

Annex 1: Measurement diagrams to
TEST REPORT
No.: 19-1-0137401T02a

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

ISED-Regulations
ICES-003, Issue 6

for

Bosch Healthcare Solutions GmbH

Vivatmo pro (Handheld)
System for quantitative measurement of fractional nitric oxide (FeNO) in
human breath

FCC ID: 2AVQ9VMPHH1
Reg. number IC: 25928-VMPHH1



Laboratory Accreditation and Listings
<div style="text-align: center;"><p>Deutsche Akkreditierungsstelle D-PL-12047-01-01 D-PL-12047-01-03 D-PL-12047-01-04</p></div> <p>Accredited EMC-Test Laboratory</p>
accredited according to DIN EN ISO/IEC 17025:2018
<p style="text-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 19-0 • Fax: + 49 (0) 20 54 / 95 19-150 E-mail: contact@cetecom.com • Internet: www.cetecom.com</p>

Table of contents

1. MEASUREMENT DIAGRAMS OF EMISSION TEST

3

1. Measurement diagrams of emission test

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

3.01a_15B

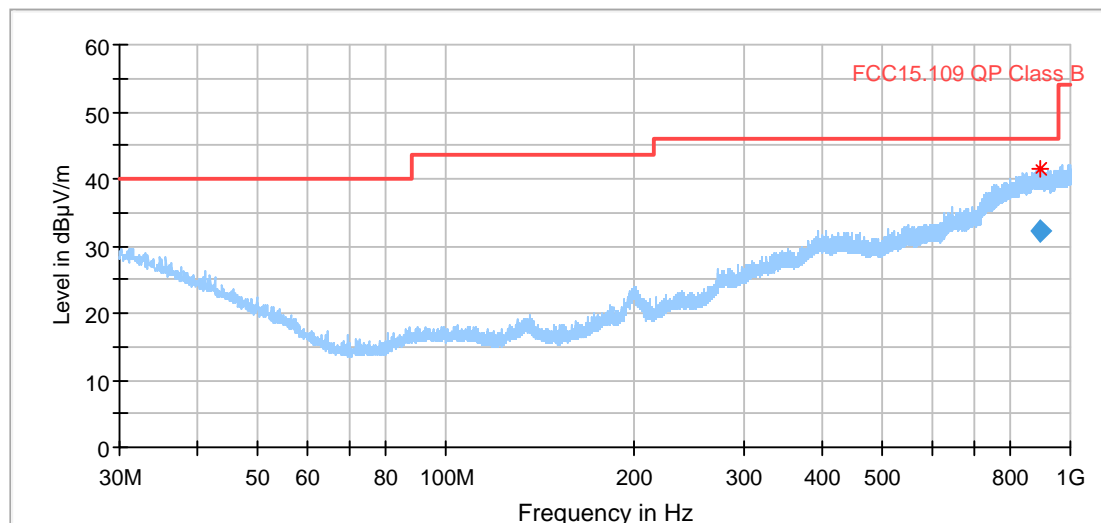
Common Information

Test Description:	Electric Field Strength Measurement
Test Site Location:	Ref.-No. 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
Technical Data:	please see page 2 for detailed data of measurement setup
Test Standard.:	FCC 15.109 Class B; RSS-Gen. Issue 4
Operator:	HLA
Operating Mode:	Pump 1 ON + Pump 2 ON + Heater ON
Environmental Conditions.:	Humidity : 40% rH; Temperature: 20° C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	19-1-01374S12
Manufacturer:	Bosch Healthcare Solutions GmbH
Product:	Vivatmo pro (Handheld)
Model:	System for quantitative measurement of fractional nitric oxide (FeNO) in human breath
HW version:	F09G100078
SW version:	emv.elf.hex Revision 2896+
Serial number:	449160093FEA
Power Supply:	Battery 3.8 V DC

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
898.310000	32.24	46.00	13.76	120.000	229.0	H	202.0	27.0

3.01b_15B

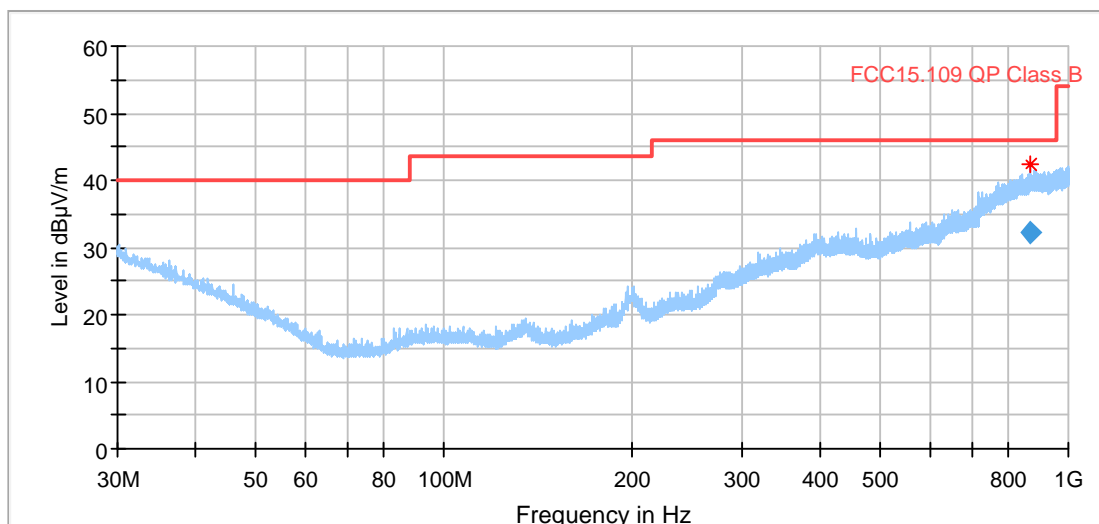
Common Information

Test Description:	Electric Field Strength Measurement
Test Site Location:	Ref.-No. 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
Technical Data:	please see page 2 for detailed data of measurement setup
Test Standard.:	FCC 15.109 Class B; RSS-Gen. Issue 4
Operator:	HLa
Operating Mode:	Pump 1 ON + Pump 2 ON + Heater ON
Environmental Conditions.:	Humidity : 40% rH; Temperature: 20° C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	19-1-01374S12
Manufacturer:	Bosch Healthcare Solutions GmbH
Product:	Vivatmo pro (Handheld)
Model:	System for quantitative measurement of fractional nitric oxide (FeNO) in human breath
HW version:	F09G100078
SW version:	emv.elf.hex Revision 2896+
Serial number:	449160093FEA
Power Supply:	Battery 3.8 V DC

Full Spectrum



Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
871.160000	32.20	46.00	13.80	120.000	257.0	H	18.0	26.8

1.2. Diagrams of radiated emission above 1 GHz (Diagram group 04)

4.01_15B

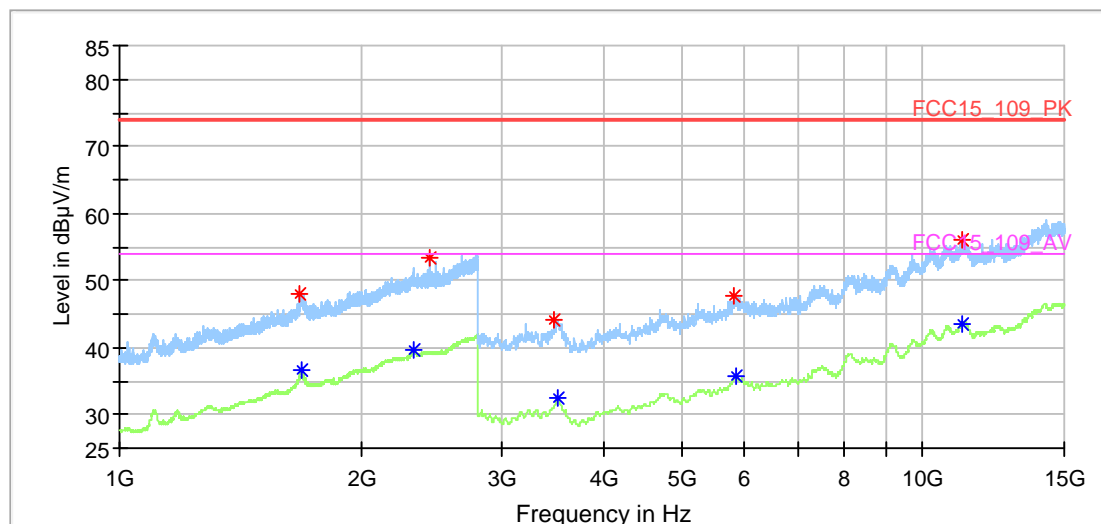
Common Information

Test Description:	Radiated field strength emission in 3 m distance
Test Site:	CETECOM GmbH Essen
Test Standard:	FCC 15.109 Unintentional Radiator
Antenna polarization:	horizontal/vertical
Operating Mode:	Pump 1 On + Pump ON + Heater on
Operator:	HLa
Environmental Conditions::	Humidity : 40% rH; Temperature: 20° C
EUT Setup:	1
Verdict:	Passed

EUT Information

PMT number:	19-1-01374S12
Manufacturer:	Bosch Healthcare Solutions GmbH
Product:	Vivatmo pro (Handheld)
Model:	System for quantitative measurement of fractional nitric oxide (FeNO) in human breath
HW version:	F09G100078
SW version:	emv.elf.hex Revision 2896+
Serial number:	449160093FEA
Power Supply:	Battery 3.8 V DC

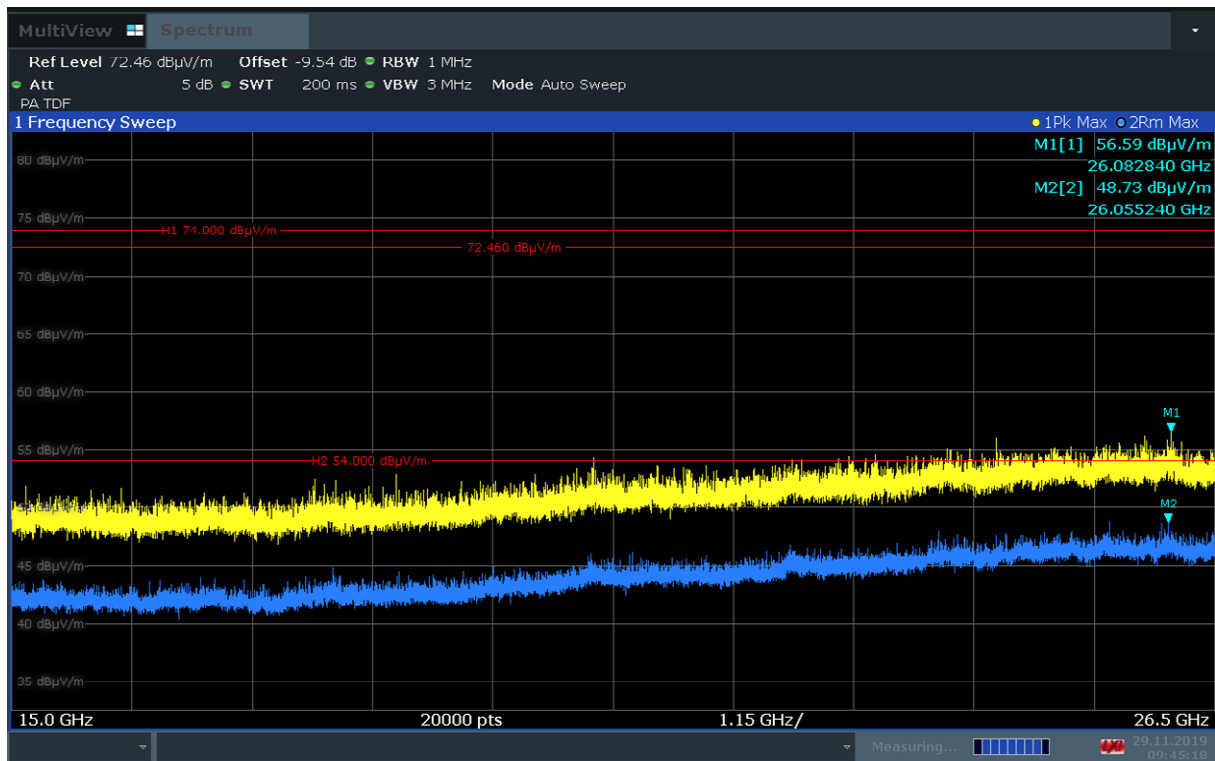
Full Spectrum



Critical Freqs

Frequency (MHz)	MaxPeak (dBµV/m)	RMS (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Elevation (deg)	Corr. (dB/m)
1679.500000	47.93	---	74.00	26.07	155.0	H	120.0	90.0	34
1689.625000	---	36.52	54.00	17.48	155.0	H	220.0	90.0	34
2323.750000	---	39.70	54.00	14.30	155.0	V	300.0	0.0	37
2429.500000	53.42	---	74.00	20.58	155.0	H	240.0	90.0	36
3478.625000	44.14	---	74.00	29.86	155.0	V	140.0	90.0	3
3509.125000	---	32.32	54.00	21.68	155.0	H	240.0	90.0	4
5834.750000	47.79	---	74.00	26.21	155.0	H	140.0	90.0	9
5847.458333	---	35.85	54.00	18.15	155.0	H	300.0	90.0	10
11184.958333	---	43.59	54.00	10.41	155.0	H	60.0	0.0	20
11220.541667	56.03	---	74.00	17.97	155.0	V	240.0	0.0	20

4.02_15B



09:45:19 29.11.2019

END OF ANNEX 1