

Annex 1: Measurement diagrams to
T E S T R E P O R T
No.: 19-1-0117401T02a-C2

According to:
FCC Regulations Title 47, Part 15
Subpart B (Unintentional radiators)
§15.107, §15.109

ISED-Regulations

ICES-003, Issue 6

for

R&M USA Inc.

**R&MinteliPhy SensorBar for 48 port panel ELISO RFID based network
infrastructure monitoring system**
FCC ID: 2AVF4R837017

Laboratory Accreditation and Listings



Accredited EMC-Test Laboratory

accredited according to DIN EN ISO/IEC 17025:2018

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Table of contents

1. MEASUREMENT DIAGRAMS OF EMISSION TEST	3
1.1. Diagrams of conducted emissions on AC-Power lines (Diagram group 01)	3
1.2. Diagrams of radiated field strength emissions, 30 MHz - 1 GHz (Diagram group 03)	4

1. Measurement diagrams of emission test

1.1. Diagrams of conducted emissions on AC-Power lines (Diagram group 01)

1.01

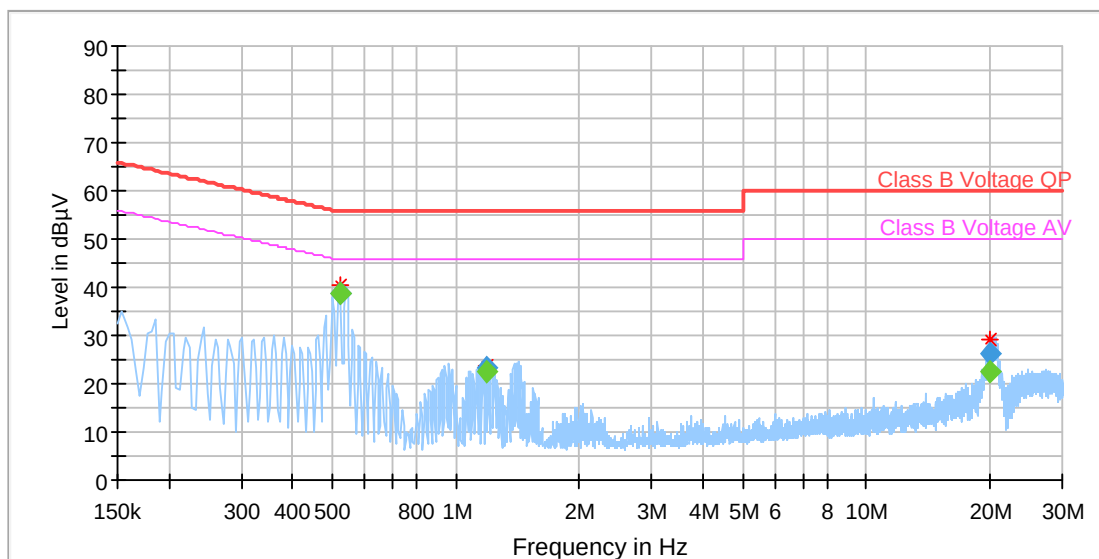
Common Information

Test Description:	Conducted Voltage Measurement Class B
Test Site Location:	Conducted Emission, CETECOM GmbH Essen
Test Software:	R&S EMC32 v9.15
Test Standard:	FCC 15.107, FCC 15.207
Operating Mode:	Transceiver disabled. internal communication
Measured on line:	N/L1
Diagram details:	Shows the peak values as a sum of measured ports in maxhold mode
Environmental Conditions:	Humidity : 59% rH; Temperature: 22° C
Operator:	Mah
EUT Setup:	1
Verdict:	Passed

EUT Information

Manufacturer:	R&M USA Inc.
Product:	R&MinteliPhy SensorBar for 48 port panel ELISO
Model:	RFID based network infrastructure monitoring system
HW version:	Rev. B
SW version:	N/A
SerialNo.:	1002011000006346
Power Supply:	120 AC 60 Hz

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	PE	Corr. (dB)
0.523125	38.92	---	56.00	17.08	1000.0	9.000	N	GN	0.1
0.523125	---	38.60	46.00	7.40	1000.0	9.000	N	GN	0.1
1.183750	23.21	---	56.00	32.79	1000.0	9.000	N	GN	0.3
1.183750	---	22.46	46.00	23.54	1000.0	9.000	N	GN	0.3
20.080625	---	22.41	50.00	27.59	1000.0	9.000	L1	GN	0.8
20.080625	26.12	---	60.00	33.88	1000.0	9.000	L1	GN	0.8

1.2. Diagrams of radiated field strength emissions, 30 MHz - 1 GHz (Diagram group 03)

3.01

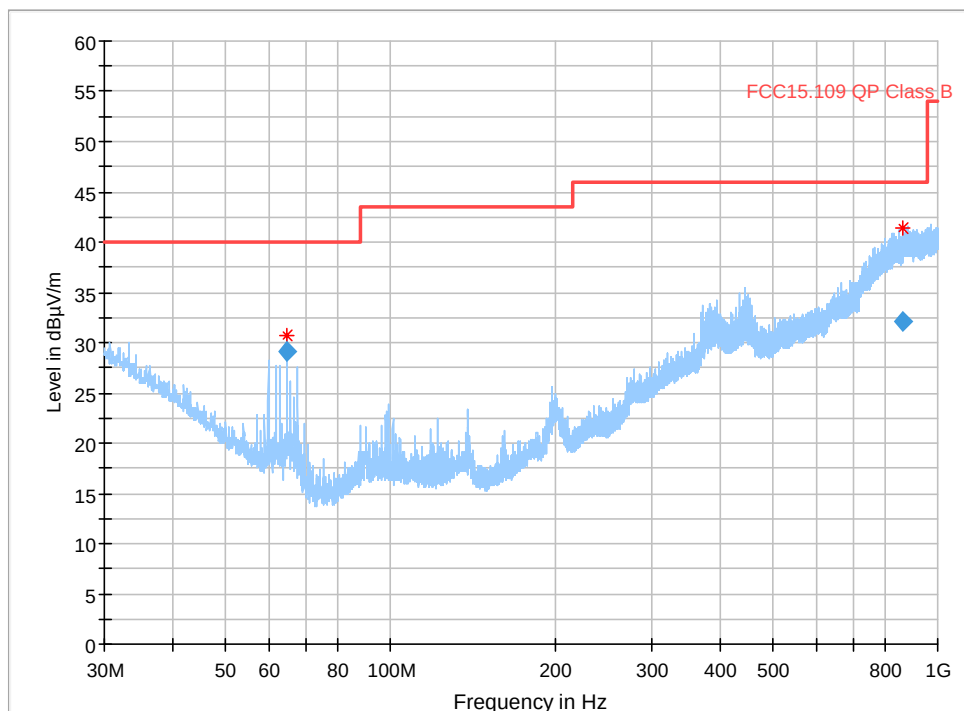
Common Information

Test description:	Electric Field Strength Measurement
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of Testsoftware:	EMC32 V9.25.0
Distance correction:	not used
Used filter:	not used
Test Standard:	FCC 15.109 Class B; RSS-Gen. Issue 5
Operator:	MSouissi
Operating Mode:	TX
Environmental Conditions:	Humidity : 45.3% rH; Temperature: 22.6° C
EUT Setup:	1
Verdict:	Passed

EUT Information

Manufacturer:	R&M USA Inc.
Product:	R&MinteliPhy SensorBar for 48 port panel ELISO
Model:	RFID based network infrastructure monitoring system
HW version:	Rev. B
SW version:	N/A
Serial number:	1002011000006346
Power Supply:	110 V AC

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
64.780000	29.18	40.00	10.82	120.000	109.0	V	0.0	7.3
862.640000	32.14	46.00	13.86	120.000	368.0	H	243.0	26.6

3.02

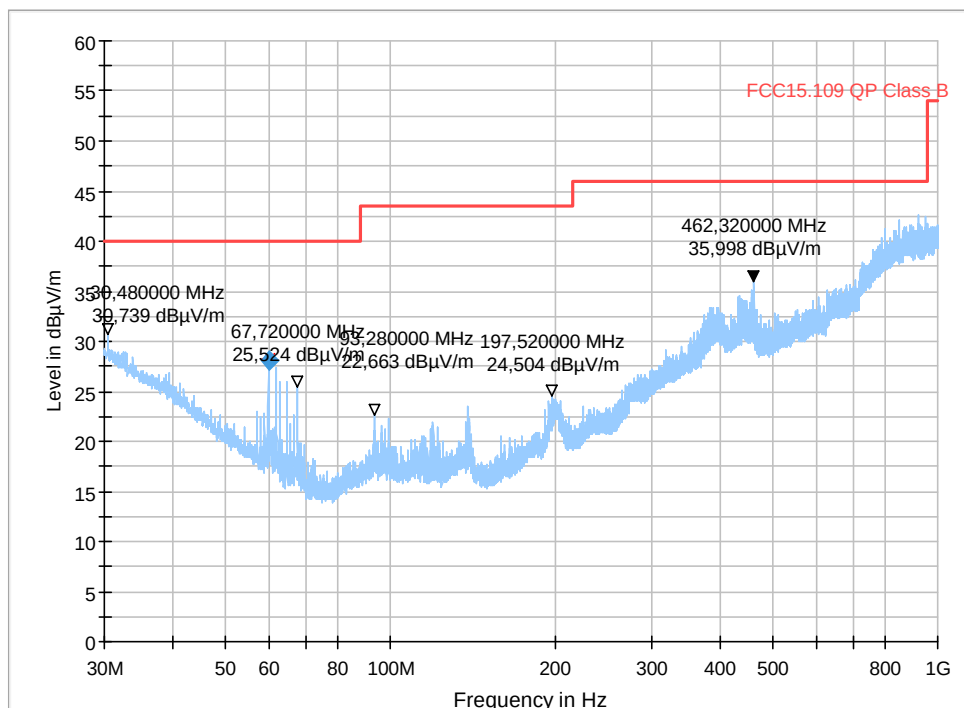
Common Information

Test Description:	Electric Field Strength Measurement
Test Site Location:	Ref.-Nr. 441 Semi Anechoic Room (SAR) with 3 m measurement distance
Version of Testsoftware:	EMC32 V9.25.0
Distance correction:	not used
Used Filter:	not used
Test Standard:	FCC 15.109 Class B; RSS-Gen. Issue 5
Operator:	GHu
Operating Mode:	Data communication
Power during tests:	
Environmental Conditions:	Humidity : 45% rH; Temperature: 21° C
EUT Setup:	1
Verdict:	Passed
Comment:	

EUT Information

Manufacturer:	R&M USA Inc.
Product:	R&MinteliPhy SensorBar for 48 port panel ELISO
Model:	RFID based network infrastructure monitoring system
HW version:	Rev. B
SW version:	N/A
Serial number:	1002011000006346
Power Supply:	110 V AC

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
59.870000	27.99	40.00	12.01	120.000	126.0	V	21.0	8.9