

Annex 1: Measurement diagrams 20-1-0036101T09a-A1

Number of pages:	8	Date of Report:	2020-Oct-08
Testing company:	CETECOM GmbH Im Teelbruch 116 45219 Essen Germany Tel. + 49 (0) 20 54 / 95 19-0 Fax: + 49 (0) 20 54 / 95 19-150	Applicant:	MSO Meßtechnik und Ortung GmbH
Test Object / Tested Device(s):	Speed Wedge MKII, Radar speed sensor		
FCC ID:	2AXQCSWMKII-21		
Testing has been carried out in accordance with:	FCC Regulations: Title 47 CFR, Chapter I FCC Regulations, Subchapter A Subpart B: §15.107, §15.109 (Class B limits) ISED Regulations: ICES-003, Issue 6 (2016+Update 2019) Deviations, modifications or clarifications (if any) to above mentioned documents are written in each section under "Test method and limit".		

1 Measurement diagrams

1.01

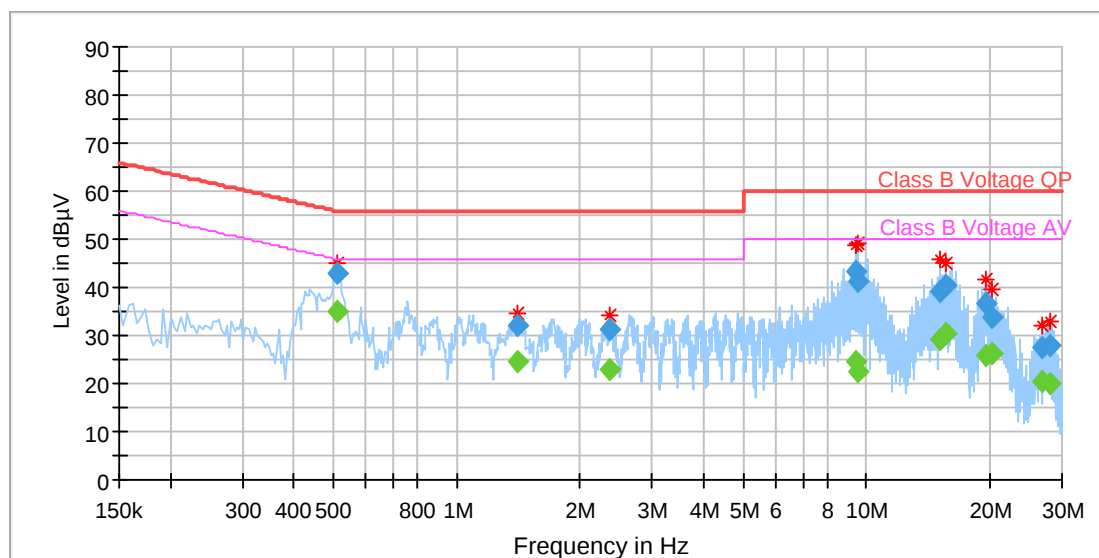
Common Information

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
Operating Mode:	Sensor ON
Measured on line:	N/L1
Diagram details:	Shows the peak values as a sum of measured ports in maxhold mode
Environmental Conditions:	Humidity : 40% rH; Temperature: 23° C
Operator:	HLA/JRi
Comments:	20-1-00361S06
Verdict:	Passed

EUT Information

PMT number:	20-1-00361S06_C01
Manufacturer:	MSO Meßtechnik und Ortung GmbH
Product:	Radar speed sensor
Model:	Speed Wedge MKII
HW version:	2.1
SW version:	2.1
Serial number:	--
Connected Interfaces:	
Power Supply:	12 V DC over AC/DC adapter

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	CAverage (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	PE	Corr . (dB)
0.511875	---	35.11	46.00	10.89	1000.0	9.000	L1	GN	0.1
0.511875	42.87	---	56.00	13.13	1000.0	9.000	L1	GN	0.1
1.400938	---	24.53	46.00	21.47	1000.0	9.000	L1	GN	0.3
1.400938	32.26	---	56.00	23.74	1000.0	9.000	L1	GN	0.3
2.359063	---	22.72	46.00	23.28	1000.0	9.000	L1	GN	0.2
2.359063	31.18	---	56.00	24.82	1000.0	9.000	L1	GN	0.2
9.372969	---	24.51	50.00	25.49	1000.0	9.000	N	GN	0.4
9.372969	43.32	---	60.00	16.68	1000.0	9.000	N	GN	0.4
9.513594	---	22.33	50.00	27.67	1000.0	9.000	N	GN	0.4
9.513594	41.11	---	60.00	18.89	1000.0	9.000	N	GN	0.4
15.071094	---	29.37	50.00	20.63	1000.0	9.000	L1	GN	0.7
15.071094	39.01	---	60.00	20.99	1000.0	9.000	L1	GN	0.7
15.665313	40.49	---	60.00	19.51	1000.0	9.000	L1	GN	0.7
15.665313	---	30.62	50.00	19.38	1000.0	9.000	L1	GN	0.7
19.461719	---	25.90	50.00	24.10	1000.0	9.000	N	GN	0.9
19.461719	36.61	---	60.00	23.39	1000.0	9.000	N	GN	0.9
20.343906	---	26.25	50.00	23.75	1000.0	9.000	L1	GN	0.8
20.343906	33.82	---	60.00	26.18	1000.0	9.000	L1	GN	0.8
26.925938	27.52	---	60.00	32.48	1000.0	9.000	L1	GN	0.5
26.925938	---	20.43	50.00	29.57	1000.0	9.000	L1	GN	0.5
27.949375	---	20.07	50.00	29.93	1000.0	9.000	L1	GN	0.6
27.949375	27.93	---	60.00	32.07	1000.0	9.000	L1	GN	0.6

3.01_Laying

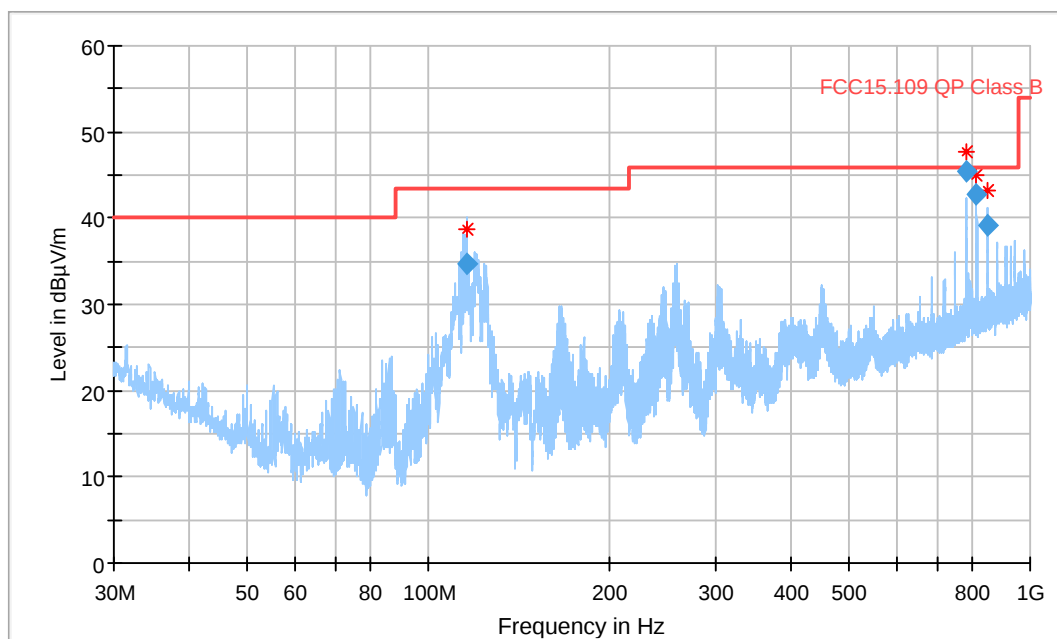
Common Information

Test Description:	Radiated field strength emission in 3 m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	Sensors ON: speed + direction of speed
Environmental Conditions::	Humidity : 40% rH; Temperature: 20 °C
Operator:	HLa
Verdict:	Passed

EUT Information

PMT number:	20-1-00361S06_C01
Manufacturer:	MSO Meßtechnik und Ortung GmbH
Product:	Radar speed sensor
Model:	Speed Wedge MKII
HW version:	2.1
SW version:	2.1
Serial number:	--
Connected Interfaces:	
Power Supply:	12 V DC over AC/DC adapter
Comments:	EUT laying

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak	Limit (dBµV/)	Margin	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/)
115.922000	34.78	43.50	8.72	1000.0	120.000	122.0	V	88.0	8.0
784.010000	45.55	46.00	0.45	1000.0	120.000	112.0	H	40.0	24.9
816.048000	42.83	46.00	3.17	1000.0	120.000	105.0	V	80.0	25.2
848.012000	39.18	46.00	6.82	1000.0	120.000	116.0	H	40.0	26.1

3.01_Standing

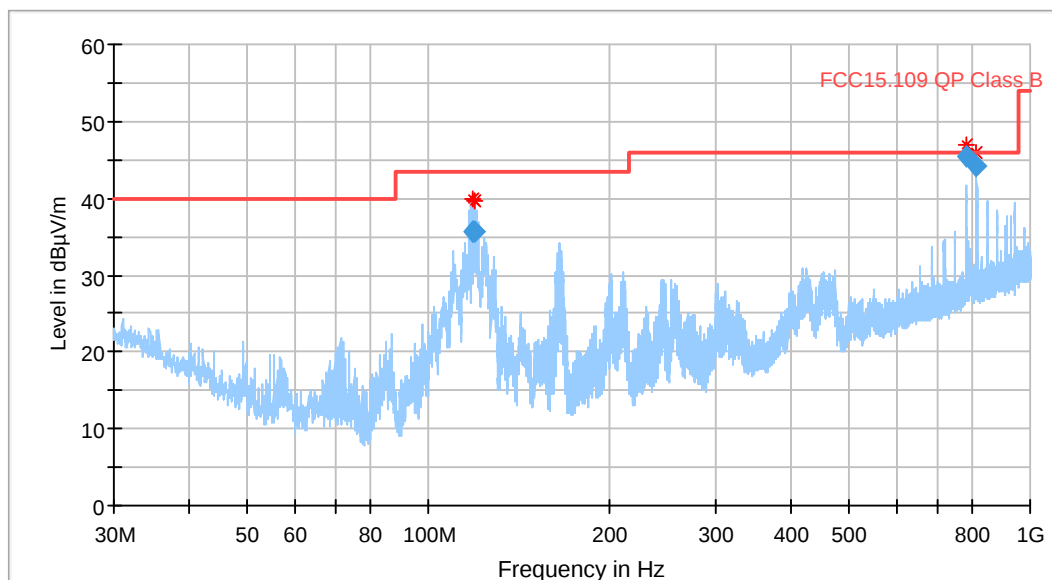
Common Information

Test Description:	Radiated field strength emission in 3 m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	IDLE Mode GSM850/GSM1900/FDD Band 2/ FDD Band 4/ FDD Band 5
Environmental Conditions::	Humidity : 40% rH; Temperature: 20 °C
Operator:	HLA/JRi
Verdict:	Passed

EUT Information

PMT number:	20-1-00361S06_C01
Manufacturer:	MSO Meßtechnik und Ortung GmbH
Product:	Radar speed sensor
Model:	Speed Wedge MKII
HW version:	2.1
SW version:	2.1
Serial number:	--
Connected Interfaces:	
Power Supply:	12 V DC over AC/DC adapter
Comments:	EUT standing

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak	Limit (dBµV/)	Margin	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/)
118.188000	35.67	43.50	7.83	1000.0	120.000	127.0	V	97.0	7.9
118.946000	35.68	43.50	7.82	1000.0	120.000	124.0	V	92.0	7.9
783.968000	45.45	46.00	0.55	1000.0	120.000	111.0	H	36.0	24.9
816.084000	44.14	46.00	1.86	1000.0	120.000	109.0	H	42.0	25.2

4.01

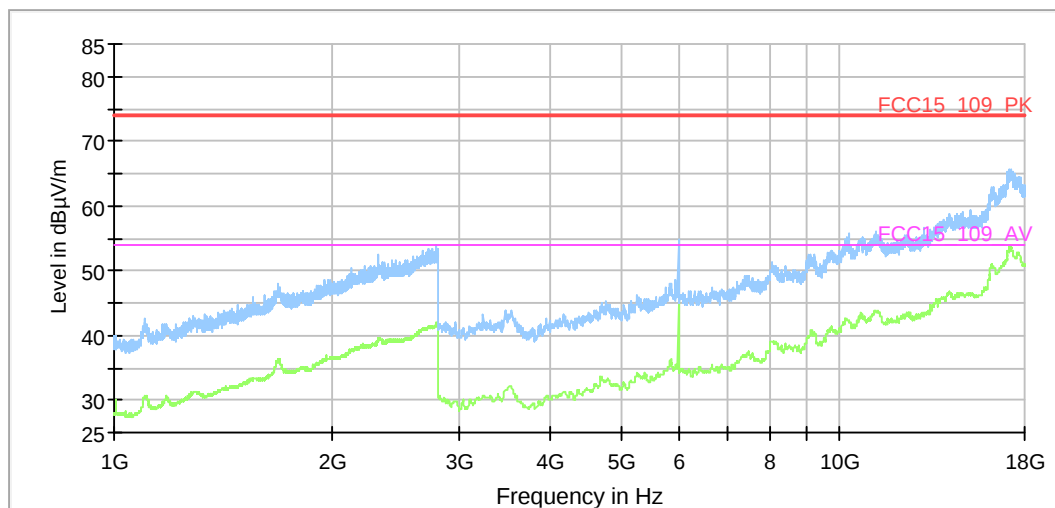
Common Information

Test Description:	Radiated field strength emission in 3 m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.50.0
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	
Operator:	JRi
Comment:	
	Downlink channel middle:
	Internal/External Antenna of EUT used
Environmental Conditions::	Humidity : 68% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	20-1-00361S06_C01
Manufacturer:	MSO Meßtechnik und Ortung GmbH
Product:	Radar speed sensor
Model:	Speed Wedge MKII
HW version:	2.1
SW version:	2.1
Serial number:	--
Connected Interfaces:	Laptop
Power Supply:	12 V DC
Comments:	

Full Spectrum



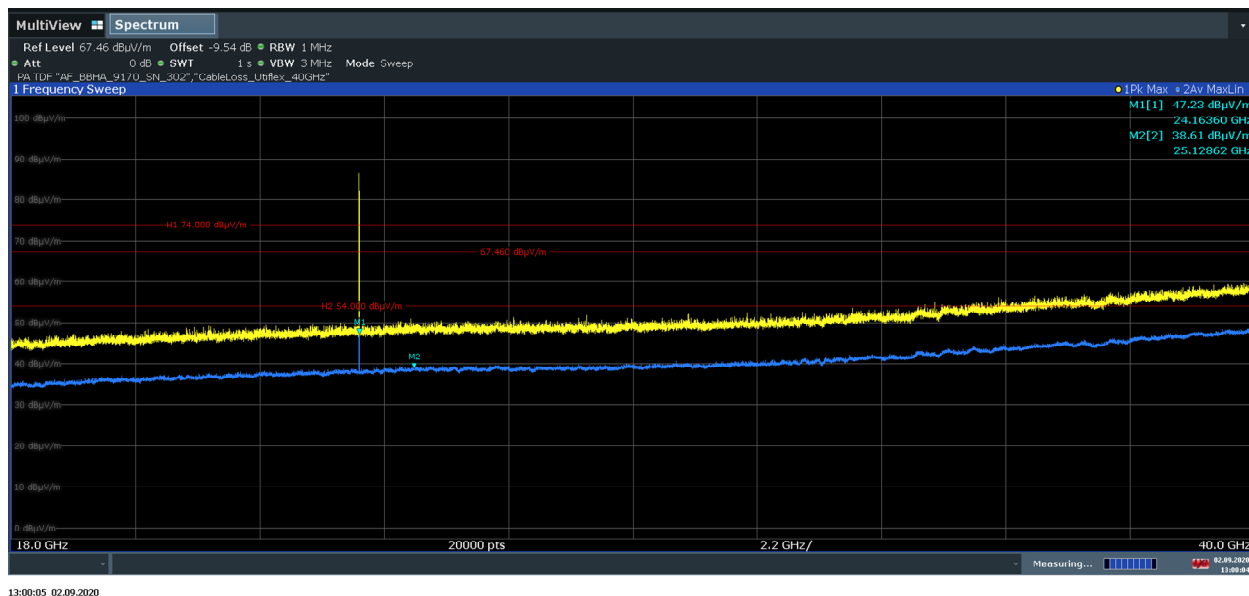
4.02

Common Information

Test Description:	Radiated field strength emission in 3 m distance
Test Site:	Fully Anechoic Chamber (FAC1) - EMC32 V10.50.0
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarisation:	horizontal/vertical
Operating Mode:	
Operator:	JRi
Comment:	Downlink channel middle: Internal/External Antenna of EUT used
Environmental Conditions::	Humidity : 68% rH; Temperature: 20 °C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	20-1-00361S06_C01
Manufacturer:	MSO Meßtechnik und Ortung GmbH
Product:	Radar speed sensor
Model:	Speed Wedge MKII
HW version:	2.1
SW version:	2.1
Serial number:	--
Connected Interfaces:	Laptop
Power Supply:	12 V DC
Comments:	frequency at 24.16 GHz is carrier frequency of the EUT



Remark: Due to technical constraints the carrier frequency at 24.16 GHz could not be switched off. Therefore this peak should not be considered.

End Of Annex 1

