

Annex 1: Measurement diagrams to
TEST REPORT
 No.: 16-1-0051801T02a

According to:
FCC Regulations
 Part 22, Part 24

for

Daimler Trucks North America

7 620 000 283
 CTPDIN

FCC-ID: 2AMIOCTP4465460

Laboratory Accreditation and Listings			
 Deutsche Akkreditierungsstelle D-PL-12047-01-01	 FEDERAL COMMUNICATIONS COMMISSION • USA • MRA US-EU 0003	 Industry Canada 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	 Authorized™ Test Lab 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			

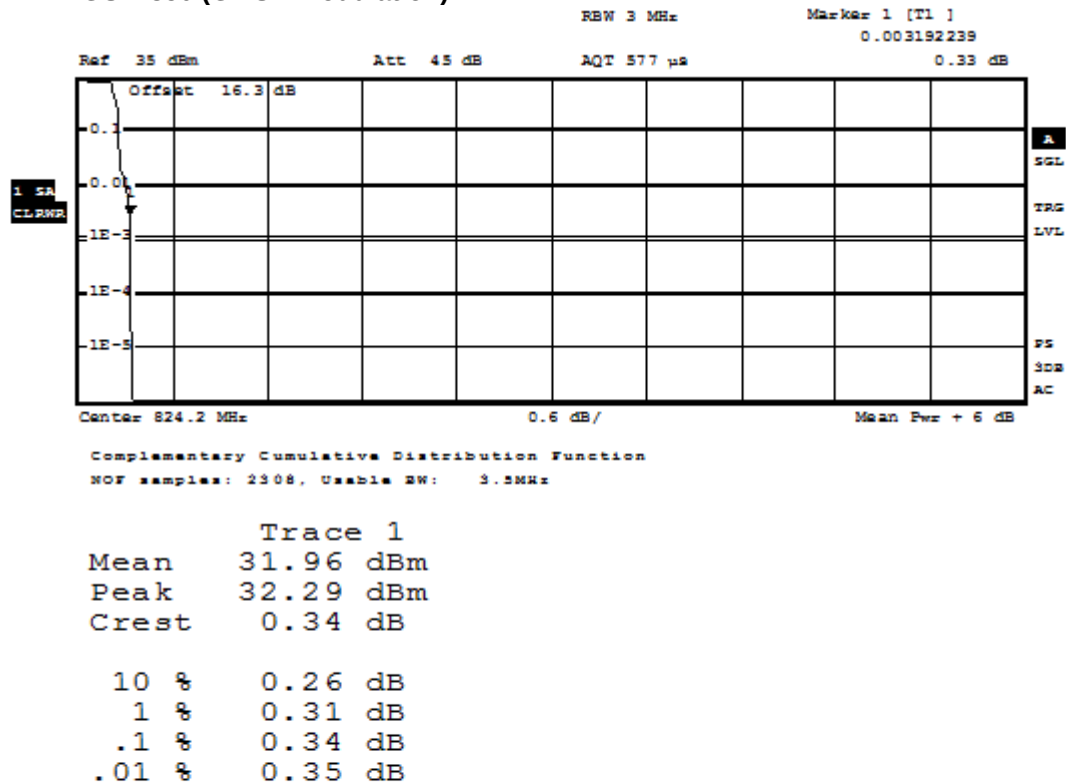
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1. Measurement diagrams

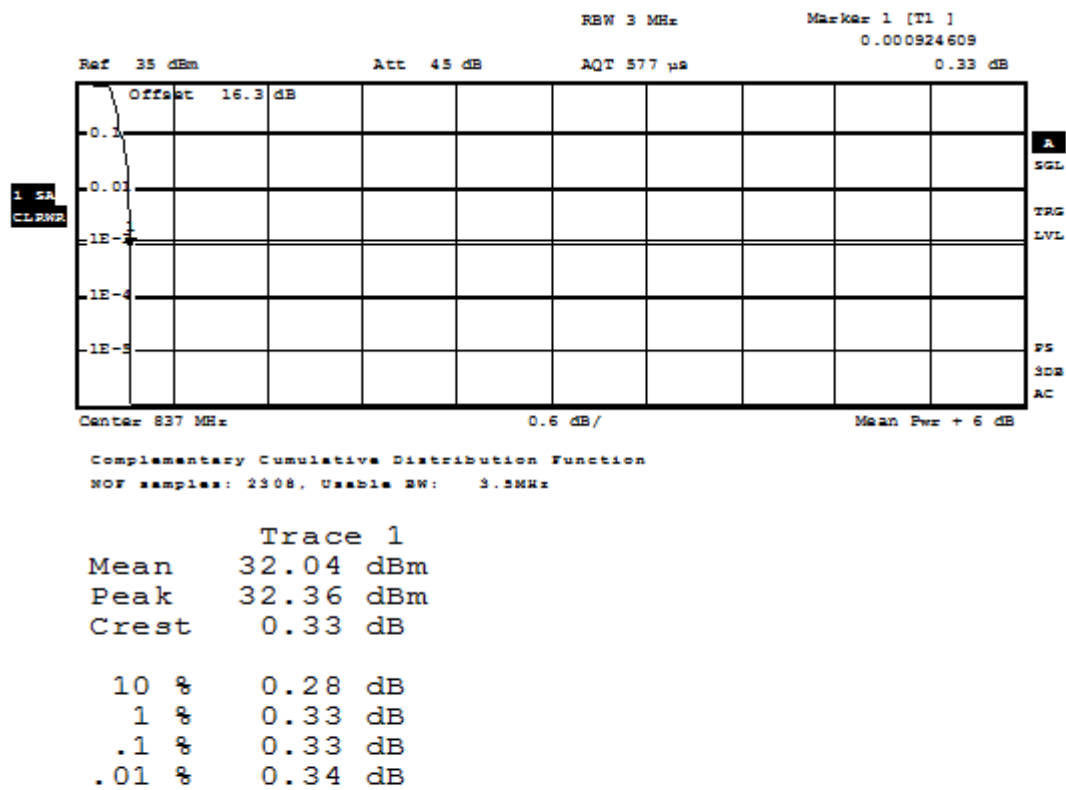
1.1. Power Measurements and PAPR-Value

1.1.1. GSM 850 (GMSK Modulation)



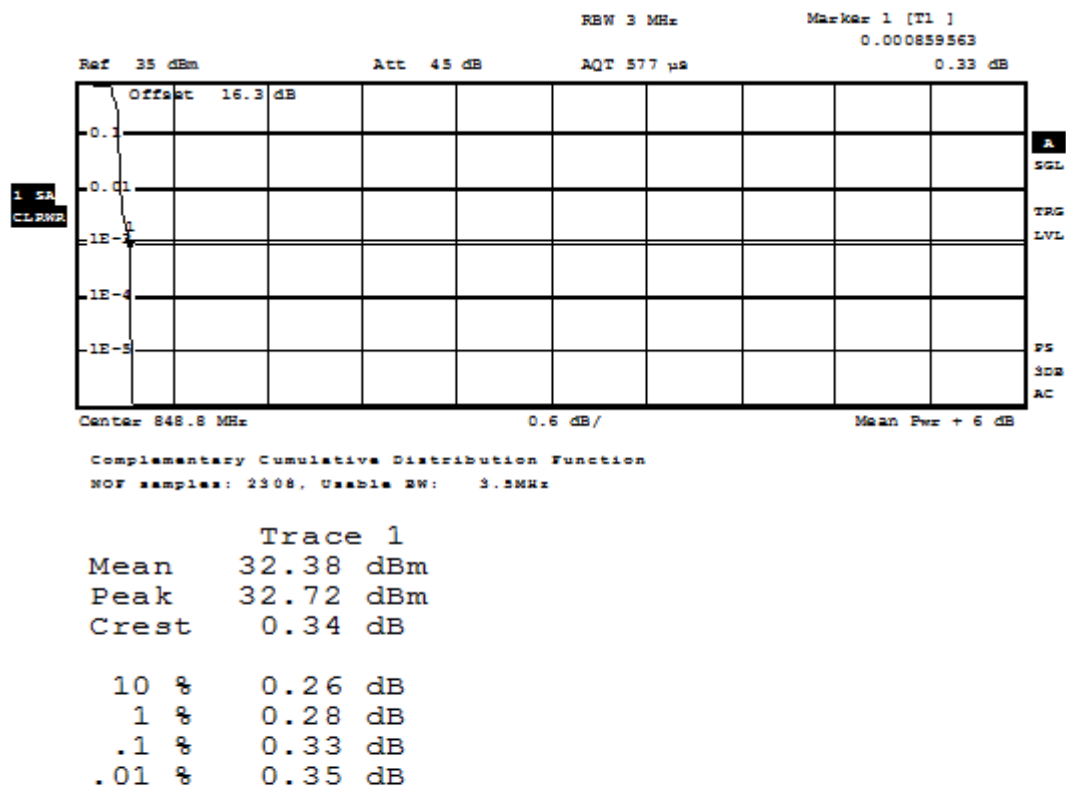
Date: 24.MAY.2017 16:39:01

Diagram CCDF_128_GMSK



Date: 24.MAY.2017 16:40:25

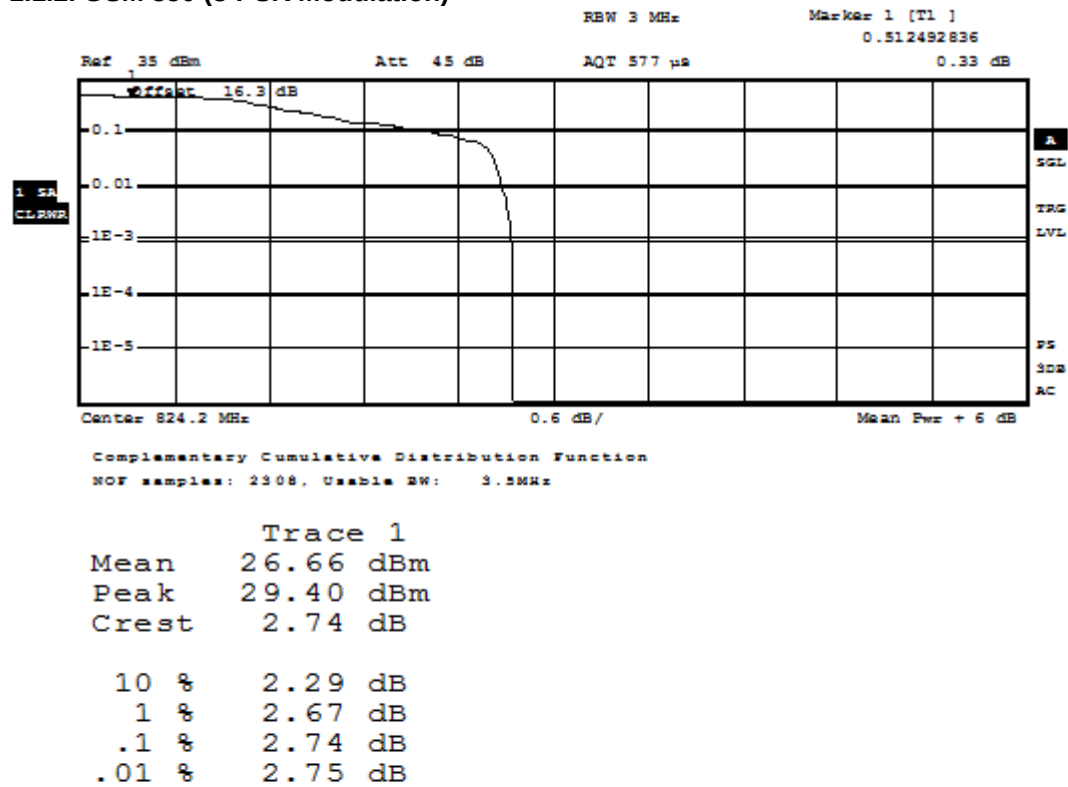
Diagram CCDF_192_GMSK



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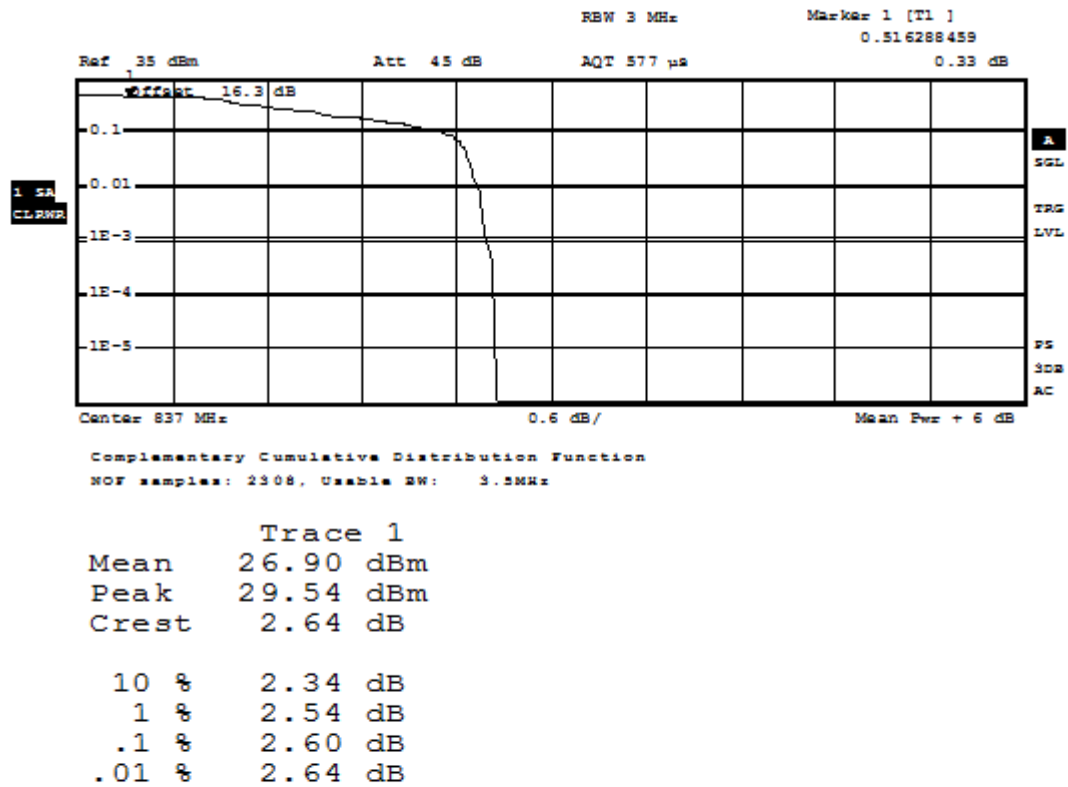
Diagram CCDF_251_GMSK

1.1.2. GSM 850 (8-PSK Modulation)



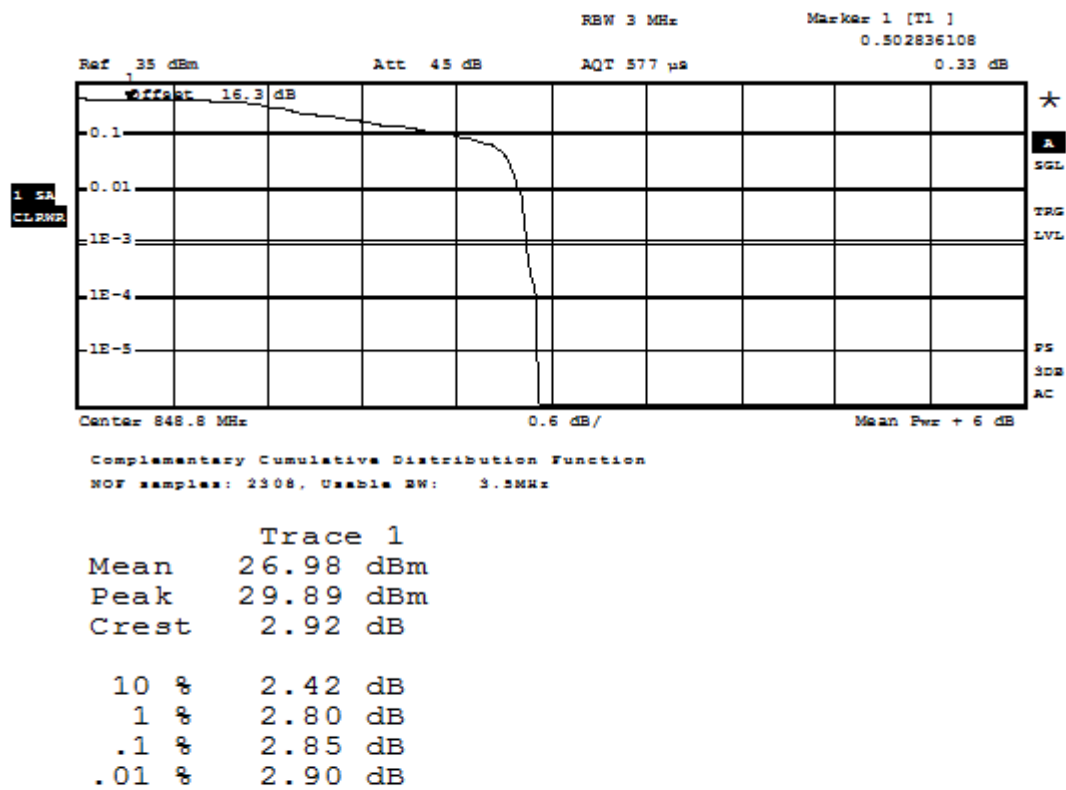
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Diagram CCDF_128_8PSK



Date: 24.MAY.2017 16:35:12

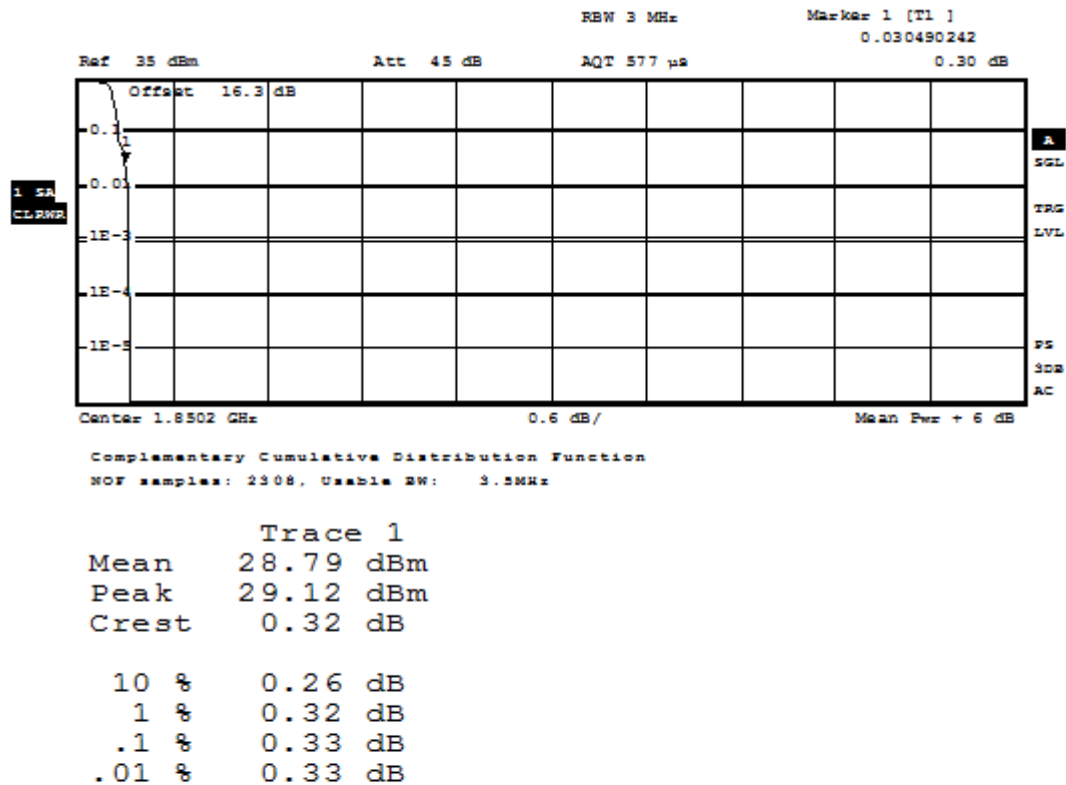
Diagram CCDF_192_8PSK



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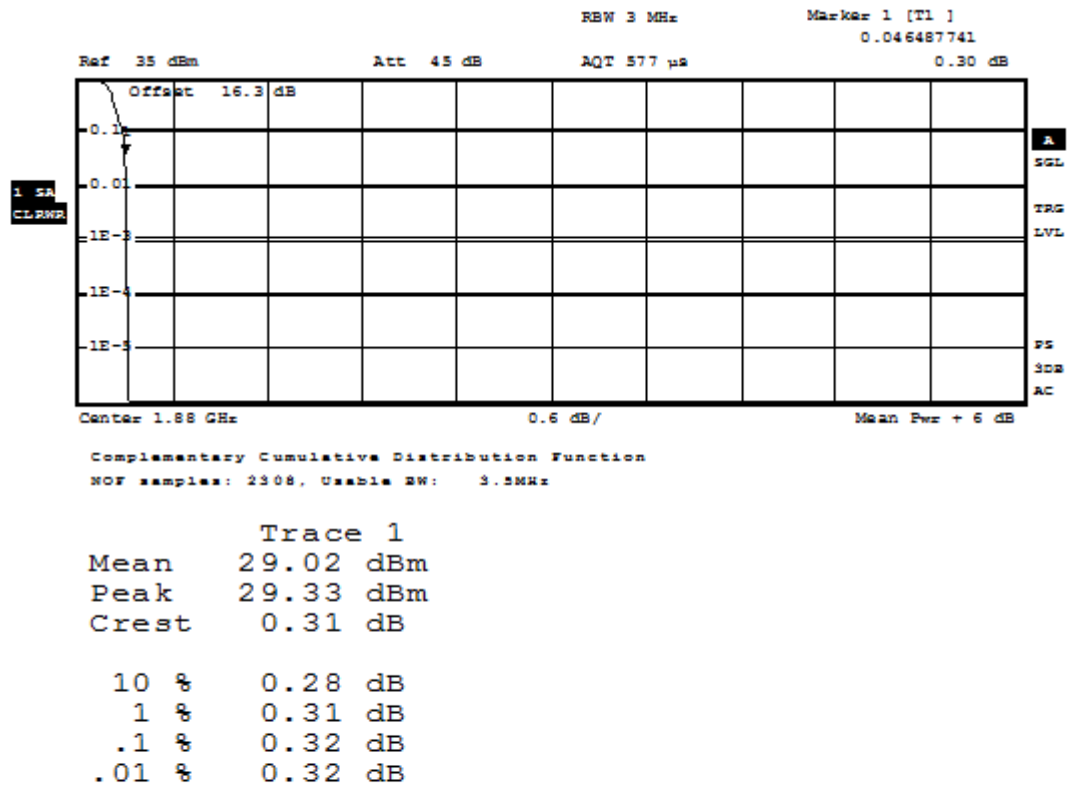
Diagram CCDF_251_8PSK

1.1.3. GSM 1900 (GMSK Modulation)



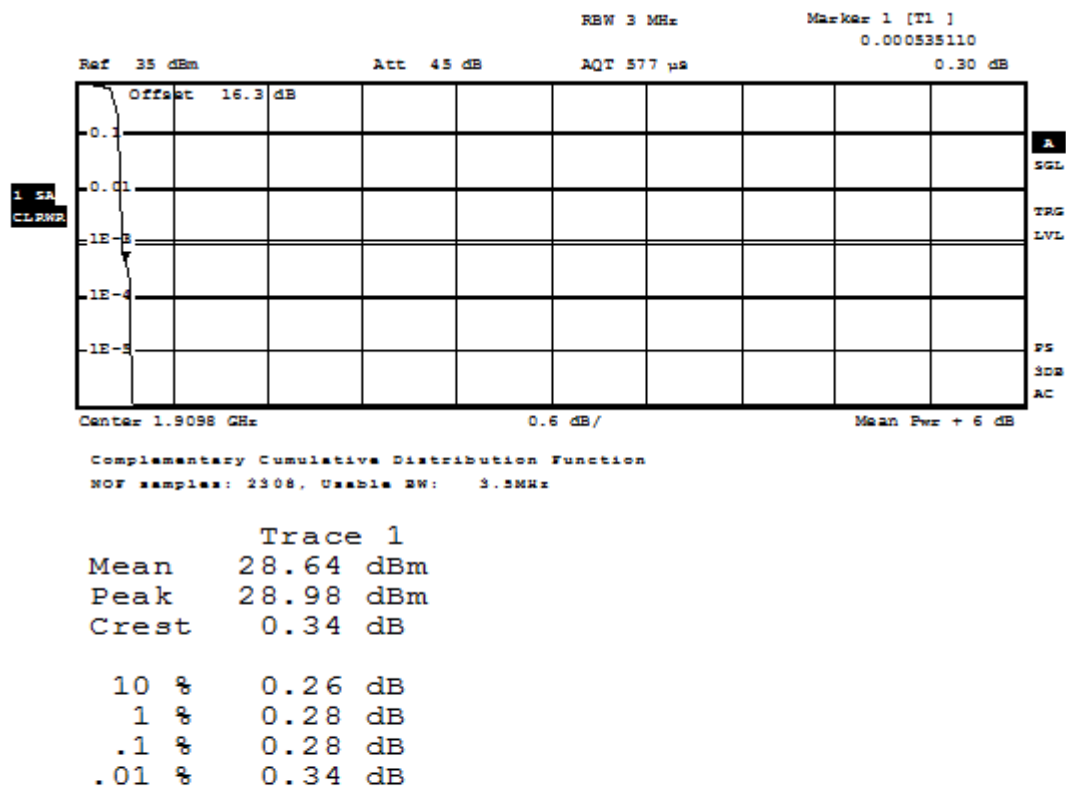
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Diagram CCDF_512_GMSK



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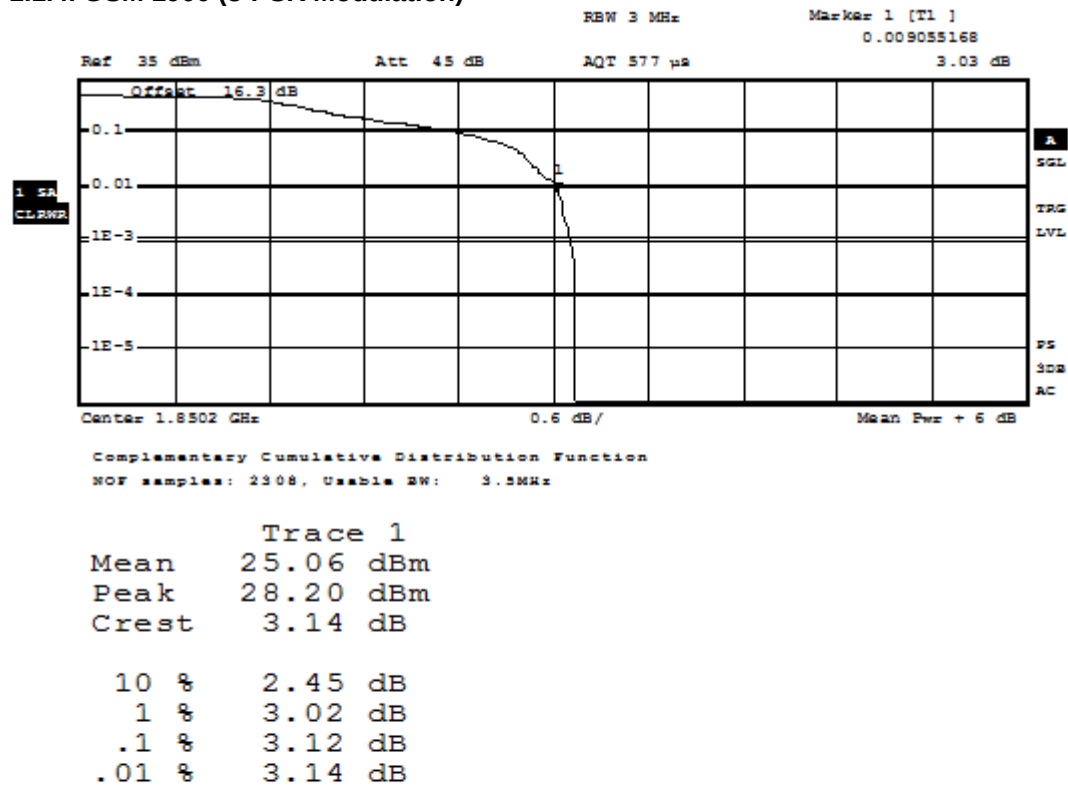
Diagram CCDF_661_GMSK



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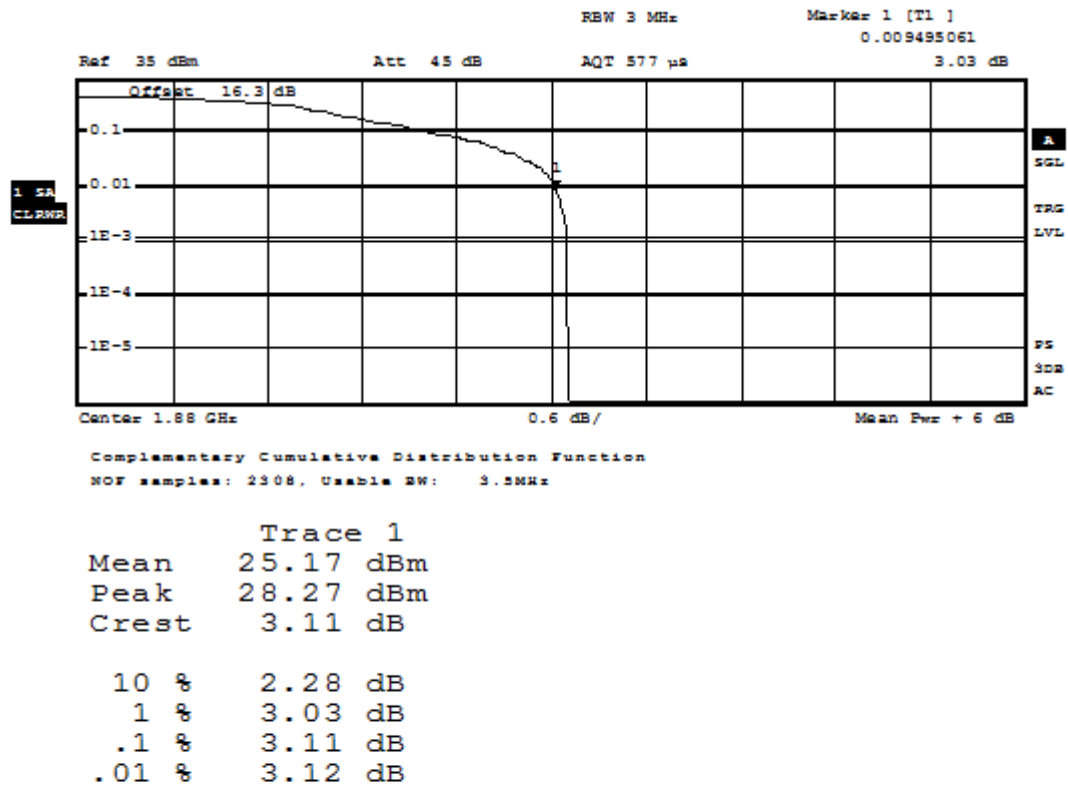
Diagram CCDF_810_GMSK

1.1.4. GSM 1900 (8-PSK Modulation)



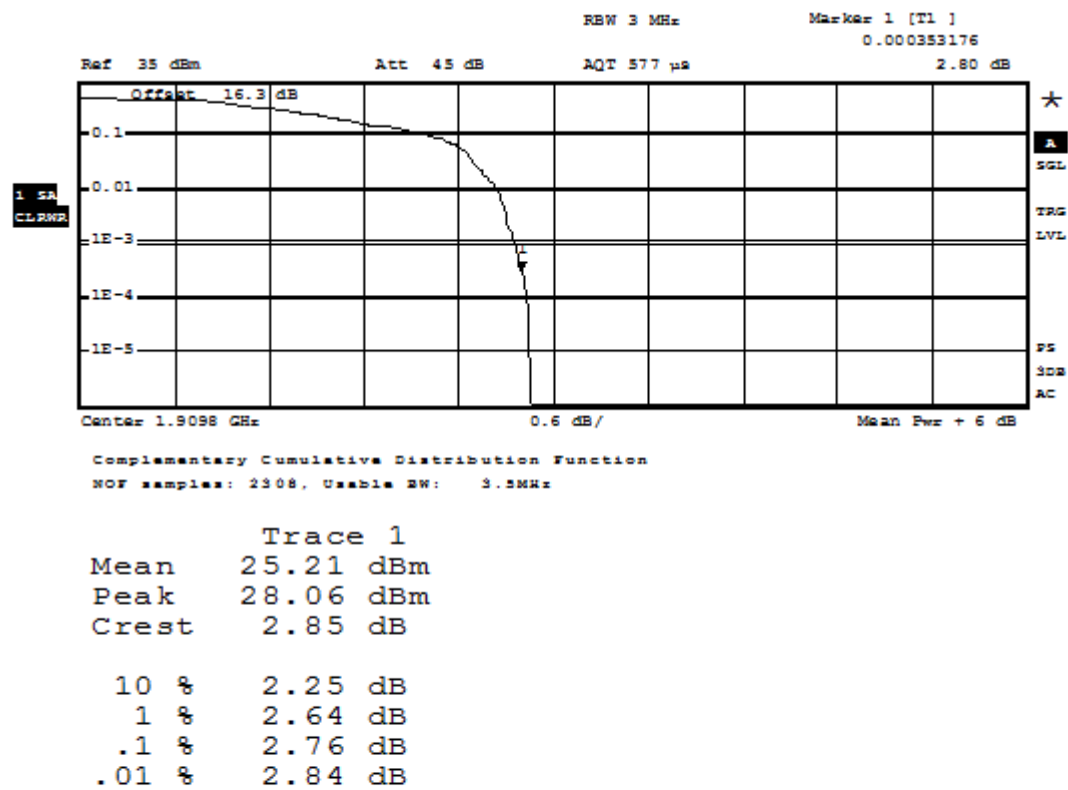
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Diagram CCDF_512_8PSK



Date: 24.MAY.2017 16:46:41

Diagram CCDF_661_8PSK



Date: 24.MAY.2017 16:48:39

Diagram CCDF_810_8PSK

1.2. Magnetic field emissions radiated (850 MHz transmitting mode)

2.01a_RSE_R_Ch128_GPRS_standing

Common Information

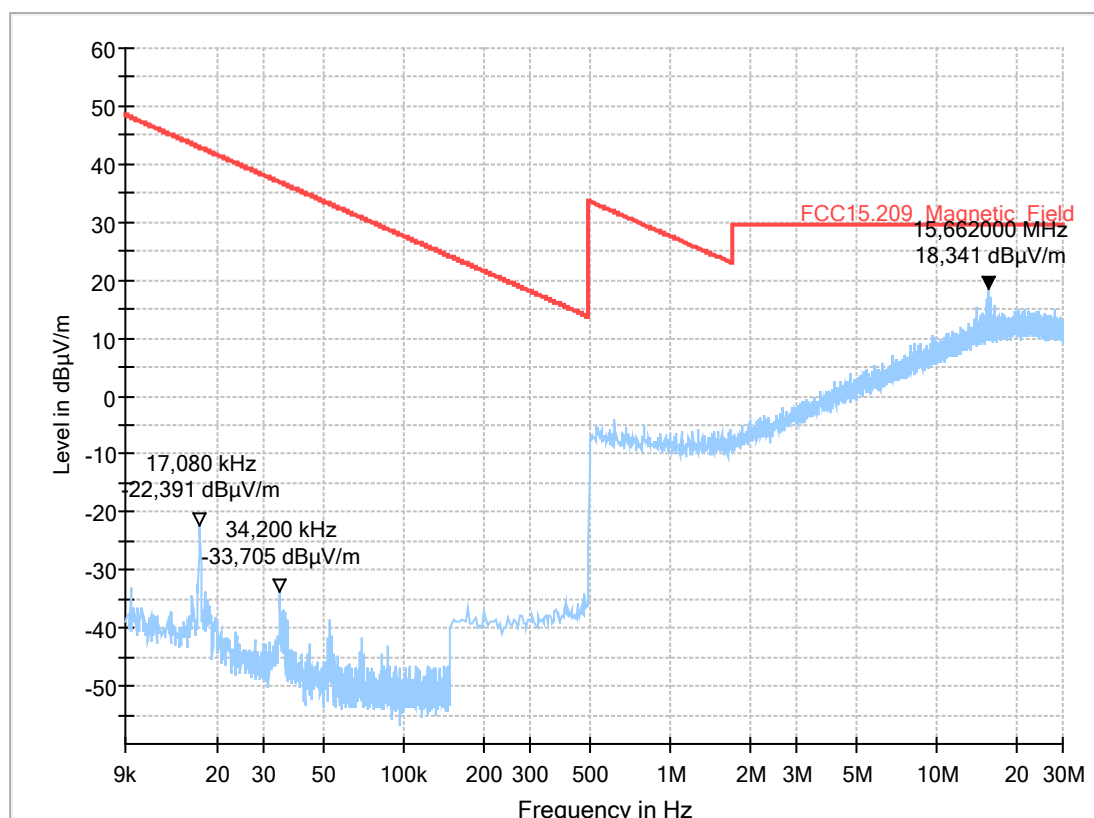
Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-GEN: Issue 4
EUT Position:	EUT standing
Operating Conditions:	TX Mode_GSM850 12V DC
Operator:	Mah
Comment:	Channel No: 128

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum

Full Spectrum



2.01b_RSE_R_Ch128_GPRS

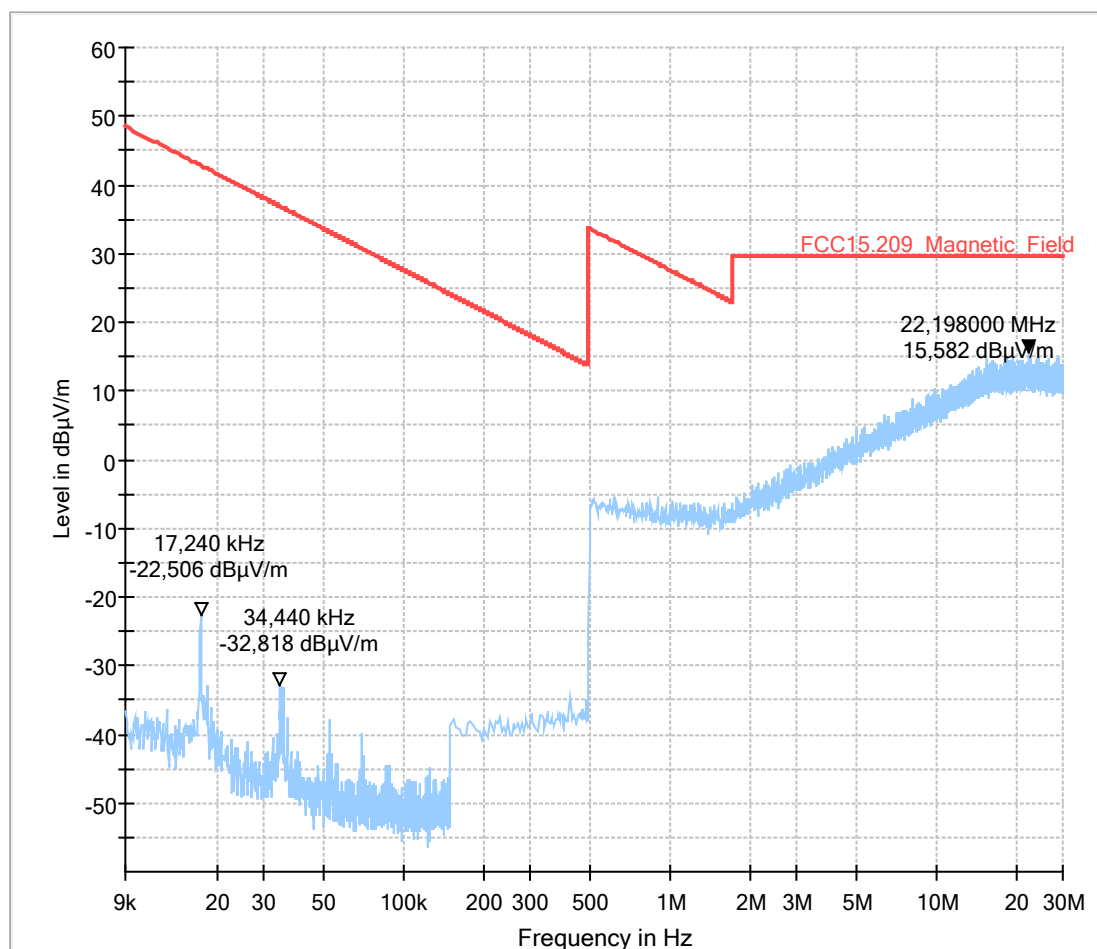
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	RIS
Operating conditions:	TX Mode_GSM850
Power during tests:	24V DC
Comment 1:	Channel No: 128

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



2.02a_RSE_R_Ch192_GPRS_standing

Common Information

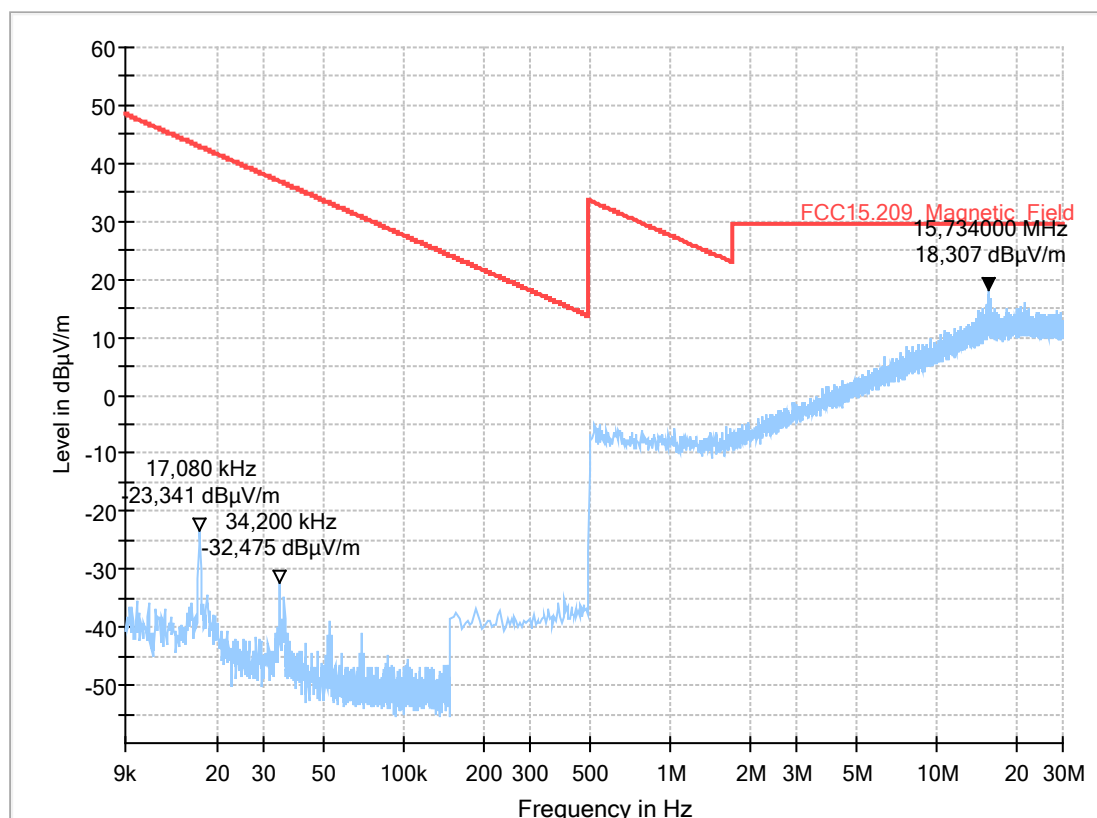
Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-GEN: Issue 4
EUT Position:	EUT standing
Operating Conditions:	TX Mode_GSM850 12V DC
Operator:	Mah
Comment:	Channel No: 192

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum

Full Spectrum



2.02b_RSE_R_Ch192_GPRS_Laying

Common Information

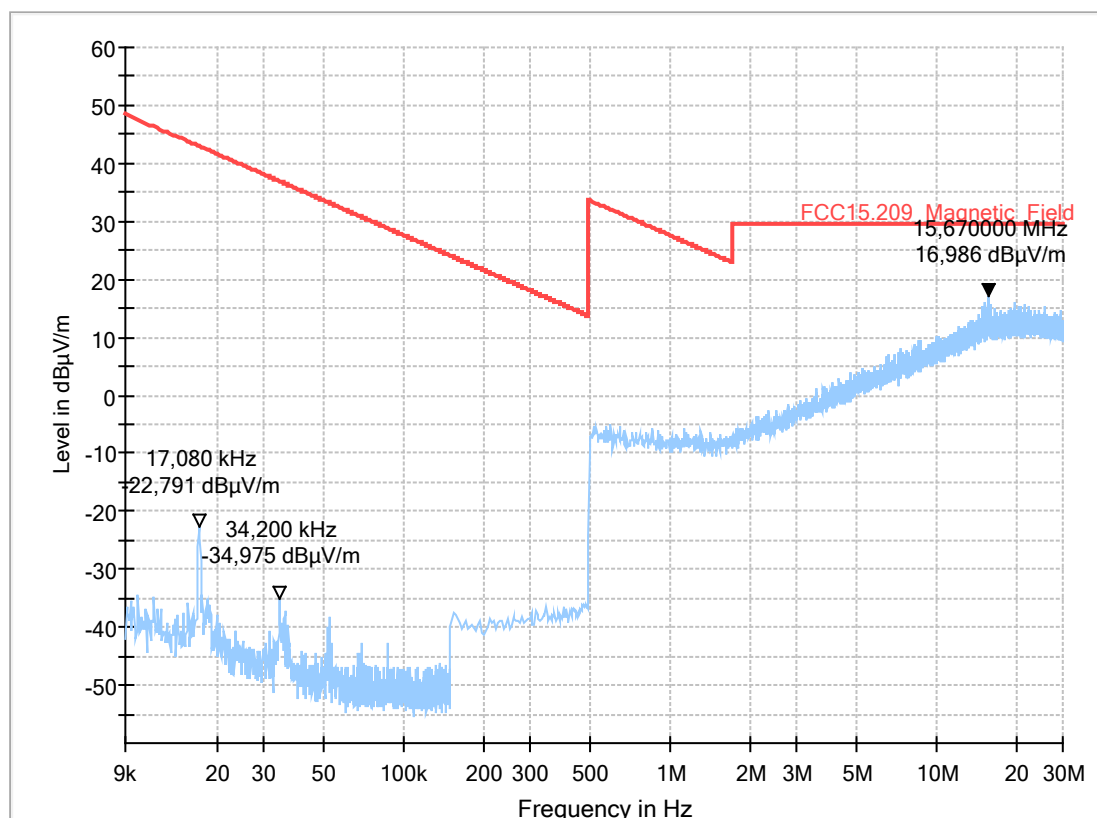
Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-GEN: Issue 4
Operating Conditions:	TX Mode_GSM850
Operator:	Mah
Comment:	Channel No: 128
EUT Position:	EUT Laying

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum

Full Spectrum



2.03a_RSE_R_Ch251_GPRS_standing

Common Information

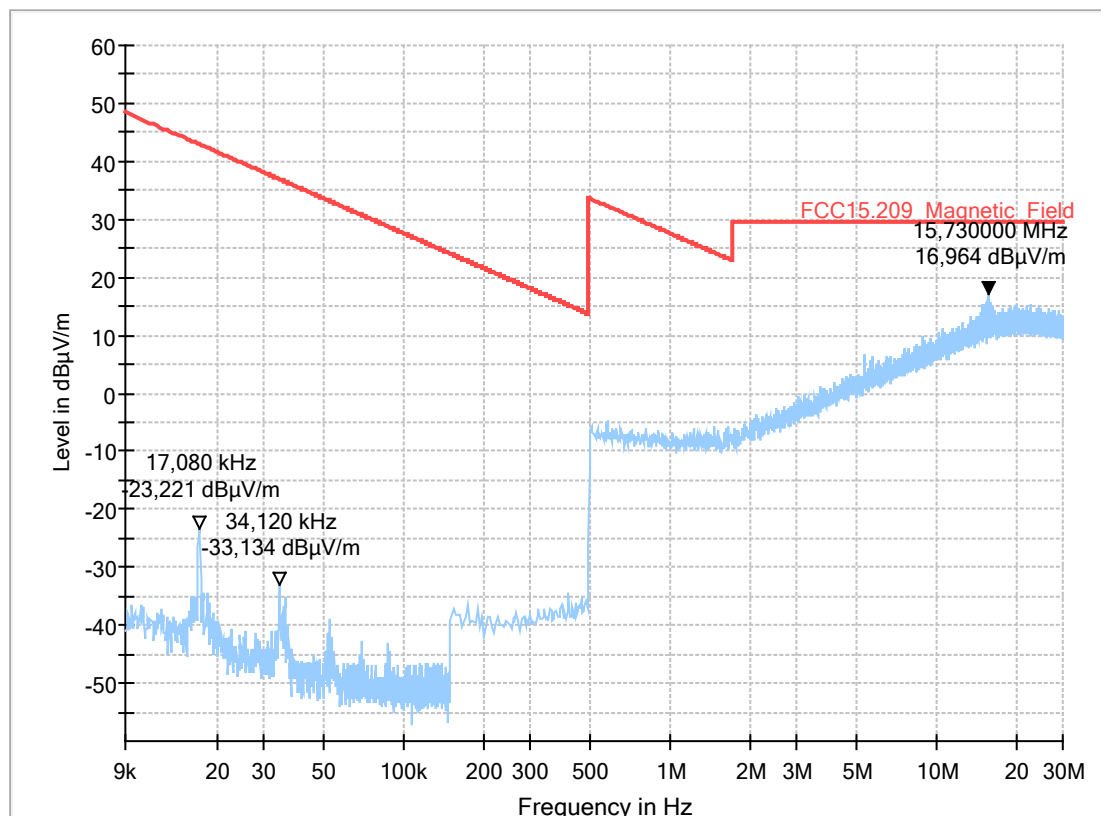
Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-GEN: Issue 4
EUT Position:	EUT standing
Operating Conditions:	TX Mode_GSM850 12V DC
Operator:	Mah
Comment:	Channel No: 251

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum

Full Spectrum



2.03b_RSE_R_Ch251_GPRS_Laying

Common Information

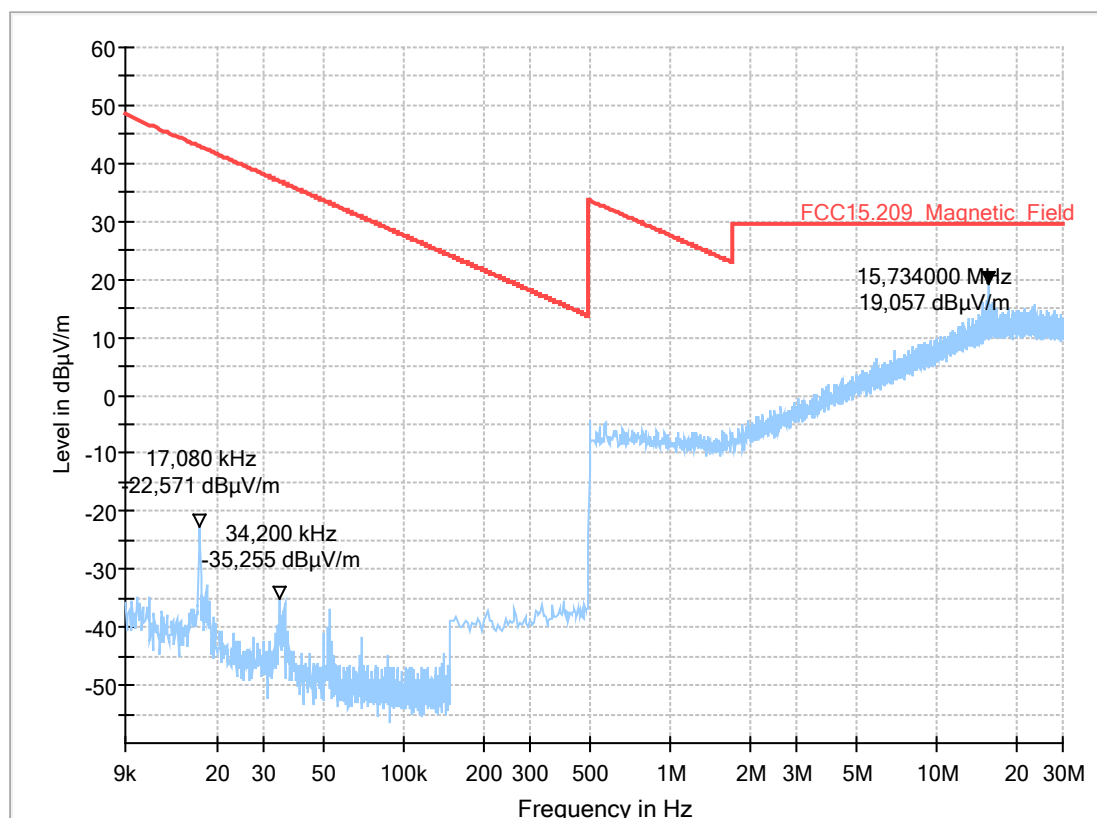
Test Description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification	FCC 15.205 § 15.209; RSS-GEN: Issue 4
EUT Position:	EUT Laying
Operating Conditions:	TX Mode_GSM850 , 12 V DC
Operator:	Mah
Comment:	Channel No: 251

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum

Full Spectrum



1.3. Magnetic field emissions radiated (1900 MHz transmitting mode)

2.10a_RSE_R_Ch512_GPRS_standing

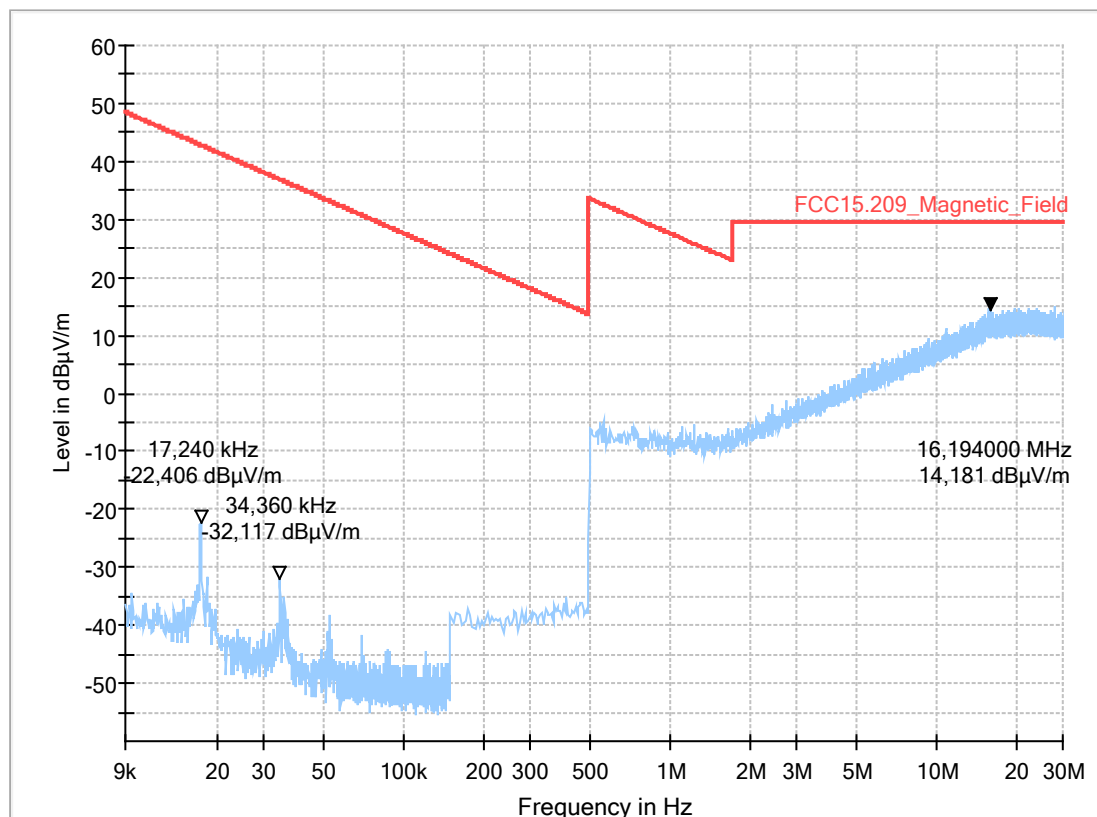
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	AFr
Operating mode:	GPRS 1900 Channel 512
Operating conditions:	Humidity: 40%rH; Temperature: 20°C
Power during tests:	12V DC
Comment 1:	DUT Standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



2.10b_RSE_R_Ch512_GPRS_laying

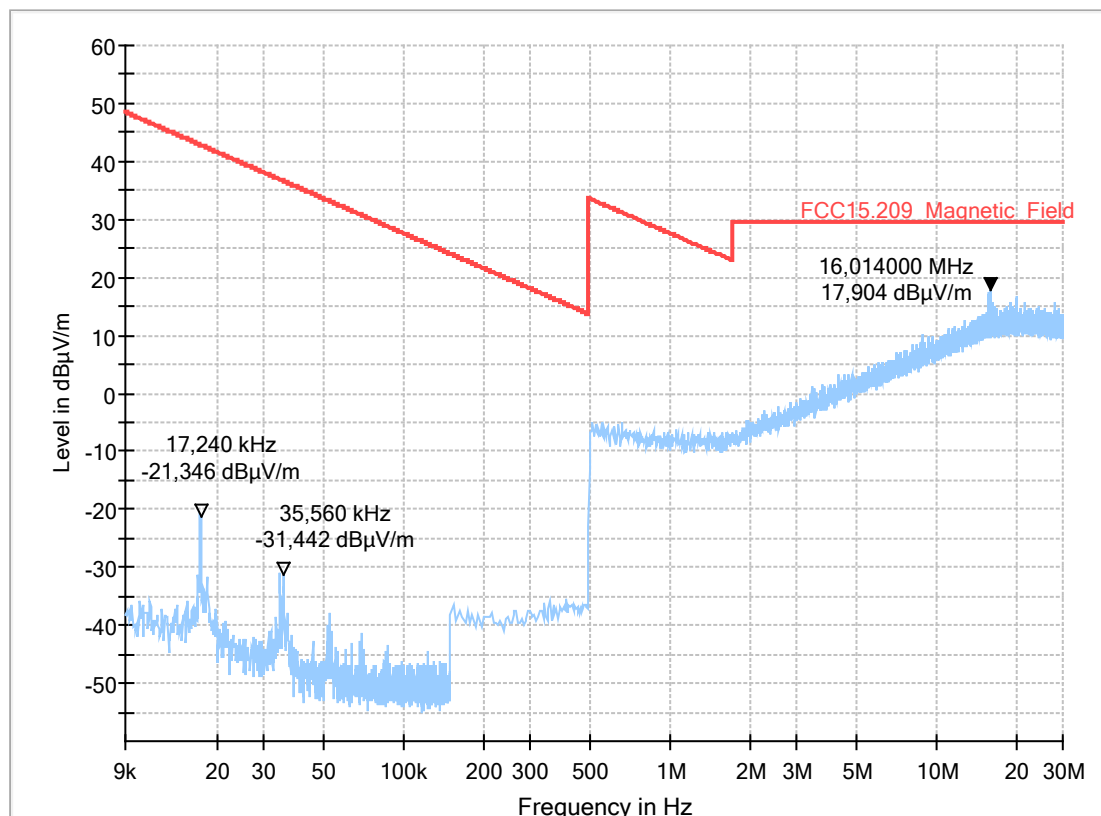
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	MBe
Operating conditions:	TX Mode_GSM1900 , 12 V DC
Power during tests:	12V DC
Comment 1:	Channel No: 512

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



2.11a_RSE_R_Ch661_GPRS_standing

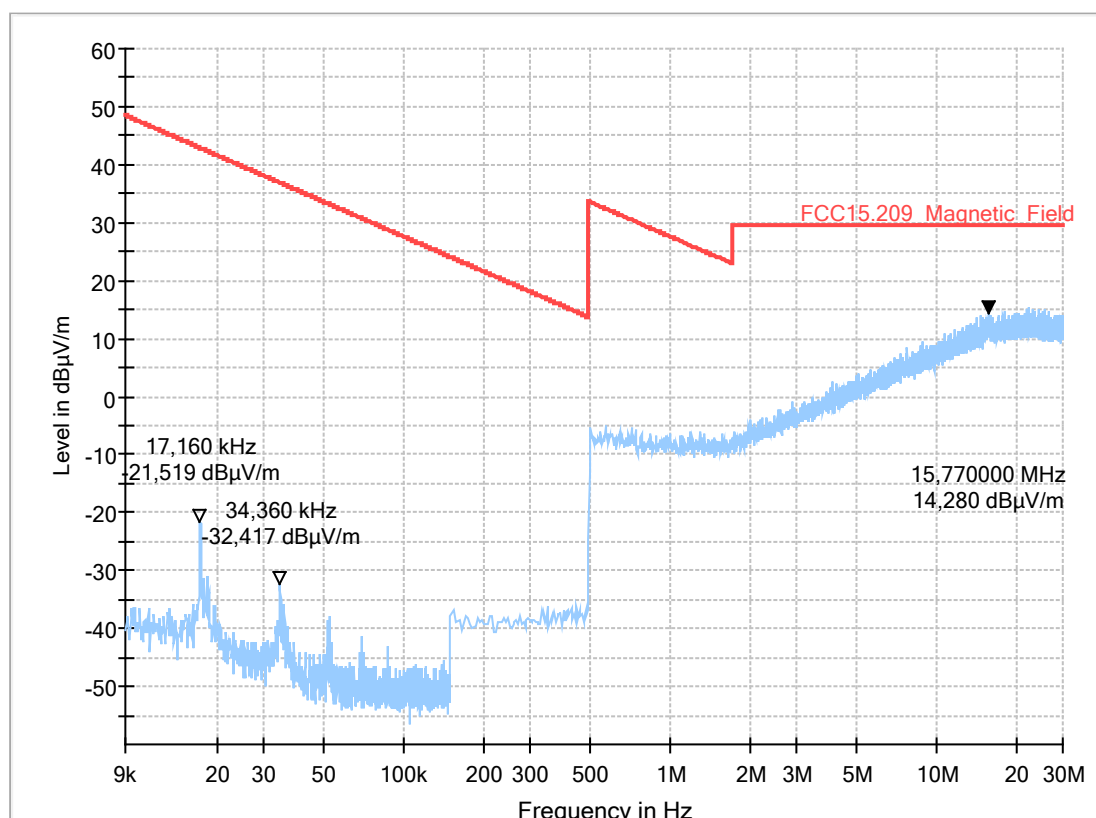
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	AFr
Operating mode:	GPRS 1900 Channel 661
Operating conditions:	Humidity: 40%rH; Temperature: 20°C
Power during tests:	12V DC
Comment 1:	DUT Standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



2.11b_RSE_R_Ch661_GPRS_laying

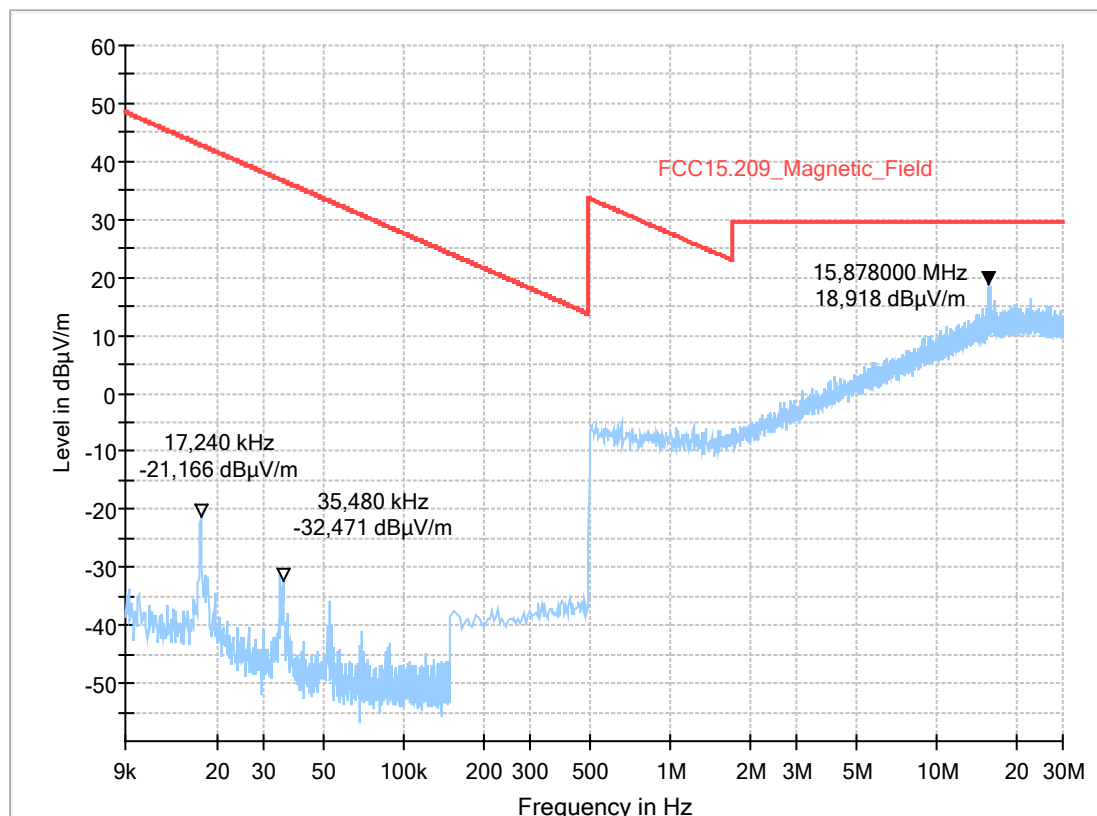
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	MBe
Operating conditions:	TX Mode_GSM1900 , 12 V DC
Power during tests:	12V DC
Comment 1:	Channel No: 661

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



2.12a_RSE_R_Ch810_GPRS_standing

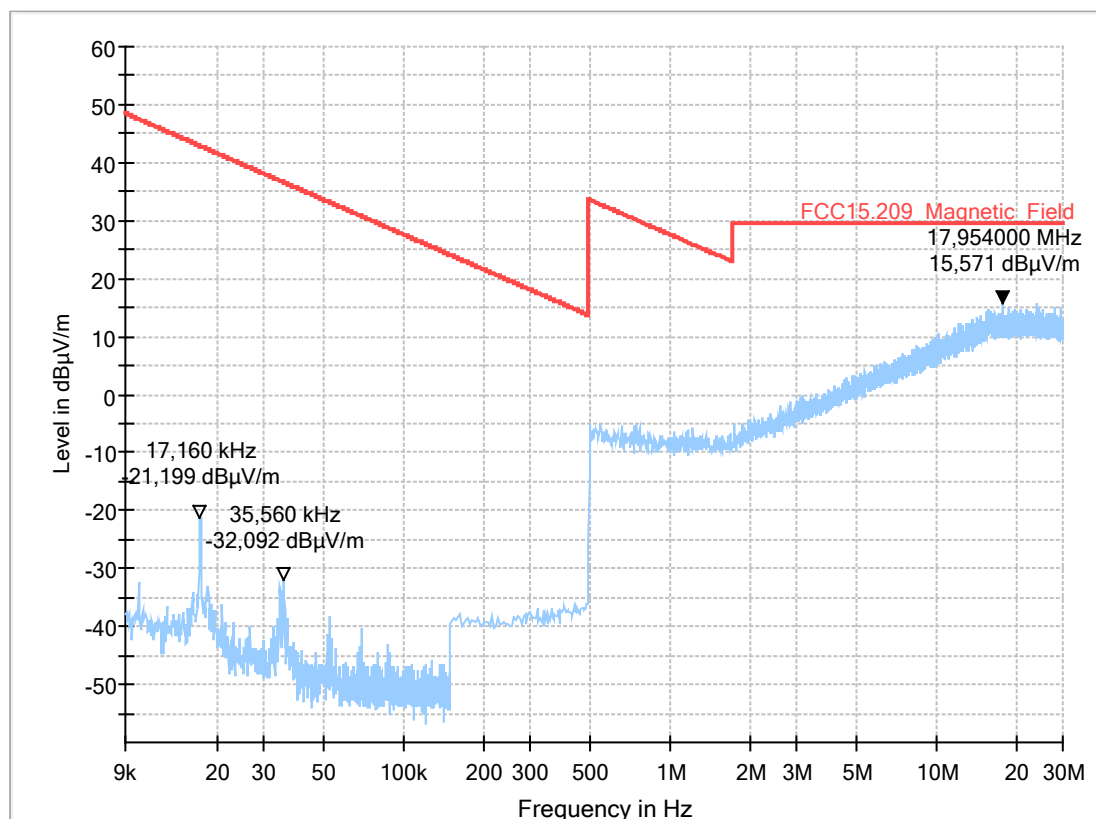
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	AFr
Operating mode:	GPRS 1900 Channel 810
Operating conditions:	Humidity: 40%rH; Temperature: 20°C
Power during tests:	24 V DC
Comment 1:	DUT Standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



2.12b_RSE_R_Ch810_GPRS_laying

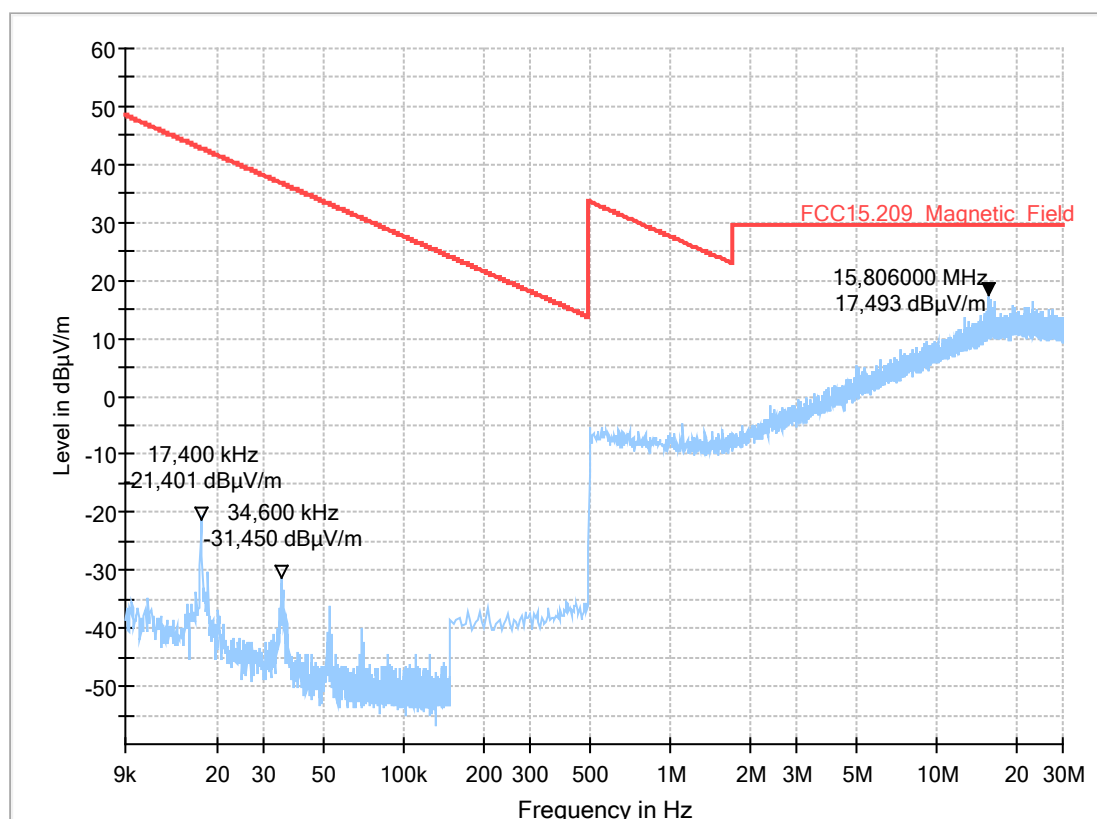
Common Information

Test description:	Magnetic Field Strength Measurement related to 30/300 m distance
Test site and distance:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Rec. antenna (pre-scan):	height 1.00 m, parallel and 90° to EUT polarisation
Used filter:	bypass
Test specification:	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	MBe
Operating conditions:	TX Mode_GSM1900 , 12 V DC
Power during tests:	12V DC
Comment 1:	Channel No: 810

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



1.4. Spurious emissions radiated (850 MHz transmitting mode)

8.01a_RSE_R_Ch128_GPRS_standing

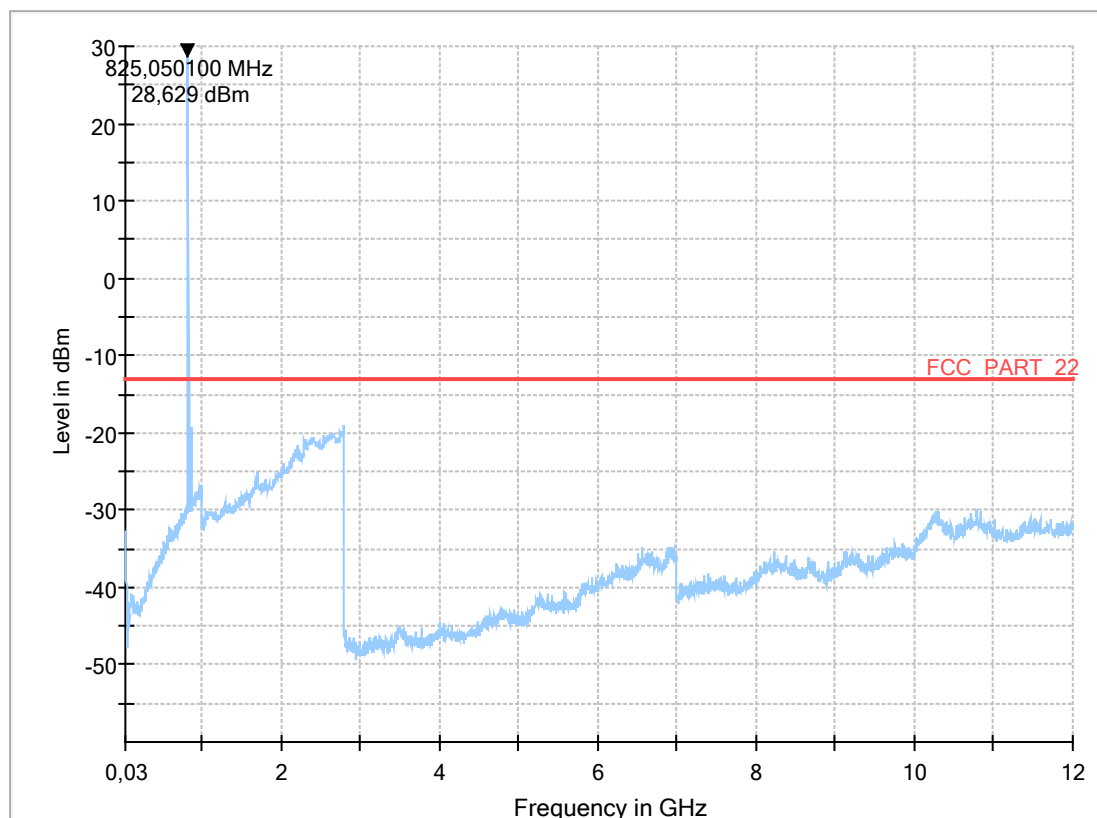
Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part22.917
Test Case:	UE allocated channel 128
Operating Mode:	MS allocated UL channel 128,190,251
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Mah
EUT Position:	EUT Standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



8.01b_RSE_R_Ch128_GPRS_laying

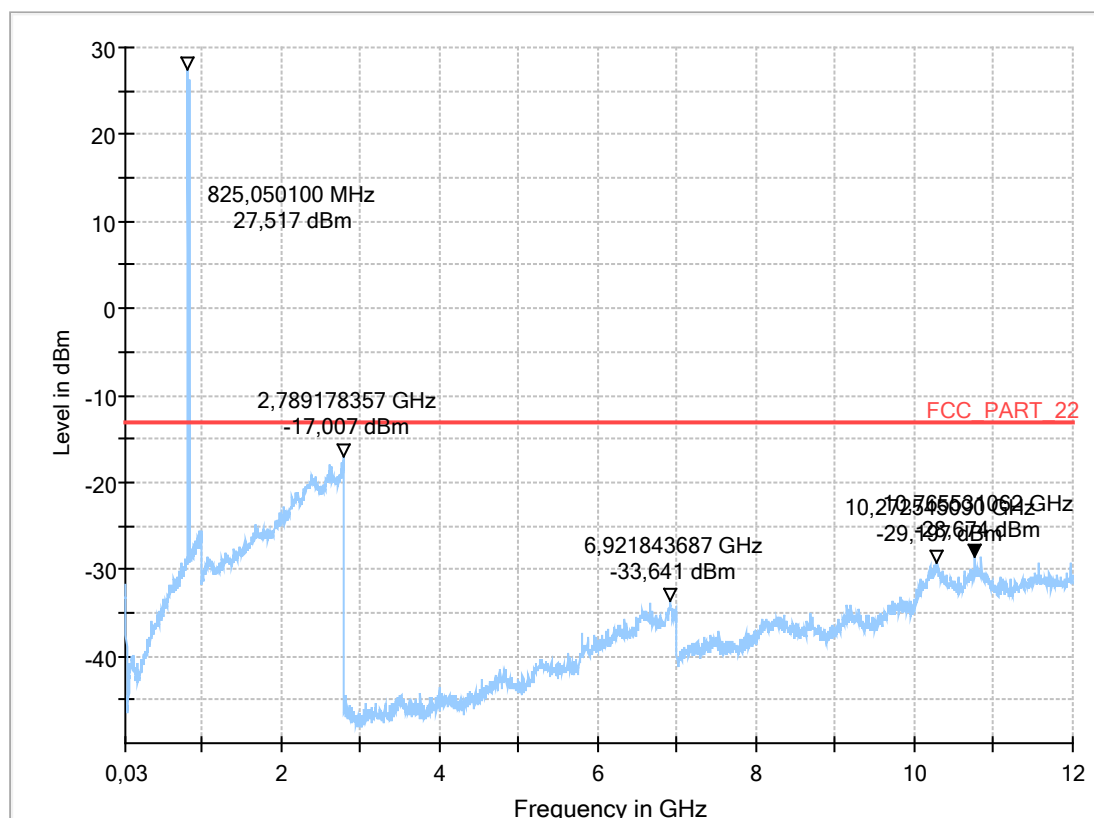
Common Information

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 128,190,251
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	DLe
Comments:	DUT LAYING

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



8.02a_RSE_R_Ch192_GPRS_standing

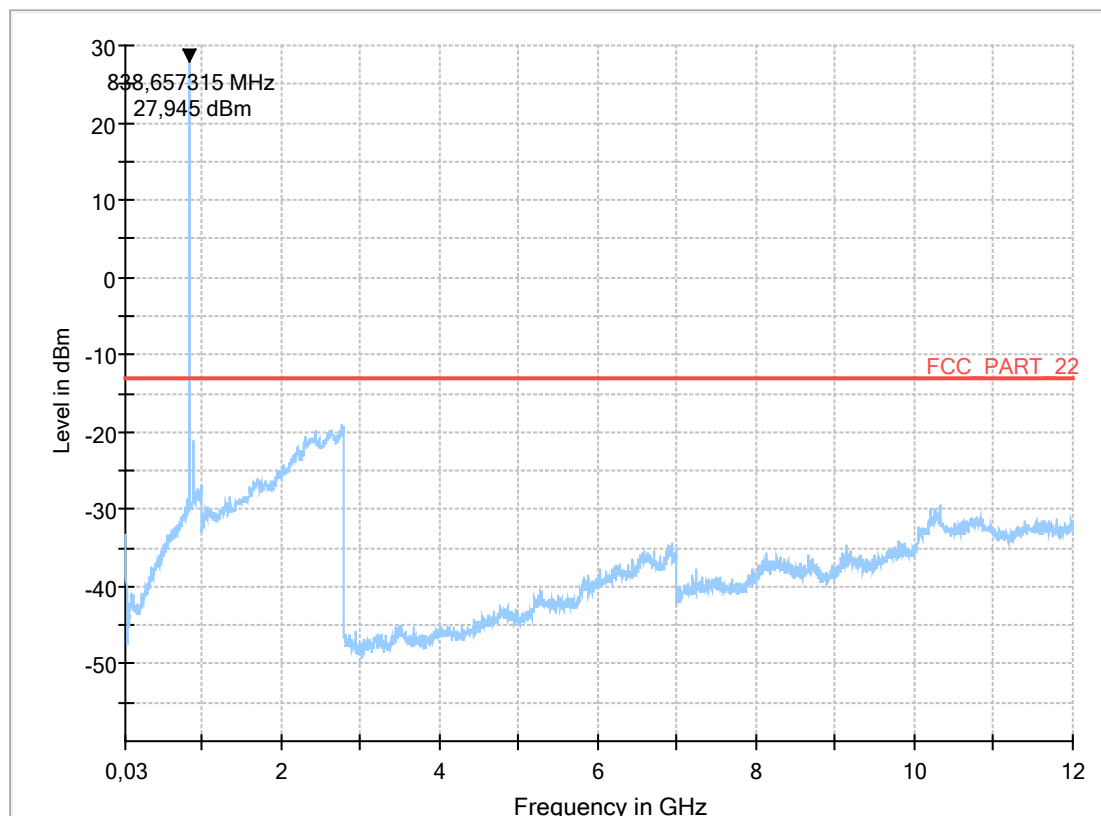
Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part22.917
Test Case:	UE allocated channel 192
Operating Mode:	MS allocated UL channel 128,190,251
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Mah
EUT Position:	EUT Standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



8.02b_RSE_R_Ch192_GPRS_laying

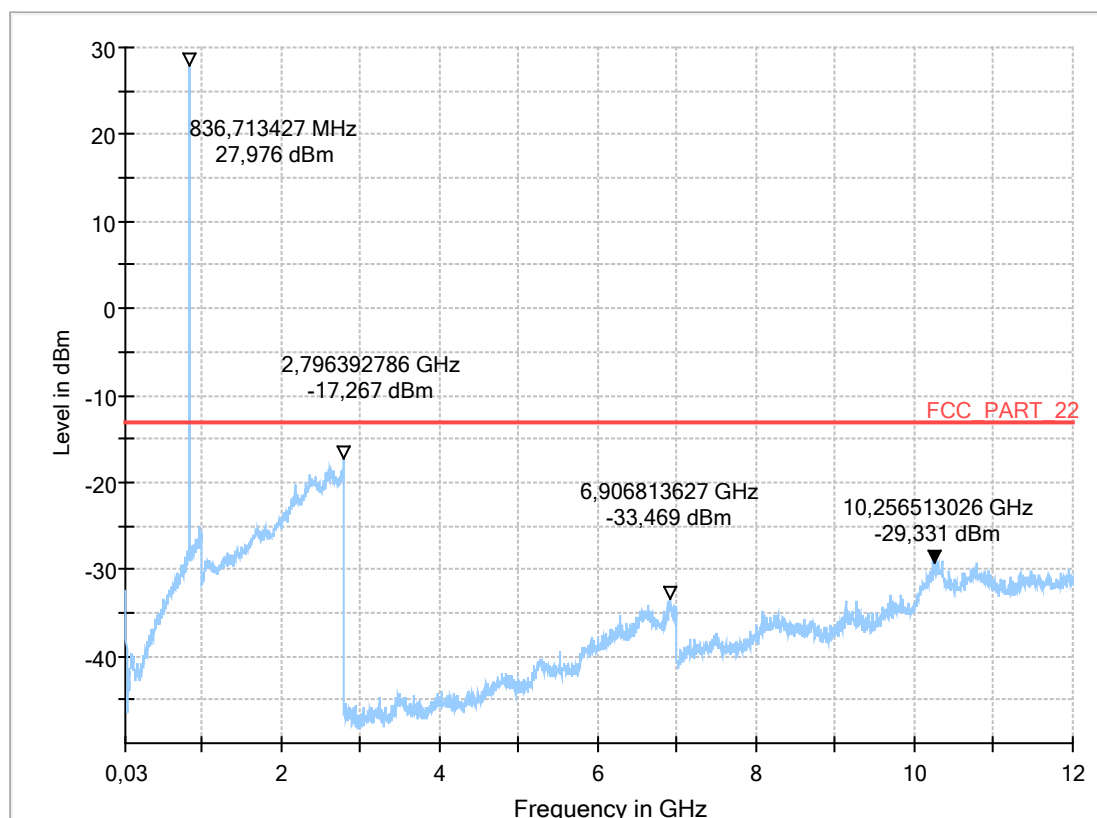
Common Information

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 128,190,251
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	DLe
Comments:	DUT LAYING

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



8.03a_RSE_R_Ch251_GPRS_standing

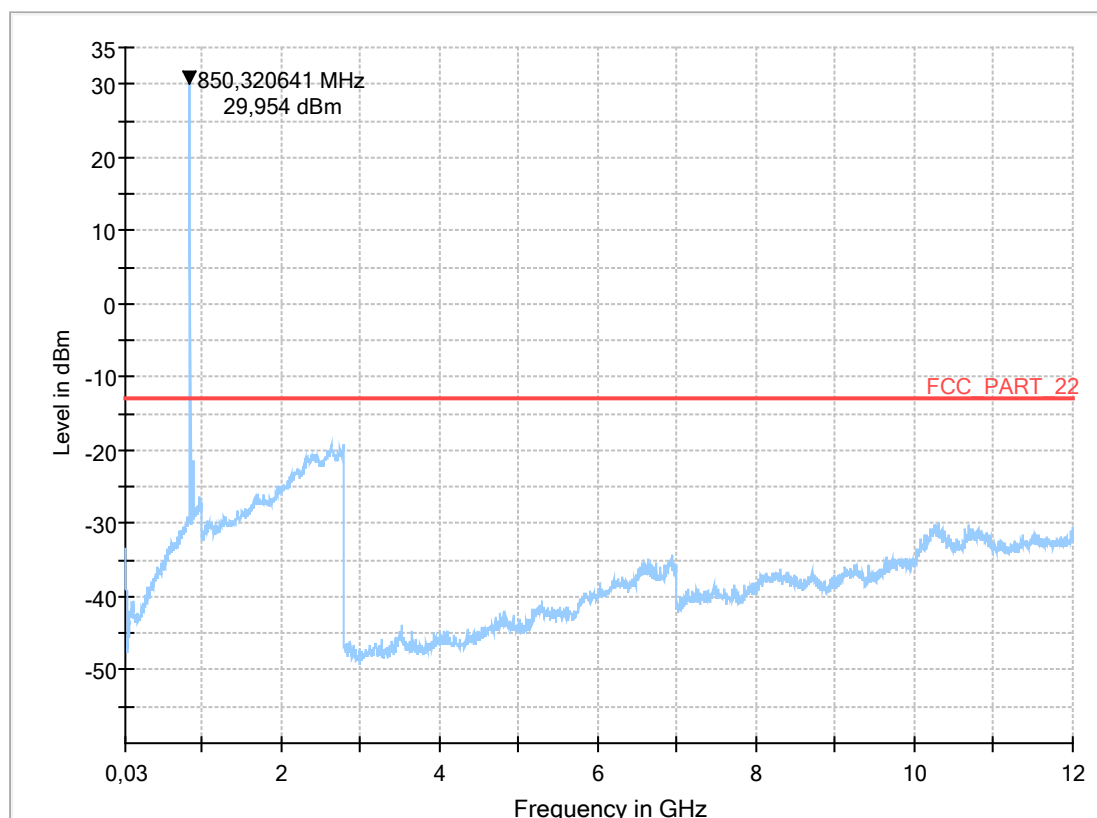
Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part22.917
Test Case:	UE allocated channel 251
Operating Mode:	MS allocated UL channel 128,190,251
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Mah
EUT Position:	EUT Standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



8.03b_RSE_R_Ch251_GPRS_laying

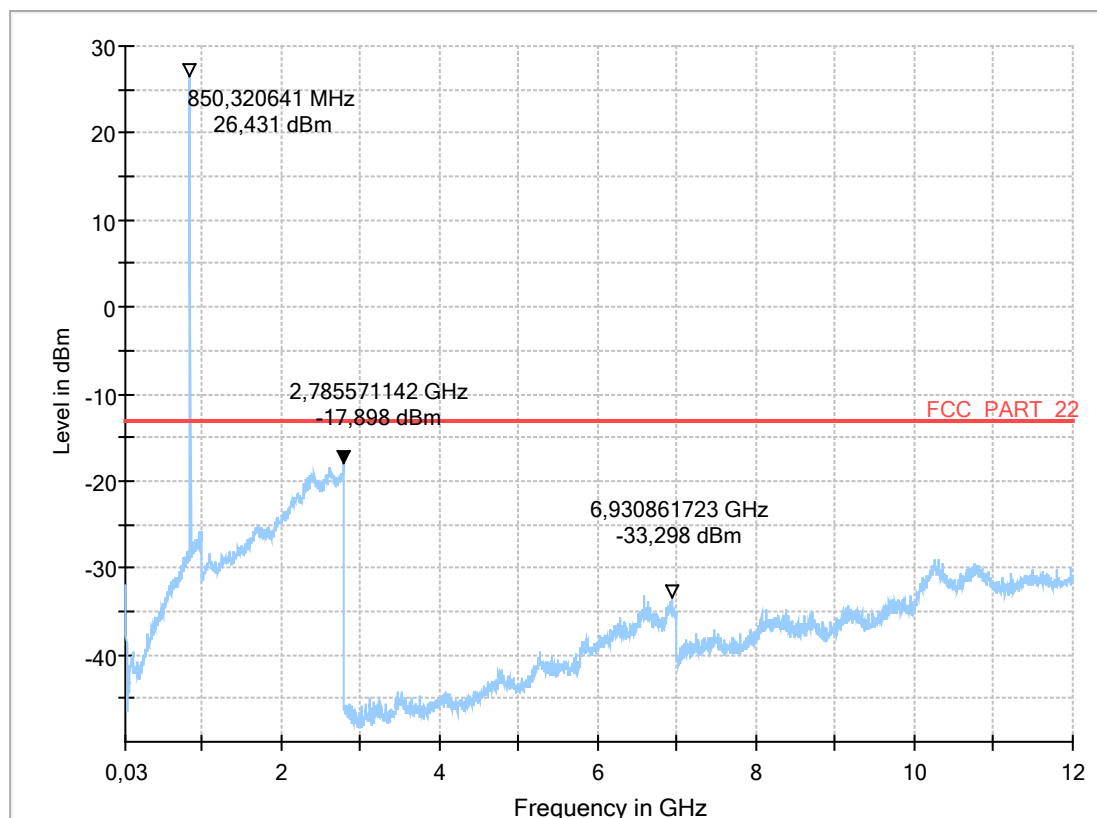
Common Information

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 128,190,251
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	DLe
Comments:	DUT LAYING
Comments:	CH 251

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



1.5. Spurious emissions radiated (1900 MHz transmitting mode) 8.10b_RSE_R_Ch512_GPRS_laying

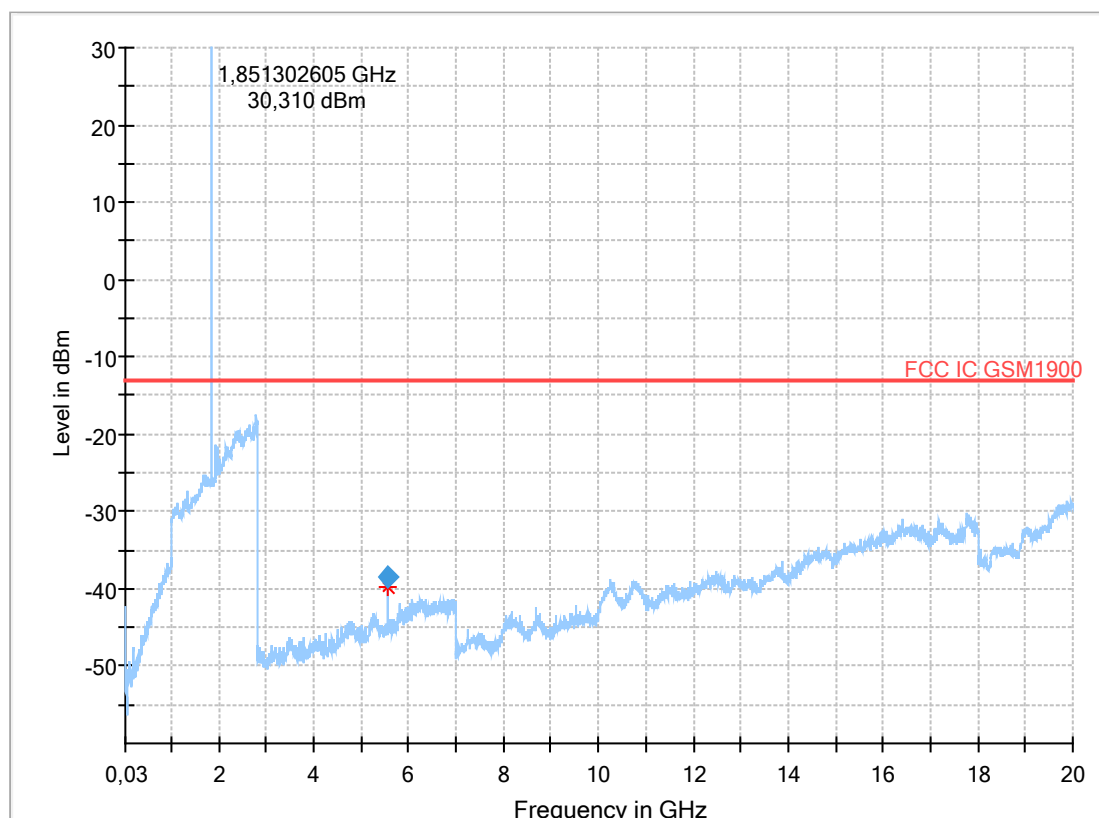
Common Information

Test Description:	Radiated Emissions GPRS1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part24.238
Test Case:	-
Operating Mode:	MS allocated UL channel 512
Exclusionband:	1850 - 1910MHz
Environmental Conditions:	Humidity: 35%rH; Temperature: 19.4°C
Operator:	MBe

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
5550.806614	-	25.49	1000.0	V	304.0	0.0	-89.9

8.11a_RSE_R_Ch661_GPRS_standing

Common Information

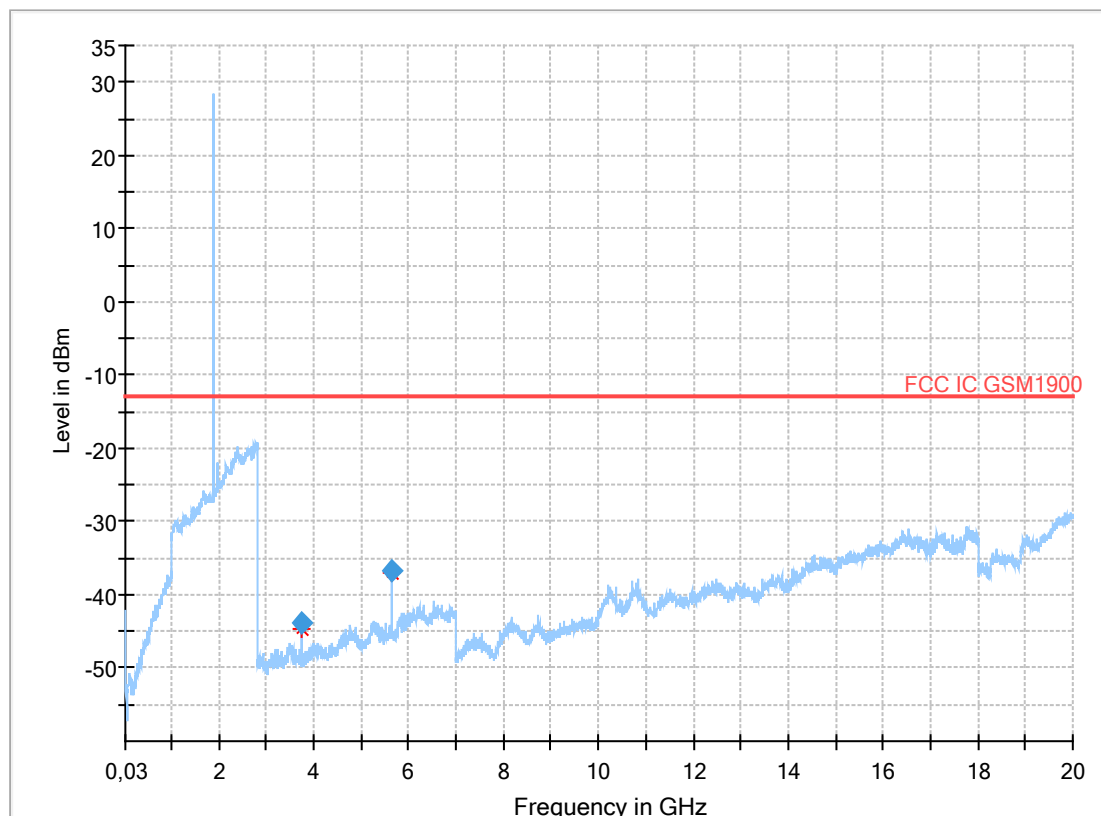
Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part24.238
Test Case:	-
Operating Mode:	MS allocated UL channel 512,661,810
Exclusionband:	1850 - 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Mah
EUT Position:	EUT Standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN

HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
3760.015030	-43.86	-13.00	30.86	1000.0	1000.000	V	316.0	0.0	-95.1
5640.205411	-36.73	-13.00	23.73	1000.0	1000.000	H	322.0	0.0	-89.7

8.11b_RSE_R_Ch661_GPRS_laying

Common Information

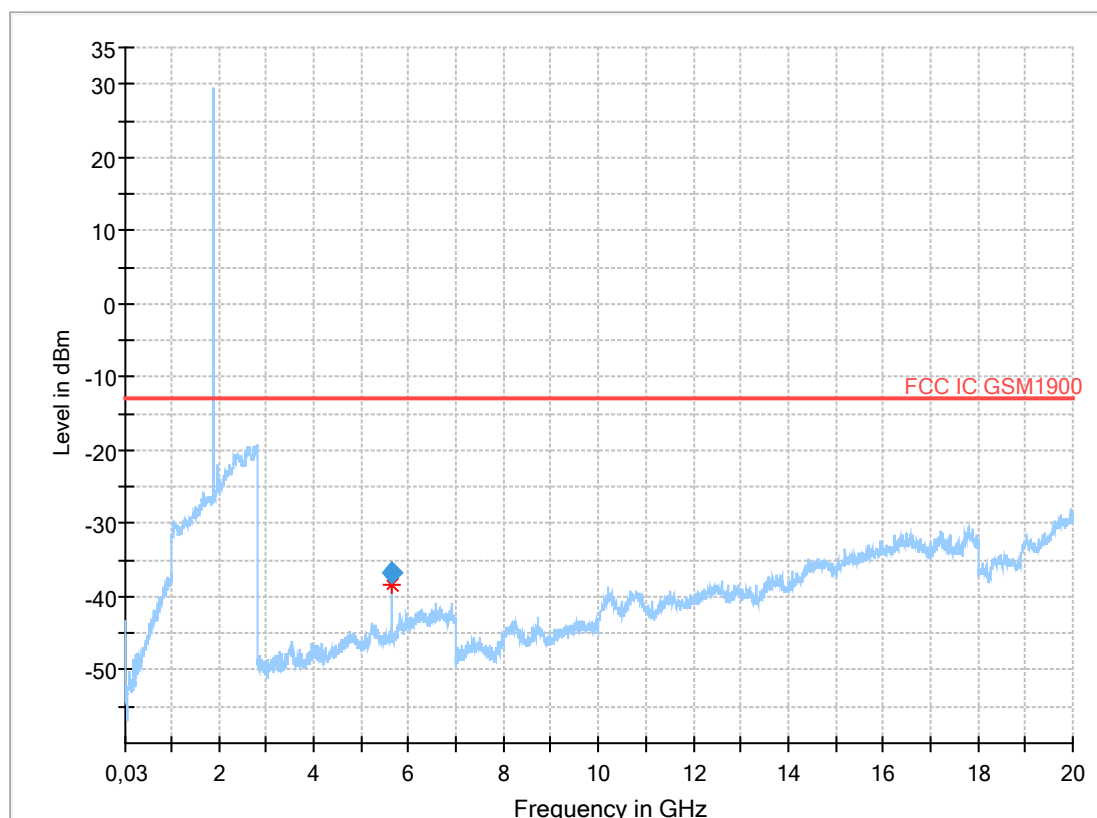
Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part24.238
Test Case:	-
Operating Mode:	MS allocated UL channel 661
Exclusionband:	1850 - 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Mah
EUT Position:	EUT Laying

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN

HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
5640.205411	-36.86	-13.00	23.86	1000.0	1000.000	V	36.0	0.0	-89.7

8.12a_RSE_R_Ch810_GPRS_standing

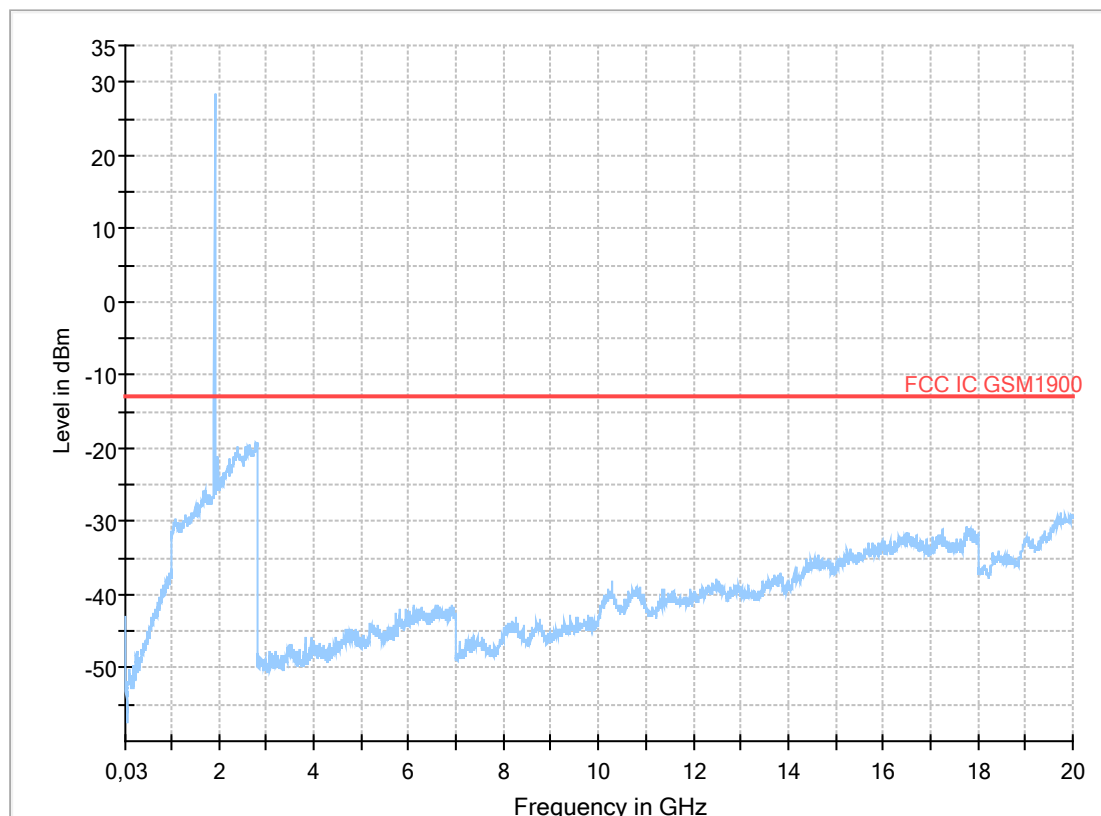
Common Information

Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part24.238
Test Case:	-
Operating Mode:	MS allocated UL channel 810
Exclusionband:	1850 - 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Mah
EUT Position:	EUT Standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



8.12b_RSE_R_Ch810_GPRS_laying

Common Information

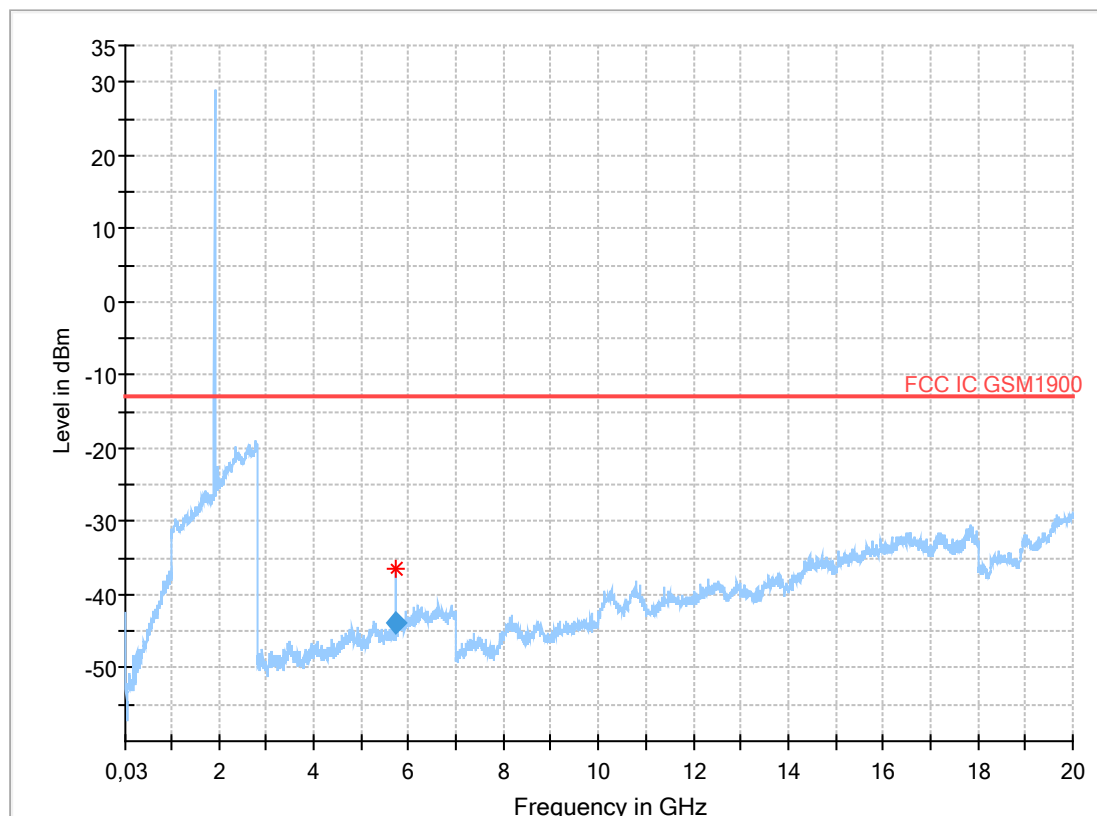
Test Description:	Radiated Emissions GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part24.238
Test Case:	-
Operating Mode:	MS allocated UL channel 810
Exclusionband:	1850 - 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Mah
EUT Position:	EUT Laying

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN

HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	MaxPeak (dBm)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
5729.594189	-43.79	-13.00	30.79	1000.0	1000.000	V	-15.0	0.0	-89.4

1.6. Radiated emissions on 850 MHz transmitting band-edge

9.01_BE_R_Ch128_GPRS_standing

Common Information

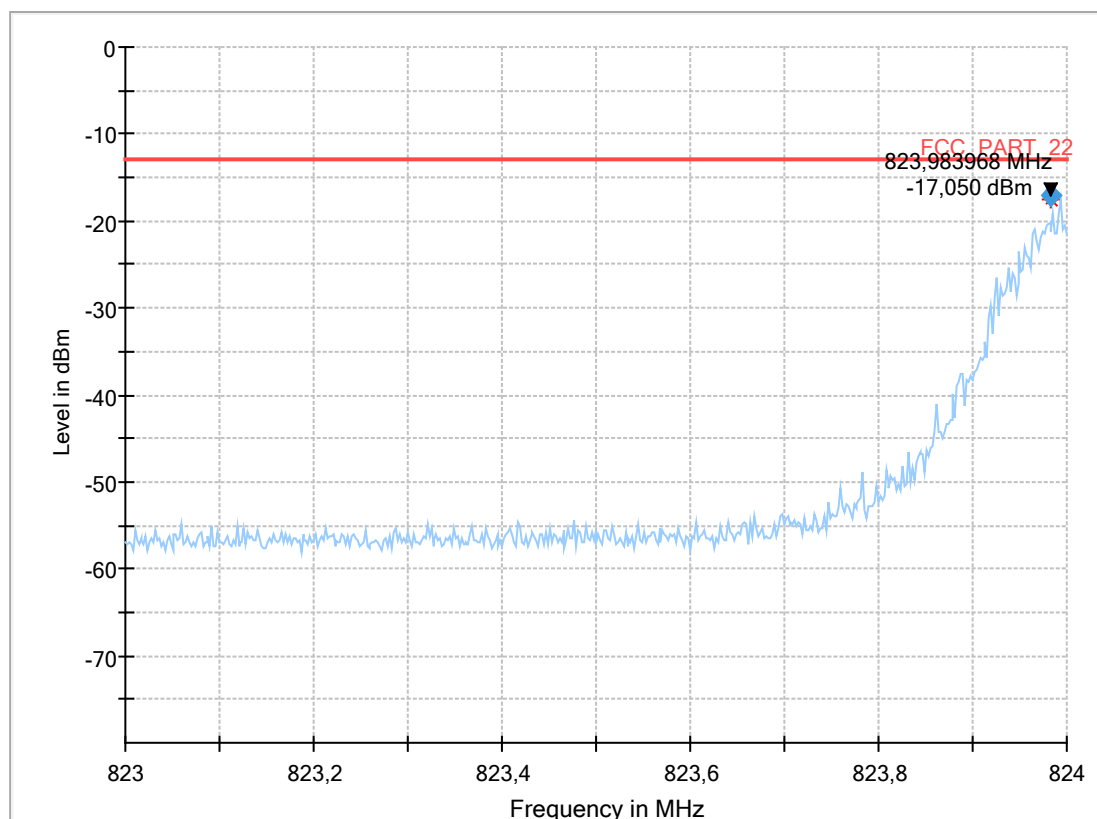
Test Description:	Radiated Band Edge Compliance GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917
Operating Mode:	MS allocated channel 128 (fc = 824.2MHz), Voice, PCL5 (+33dBm)
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Mah

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN

HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
823.983968	-13.00	4.05	10000.0	H	307.0	0.0	-75.8

9.01b_BE_R_Ch128_GPRS_laying

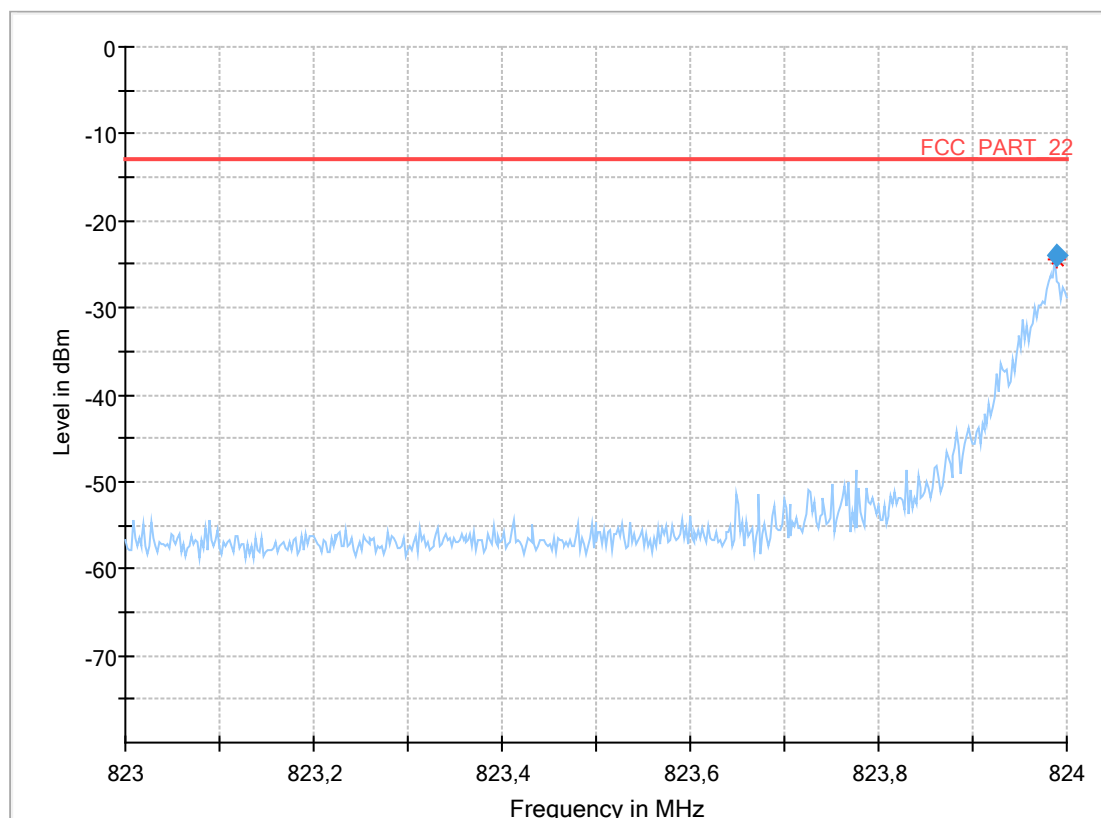
Common Information

Test Description:	Radiated Band Edge Compliance GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917
Operating Mode:	MS allocated channel 128 (fc = 824.2MHz), Voice, PCL5 (+33dBm)
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 50%rH; Temperature: 19°C
Operator:	DLe
	EUT - laying

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



9.02_BE_R_Ch251_GPRS_Standing

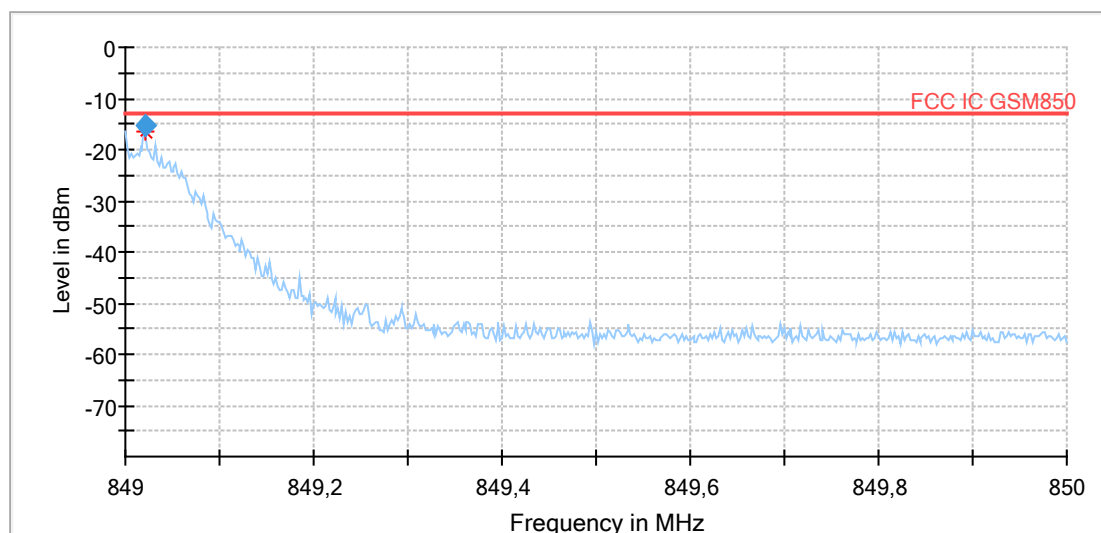
Common Information

Test Description:	Radiated Band Edge Compliance GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917
Operating Mode:	MS allocated channel 251 (fc = 848.8MHz), Voice, PCL0 (+33dBm)
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Mah

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN
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HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



9.02_BE_R_Ch251_GPRS_laying

Common Information

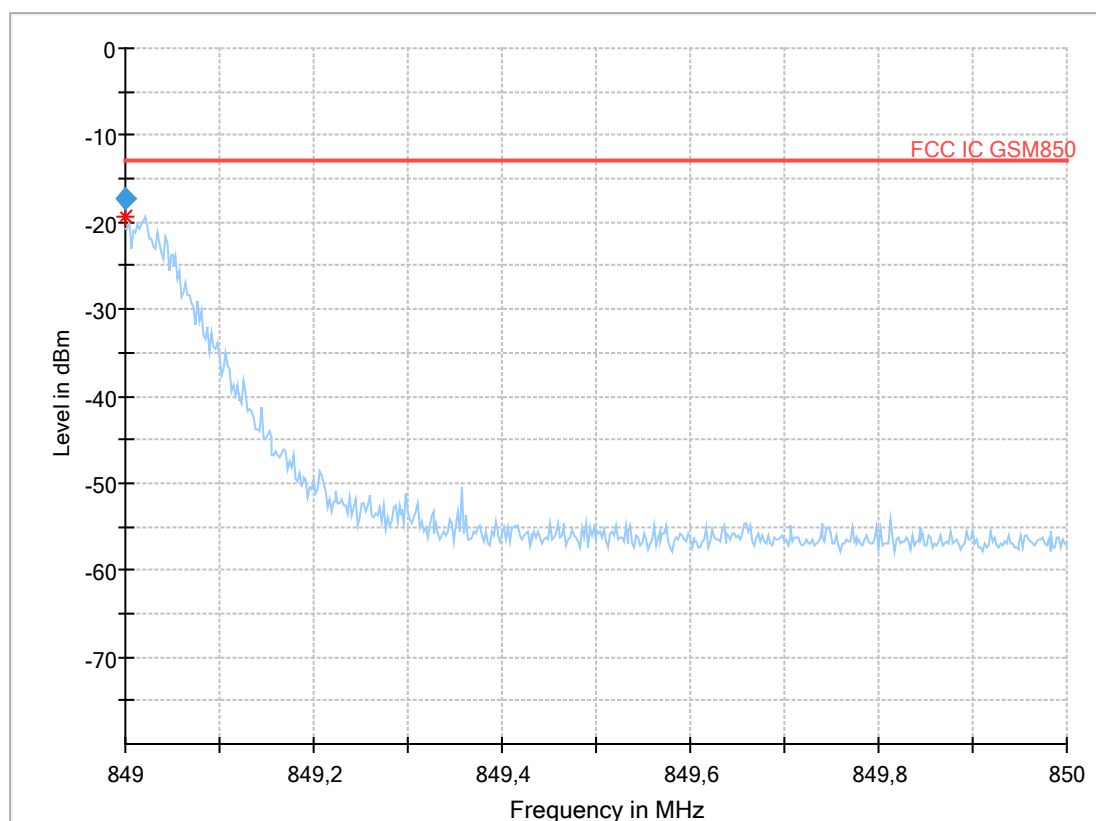
Test Description:	Radiated Band Edge Compliance GSM850
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 22.917
Operating Mode:	MS allocated channel 251 (fc = 848.8MHz), Voice, PCL0 (+33dBm)
Exclusionband:	824 - 849MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	Mah

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP_DIN

HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
849.000000	-13.00	4.31	10000.0	V	188.0	0.0	-75.9

1.7. Radiated emissions on 1900 MHz transmitting band-edge

9.07a_BE_R_Ch512_GPRS_standing

Common Information

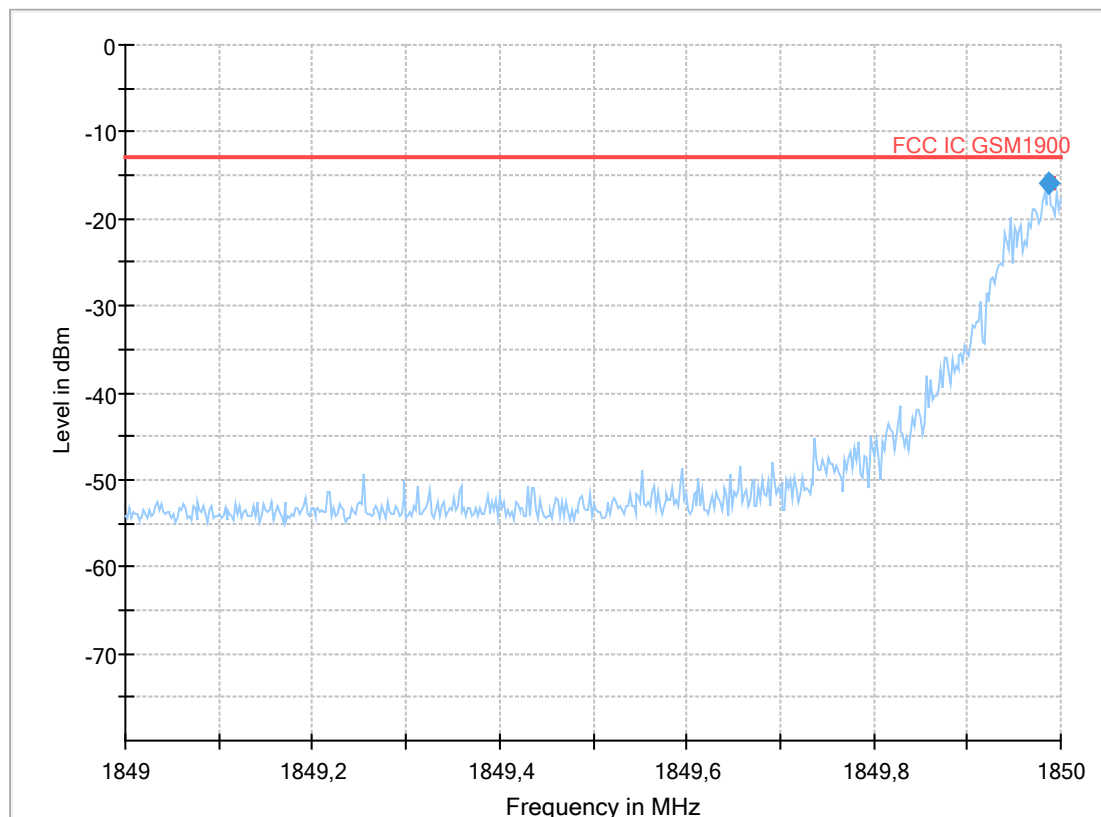
Test Description:	Radiated Spurious Emissions GSM1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24.238
Comm. Link:	GSM1900, Voice/EDGE
Operating Mode:	MS allocated channel 512 (UL = 1850.2MHz),661(UL = 1880.0MHz),810 (UL = 1909.8MHz)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	DLe
Comments	DUT Standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN

HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
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1849.987976	-	2.98	5.0	H	53.0	0.0	-63.1
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9.07b_BE_R_Ch512_GPRS_laying

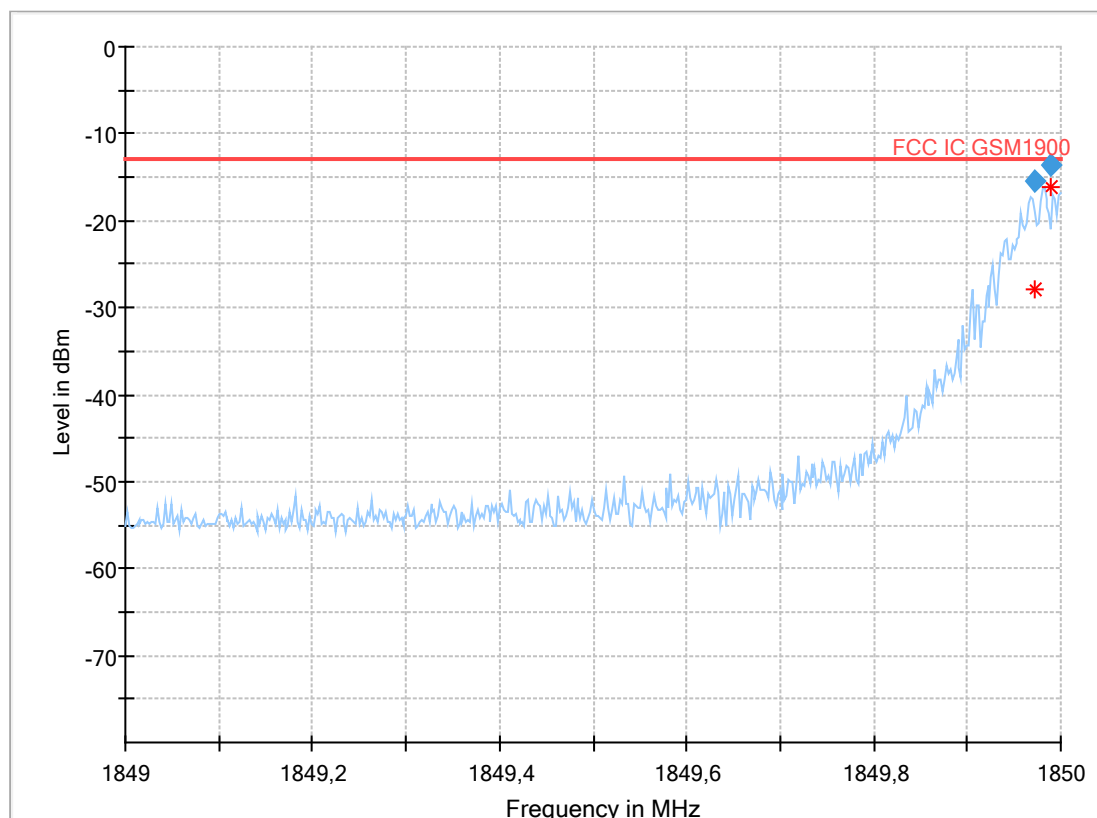
Common Information

Test Description:	Radiated Spurious Emissions GPRS1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24.238
Comm. Link:	GPRS 1900
Operating Mode:	MS allocated channel 512 (UL = 1850.2MHz),661(UL = 1880.0MHz),810 (UL = 1909.8MHz)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 35%rH; Temperature: 19.4°C
Operator:	Lor

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	12 V DC

Full Spectrum



Final Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1849.971944	-13.00	2.44	10000.0	V	206.0	0.0	-63.1

1849.989980	13.00	0.68	10000.0	V	208.0	0.0	-63.1
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9.08a_BE_R_Ch810_GPRS_standing

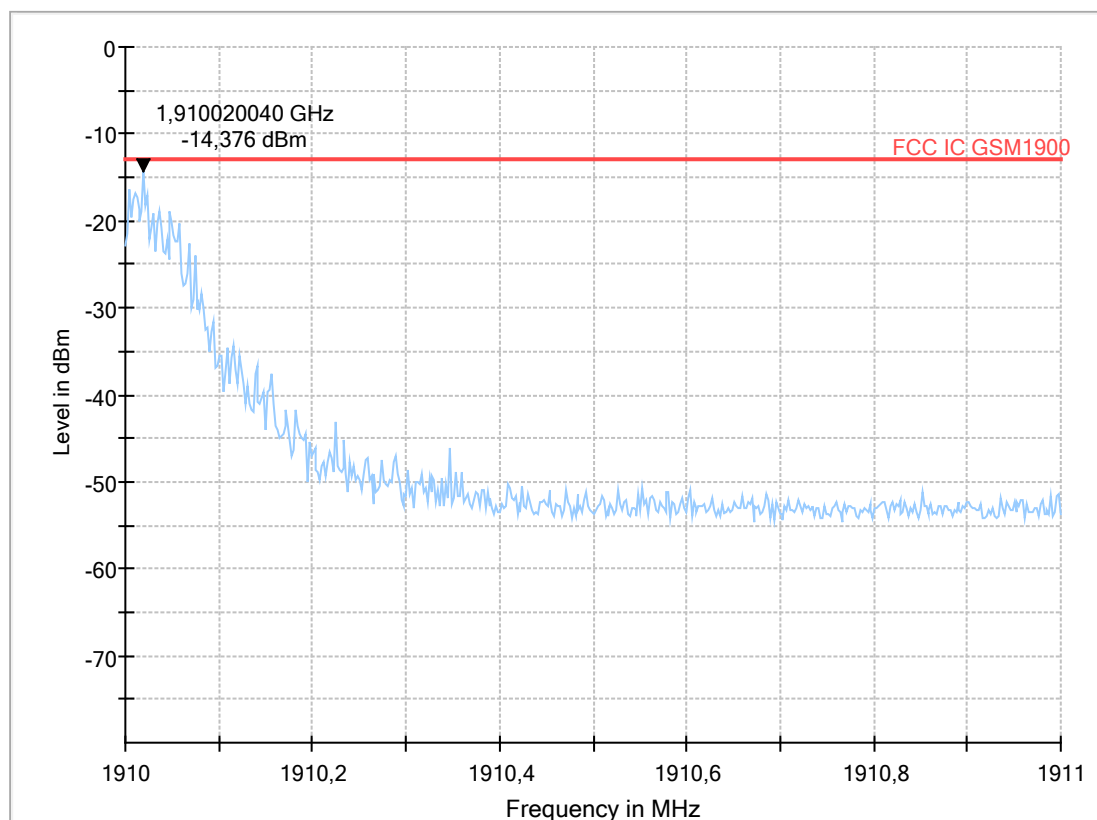
Common Information

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, Voice/EDGE
Operating Mode:	MS allocated channel 512 (UL = 1850.2MHz),661(UL = 1880.0MHz),810 (UL = 1909.8MHz)
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 40%rH; Temperature: 20°C
Operator:	DLe
Comments	DUT Standing

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN
HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



9.08b_BE_R_Ch810_GPRS_laying

Common Information

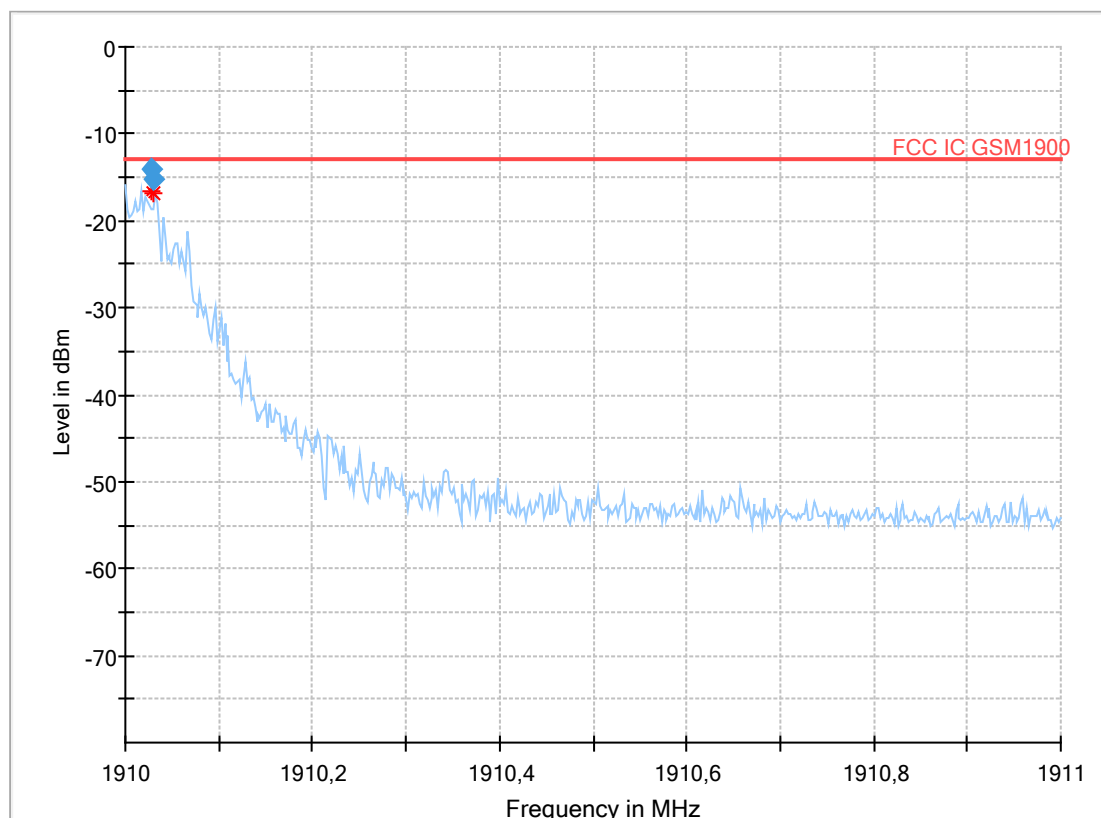
Test Description:	Radiated Spurious Emissions GPRS1900
Test Site Location:	CETECOM GmbH Essen
Test Site:	Fully Anechoic Room (FAR)
Test Standard:	FCC Part 24.238
Comm. Link:	GPRS1900
Operating Mode:	MS allocated UL channel 810
Exclusionband:	1850- 1910MHz
Environmental Conditions:	Humidity: 35%rH; Temperature: 19.4°C
Operator:	MBe

EUT Information

Manufacturer:	Robert Bosch Car Multimedia GmbH
EuT:	ECU cTP _DIN

HW Version:	6797G04
SW Version:	16.099.2
Serial Number:	2830006236
Connected Interfaces:	Main wiring + SFTP 920 151 014
Power Supply:	24 V DC

Full Spectrum



Final Result

Frequency (MHz)	Limit (dBm)	Margin (dB)	Meas. Time (ms)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB)
1910.028056	-13.00	0.96	10000.0	V	208.0	0.0	-62.8
1910.030060	-13.00	2.15	10000.0	V	230.0	0.0	-62.8