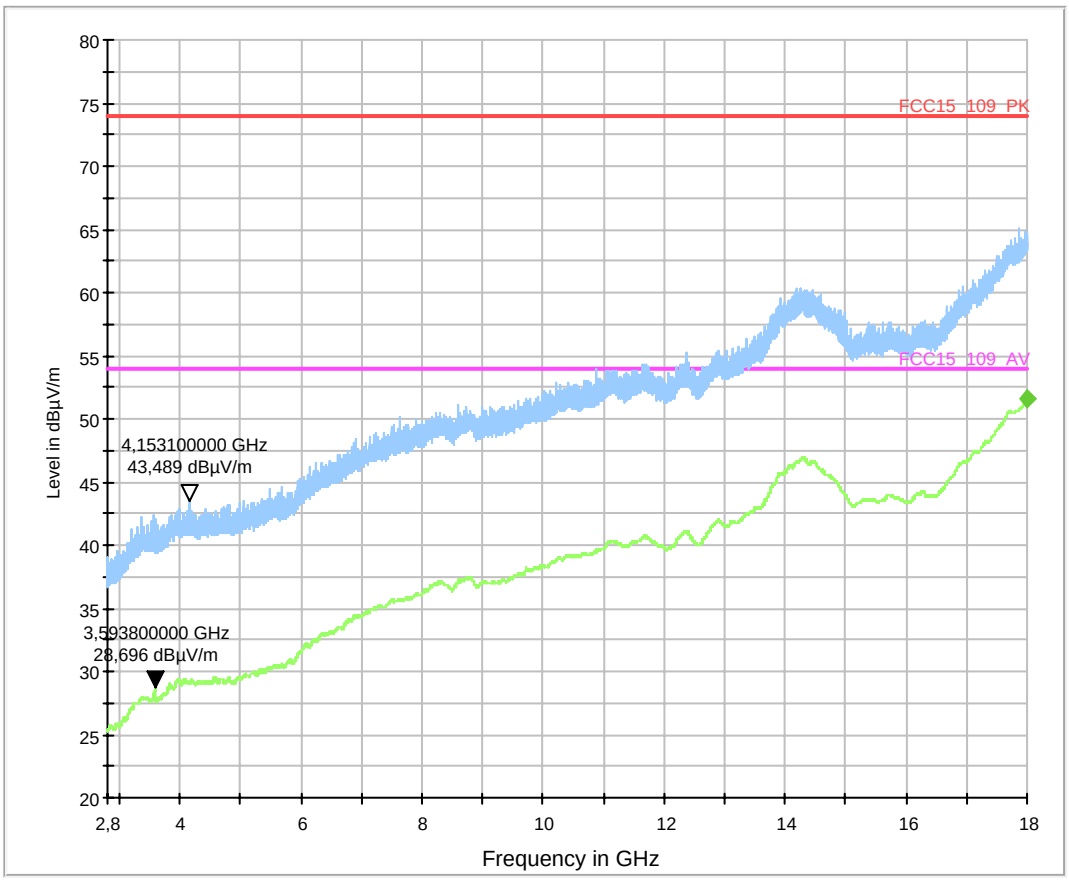
Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal + vertical
Operation mode:	IDLE Mode FDD Band II
Operator Name:	MWa
Comment:	Uplink channel middle: 9400
	Downlink channel middle: 9800
	Internal Antenna of EUT used

EUT Information

Description:

EUT Name:	GS 3 NAR + Handset+AC-Adapter
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	
Software Rev:	
Comment:	Internal Antenna used

04_2.7_18G_ohne switch H&V



Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
17996.70000	51.6	100.00	1000.000	155.0	H	41.0	23.8	2.4	54.0

(continuation of the "Final Result 2" table from column 10 ...)

Frequency (MHz)	Comment
17996.70000	

EMI Auto Test Template: 04_2.7_18G_ohne switch H&V

Hardware Setup: 13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type: Open-Area-Test-Site
Frequency Range: 2.8 GHz - 18 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: 08_ESU_ExtPreamp_2.7_18G_pre

Data Reduction:
- Limit Line #1: FCC15_109_PK
- Limit Line #2: FCC15_109_AV
- Interactive data reduction
- Peak Search: 6 dB
- Maximum Results: 10
- Subrange Maxima: 50
- Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 30

Frequency Zoom:
- Zoom Scan Template: 10_ESU_ExtPreamp_2.7_18G_zoom

Adjustment:
- Template for Single Meas.: 08_ESU_ExtPreamp_2.7_18G_pre

Final Measurements:
- Template for Single Meas.: 12_ESU_ExtPreamp_2.7_18G_fin
- Template for Single Meas.:(>1GHz): 12_ESU_ExtPreamp_2.7_18G_fin

Report Settings:
- Report Template: Report Setup FCC 15_109
- Create Electronic Report: PDF
- Document Name: dummy EMI Report

Actions:
- Test start
  - Notify: "Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"

Diagram No.: 2.56

Common Information

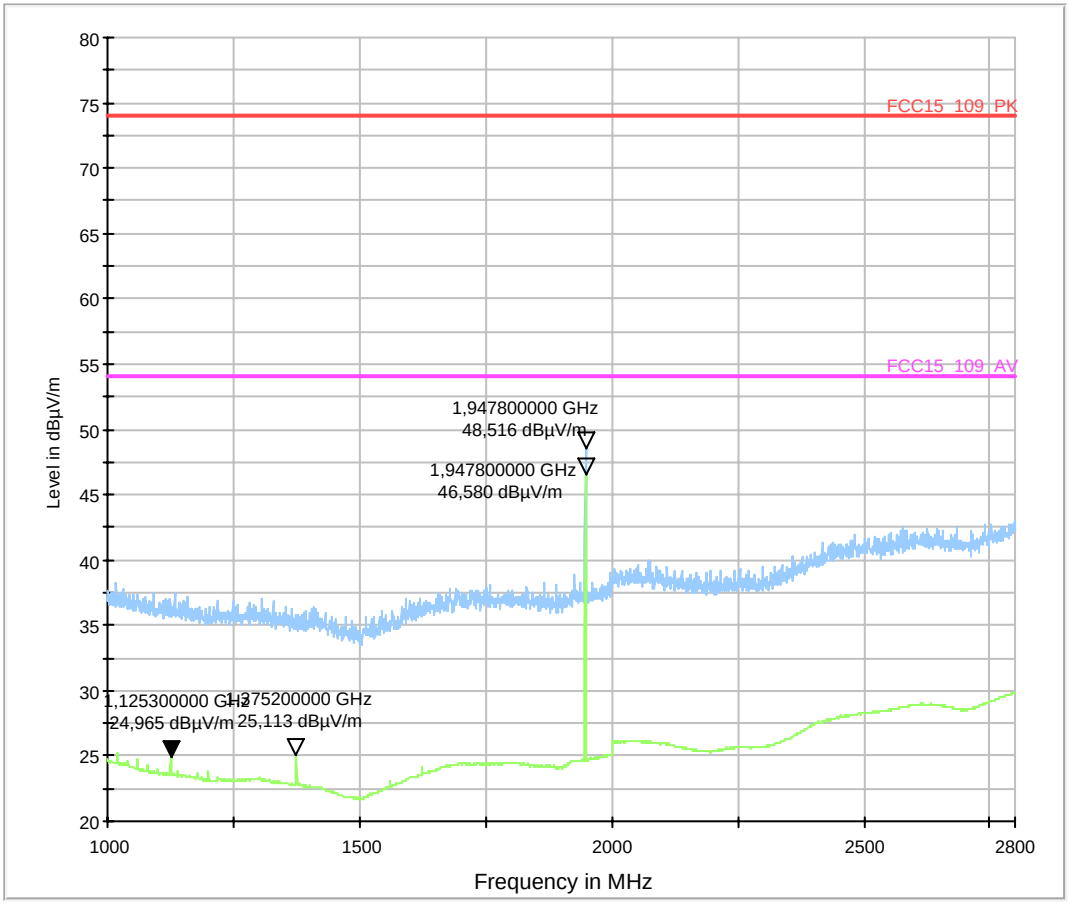
Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal + vertical
Operation mode:	IDLE Mode GSM1900
Operator Name:	Maa
Comment:	Uplink channel middle: 661
	External Antenna of EUT used

EUT Information

Description:

EUT Name:	GS 3 NAR + Handset+AC-Adapter
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	
Software Rev:	
Comment:	Internal Antenna used

03_1_2.7G_ohne switch H&V



EMI Auto Test Template: 03_1_2.7G_ohne switch H&V

Hardware Setup:	13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type:	E(I)RP
Frequency Range:	1 GHz - 2,8 GHz
Graphics Level Range:	20 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	07_ESU_1_2.7G_pre
Data Reduction:	
Limit Line #1:	FCC15_109_PK
Limit Line #2:	FCC15_109_AV
Interactive data reduction	
Peak Search:	6 dB
Maximum Results:	10
Subrange Maxima:	50
Maxima per Subrange:	1
Acceptance Offset:	-20 dB
Maximum Number of Results:	30
Frequency Zoom:	
Zoom Scan Template:	09_ESU_1_2.7G_zoom
Adjustment:	
Template for Single Meas.:	07_ESU_1_2.7G_pre
Final Measurements:	
Template for Single Meas.:	11_ESU_1_2.7G_fin
Template for Single Meas.:(>1GHz)	11_ESU_1_2.7G_fin
Report Settings:	
Report Template:	Report Setup FCC 15_109
Actions:	
Test start	
Notify:	"Matrix richtig geschaltet ?!? Spekki (ESU) angeschlossen ?"

Diagram No.: 2.57

Common Information

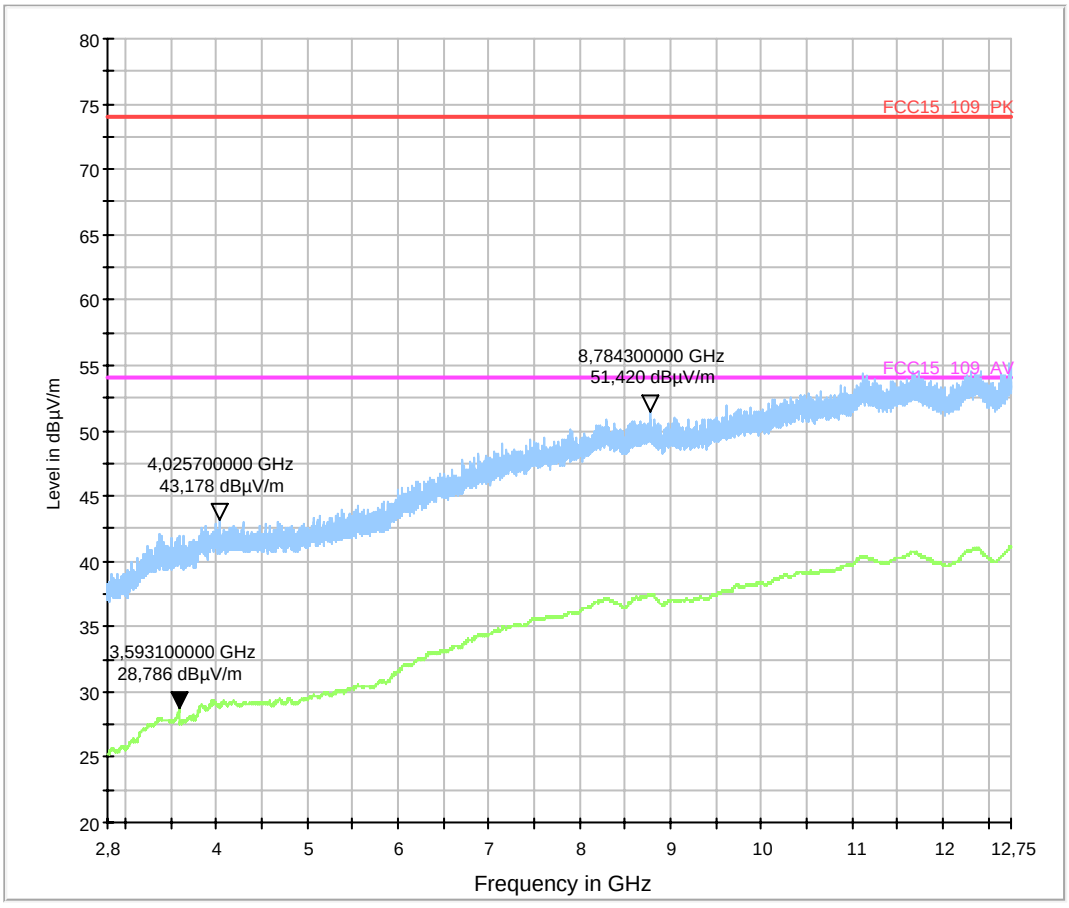
Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal + vertical
Operation mode:	IDLE Mode GSM1900
Operator Name:	Mwa
Comment:	Uplink channel middle: 661
	External Antenna of EUT used

EUT Information

Description:

EUT Name:	GS 3 NAR + Handset+AC-Adapter
Manufacturer:	Option N.V.
Serial Number:	
Hardware Rev:	
Software Rev:	
Comment:	External Antenna used

04_2.7_18G_ohne switch H&V



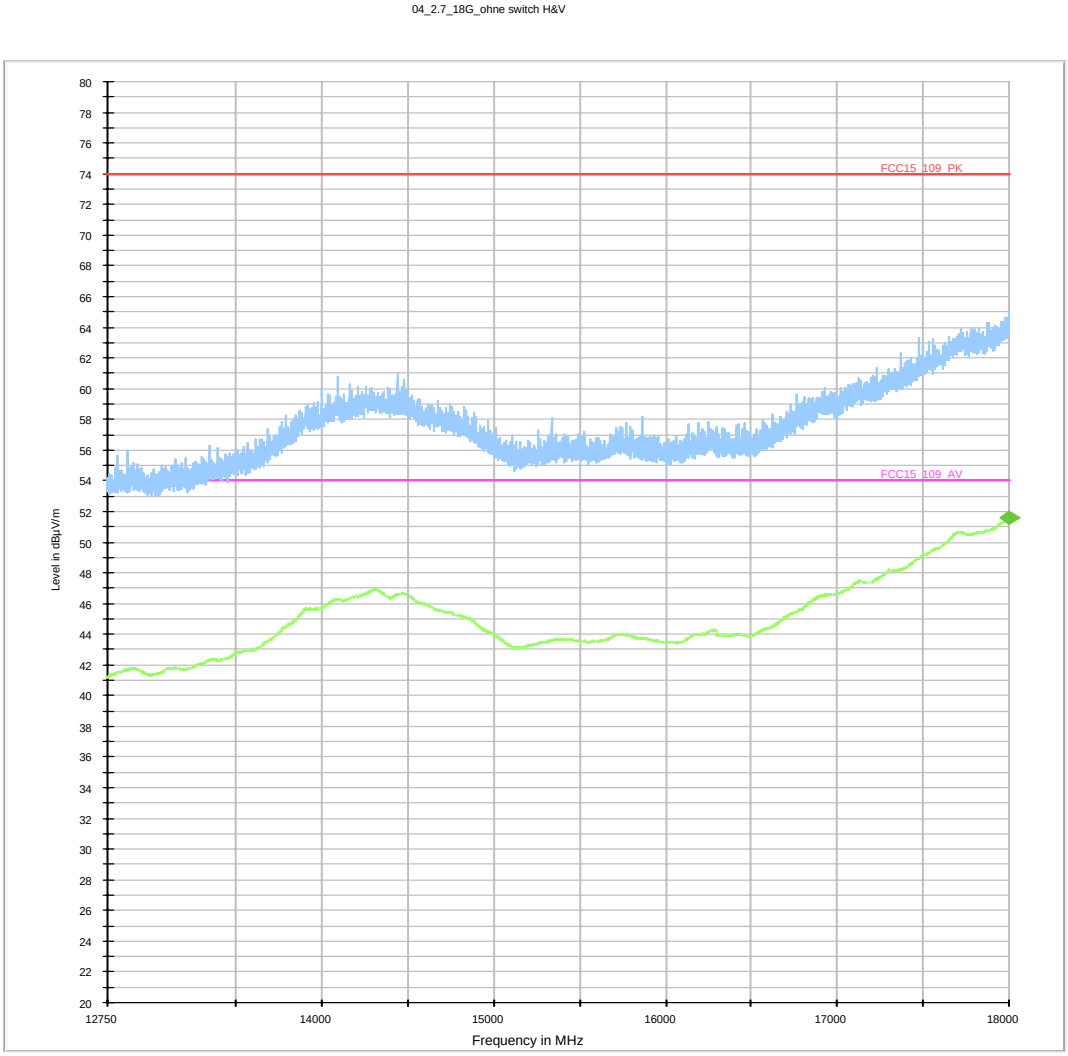
EMI Auto Test Template: 04_2.7_18G_ohne switch H&V

Hardware Setup:	13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type:	Open-Area-Test-Site
Frequency Range:	2.8 GHz - 12,75 GHz
Graphics Level Range:	20 dBµV/m - 80 dBµV/m
Preview Measurements:	
Scan Test Template:	08_ESU_ExtPreamp_2.7_18G_pre
Data Reduction:	
Limit Line #1:	FCC15_109_PK
Limit Line #2:	FCC15_109_AV
Interactive data reduction	
Peak Search:	6 dB
Maximum Results:	10
Subrange Maxima:	50
Maxima per Subrange:	1
Acceptance Offset:	-20 dB
Maximum Number of Results:	30
Frequency Zoom:	
Zoom Scan Template:	10_ESU_ExtPreamp_2.7_18G_zoom
Adjustment:	
Template for Single Meas.:	08_ESU_ExtPreamp_2.7_18G_pre
Final Measurements:	
Template for Single Meas.:	12_ESU_ExtPreamp_2.7_18G_fin
Template for Single Meas.:(>1GHz)	12_ESU_ExtPreamp_2.7_18G_fin
Report Settings:	
Report Template:	Report Setup FCC 15_109
Create Electronic Report:	PDF
Document Name:	dummy EMI Report
Actions:	
Test start	
Notify:	"Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"

Diagram No.: 2.58

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal + vertical
Operation mode:	IDLE Mode GSM1900
Operator Name:	MWa
Comment:	Uplink channel middle: 661
	Downlink channel middle: 661
	External Antenna of EUT used
EUT:	GS 3 NAR + Handset+AC-Adapter



Final Result 2

Frequency (MHz)	Average (dBµV/m)	Meas. Time (ms)	Bandwidth (kHz)	Antenna height (cm)	Polarity	Turntable position (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
17999.50000	51.6	100.00	1000.000	155.0	V	181.0	23.8	2.4	54.0

(continuation of the "Final Result 2" table from column 10 ...)

Frequency (MHz)	Comment
17999.50000	

EMI Auto Test Template: 04_2.7_18G_ohne switch H&V

Hardware Setup: 13_ESU_Horn_18G_Preamp_ohne_SM
Measurement Type: Open-Area-Test-Site
Frequency Range: 12.75 GHz - 18 GHz
Graphics Level Range: 20 dBµV/m - 80 dBµV/m

Preview Measurements:
- Scan Test Template: 08_ESU_ExtPreamp_2.7_18G_pre

Data Reduction:
- Limit Line #1: FCC15_109_PK
- Limit Line #2: FCC15_109_AV
- Interactive data reduction
- Peak Search: 6 dB
- Maximum Results: 10
- Subrange Maxima: 50
- Maxima per Subrange: 1
- Acceptance Offset: -20 dB
- Maximum Number of Results: 30

Frequency Zoom:
- Zoom Scan Template: 10_ESU_ExtPreamp_2.7_18G_zoom

Adjustment:
- Template for Single Meas.: 08_ESU_ExtPreamp_2.7_18G_pre

Final Measurements:
- Template for Single Meas.: 12_ESU_ExtPreamp_2.7_18G_fin
- Template for Single Meas.:(>1GHz): 12_ESU_ExtPreamp_2.7_18G_fin

Report Settings:
- Report Template: Report Setup FCC 15_109
- Create Electronic Report: PDF
- Document Name: dummy EMI Report

Actions:
- Test start
  - Notify: "Switch-Matrix richtig geschaltet ? Spekki (ESU) angeschlossen ?"