

FCC TEST REPORT

FCC 47 CFR Part 15C Industry Canada RSS-247

Digital transmission systems operating within the 902 - 928 MHz band

Testing Laboratory Eurofins Product Service GmbH

Address...... Storkower Str. 38c

15526 Reichenwalde

Germany

Accreditation:



A2LA Accredited Testing Laboratory, Certificate No.: 1983.01

FCC Filed Test Laboratory, Reg.-No.: 96970

IC OATS Filing assigned code: 3470A

Applicant's name Dräger Safety AG & Co. KGaA

Address..... Revalstraße 1

23560 Lübeck GERMANY

Test specification:

Standard 47 CFR Part 15C

RSS-247, Issue 1, 2015-05

Equipment under test (EUT):

Product description Portable Alarm Amplifier

Model No. AAC 00xx

Additional Model(s) None

Brand Name(s) Draeger X-zone 5500

Hardware version 8324825

Firmware / Software version 2.24

FCC-ID: X6O-AAC00XX IC: 5895F-AAC00XX

Test result Passed



Possible test case verdicts:			
- neither assessed nor tested	N/N		
- required by standard but not appl. to	test object:	N/A	
- required by standard but not tested	:	N/T	
- not required by standard for the test of	object:	N/R	
- test object does meet the requiremen	nt:	P (Pass)	
- test object does not meet the require	ment:	F (Fail)	
Testing:			
Test Lab Temperature	:	20 – 23 °C	
Test Lab Humidity	:	32 – 38 %	
Date of receipt of test item		2016-11-23	
Date (s) of performance of tests		2016-11-23 -	- 2016-11-24
Compiled by:	Sebastian Sucl	Kow	
Tested by (+ signature): (Responsible for Test)	Sebastian Sucl	KOW	Surkan
Approved by (+ signature):	Christian Webe	er	C. Wele

General remarks:

The test results presented in this report relate only to the object tested.

Date of issue: 2016-11-29

Total number of pages: 67

The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

Additional comments:



Version History

Version	Issue Date	Remarks	Revised by
01	2016-11-29	Initial Release	



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1 Equipment (Test item) Description

Description	Portable Alarm	Amp	lifier	
Model	AAC 00xx			
Additional Model(s)	None			
Brand Name(s)	Draeger X-zone	e 550	00	
Serial number	ARFH-0042			
Hardware version	8324825			
Software / Firmware version	2.24			
FCC-ID	X6O-AAC00XX	(
IC	5895F-AAC00	ΚX		
Equipment type	End product			
Radio type	Transceiver			
Radio technology	custom			
Operating frequency range	917 - 926 MHz			
Assigned frequency band	902 - 928 MHz			
	F _{LOW}		917 MHz	
Frequency range	F _{MID}		921.5 MHz	
	F _{HIGH}		926 MHz	
Spreading	None			
Modulations	FSK			
Number of antennas	1			
Antenna	Туре	Type integrated		
Antenia	Gain +1.0 dB) dBi	
Manufacturer	Dräger Safety AG & Co. KGaA Revalstraße 1 23560 Lübeck GERMANY			
	V _{NOM}		6.0 VDC	
Power supply	V _{MIN}		N/A	
	V _{MIN}		N/A	
	Model		N/A	
AC/DC-Adaptor	Vendor		N/A	
AOIDO-Adaptol	Input		N/A	
	Output		N/A	



1.1 Photos – Equipment External

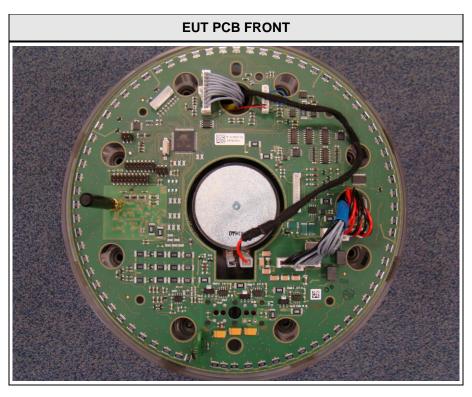


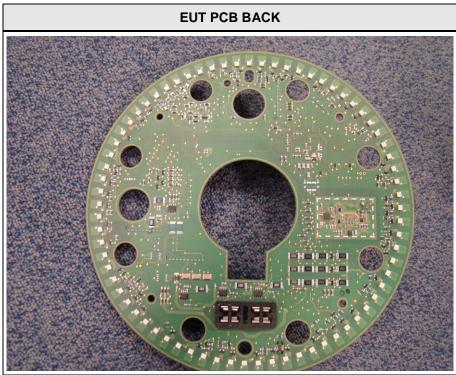


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1.2 Photos – Equipment internal





Test Report No.: G0M-1611-6036-TFC247DT-V01



1.3 Photos – Test setup





1.4 Supporting Equipment Used During Testing

Product Type*	Device	Manufacturer	Model No.	Comments			
	None						
*Note: Us	e the following abbre	viations:					
AE:	AE : Auxiliary/Associated Equipment, or						
SIM : Simulator (Not Subjected to Test)							
CABL:	Connecting cables						



1.5 Test Modes

Mode #	Description			
	General conditions:	EUT powered by laboratory power supply		
Single	Radio conditions:	Mode = standalone transmit Spreading = None Modulation = FSK Duty cycle = 100 % Power level = Maximum		
	General conditions:	EUT powered by battery		
Transmit-Bat Radio conditions: Mode = standalone tran Spreading = None Modulation = FSK Duty cycle = 100 %		Modulation = FSK		



1.6 Test Equipment Used During Testing

Measurement Software					
Description	Manufacturer	Name	Version		
EMC Test Software Dare Instruments Radimation 2015.2.4					

Occupied Bandwidth						
Description Manufacturer Model Identifier Cal. Date Cal. Due						
Spectrum Analyzer	R&S	FSP 30	EF00312	2014-02	2015-02	

Radiated spurious emissions							
Description Manufacturer Model Identifier Cal. Date Cal.							
Anechoic chamber	Frankonia	AC 4	EF00311	-	-		
Spectrum Analyzer	FSP30	EF00312	2016-02	2017-02			
Biconical Antenna	R&S	HK 116	EF00203	2016-06	2018-06		
LPD Antenna R&S		HL 223	EF00013	2016-06	2018-06		
Horn Antenna	Schwarzbeck	BBHA9120D	EF00015	2015-07	2017-07		



Sample emission level calculation

The following is a description of terms and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

Reading:

This is the reading obtained on the spectrum analyzer in $dB\mu V$. Any external preamplifiers used are taken into account through internal analyzer settings.

A.F.:

This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strengths to voltages, which can be measured directly on the spectrum analyzer. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

Reading on Analyzer ($dB\mu V$) + A.F. (dB) = Net field strength ($dB\mu V/m$)

Net:

This is the net field strength measurement (as shown above).

Limit:

This is the FCC Class B radiated emission limit (in units of $dB\mu V/m$). The FCC limits are given in units of $\mu V/m$. The following formula is used to convert the units of $\mu V/m$ to $dB\mu V/m$:

Limit (dB
$$\mu$$
V/m) = 20*log (μ V/m)

Margin:

This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Example only:

Reading + AF = Net Reading : Net reading - FCC limit = Margin $21.5 \text{ dB}\mu\text{V} + 26 \text{ dB} = 47.5 \text{ dB}\mu\text{V/m} : 47.5 \text{ dB}\mu\text{V/m} - 57.0 \text{ dB}\mu\text{V/m} = -9.5 \text{ dB}$



2 Result Summary

FCC 47 CFR Part 15C, ISED RSS-247							
Product Specific Standard Section	Requirement – Test	Reference Method	Result	Remarks			
RSS-Gen 6.6	Occupied Bandwidth	ANSI C63.10	N/R	Informational only			
FCC § 15.247(a)(2) ISED RSS-247 § 5.2	6 dB Bandwidth	ANSI C63.10	N/N				
FCC § 15.247(b)(3) ISED RSS-247 § 5.4	Maximum peak conducted power	ANSI C63.10	N/N				
FCC § 15.247(e) ISED RSS-247 § 5.2	Power spectral density	ANSI C63.10	N/N				
47 CFR 15.207 ISED RSS-247 § 3.1	AC power line conducted emissions	ANSI C63.4	N/N				
FCC § 15.247(d) ISED RSS-247 § 5.5	Band edge compliance	ANSI C63.10	N/N				
FCC § 15.247(d) ISED RSS-247 § 5.5	Conducted spurious emissions	ANSI C63.10	N/N				
FCC § 15.247(d) FCC § 15.209 ISED RSS-247 § 5.5	Transmitter radiated spurious emissions	ANSI C63.10	PASS				
ISED RSS-247 § 3.1	Receiver radiated spurious emissions	ANSI C63.10	PASS				

Remarks:

The test scope corresponds to a reassessment (class II permissive change) of the given EUT. Test selection is based on the following changes given by the customer. All non-tested requirements are considered unaffected and given in the documents of the original filing.



3 Test Conditions and Results

3.1 Test Conditions and Results - Occupied Bandwidth

Occupied Bandwi	Occupied Bandwidth acc. ISED RSS-Gen Verdict: PASS				
Test acco	ording to	Reference Method			
measuremer		ANSI C63.10			
Toot from a	nov rongo	Tested frequencies			
Test freque	ncy range	F _{LOW} / F _{MID} / F _{HIGH}			
EUT test	t mode	Single			
		Limits			
	N	lone (Informational only)			
		Test setup			
		ectrum EUT			
		Test procedure			
	•	ation tester is used if needed)			
•	at least twice the emis andwidth set to 1 % o	·			
		urement with spectrum analyzer built in measurement function			
	· · ·	Test results			
Channel	Frequency [MHz]	Occupied Bandwidth [kHz]			
F _{LOW}	917	675.33			
F _{MID}	921.5	655.35			
F _{HIGH}	926	671.33			
Comments:	comments:				



Occupied Bandwidth - FLOW

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3996

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier

Model: AAC 00XX

Test Site: Eurofins Product Service GmbH

Operator: Christian Weber Test Conditions: Tnom / Vnom

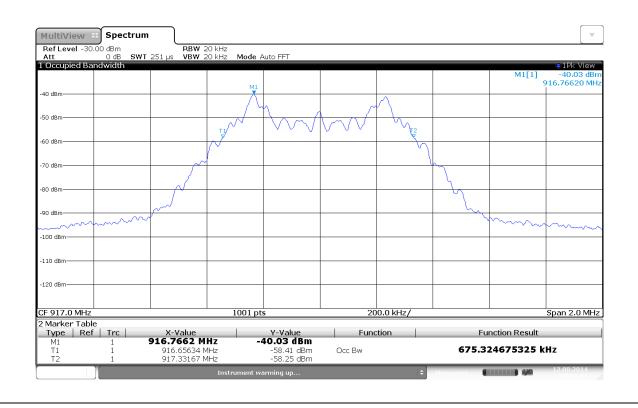
Mode: Tx, FSK, 917 MHz, 125 kbps

Test Date: 2014-08-12

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: OBW= 675.33 kHz





Occupied Bandwidth - F_{MID}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3996

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier

Model: AAC 00XX

Test Site: Eurofins Product Service GmbH

Operator: Christian Weber Test Conditions: Tnom / Vnom

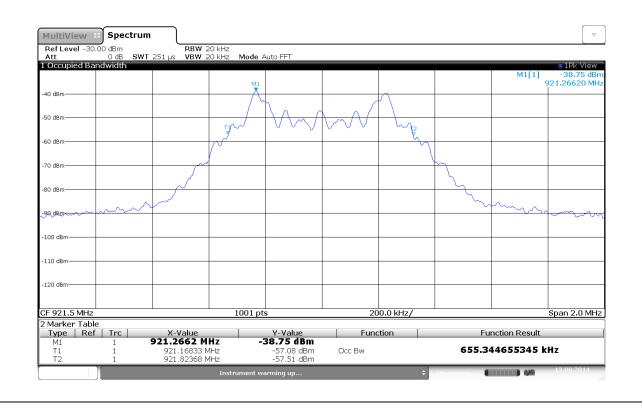
Mode: Tx, FSK, 921.5 MHz, 125 kbps

Test Date: 2014-08-12

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: OBW= 655.35 kHz





Occupied Bandwidth - F_{HIGH}

Occupied Bandwidth acc. to RSS-Gen

Project Number: G0M-1407-3996

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier

Model: AAC 00XX

Test Site: Eurofins Product Service GmbH

Operator: Christian Weber Test Conditions: Tnom / Vnom

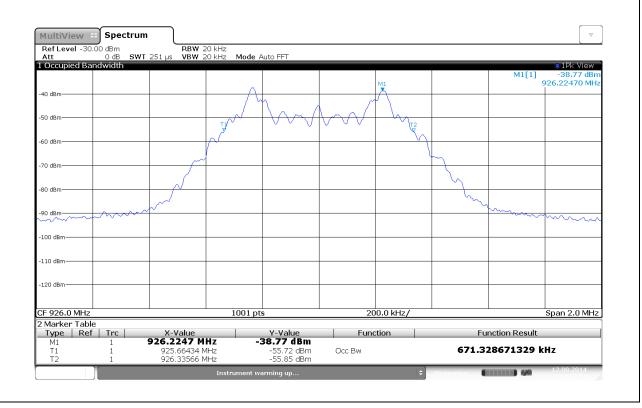
Mode: Tx, FSK, 926 MHz, 125 kbps

Test Date: 2014-08-12

Verdict: NONE (INFORMATION ONLY)

Note 1: A spectrum analyzer with an integrated 99% power bandwidth function is used

Note 2: OBW= 671.33 kHz



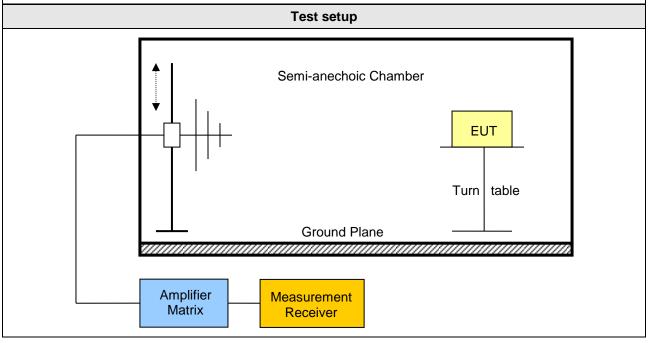


3.2 Test Conditions and Results - Transmitter radiated emissions

Transmitter radiated emissions acc. FCC 47 CFR 15.247 / ISED RSS-210 Verdict: PASS						
Test according refe	Reference Method					
standards		F	CC 15.247(d) / ISED	RSS-247 5.5		
Test according	to		Reference Me	thod		
measurement refe	rence		ANSI C63.1	10		
Toot from Longy r	200		Tested frequer	ncies		
rest frequency ra	Test frequency range		30 MHz – 10 th Harmonic			
EUT test mod	е	Single				
		Limits				
Frequency range [MHz]	Detector	Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]		
30 – 88	Quasi-Peak	100	40	3		
88 – 216	Quasi-Peak	150 43.5 3				
216 – 960	Quasi-Peak	200 46 3				
960 – 1000	Quasi-Peak	500 54 3				
> 1000	Average	500	54	3		

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

When average radiated emission measurements are specified, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.



Test Report No.: G0M-1611-6036-TFC247DT-V01



Test procedure

- 1. EUT set to test mode (Communication tester is used if needed)
- 2. Span it set according to measurement range
- 3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz
- 4. Markers are set to peak emission levels within restricted bands

Test results									
Channel	Frequency [MHz]	Emission [MHz]	Level [dbµV/m]	Detector	Pol.	Limit [dbµV/m]	Limit distance [m]*	Margin [dB]	
F _{LOW}	917	1832	51.02	pk	hor	95.00	3	-43.98	
F _{LOW}	917	1832	59.18	pk	ver	95.00	3	-35.82	
F _{LOW}	917	2749	44.41	pk	hor	74.00	3	-29.59	
F _{LOW}	917	2749	52.08	pk	ver	74.00	3	-21.92	
F _{LOW}	917	3665	40.61	pk	hor	74.00	3	-33.39	
F _{LOW}	917	3665	47.21	pk	ver	74.00	3	-26.79	
F _{MID}	921.5	1838	51.78	pk	hor	95.00	3	-43.22	
F _{MID}	921.5	1838	59.90	pk	ver	95.00	3	-35.10	
F _{MID}	921.5	2760	45.25	pk	hor	74.00	3	-28.75	
F _{MID}	921.5	2760	52.18	pk	ver	74.00	3	-21.82	
F _{MID}	921.5	3683	39.74	pk	hor	74.00	3	-34.26	
F _{MID}	921.5	3683	46.61	pk	ver	74.00	3	-27.39	
F _{MID}	921.5	4607	42.45	pk	ver	74.00	3	-31.55	
F _{HIGH}	926	1850	52.56	pk	hor	95.00	3	-42.44	
F _{HIGH}	926	2605	44.15	pk	ver	95.00	3	-50.85	
F _{HIGH}	926	2772	44.98	pk	hor	74.00	3	-29.02	
F _{HIGH}	926	3701	38.84	pk	hor	74.00	3	-35.16	
F _{HIGH}	926	4623	40.21	pk	hor	74.00	3	-33.79	
F _{HIGH}	926	4623	41.66	pk	ver	74.00	3	-32.34	

Comments: * Physical distance between EUT and measurement antenna.



3.3 Test Conditions and Results - Receiver radiated emissions

eceiver radiated emis	sions acc. 1	o ISEI	D RSS-247			Verdict: PASS		
Test according refere	nced	Reference Method						
standards		ISED RSS-247 3.1						
Test according to)	Reference Method						
measurement refere	ence	ANSI C63.10						
Tost froquency ran	go.	Tested frequencies						
Test frequency ran	ge	30 MHz – 5 th Harmonic						
EUT test mode		Receive						
			Limits					
requency range [MHz]	Detector		Limit [µV/m]	Limit	[dBµV/m]	Limit Distance [m]		
30 – 88	Quasi-Pea	k	100		40	3		
88 – 216	Quasi-Pea	k	150	4	13.5	3		
216 – 960	Quasi-Peak		200		46	3		
960 – 1000	Quasi-Peak		500		54	3		
> 1000 Ave			500		54	3		
		Т	est setup					
		Semi-anechoic Chamber EUT Turn tabl Ground Plane			ble			
	plifier atrix		surement					



Test procedure

- 1. EUT set to receive mode (Communication tester is used if needed)
- 2. Span it set according to measurement range
- 3. Resolution bandwidth below 1 GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1 MHz with peak/average detector is used above 1 GHz
- 4. Markers are set to peak emission levels

Test results									
Channel	Frequency [MHz]	Emission [MHz]	Emission Level [dbµV/m]	Pol.	Det.	Limit [µV/m]	Margin		
F _{MID}	921.5	55.26	22.70	ver	pk	40	-17.31 dB		
F _{MID}	921.5	73.74	25.50	ver	pk	40	-14.47 dB		
F _{MID}	921.5	92.16	19.90	ver	pk	43.5	-23.61 dB		
F _{MID}	921.5	635.84	36.80	ver	pk	46	-9.17 dB		
F _{MID}	921.5	709.52	36.30	hor	pk	46	-9.68 dB		

Comments:

^{*} Physical distance between EUT and measurement antenna.



ANNEX A Transmitter radiated spurious emissions

Spurious emissions according to FCC 15.247

Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

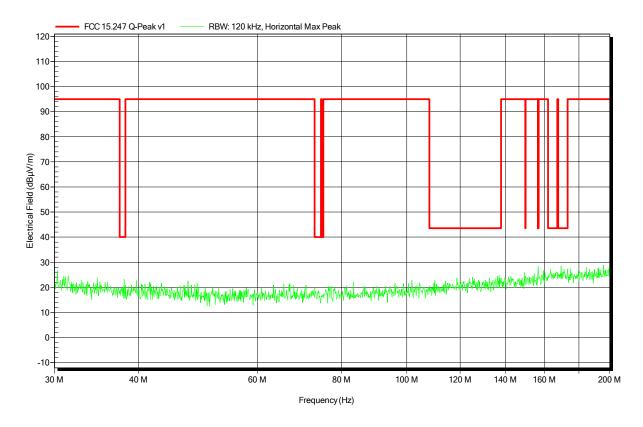
Operator: Mr. Suckow

Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 917 MHz Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

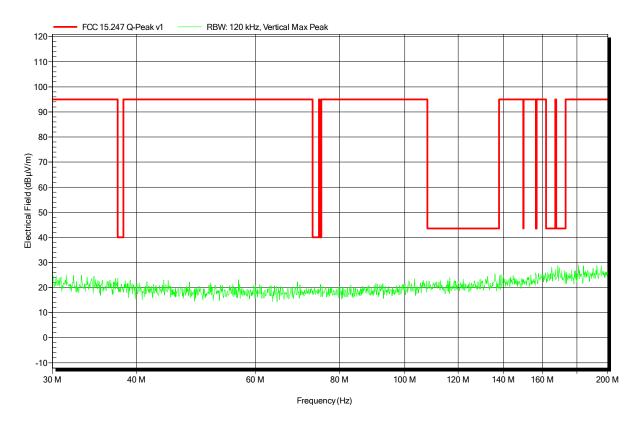
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

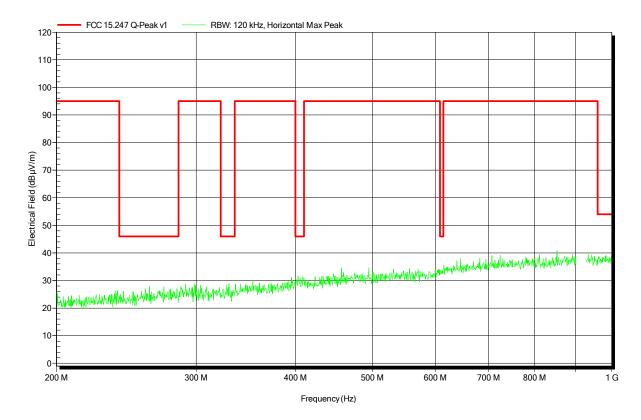
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

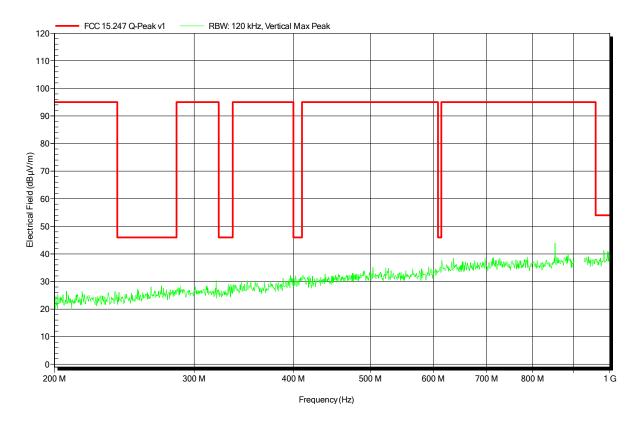
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

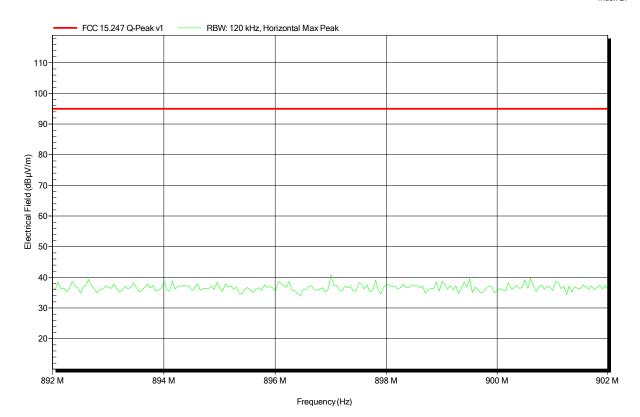
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

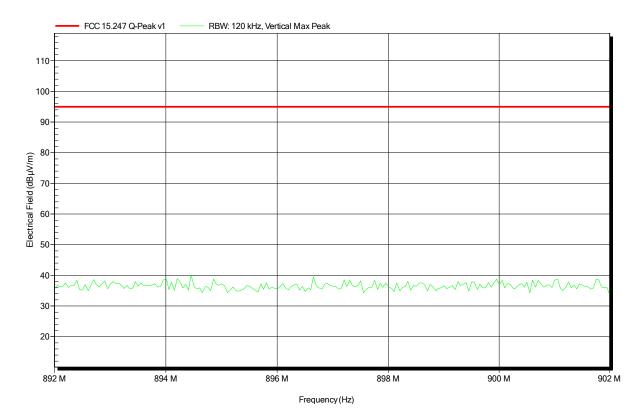
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

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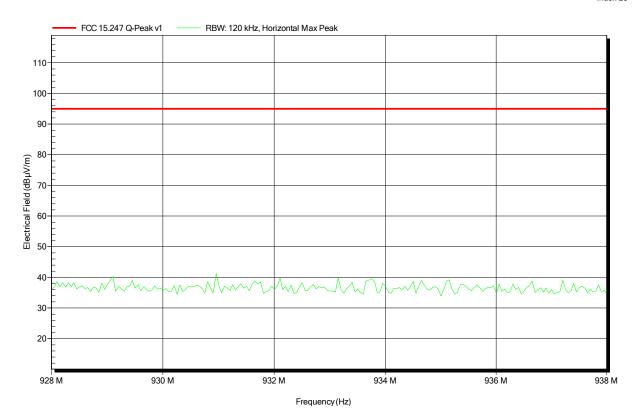
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

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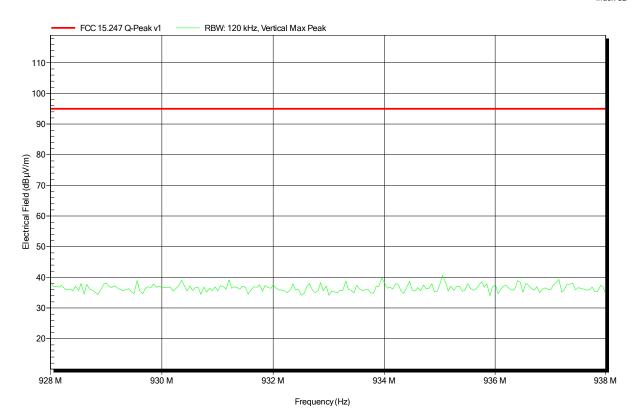
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

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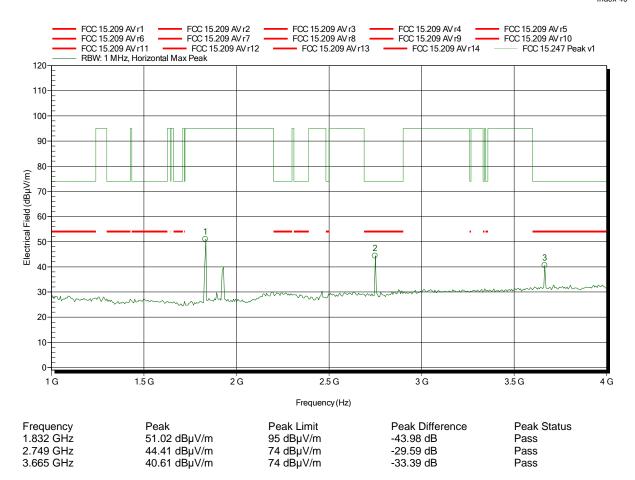
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

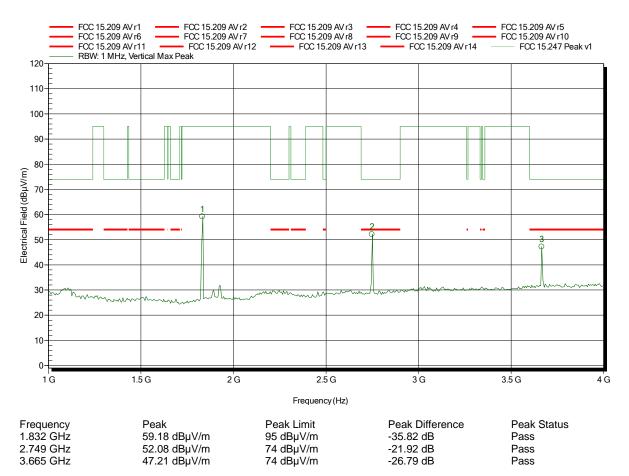
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

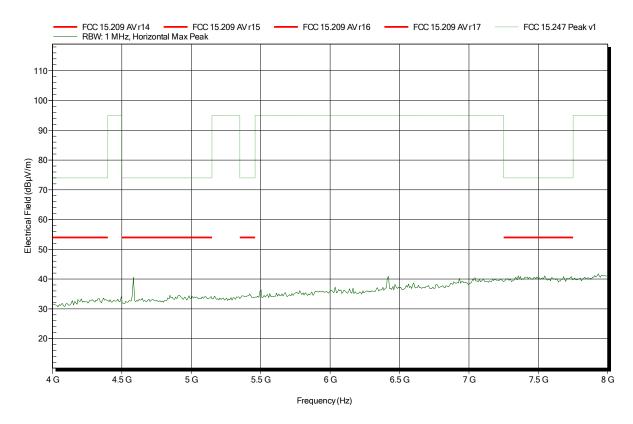
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

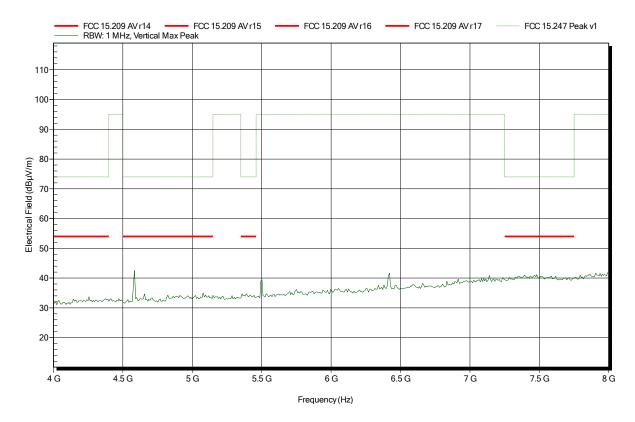
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 3 m

Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

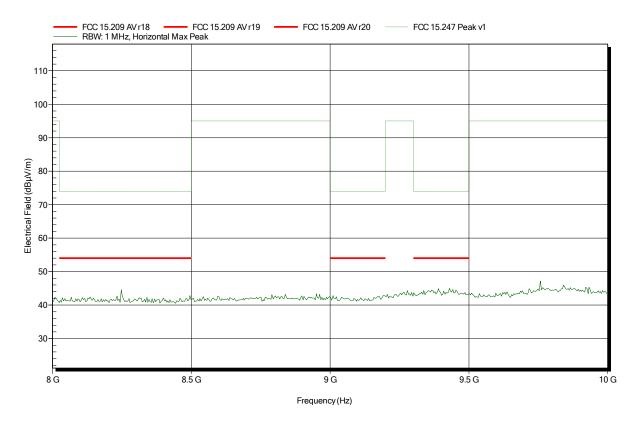
Operator: Mr. Suckow

Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

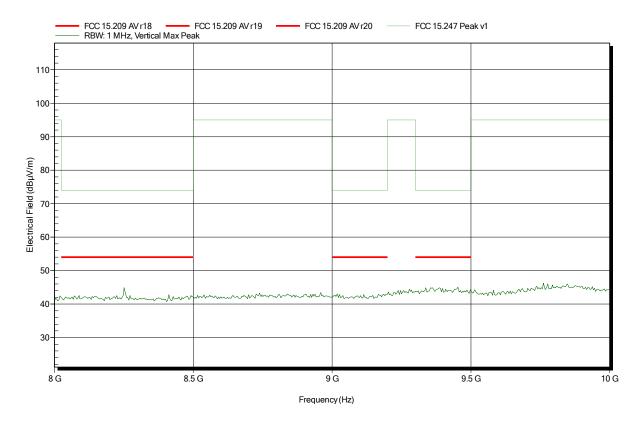
Operator: Mr. Suckow

Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m Mode: TX; SRD 917 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

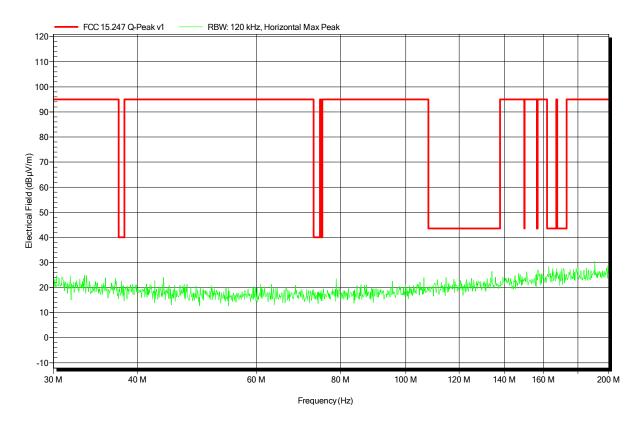
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 921.5 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

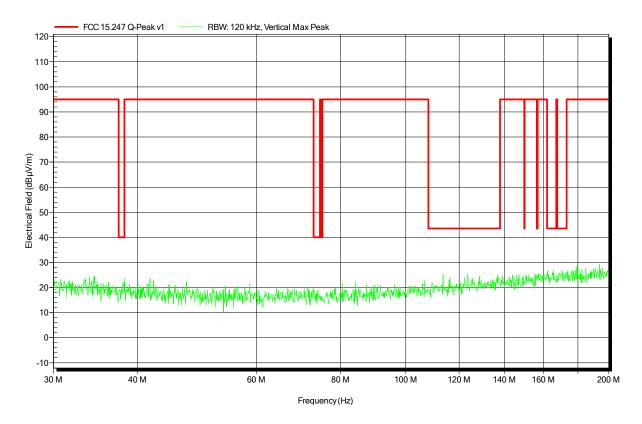
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Measurement distance: 3 m

Mode: TX; SRD 921.5 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

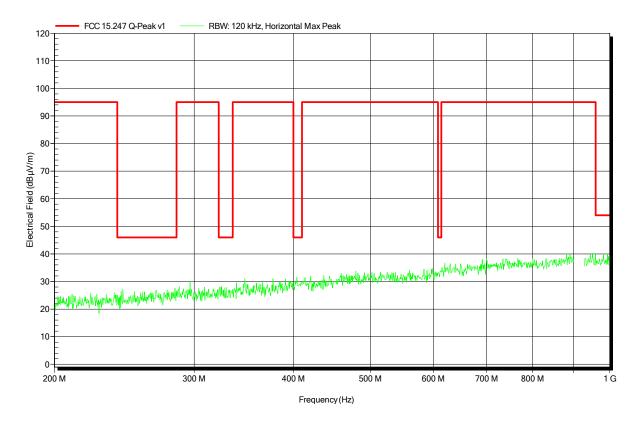
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 921.5 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

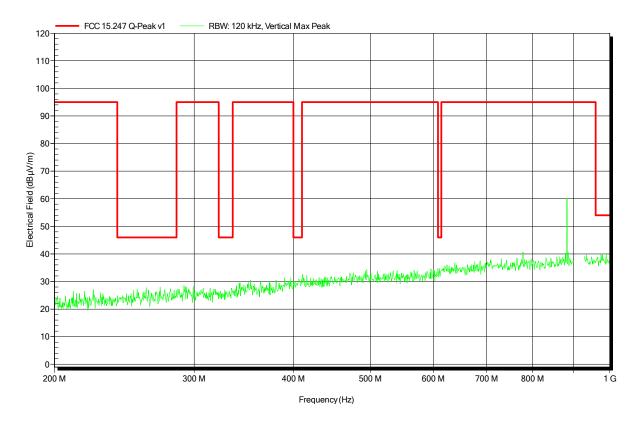
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Measurement distance: 3 m

Mode: TX; SRD 921.5 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Dräger Safety AG & Co. KGaA Applicant: **EUT Name:** Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

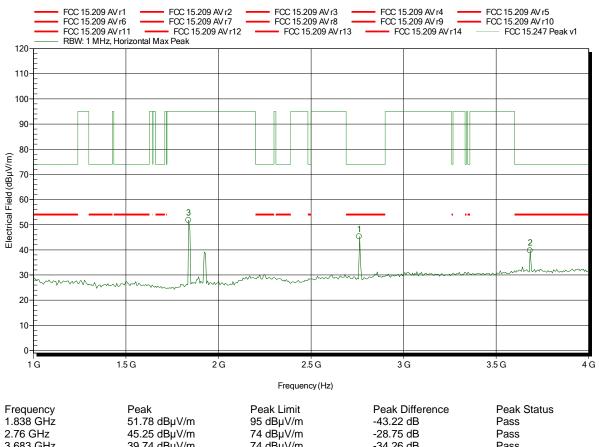
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance:

TX; SRD 921.5 MHz Mode:

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

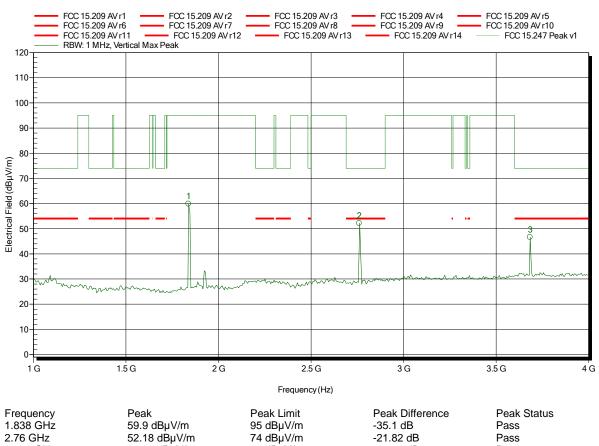
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Measurement distance: 3 m

Mode: TX; SRD 921.5 MHz

Test Date: 2016-11-23

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Operator: Mr. Suckow

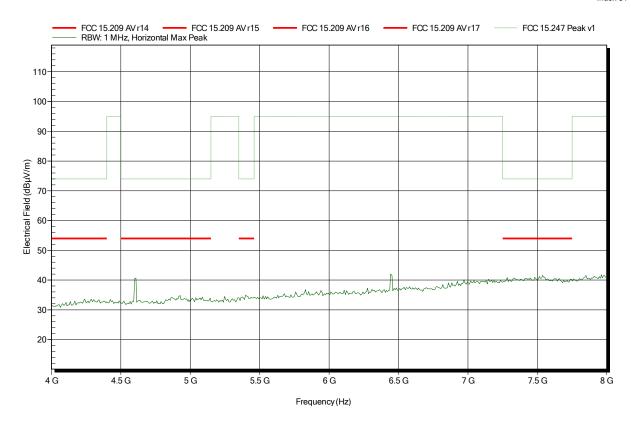
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Measurement distance: 3 m

Mode: TX; SRD 921.5 MHz

Test Date: 2016-11-23

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Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

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Operator: Mr. Suckow

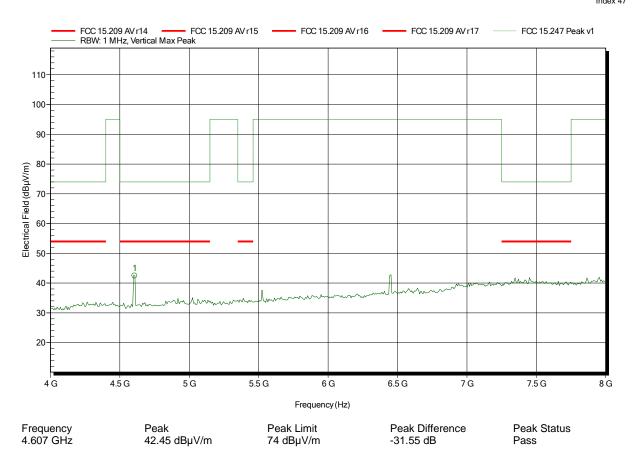
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Measurement distance: 3 m

Mode: TX; SRD 921.5 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

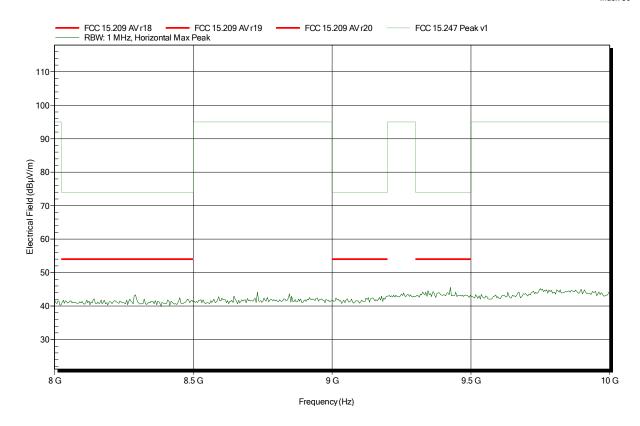
Operator: Mr. Suckow

Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m Mode: TX; SRD 921.5 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

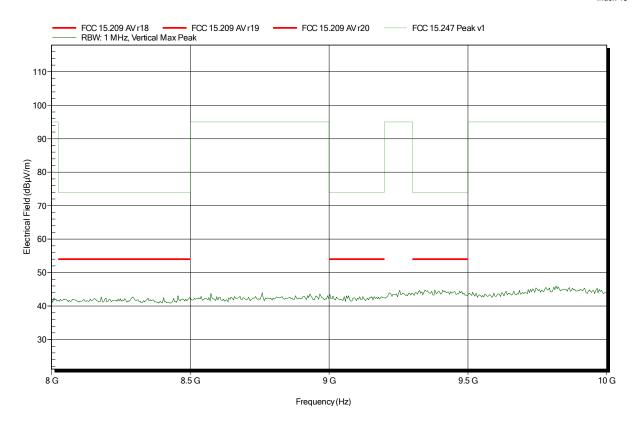
Operator: Mr. Suckow

Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m Mode: TX; SRD 921.5 MHz

Test Date: 2016-11-23

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Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

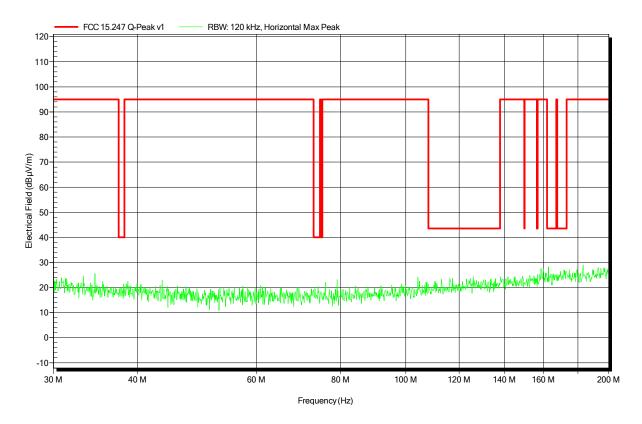
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

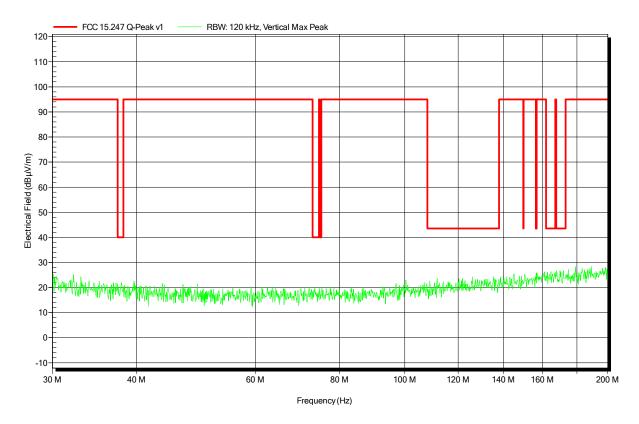
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Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

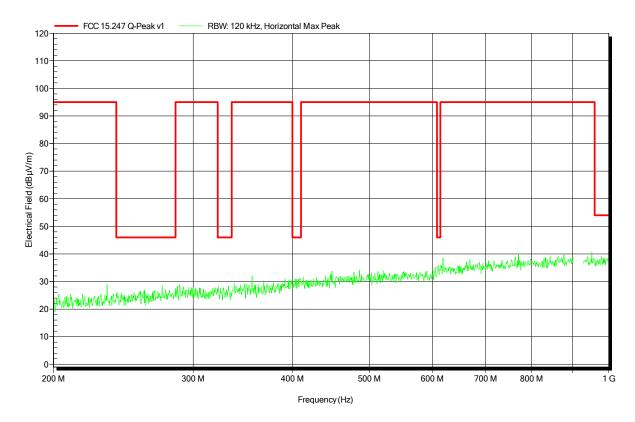
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

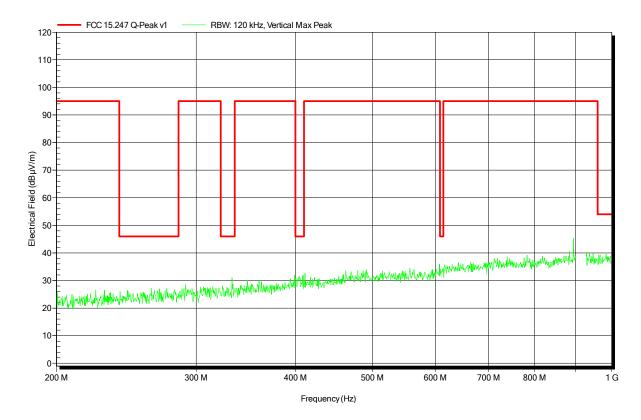
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Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

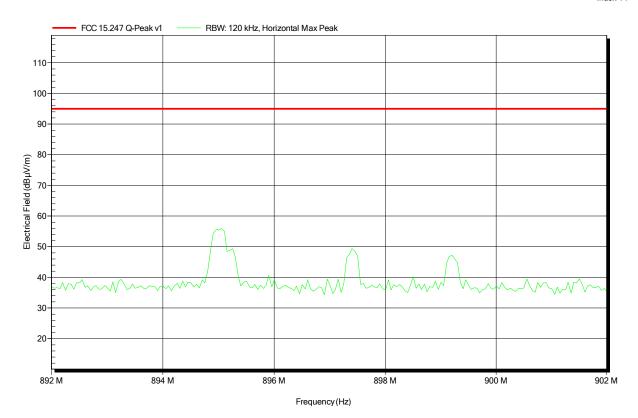
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Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-23

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Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

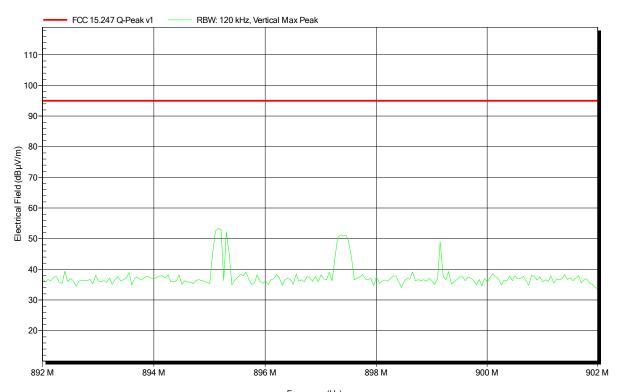
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-23

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Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

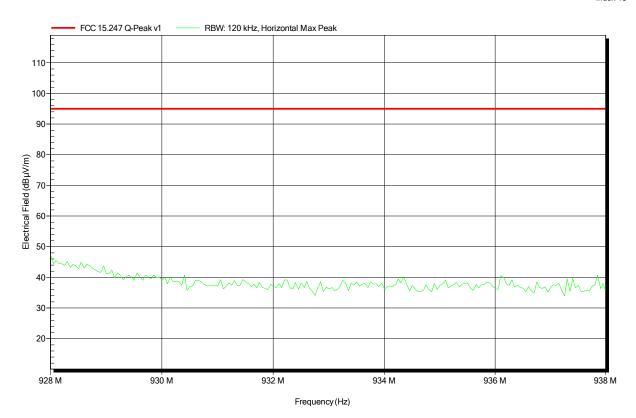
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Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-23

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Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

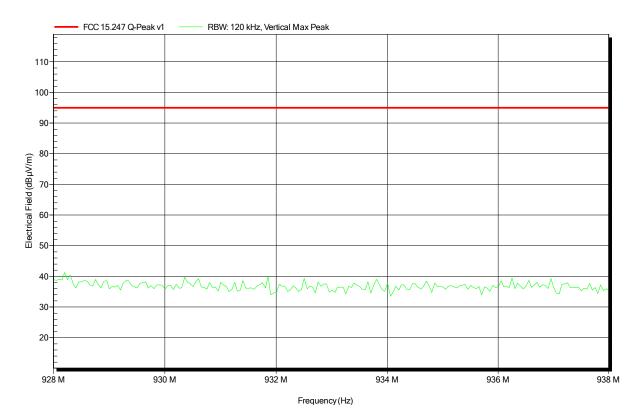
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Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

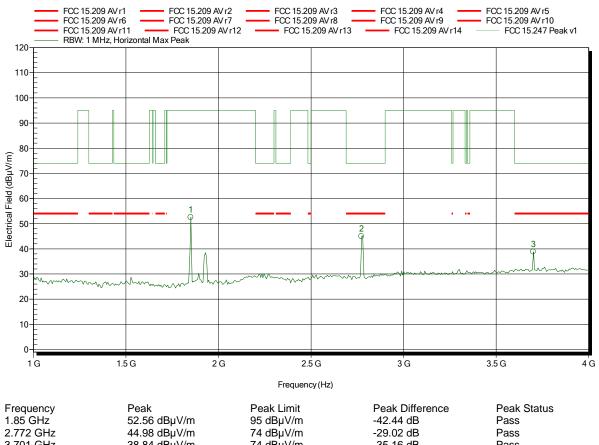
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

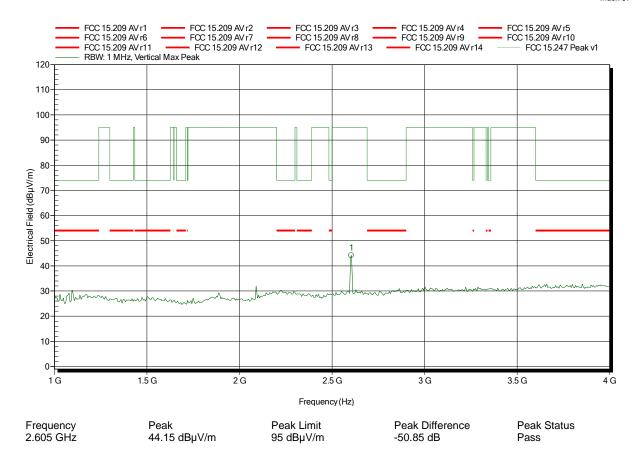
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Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-24

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

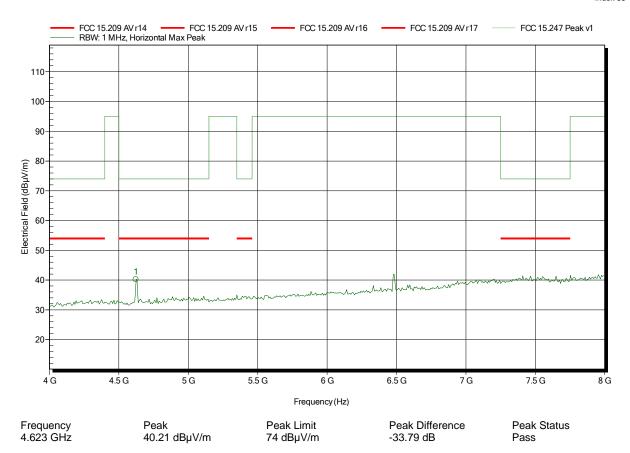
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-23

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

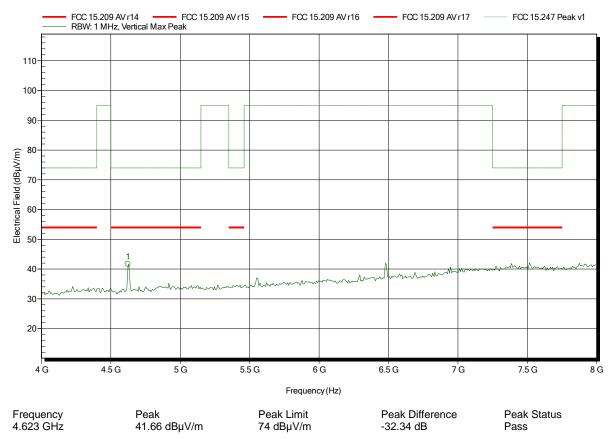
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Measurement distance: 3 m

Mode: TX; SRD 926 MHz

Test Date: 2016-11-24

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

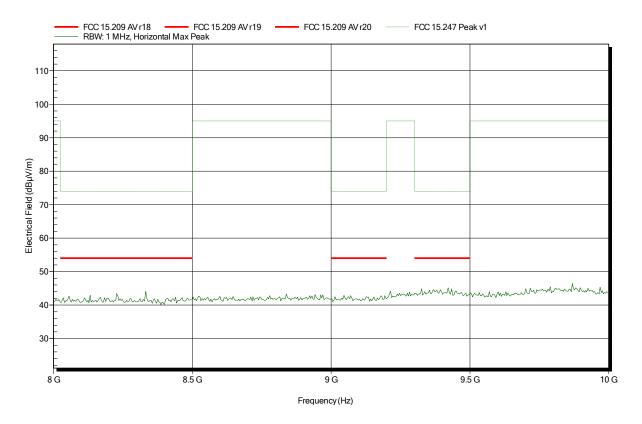
Operator: Mr. Suckow

Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 1 m converted to 3m Mode: TX; SRD 926 MHz

Test Date: 2016-11-24

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

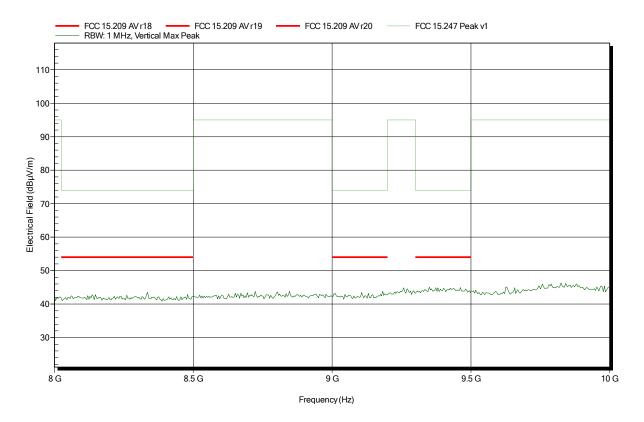
Operator: Mr. Suckow

Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Vertical

Measurement distance: 1 m converted to 3m Mode: TX; SRD 926 MHz

Test Date: 2016-11-24

Note:





ANNEX B Receiver radiated spurious emissions

Spurious emissions according to FCC 15.247

Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

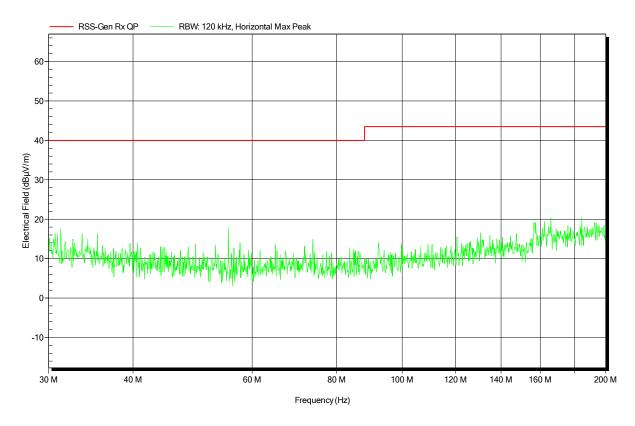
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HK 116, Horizontal

Measurement distance: 3 m

Mode: RX; SRD 921.5 MHz

Test Date: 2016-11-24

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

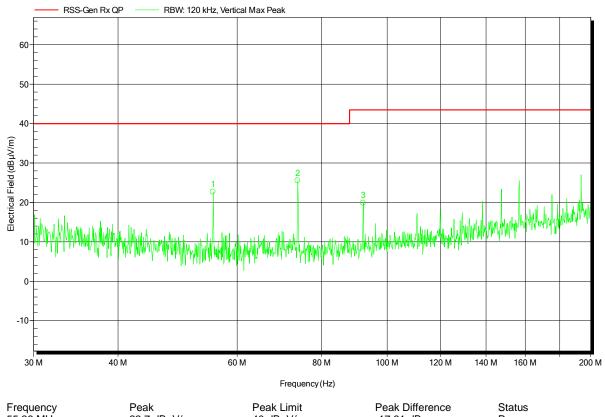
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HK 116, Vertical

Measurement distance: 3 m

Mode: RX; SRD 921.5 MHz

Test Date: 2016-11-24 Note: MA 103 TT 153

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Frequency Peak Peak Limit Peak Difference Status 55.26 MHz 22.7 dB μ V/m 40 dB μ V/m -17.31 dB Pass 73.74 MHz 25.5 dB μ V/m 40 dB μ V/m -14.47 dB Pass 92.16 MHz 19.9 dB μ V/m 43.5 dB μ V/m -23.61 dB Pass



Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

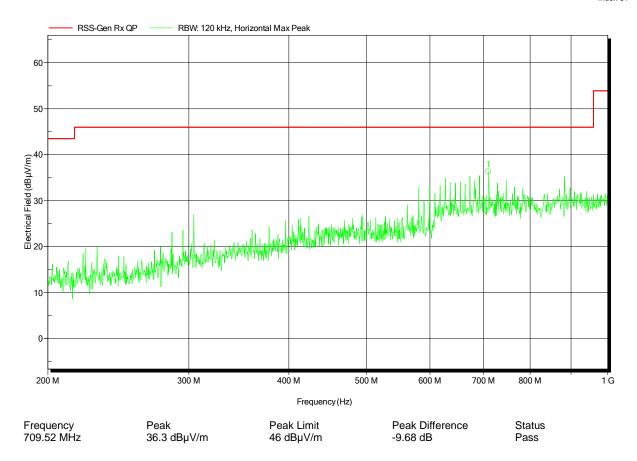
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Horizontal

Measurement distance: 3 n

Mode: RX; SRD 921.5 MHz

Test Date: 2016-11-24

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

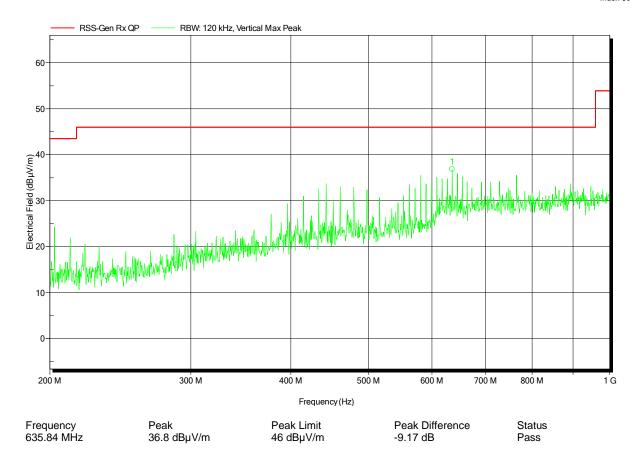
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Rohde & Schwarz HL 223, Vertical

Measurement distance: 3 r

Mode: RX; SRD 921.5 MHz

Test Date: 2016-11-24

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

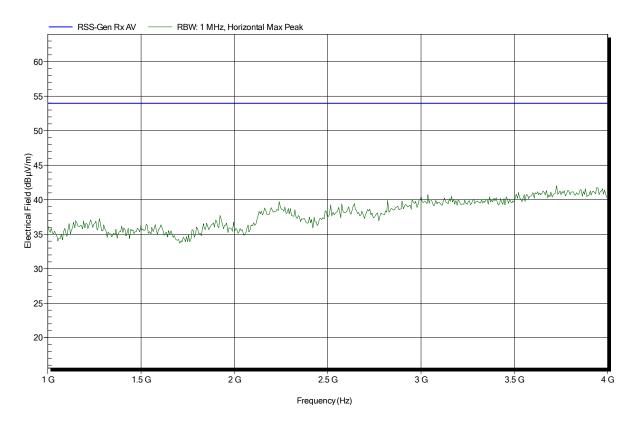
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Measurement distance: 3 m

Mode: RX; SRD 921.5 MHz

Test Date: 2016-11-24

Note:





Project number: G0M-1611-6036

Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

Operator: Mr. Suckow

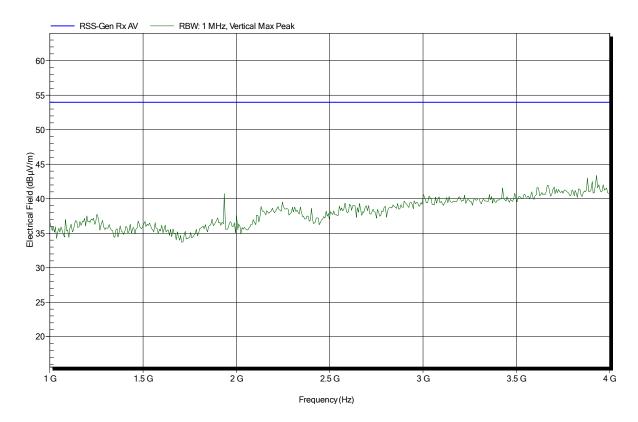
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Measurement distance: 3 m

Mode: RX; SRD 921.5 MHz

Test Date: 2016-11-24

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Applicant: Dräger Safety AG & Co. KGaA EUT Name: Portable Alarm Amplifier Model: Dräger X-zone 5500

Test Site: Eurofins Product Service GmbH

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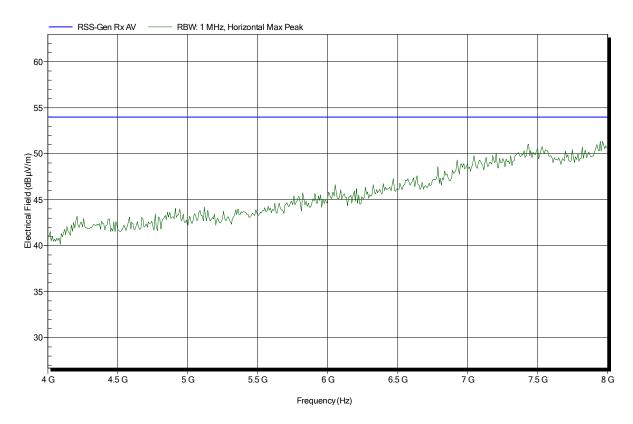
Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Horizontal

Measurement distance: 3 m

Mode: RX; SRD 921.5 MHz

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Test Conditions: Tnom: 20°C, Vnom: 6 VDC via battery Antenna: Schwarzbeck BBHA 9120D, Vertical

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