

Annex 1: Measurement diagrams to
PARTIAL TEST REPORT
 No.: 6-0658-15-5-4a/b

According to:
FCC Regulations
 Part 15.207 / 15.209
 Part 15.247

IC-Regulations
 RSS-Gen, Issue 4
 RSS-247, Issue 1

for
Jaguar Land Rover Ltd.

ISC1.0
Infotainment Slave Controller
 (Bluetooth 2.4GHz)

FCC ID: 2AE51-ISC10
IC: 2145A-ISC10
 PMN: Infotainment System
 HVIN: ISC1.0

Laboratory Accreditation and Listings			
 Deutsche Akkreditierungsstelle D-PL-12047-01-01	 FEDERAL COMMUNICATIONS COMMISSION • USA • 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			
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1. Measurement diagrams

1.1. General Limit - Radiated field strength emissions below 30 MHz

Diagram No. 2.01_TX_ch00_3-DH5

Test description:	Date: 09.07.2015 Page 1 of 1
Test site and distance:	Magnetic Field Strength Measurement related to 30/300 m distance
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V8.51.0
Technical Data:	used accord. table, pls. see test report
Rec. antenna (pre-scan):	Please see page 2 for detailed data of measurement setup
Used filter:	height 1.00 m, parallel and 90° to EUT polarisation
Test specification:	bypass
	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	npe
Operating conditions:	BT TX Ch:00 3-DH5; 6 dBm
Power during tests:	12V DC

EUT Information

Manufacturer:	Bosch
EuT:	ISC
HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

FCC15.209_ANSI63_10_2013

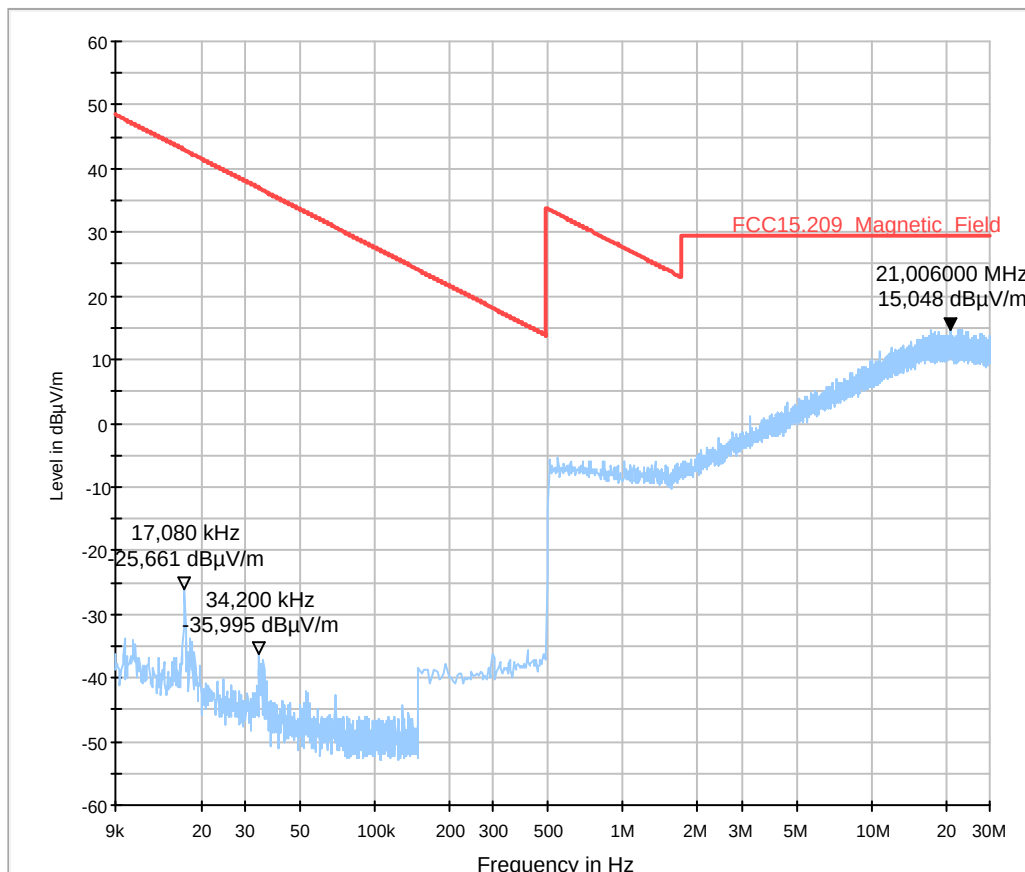


Diagram No. 2.02_TX_ch39_2-DH5

Test description:	Date: 09.07.2015 Page 1 of 1
Test site and distance:	Magnetic Field Strength Measurement related to 30/300 m distance
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V8.51.0
Technical Data:	used accord. table, pls. see test report
Rec. antenna (pre-scan):	Please see page 2 for detailed data of measurement setup
Used filter:	height 1.00 m, parallel and 90° to EUT polarisation
Test specification:	bypass
	FCC 15.205 § 15.209; RSS-Gen: Issue 4
Operator:	npe
Operating conditions:	BT TX Ch:39 2-DH5; 8 dBm
Power during tests:	12V DC

EUT Information

Manufacturer:	Bosch
EuT:	ISC

HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

FCC15.209_ANSI63_10_2013

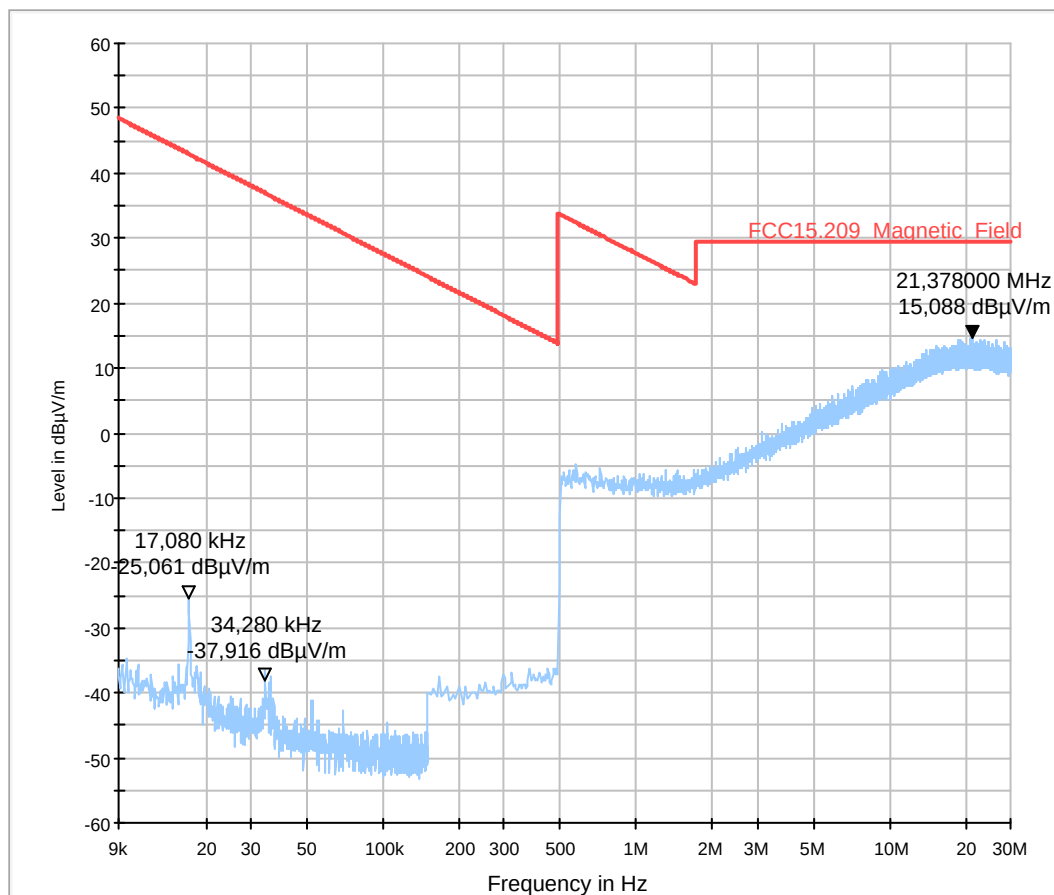
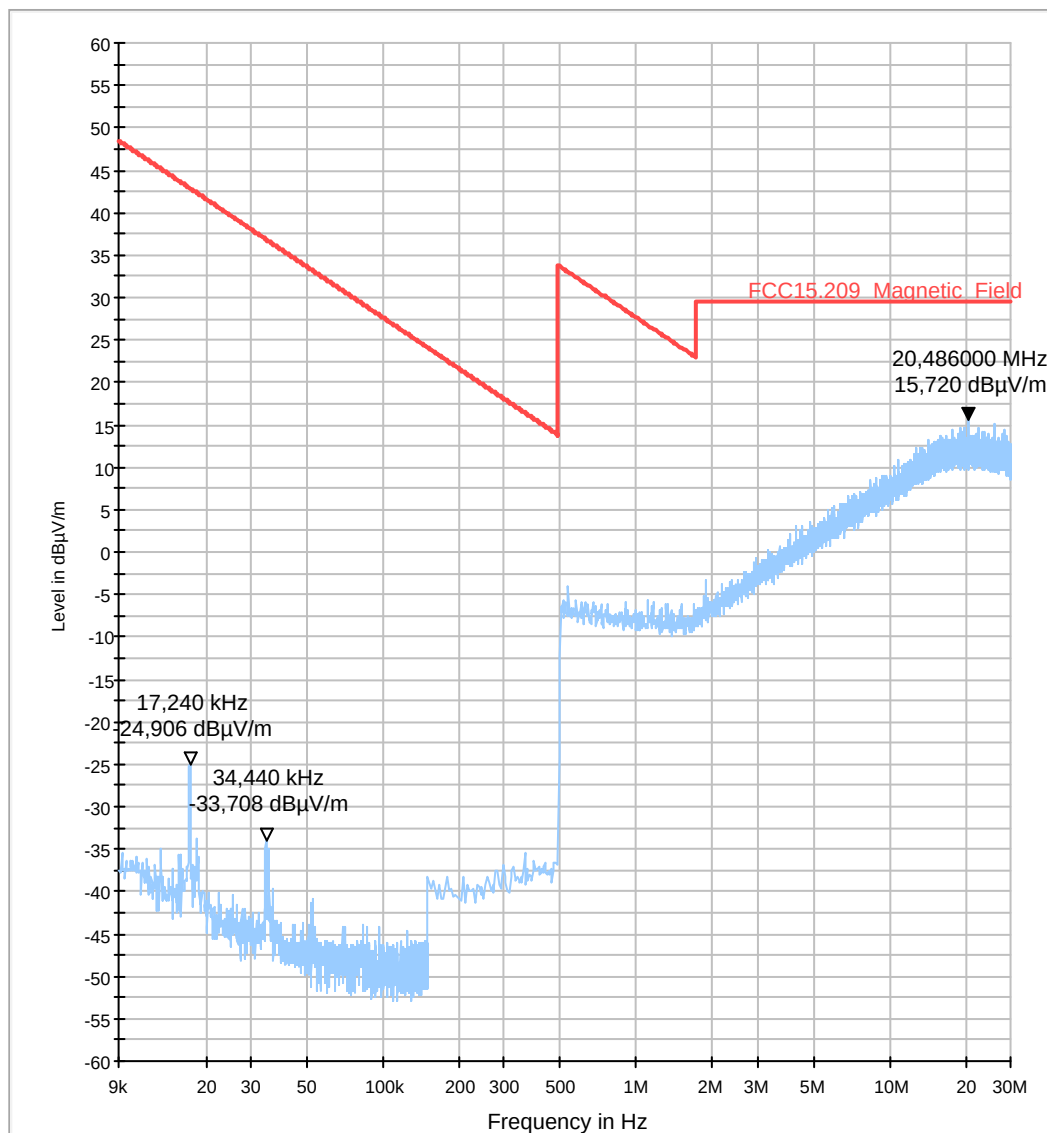


Diagram No. 2.03_TX_ch78_DH5

Test description:	Date: 08.07.2015 Page 1 of 1
Test site and distance:	Magnetic Field Strength Measurement related to 30 m distance
Version of Testsoftware:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Distance correction:	EMC32 V8.51.0
Technical Data:	used accord. table, pls. see test report
Rec. antenna (pre-scan):	Please see page 2 for detailed data of measurement setup
Used filter:	height 1.00 m, parallel and 90° to EUT polarisation
Test specification:	bypass
	FCC 15.209; RSS-Gen: Issue 3
Operator:	HLA
Operating conditions:	BT TX Ch:78 _DH5; 10 dBm
Power during tests:	12V DC
Comment 1:	

FCC15.209_ANSI63_10_2013



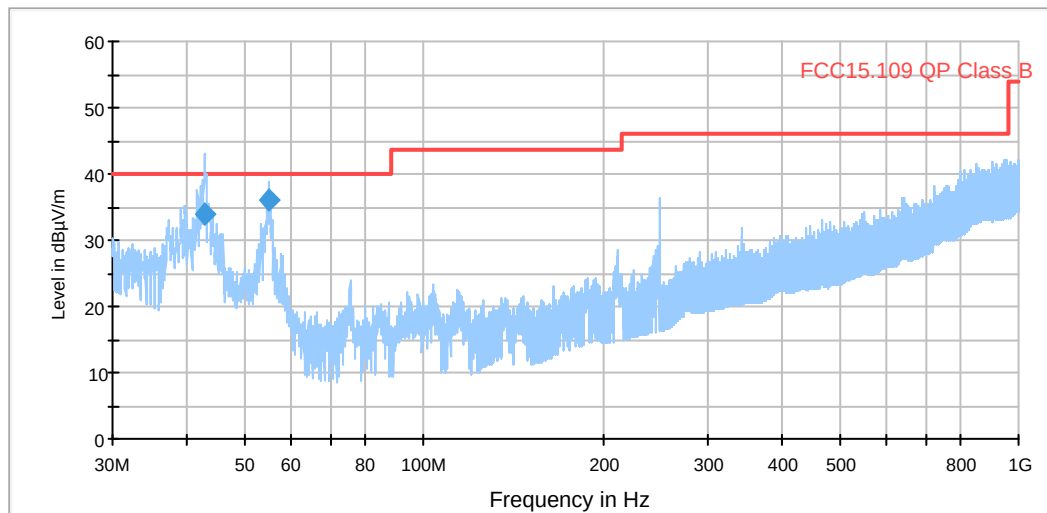
1.2. General Limit - Radiated field strength emissions, 30 MHz - 1 GHz

Diagram No. 3.01_TX_ch0_3-DH5

08.07.2015 Page 1 of 1
 Test description: Electric Field Strength Measurement
 Test site and distance: Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
 Version of Testsoftware: EMC32 V8.51.0
 Distance correction: not used
 Used filter: not used
 Technical Data: please see page 2 for detailed data of measurement setup
 Test specification.: FCC 15.109 Class B; RSS-Gen. Issue 4

Operator: HLa
 Operating conditions: BT TX Ch:0_3-DH5; 6 dBm
 Power during tests: 12V DC
 Comment 1:

FCC15.109_hor+vert



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Measurement Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth	Correction (dB)	Margin (dB)
42.890000	33.9	1000.0	120.000	182.0	H	88.0	16.3	6.1
55.040000	36.2	1000.0	120.000	105.0	V	270.0	11.8	3.8

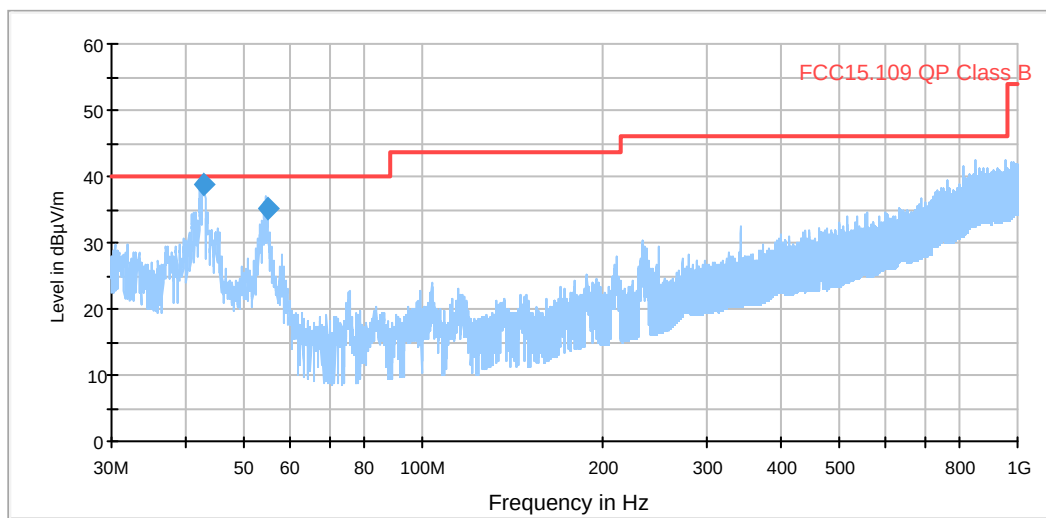
Diagram No. 3.02_TX_ch39_2-DH5

08.07.2015 Page 1 of 1

Test description: Electric Field Strength Measurement
 Test site and distance: Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
 Version of Testsoftware: EMC32 V8.51.0
 Distance correction: not used
 Used filter: not used
 Technical Data: please see page 2 for detailed data of measurement setup
 Test specification.: FCC 15.109 Class B; RSS-Gen. Issue 4

Operator: HLa
 Operating conditions: BT TX Ch:39_2-DH5; 8 dBm
 Power during tests: 12V DC
 Comment 1:

FCC15.109_hor+vert



Final Result 1

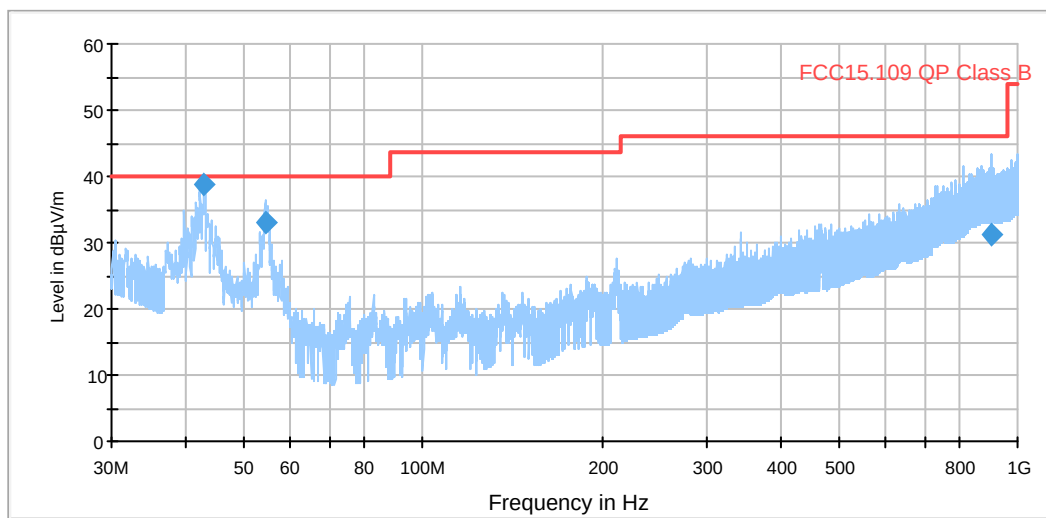
Frequency (MHz)	QuasiPeak (dBµV/m)	Measurement Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth	Correction (dB)	Margin (dB)
42.930000	38.7	1000.0	120.000	105.0	V	88.0	16.3	1.3
54.880000	35.2	1000.0	120.000	105.0	V	270.0	11.9	4.8

Diagram No. 3.03_TX_ch78_DH5

08.07.2015 Page 1 of 1
 Test description: Electric Field Strength Measurement
 Test site and distance: Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
 Version of Testsoftware: EMC32 V8.51.0
 Distance correction: not used
 Used filter: not used
 Technical Data: please see page 2 for detailed data of measurement setup
 Test specification.: FCC 15.109 Class B; RSS-Gen. Issue 4

Operator: HLa
 Operating conditions: BT TX Ch:78 _DH5; 10 dBm
 Power during tests: 12V DC
 Comment 1:

FCC15.109_hor+vert



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Measurement Time	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth	Corr. (dB)	Margin (dB)
42.870000	38.6	1000.0	120.000	105.0	V	95.0	16.3	1.4
54.440000	33.0	1000.0	120.000	105.0	V	240.0	12.0	7.0
900.620000	31.3	1000.0	120.000	105.0	H	74.0	27.0	14.7

1.3. General Limit - Radiated emissions, above 1 GHz

Diagram No.: 4.01_TX_ch00_3-DH5

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	UE transmits on channel 00, 3-DH5, 6dBm
Operator Name:	HLA
Comment:	

EUT Information

Manufacturer:	Bosch
EuT:	ISC
HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

Full Spectrum

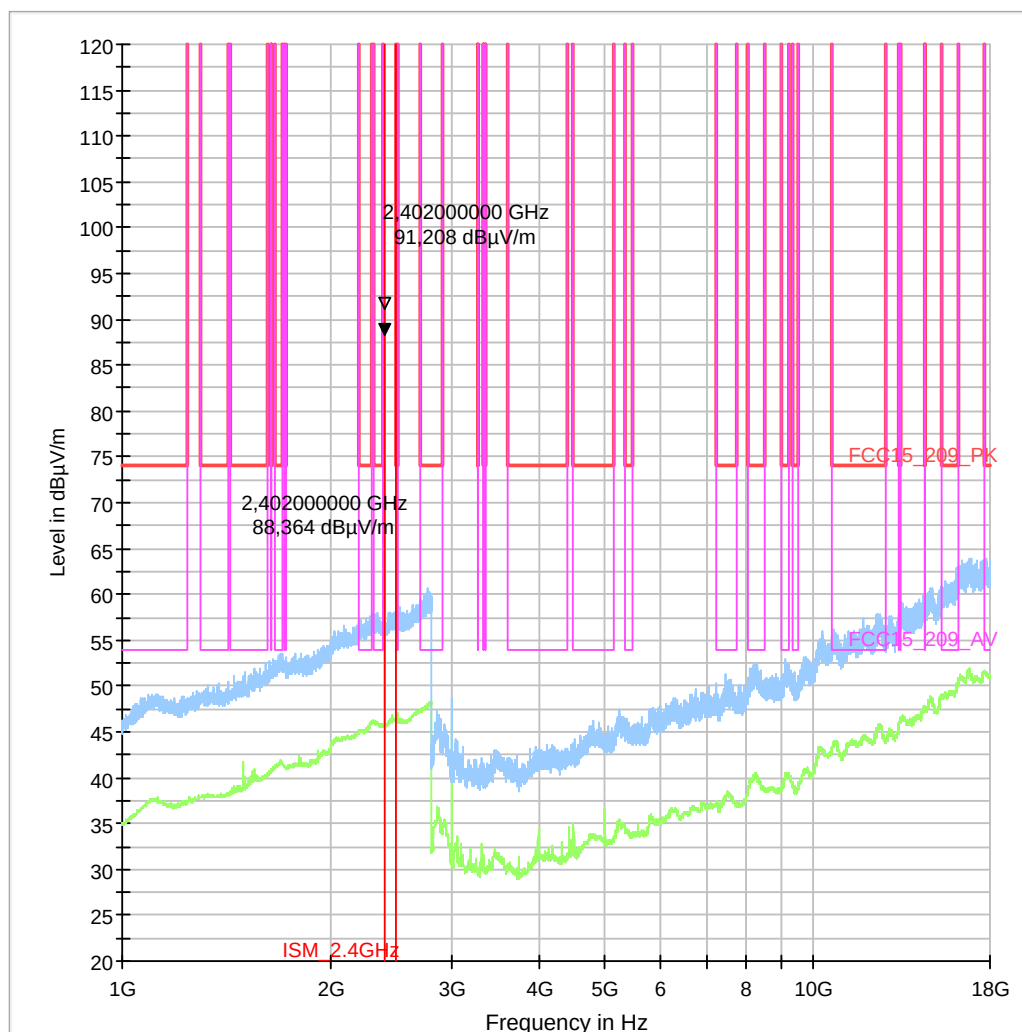


Diagram No.: 4.07_TX_ch00_3-DH5

Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247, 15.205&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
SW-Version:	EMC32 V8.53.0
Operation mode:	TX mode continuous
Operator Name:	Hla
Comment:	Channel 0, 3-DH5

EUT Information

Manufacturer:	Bosch
EuT:	ISC
HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

FCC_Sweep_15.407_18_40GHz_Pre

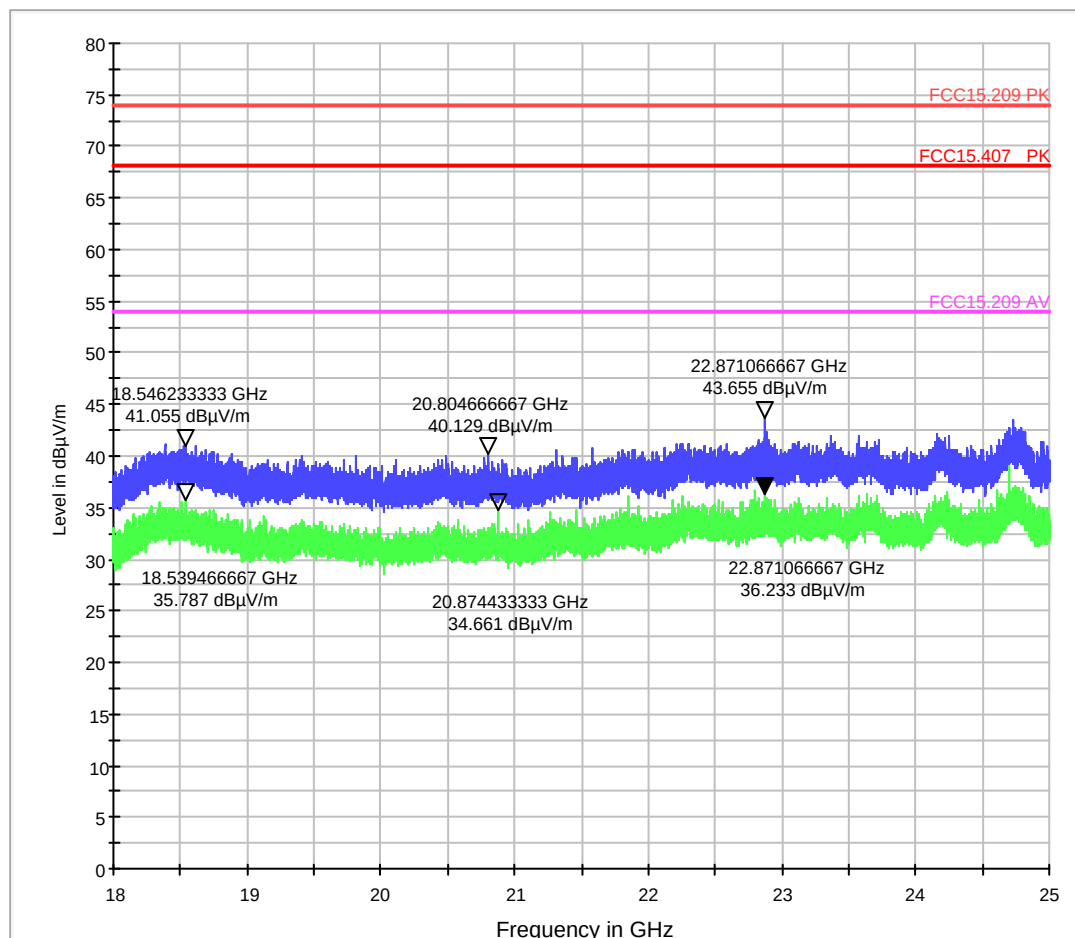


Diagram No.: 4.02_TX_ch39_2-DH5

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	UE transmits on channel 39, 2-DH5, 8dBm
Operator Name:	npe
Comment:	

EUT Information

Manufacturer:	Bosch
EuT:	ISC
-----	-----
HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

Full Spectrum

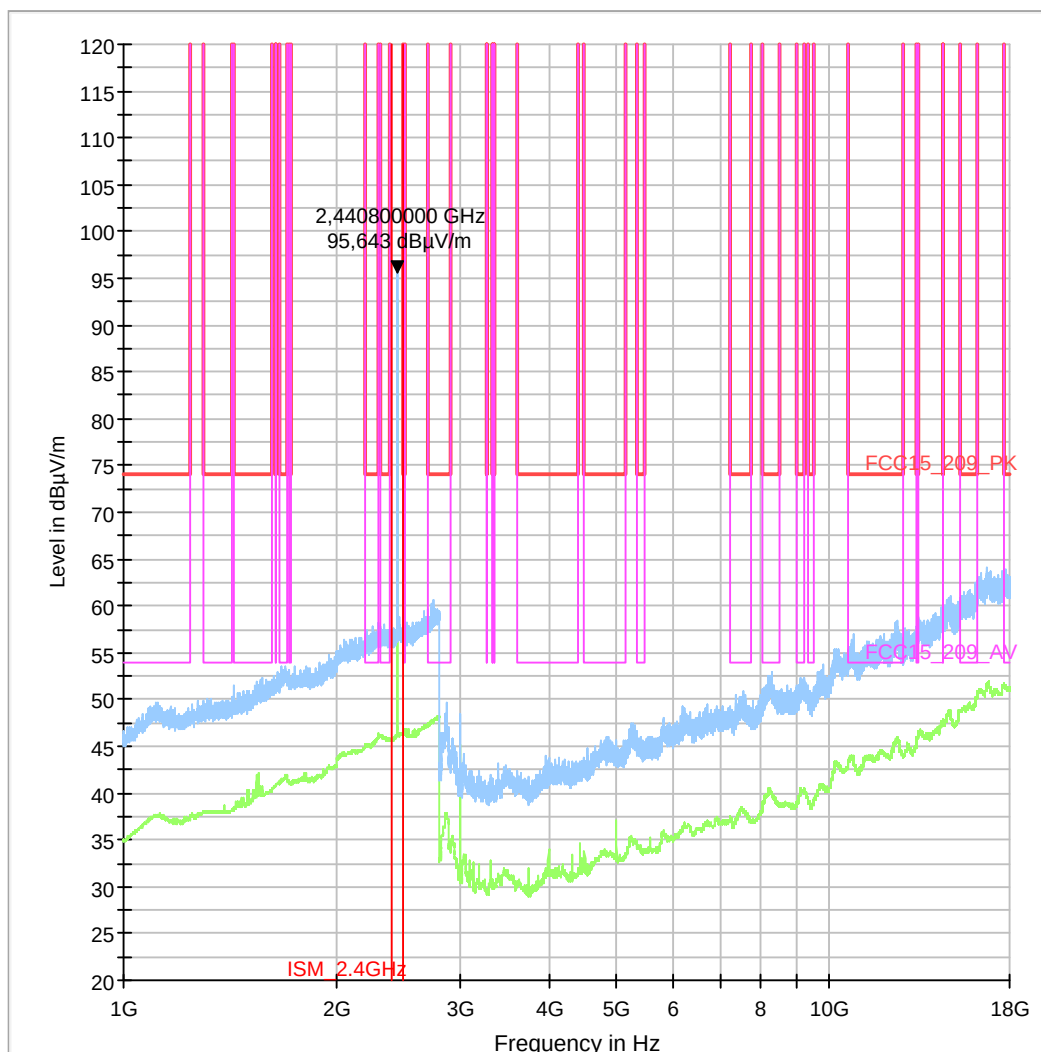


Diagram No.: 4.08_TX_ch39_2-DH5

Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247, 15.205&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
SW-Version:	EMC32 V8.53.0
Operation mode:	TX mode continuous
Operator Name:	Hla
Comment:	Channel 39, 2-DH5

EUT Information

Manufacturer:	Bosch
EuT:	ISC
HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

FCC_Sweep_15.407_18_40GHz_Pre

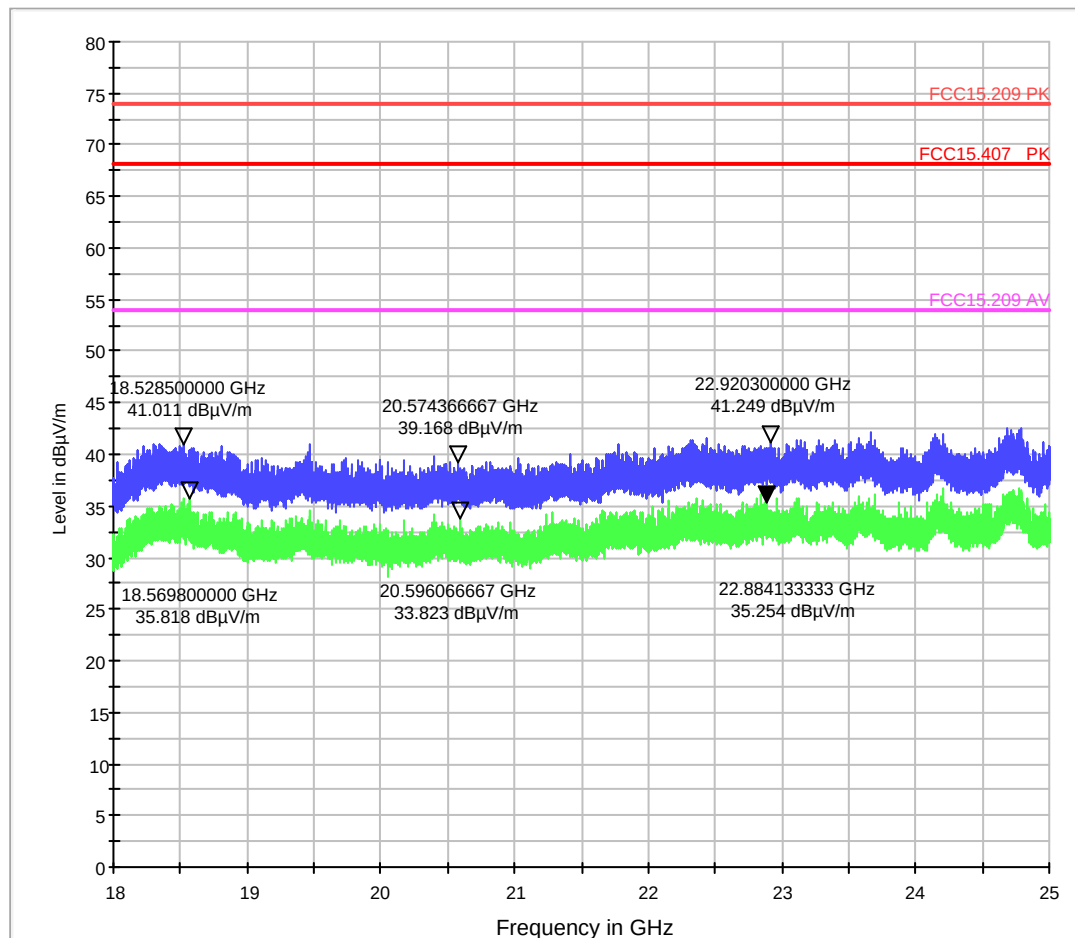


Diagram No.: 4.03_TX_ch78_DH5

Common Information

Test Description:	Radiated field strength emission in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	UE transmits on channel 78, DH5, 10dBm
Operator Name:	npe
Comment:	

EUT Information

Manufacturer:	Bosch
EuT:	ISC

HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

Full Spectrum

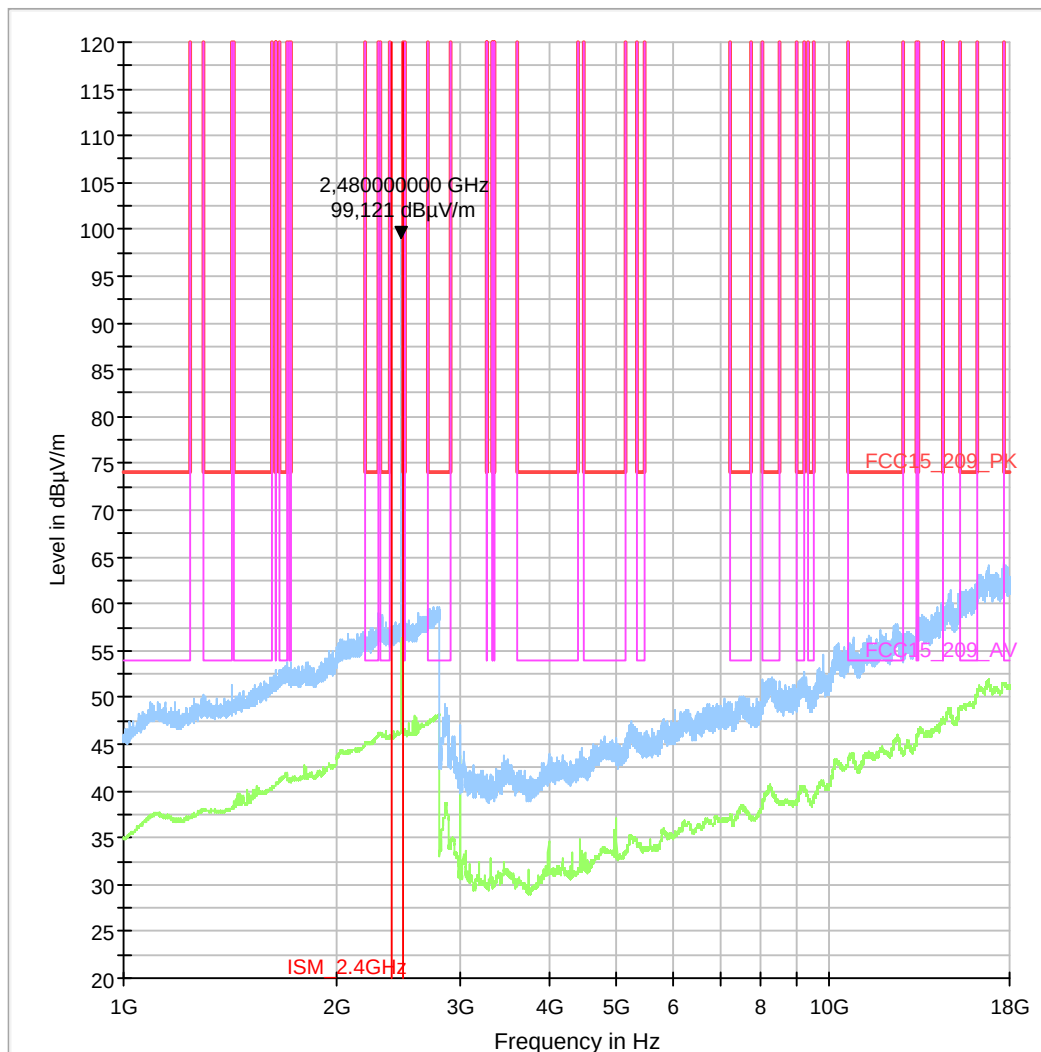


Diagram No.: 4.09_TX_ch78_DH5

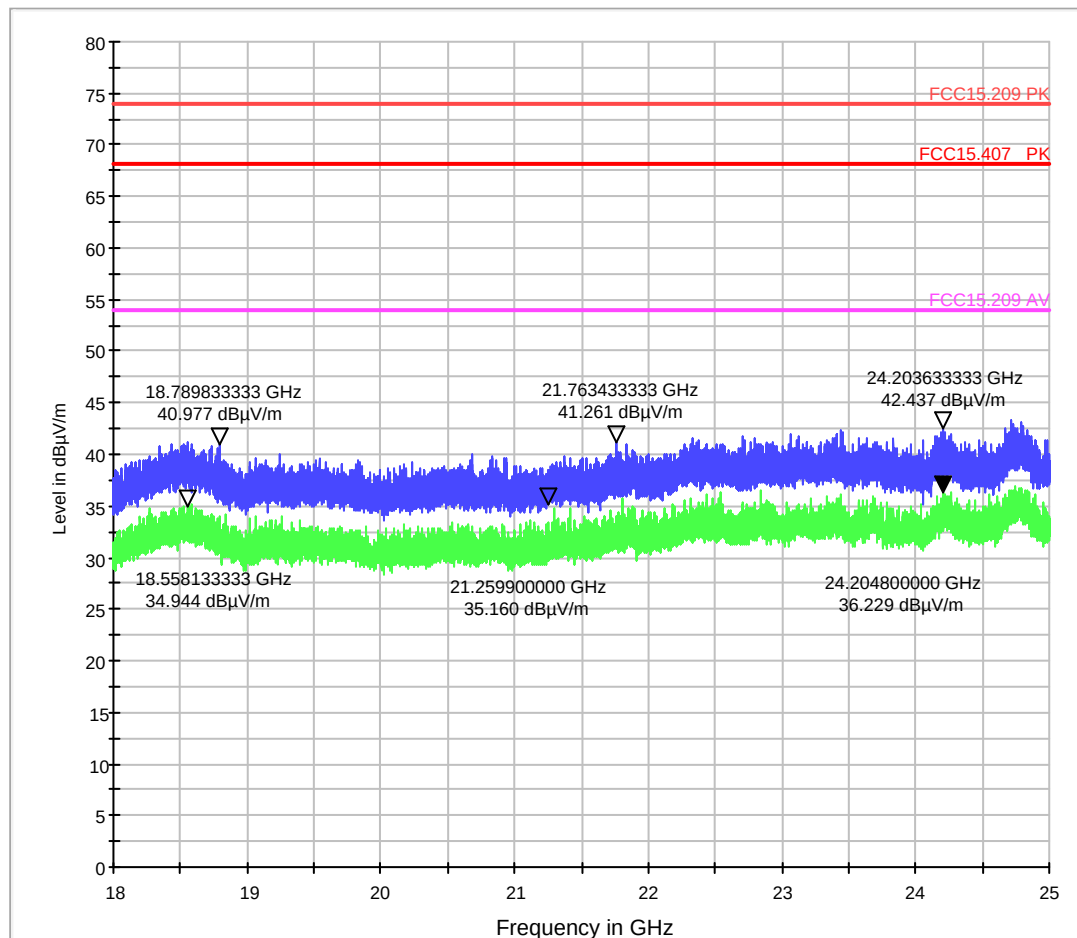
Common Information

Test Description:	Radiated field strength emission in 1m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.247, 15.205&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Distance correction factor	3 to 1m: -10.5 dB applying to measurement results
SW-Version:	EMC32 V8.53.0
Operation mode:	TX mode continuous
Operator Name:	Hla
Comment:	Channel 78 . DH5

EUT Information

Manufacturer:	Bosch
EuT:	ISC
HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

FCC_Sweep_15.407_18_40GHz_Pre



1.4. RF-Parameter - Radiated Band Edge compliance measurements

Diagram No.:9.01_BE_low_ch00_DH5

Common Information

Test Description:	Radiated Band-Edge Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	UE transmits on channel 0, DH5, 10dBm
Operator Name:	AHo

EUT Information

Manufacturer:	Bosch
EuT:	ISC
HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

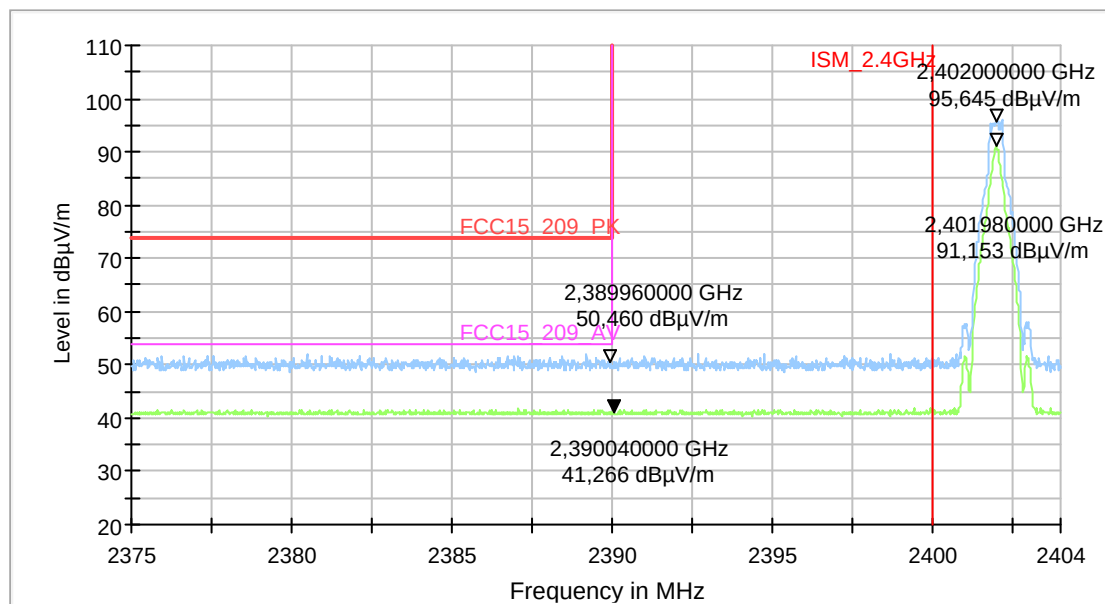


Diagram No.: 9.03_BE_low_ch00_3-DH5

Common Information

Test Description:	Radiated Band-Edge Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous
Operator Name:	AHo
Comment:	Channel no. 00-3DH5

EUT Information

Manufacturer:	Bosch
EuT:	ISC
HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

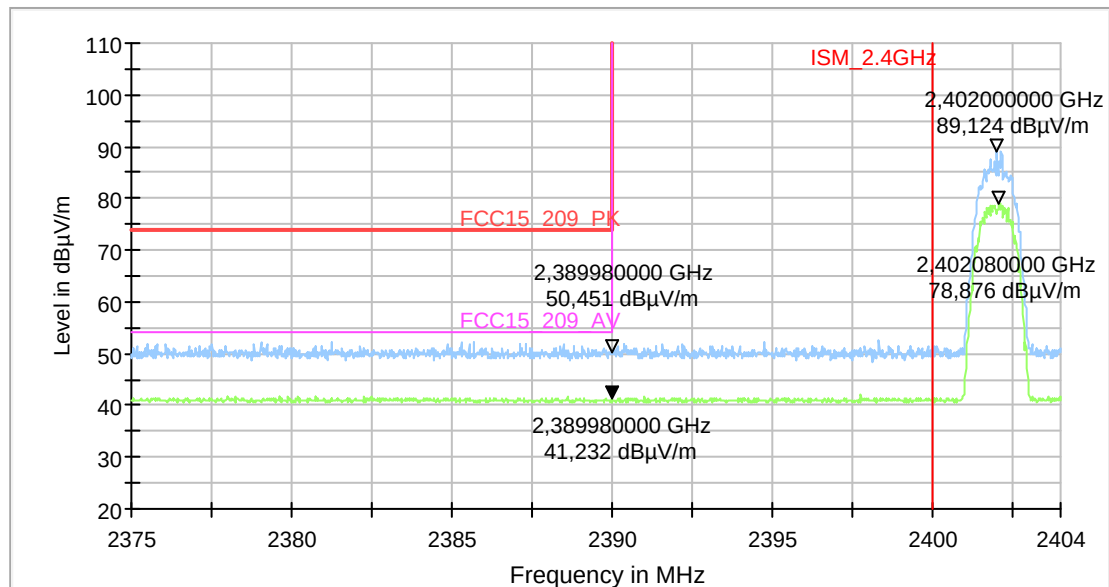


Diagram No.: 9.02_BE_high_ch78_3-DH5

Common Information

Test Description:	Radiated Band-Edge Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous
Operator Name:	AHo
Comment:	Channel no. 78,,3DH5

EUT Information

Manufacturer:	Bosch
EuT:	ISC
HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

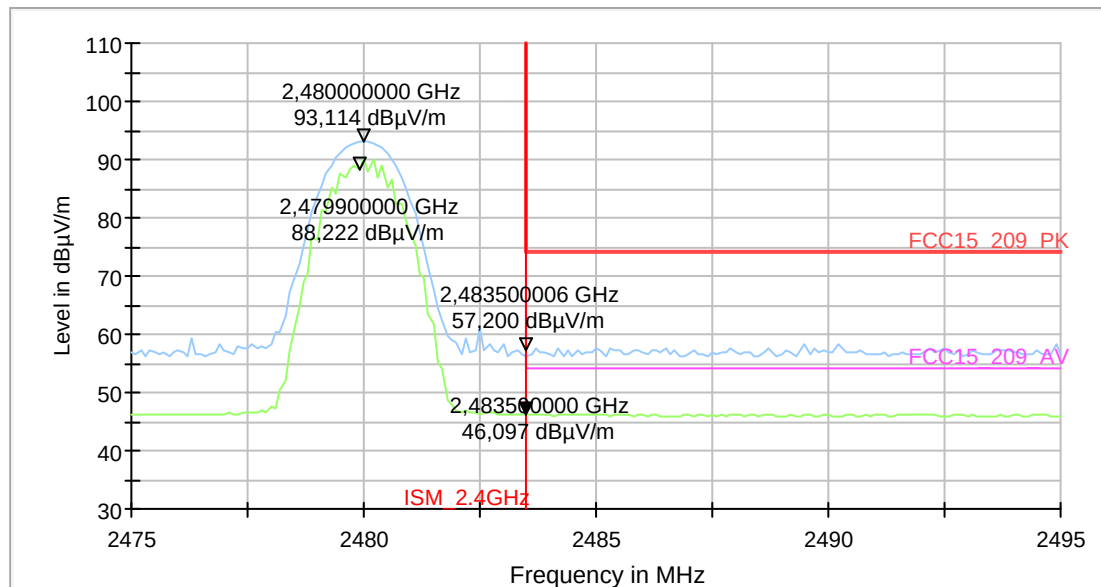


Diagram No.: 9.04_BE_high_ch78_DH5

Common Information

Test Description:	Radiated Band-Edge Emissions in 3m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.205&15.209 Intentional Radiator
Antenna polarisation:	horizontal/vertical
Operation mode:	TX, continuous
Operator Name:	AHo
Comment:	Channel no. 78-DH5

EUT Information

Manufacturer:	Bosch
EuT:	ISC
HW Version:	7 612 053 079
SW Version:	1.12.3.7 LSV:Vanilla
Serial Number:	F 0001296
Connected Interfaces:	Ethernet, USB, Antenna, Display, System
Power Supply:	12VDC
Comments:	

