

Annex 2: Measurement diagrams
to
PARTIAL TEST REPORT
No.: 6-0491-14-14-2h

According to:
FCC Regulations
Part 22, Part 24

IC-Regulations
RSS-132, RSS-133, RSS-Gen

for

peiker acoustic GmbH & Co. KG

GSM/GPRS/E-GPRS/W-CDMA Wireless Module V1140-105

FCC-ID: QWY-V1140-105

IC: 6588A-V1140105 , PMN: LTE-NAD , HVIN: V1140-105

Laboratory Accreditation and Listings			
 Deutsche Akkreditierungsstelle D-PL-12047-01-01	 Reg. No.: 736496 MRA US-EU 0003	 Industry Canada Reg. No.: 3462D-1 Reg. No.: 3462D-2 Reg. No.: 3462D-3	 Voluntary Controls for Electromagnetic Emissions Reg. No.: R-2666 C-2914, T-1967, G-301
 AUTHORIZED RF LABORATORY	 LAB CODE 20011130-00		
accredited according to DIN EN ISO/IEC 17025			
CETECOM GmbH Laboratory Radio Communications & Electromagnetic Compatibility Im Teelbruch 116 • 45219 Essen • Germany Registered in Essen, Germany, Reg. No.: HRB Essen 8984 Tel.: + 49 (0) 20 54 / 95 19-954 • Fax: + 49 (0) 20 54 / 95 19-964 E-mail: info@cetecom.com • Internet: www.cetecom.com			

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1. Measurement diagrams

8.01a_RSE_R_Ch192_GPRS

Common Information

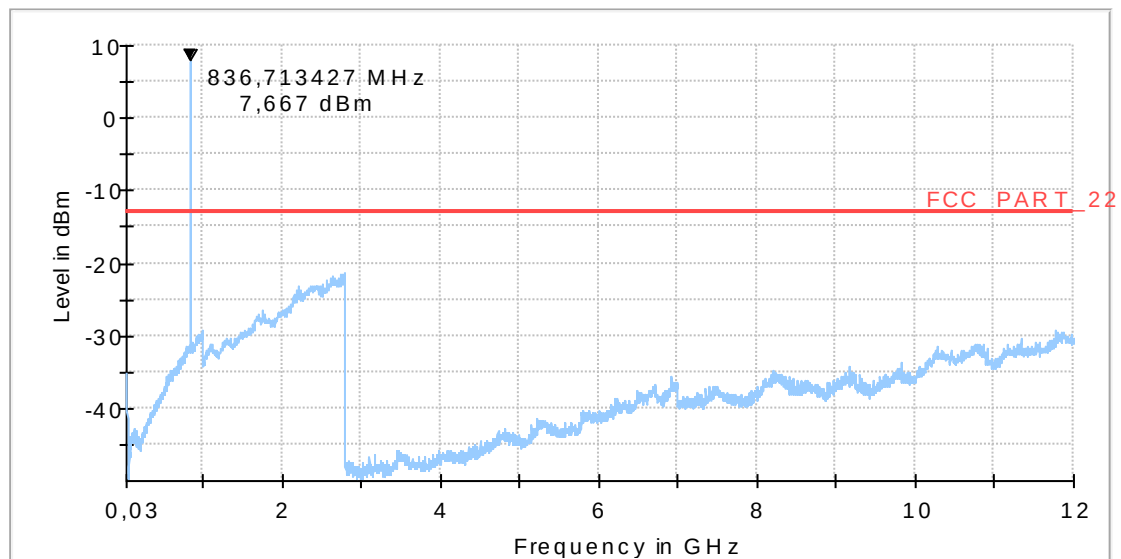
Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part22.917
Test Case:	-
Operating Mode:	MS allocated UL channel 192
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 32%rH; Temperature: 20°C
Operator:	MNu/AHo
Comment:	Elevation 0°

EUT Information

Manufacturer:	peiker acustic GmbH & Co. KG
Model:	V1140-105
Type:	GSM/UMTS Module

EUT:	PKD
HW version:	V1140-105_Ver.3
SW version:	M9615A-CETWTAZM-5.0.110118
SVN:	03
Config:	--
Serial number:	-- (IMEI: 35964206-000008-6)
Connected Interfaces:	loudspeaker ; microphone ; data cable ; USB cable ; antenna US; antenna cable
Power Supply:	3.8V DC
Comments:	-

Full Spectrum



8.01b_RSE_R_Ch192_GPRS

Common Information

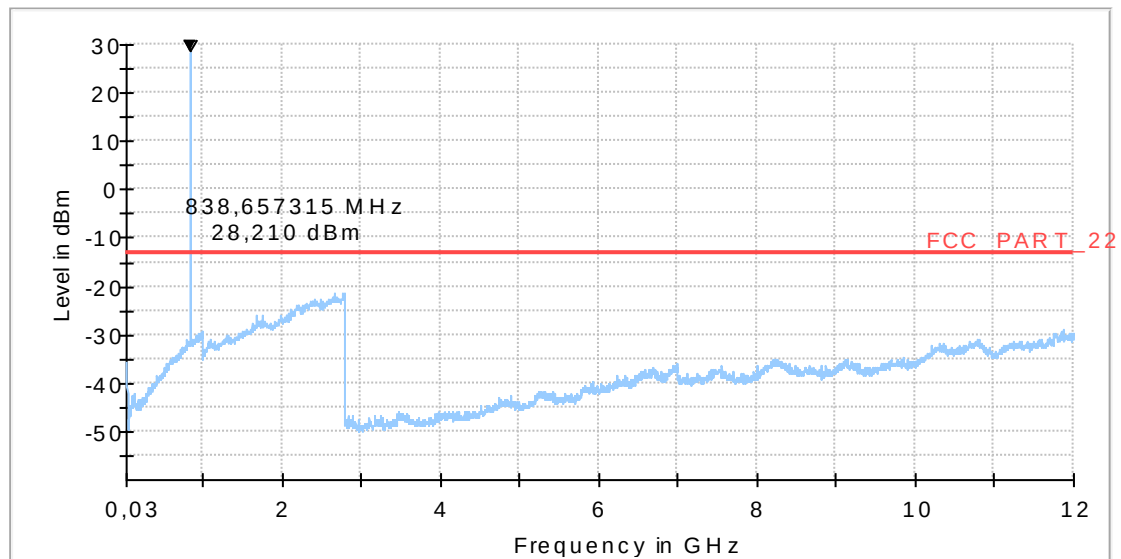
Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part22.917
Test Case:	-
Operating Mode:	MS allocated UL channel 192
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 34%rH; Temperature: 25°C
Operator:	MNu/AHo
Comments	Elevation 90°

EUT Information

Manufacturer:	peiker acustic GmbH & Co. KG
Model:	V1140-105
Type:	GSM/UMTS Module

EUT:	PKD
HW version:	V1140-105_Ver.3
SW version:	M9615A-CETWTAZM-5.0.110118
SVN:	03
Config:	--
Serial number:	-- (IMEI: 35964206-000008-6)
Connected Interfaces:	loudspeaker ; microphone ; data cable ; USB cable ; antenna US; antenna cable
Power Supply:	3.8V DC
Comments:	-

Full Spectrum



8.02a_RSE_R_Ch661_GPRS

Common Information

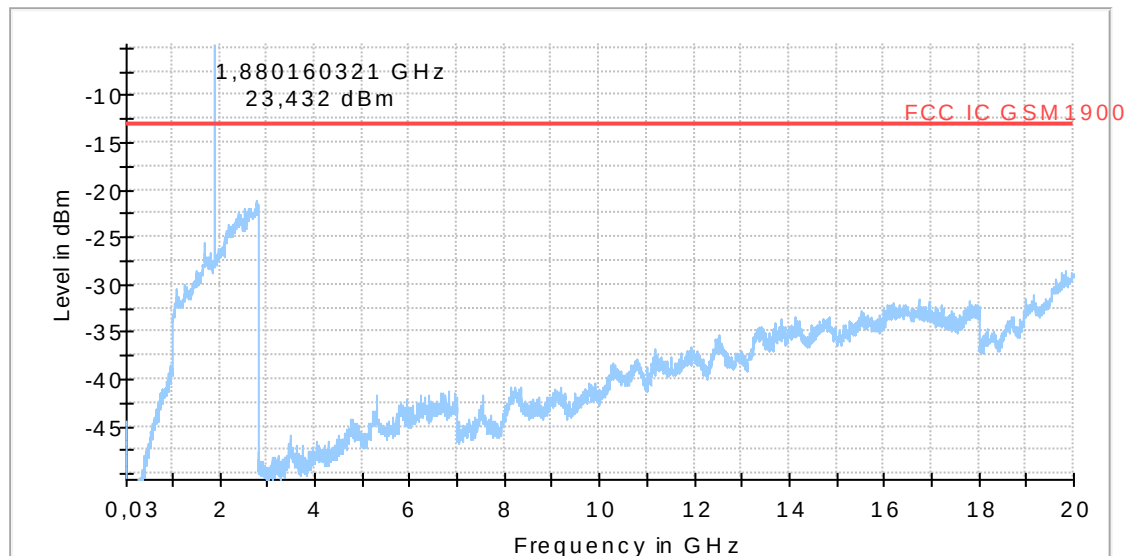
Test Description:	Radiated Spurious Emissions GSM1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24.238
Comm. Link:	GSM1900
Operating Mode:	MS allocated channel 661 (UL = 1880.0MHz)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 32%rH; Temperature: 20°C
Operator:	MNu/AHo
Comments	Elevation 0°

EUT Information

Manufacturer:	peiker acustic GmbH & Co. KG
Model:	V1140-105
Type:	GSM/UMTS Module

EUT:	PKD
HW version:	V1140-105_Ver.3
SW version:	M9615A-CETWTAZM-5.0.110118
SVN:	03
Config:	--
Serial number:	-- (IMEI: 35964206-000008-6)
Connected Interfaces:	loudspeaker ; microphone ; data cable ; USB cable ; antenna US; antenna cable
Power Supply:	3.8V DC
Comments:	-

Full Spectrum



8.02b_RSE_R_Ch661_GPRS

Common Information

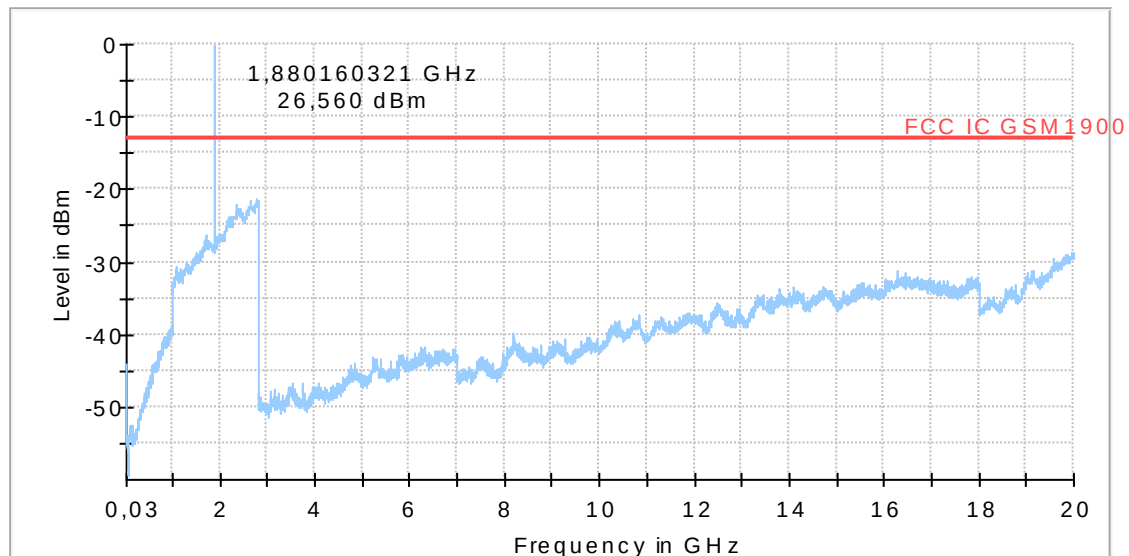
Test Description:	Radiated Spurious Emissions GSM1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24.238
Comm. Link:	GSM1900
Operating Mode:	MS allocated channel 661 (UL = 1880.0MHz)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 34%rH; Temperature: 25°C
Operator:	AHo
Comments	Elevation 90°

EUT Information

Manufacturer:	peiker acustic GmbH & Co. KG
Model:	V1140-105
Type:	GSM/UMTS Module

EUT:	PKD
HW version:	V1140-105_Ver.3
SW version:	M9615A-CETWTAZM-5.0.110118
SVN:	03
Config:	--
Serial number:	-- (IMEI: 35964206-000008-6)
Connected Interfaces:	loudspeaker ; microphone ; data cable ; USB cable ; antenna US; antenna cable
Power Supply:	3.8V DC
Comments:	-

Full Spectrum



8.03a_RSE_R_Ch9400_UMTS

Common Information

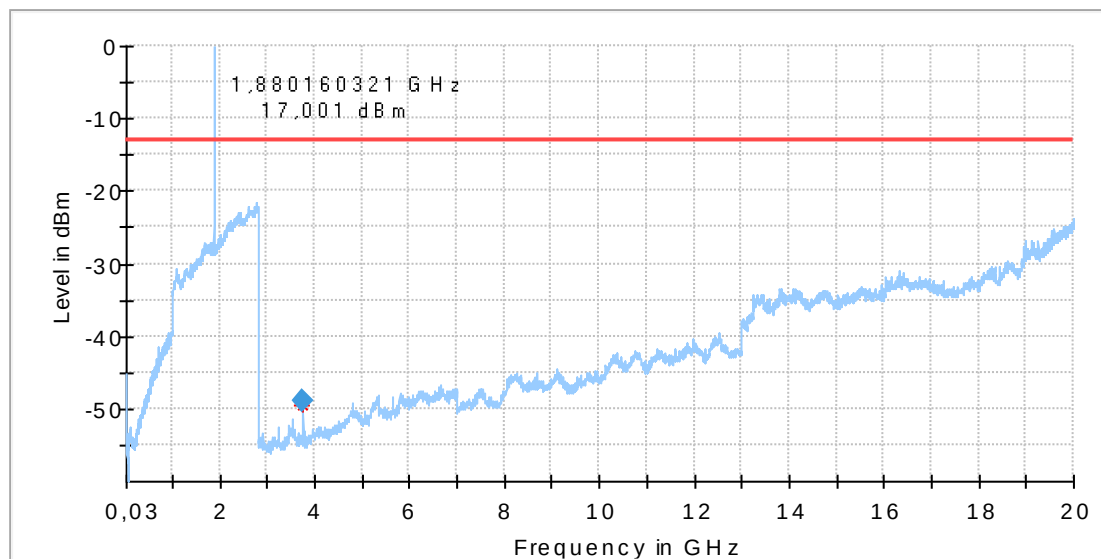
Test Description:	Radiated Spurious Emissions UMTS FDDII
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24
Operating Mode:	UE allocated channel 9400 (fc = 1880.0MHz)
Environmental Conditions:	Humidity: 33%rH; Temperature:25°C
Operator:	AHo/MNu
Comments:	Elevation 0°

EUT Information

Manufacturer:	peiker acoustic GmbH & Co. KG
Model:	V1140-105
Type:	GSM/UMTS Module

EUT:	PKD
HW version:	V1140-105 Ver.3
SW version:	M9615A-CETWTAZM-5.0.110118
SVN:	03
Config:	--
Serial number:	-- (IMEI: 35964206-000008-6)
Connected Interfaces:	loudspeaker ; microphone ; data cable ; USB cable ; antenna US; antenna cable
Power Supply:	3.8V DC
Comments:	-

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Corr. (dB)
3762.454910	-48.91	-13.00	35.91	10000.0	1000.000	V	262.0	-95.1

8.03b_RSE_R_Ch9400_UMTS

Common Information

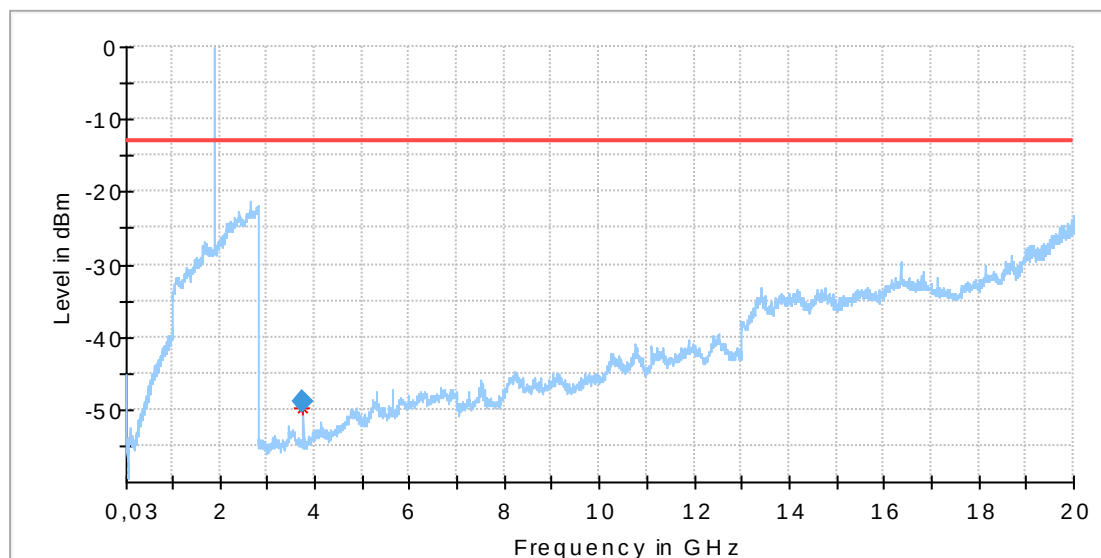
Test Description: Radiated Spurious Emissions UMTS FDDII
 Test Site Location: CETECOM GmbH Essen
 Test Site: Fully Anechoic Room (FAR)
 Test Standard: FCC Part 24
 Operating Mode: UE allocated channel 9400 (fc = 1880.0MHz)
 Environmental Conditions: Humidity: 33%rH; Temperature:25°C
 Operator: AHO

EUT Information

Manufacturer: peiker acoustic GmbH & Co. KG
 Model: V1140-105
 Type: GSM/UMTS Module

 EUT: PKD
 HW version: V1140-105_Ver.3
 SW version: M9615A-CETWTAZM-5.0.110118
 SVN: 03
 Config: --
 Serial number: -- (IMEI: 35964206-000008-6)
 Connected Interfaces: loudspeaker ; microphone ; data cable ; USB cable ; antenna US; antenna cable
 Power Supply: 3.8V DC
 Comments: -

Full Spectrum



Final Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Polarization	Azimuth (deg)	Corr. (dB)
3761.012024	-13.00	35.86	10000.0	1000.000	V	322.0	-95.1

8.04a_RSE_R_Ch4183_UMTS

Common Information

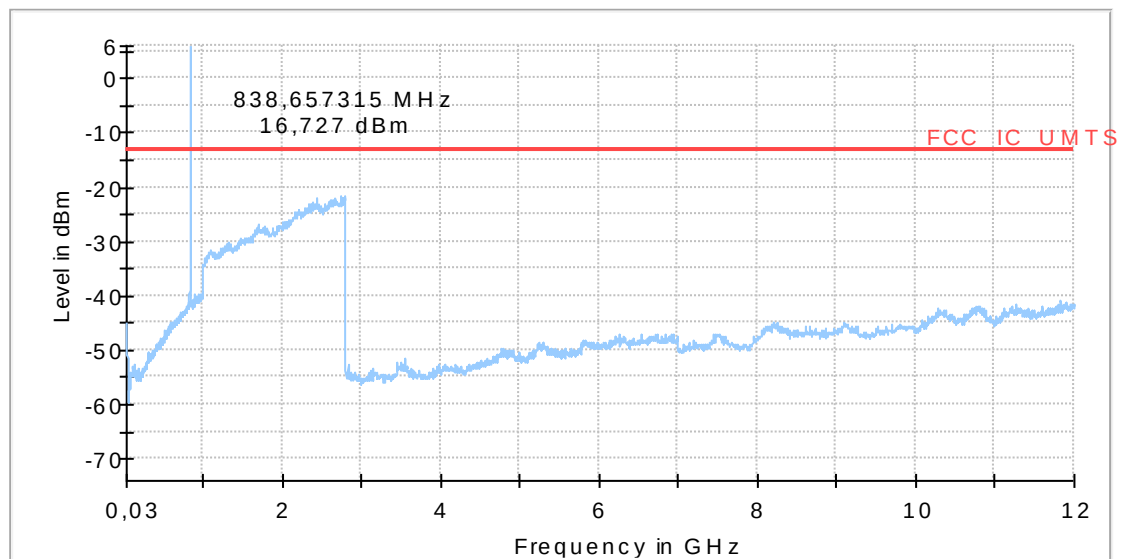
Test Description:	Radiated Spurious Emissions UMTS FDDV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917(a)
Operating Mode:	UE allocated channel 4182 (fc = 836.4 MHz)
Environmental Conditions:	Humidity: 33%rH; Temperature: 25°C
Operator:	AHo/MNu
Comments:	Elevation 0°

EUT Information

Manufacturer:	peiker acoustic GmbH & Co. KG
Model:	V1140-105
Type:	GSM/UMTS Module

EUT:	PKD
HW version:	V1140-105 Ver.3
SW version:	M9615A-CETWTAZM-5.0.110118
SVN:	03
Config:	--
Serial number:	-- (IMEI: 35964206-000008-6)
Connected Interfaces:	loudspeaker ; microphone ; data cable ; USB cable ; antenna US; antenna cable
Power Supply:	3.8V DC
Comments:	-

Full Spectrum



8.04b_RSE_R_Ch4183_UMTS

Common Information

Test Description:	Radiated Spurious Emissions UMTS FDDV
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917(a)
Operating Mode:	UE allocated channel 4182 (fc = 836.4 MHz)
Environmental Conditions:	Humidity: 33%rH; Temperature:25°C
Operator:	AHo
Comments	Elevation 90°

EUT Information

Manufacturer:	peiker acoustic GmbH & Co. KG
Model:	V1140-105
Type:	GSM/UMTS Module

EUT:	PKD
HW version:	V1140-105 Ver.3
SW version:	M9615A-CETWTAZM-5.0.110118
SVN:	03
Config:	--
Serial number:	-- (IMEI: 35964206-000008-6)
Connected Interfaces:	loudspeaker ; microphone ; data cable ; USB cable ; antenna US; antenna cable
Power Supply:	3.8V DC
Comments:	-

Full Spectrum

