

Annex1: Measurement diagrams to
TEST REPORT
 No.: 17-1-0106801T10a

According to:
FCC Regulations
 Part 18.305

ISED-Regulations
 RSS-216, Issue 2
 ICES-001, Issue 4

for

BURY GmbH & Co. KG

Wireless-Charging-Station Universal 01.1978.000

FCC-ID: QZ9-WCU
 ISED: 5927A-WCU







Laboratory Accreditation and Listings		
 Accredited EMC-Test Laboratory	 Industry Canada Reg. No.: 3462D-1 Reg. No.: 3462D-2 Reg. No.: 3462D-3	 Voluntary Controls for Electromagnetic Emissions Reg. No.: R-4452, C-20009, T-20006, G-20013
 AUTHORIZED RF LABORATORY	 Lab Code: 20011130-00	 MRA US-EU 0003
accredited according to DIN EN ISO/IEC 17025		
<p align="center"> 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 </p>		

Table of contents

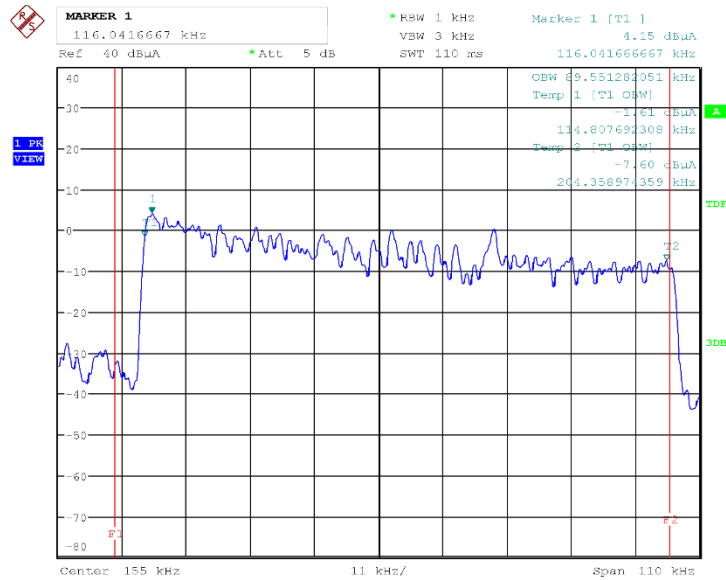
1. MEASUREMENT DIAGRAMS.....	3
1.1. 99% OBW.....	3
1.2. H-Field requirements accord. FCC 18.305	5
1.3. H-Field requirements accord. ICES-001, Issue 4	7
1.4. Transmitter spurious emissions	8

1. Measurement diagrams

1.1. 99% OBW

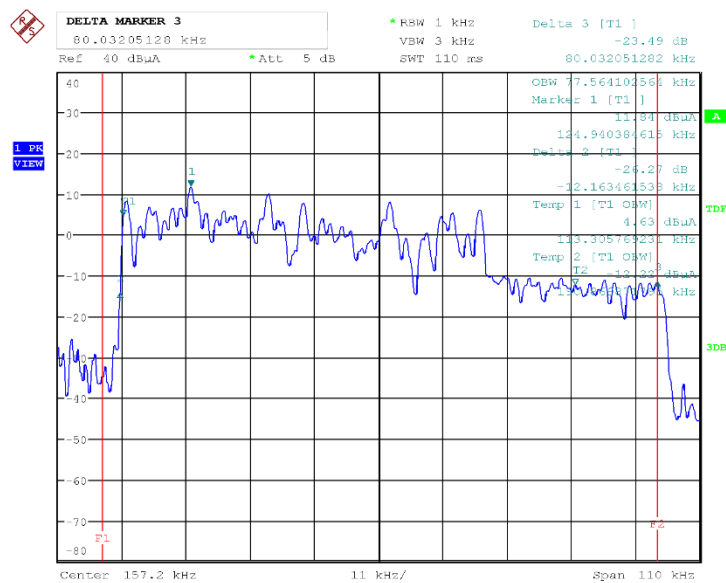
1.1.1. Op. Mode 2 (TX and RX)

Tests performed with fully loaded battery under nominal and extreme test conditions



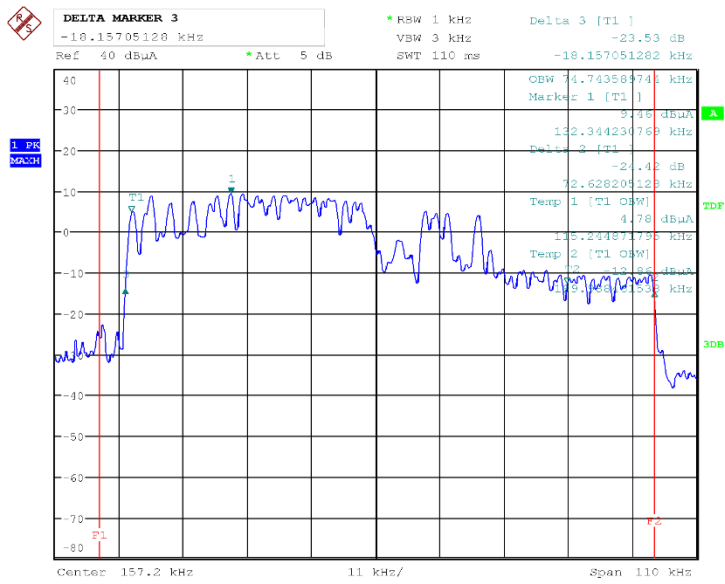
Date: 10.OCT.2018 13:42:21

Diagram 1: OBW 99% TnomVmax



Date: 15.OCT.2018 09:30:21

Diagram 2: OBW 99% TminVmax



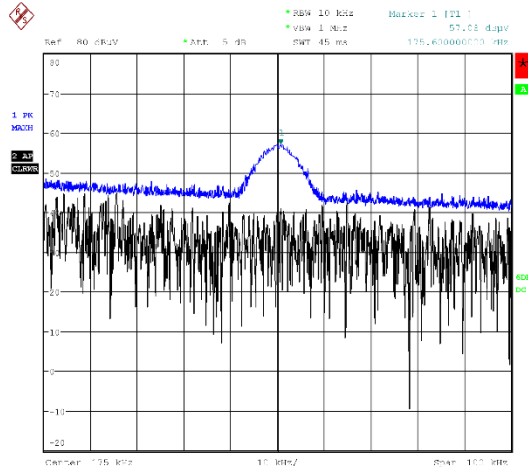
Date: 11.OCT.2018 15:22:14

Diagram 3: OBW 99% T_{max}V_{max}

1.2. H-Field requirements accord. FCC 18.305

1.2.1. Op. Mode 1 (TX-transmitter only)

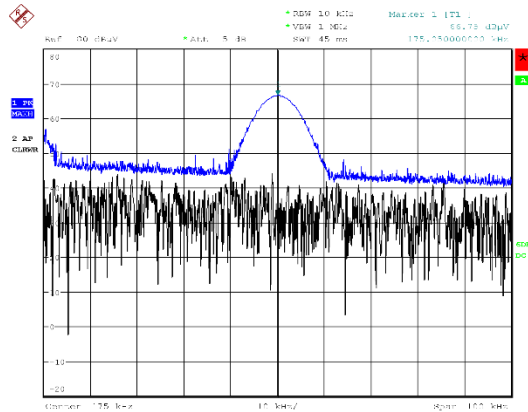
Due non-continuous operating mode (duty-cycle) a MAX-Hold, Peak detector manual measurement was performed.



Date: 15.OCT.2018 10:44:09

Diagram 4: EUT laying

Raw Max. Value at 3m distance: 57.08dBµV/m -67.89 dB Correction (Antenna Factor + Cable Loss + 300/3m distance correction) = -10.81dBµV/m@300m Peak detector



Date: 15.OCT.2018 11:26:20

Diagram 5: EUT standing

Raw Max. Value at 3m distance: 66.75dBµV/m -67.89 dB Correction (Antenna Factor + Cable Loss + 300/3m distance correction) = -1.14 dBµV/m@300m Peak detector

1.2.2. Op. Mode 3 (TX/RX-transmitter and receiver)

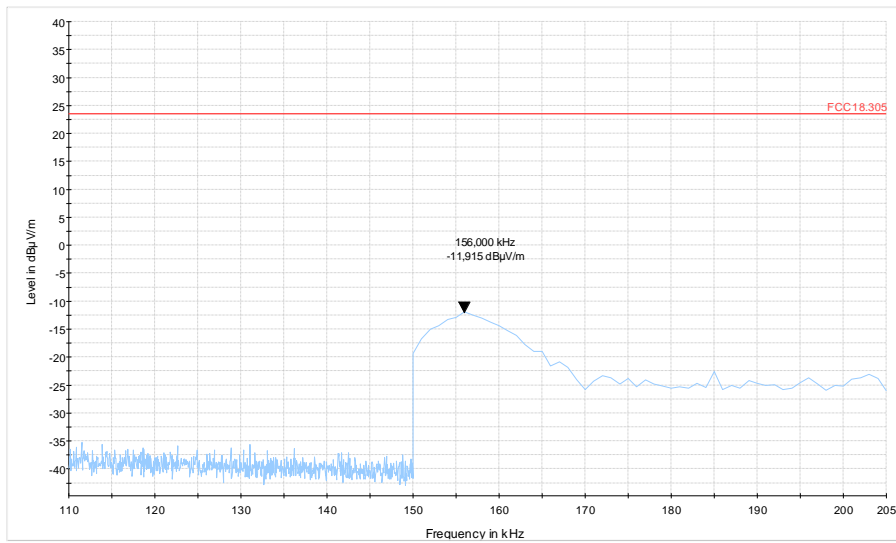


Diagram 6: EUT laying Worst-Case position

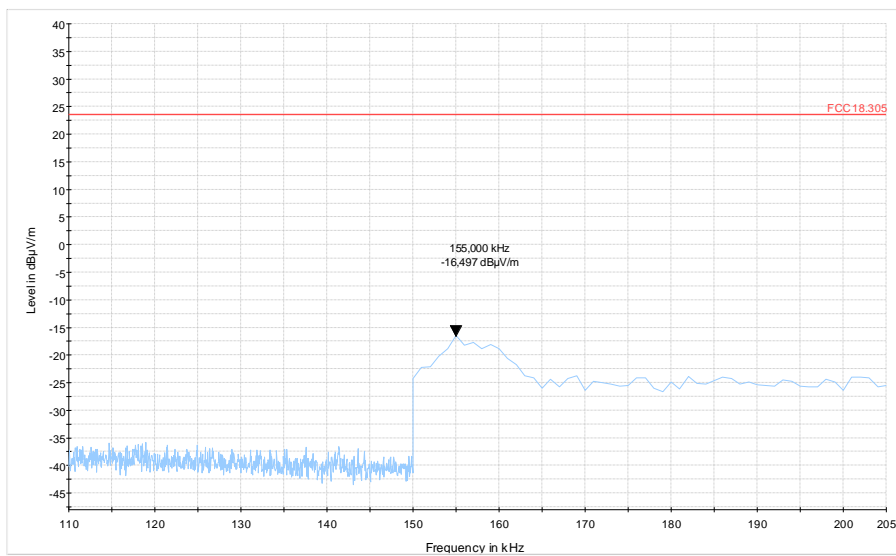
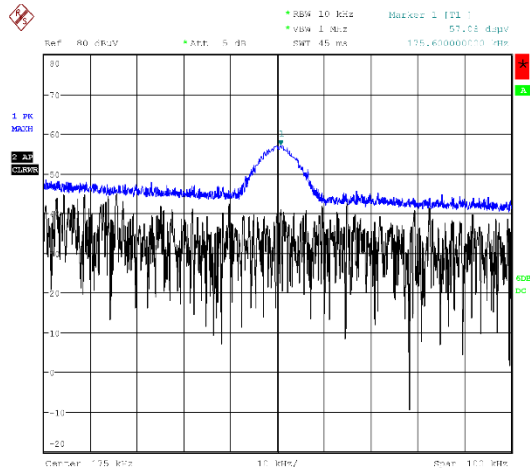


Diagram 7: EUT standing

1.3. H-Field requirements accord. ICES-001, Issue 4

1.3.1. Op. Mode 1 (TX-transmitter only)

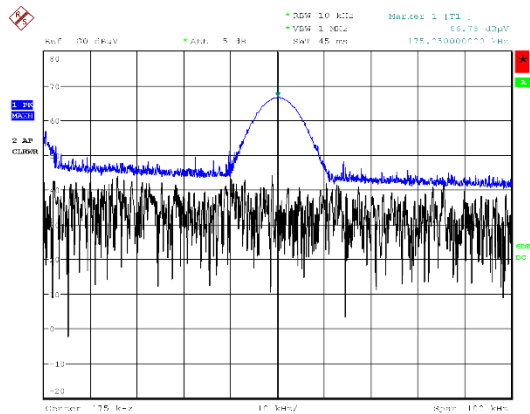
Due non-constant transmissions a manual Peak, MAX-HOLD measurement have been performed in order to capture the maximum emission by turning the table top and measurement antenna orientation.



Date: 15.OCT.2018 10:44:09

Diagram 8: EUT laying

Raw Max. Value at 3m measurement distance: 57.08dBuV/m + 11.12dB (AF-Antenna in dBuV) – 51.1dB
 Correction of Unit to dBμA/m = 16.7 dBμA/m@3m Peak detector



Date: 15.OCT.2018 11:26:20

Diagram 9: EUT standing

Raw Max. Value at 3m measurement distance: 66.75dBμV/m + 11.12dB (AF-Antenna in dBuV) – 51.1dB
 Correction of Unit to dBμA/m = 26.37 dBμA/m@3m Peak detector

1.4. Transmitter spurious emissions

1.4.1. Frequency 9kHz to 30MHz (TX-Transmitter only)

1.4.1.1. § FCC 15.305

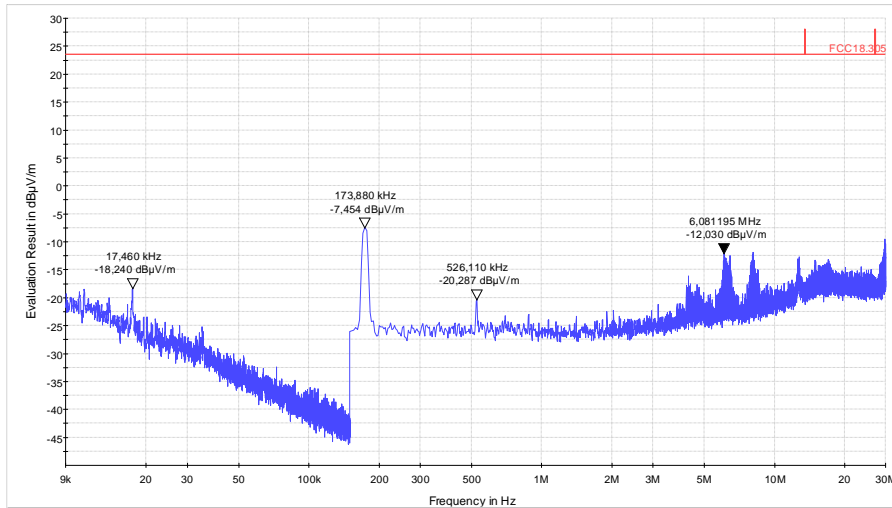


Diagram 10: Op.Mode 1 (

1.4.1.2. RSS-216/ICES-001/CISPR11

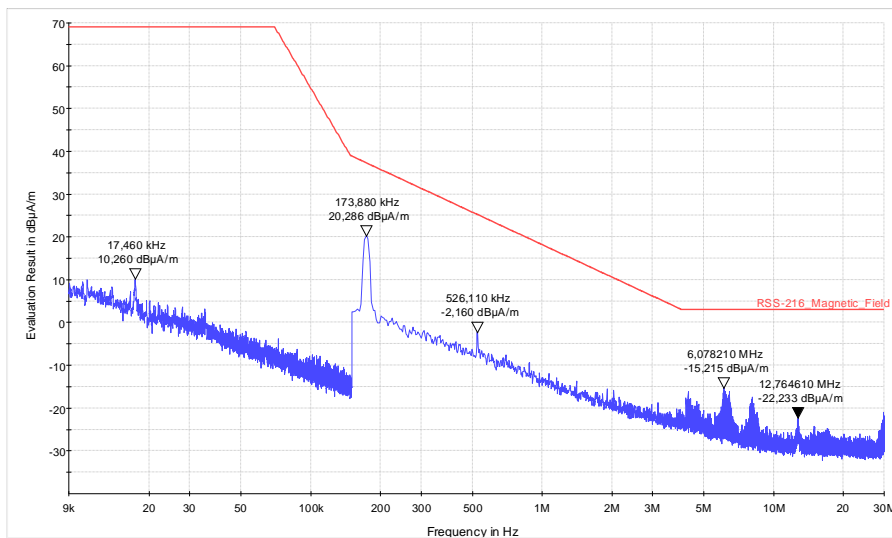


Diagram 11: Op.Mode 1

1.4.2. Frequency 9kHz to 30MHz (TX/RX-transmitter and receiver)
1.4.2.1. § FCC 15.305

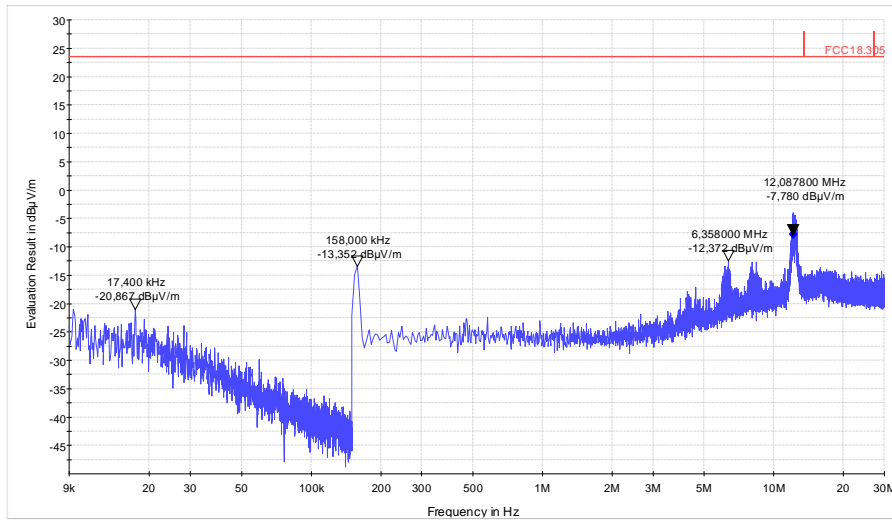


Diagram 12: Op.Mode 3 (Worst-Case position)

1.4.2.2. RSS-216/ICES-001/CISPR11

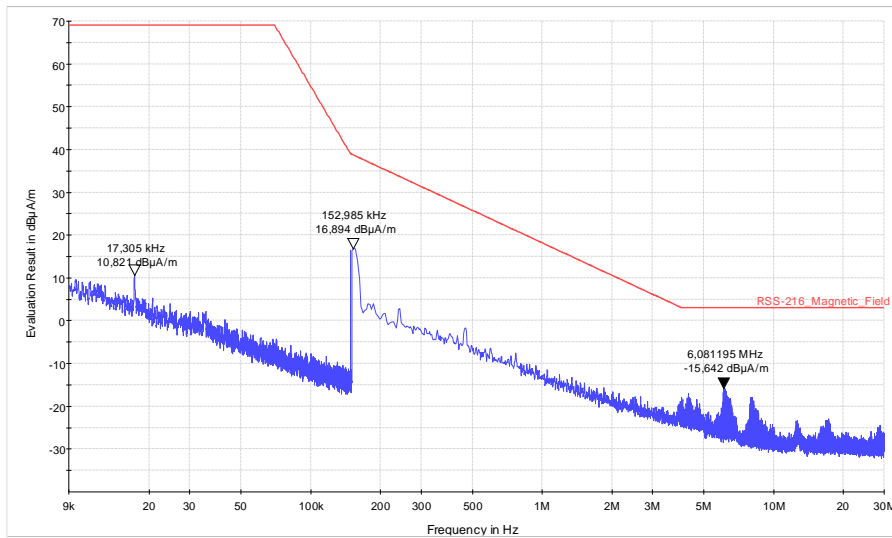


Diagram 13: Op.Mode 3 (Worst-Case position)

1.4.3. Frequency 30MHz to 1000MHz

1.4.3.1. §15.305 (TX-Transmitter only)

Limit re-adjusted to 3m measurement distance: $23.52\text{dB}\mu\text{V}/\text{m}@300\text{m} + 40\text{dB} = 63.52\text{dB}\mu\text{V}/\text{m}@3\text{m}$

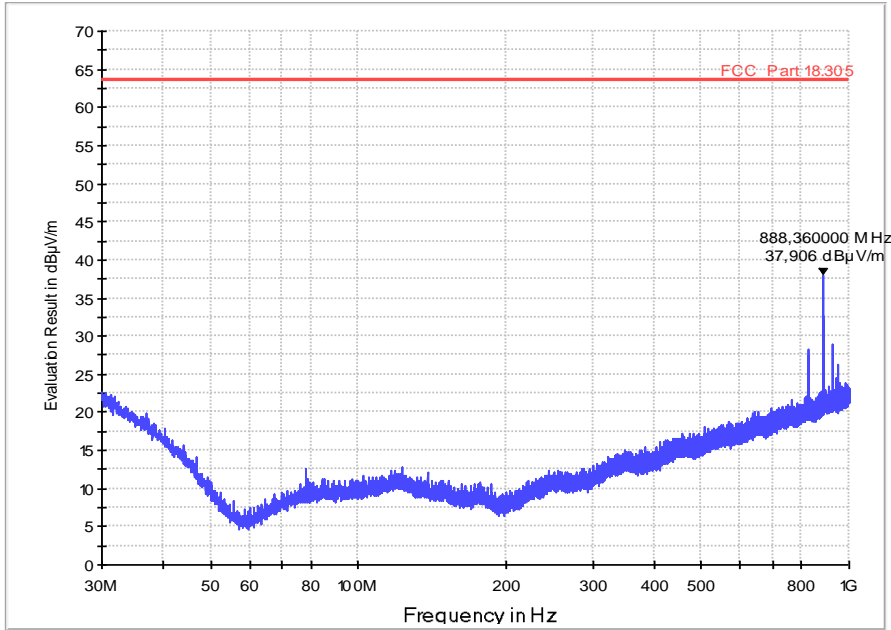


Diagram 14: Op. Mode 1

1.4.3.2. §15.305 (TX/ RX – transmitter and receiver)

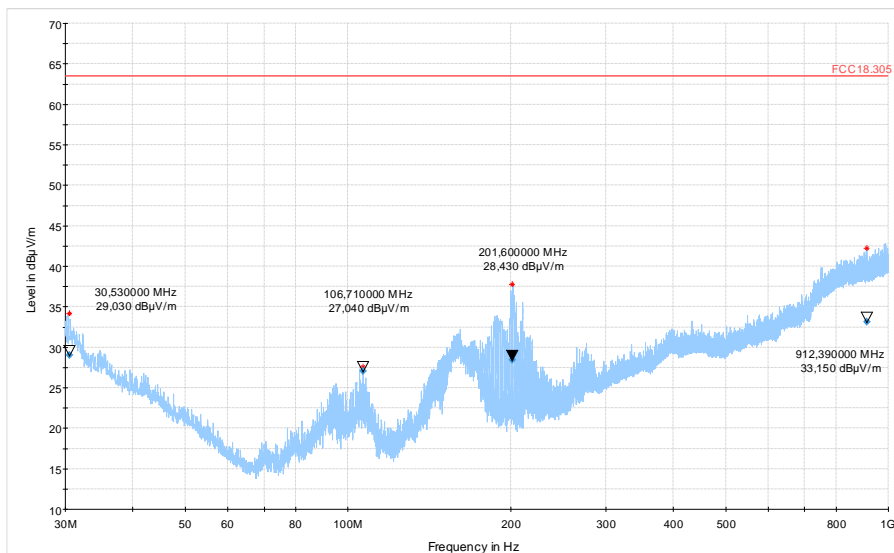
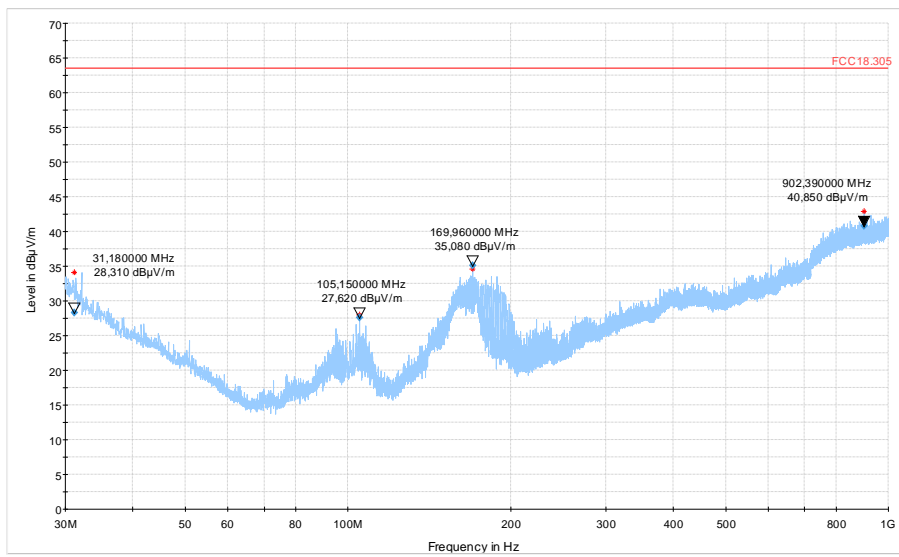


Diagram 15: Op. Mode 3 – EUT laying

**Diagram 16: Op.Mode 3 – EUT standing**

1.4.3.3. §RSS-216/ICES-001

Limits re-adjusted to 10m measurement distance: + 10.45dB ($20\log_{10}(10m/3m)=10.45dB$)

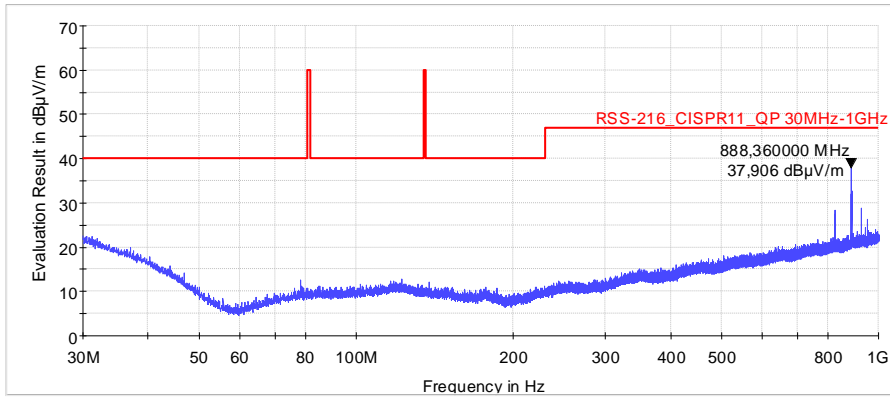


Diagram 17: Op. Mode 1

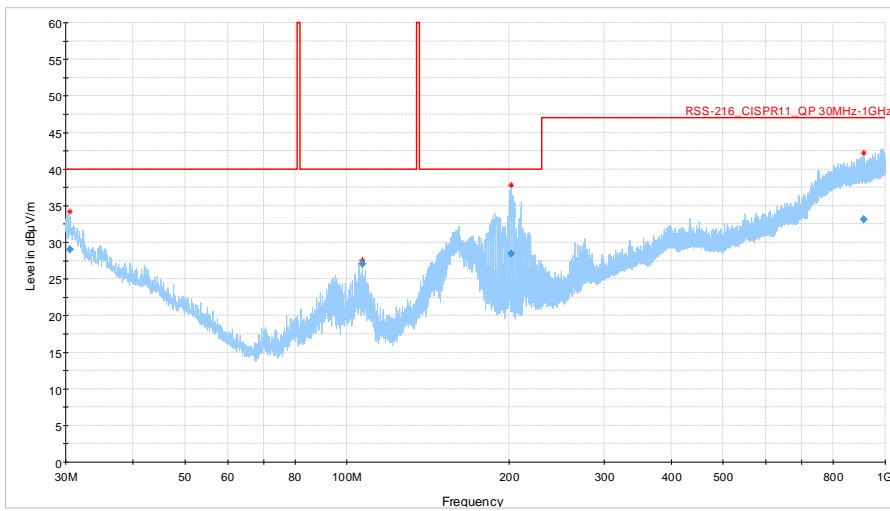


Diagram 18: Op. Mode 3 – EUT laying

Frequency MHz	Process State	QuasiPeak dBµV/m	Limit dBµV/m	Margin dB	Meas. Time ms	Bandwidth kHz	Height cm	Pol	Azimuth deg	Corr. dB	Comment
Lin	Lin	Lin	Lin	Lin	Lin	Lin	Lin	Lin	Lin	Lin	Lin
30.530000	FINAL	29.03	40.00	10.97	1000.0	120.000	105.0	V	200.0	21.3	10:23:28 - 05.10.2018
106.710000	FINAL	27.04	43.50	16.46	1000.0	120.000	110.0	V	230.0	8.1	10:27:58 - 05.10.2018
201.600000	FINAL	28.43	43.50	15.07	1000.0	120.000	125.0	H	286.0	11.3	10:18:24 - 05.10.2018
912.390000	FINAL	33.15	46.00	12.85	1000.0	120.000	283.0	V	149.0	27.2	10:32:40 - 05.10.2018

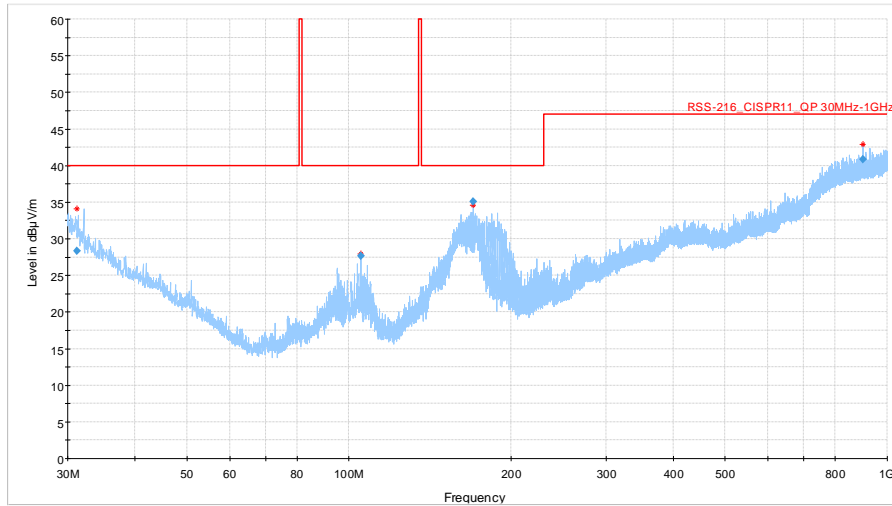


Diagram 19: Op. Mode 3 – EUT standing

Frequency MHz	Process State	QuasiPeak dBµV/m	Limit dBµV/m	Margin dB	Meas. Time ms	Bandwidth kHz	Height cm	Pol	Azimuth deg	Corr. dB	Comment
Lin	Lin	Lin	Lin	Lin	Lin	Lin	Lin	Lin	Lin	Lin	Lin
31.180000	FINAL	28.31	40.00	11.69	1000.0	120.000	109.0	V	93.0	21.0	11:15:20 - 05.10.2018
105.150000	FINAL	27.62	43.50	15.88	1000.0	120.000	333.0	H	199.0	8.1	11:04:53 - 05.10.2018
169.960000	FINAL	35.08	43.50	8.42	1000.0	120.000	181.0	H	244.0	10.3	11:10:02 - 05.10.2018
902.390000	FINAL	40.85	46.00	5.15	1000.0	120.000	223.0	V	153.0	26.8	11:20:04 - 05.10.2018