
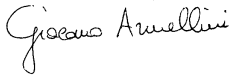





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RAPPORTO DI PROVA / TEST REPORT

Rif./Ref.No. MPETR_140505-1	Data / Date:06/03/2015	Pagine / Pages : 6
Scopo delle prove / Test object :	Valutazione dell'esposizione ai campi RF in accordo a / Radio Frequency Radiation Exposure evaluation according to FCC Cfr 47 part 2 - §2.1093	
Richiedente / Applicant :	AEB Industriale S.r.l. Via Brodolini, 8 – 40056 Crespellano (BO) – ITALY Tel. +39 051 969870	
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Marchio commerciale / Trade mark :		
Fabbricante / Manufacturer :	AEB Industriale S.r.l.	
Prodotto / Product :	In-ear monitor	
Modello / Model :	EME one (VHF Band 1 – Band 2)	
FCC ID	2ADDV-EMEONE	
IC NUMBER	12207A-EMEONE	
Data ricevimento campioni / Date of test samples receipt.	07/05/2014	
Campioni verificati / No. of tested samples	2	
Data verifiche / Testing date :	17-30/05/2014	
Sito di prova / Testing site :	Prima Ricerca & Sviluppo Via Campagna -92 I-22020 FALOPPIO CO	
Esito delle valutazioni / Assessment results :	CONFORME / COMPLIANT	
Verifiche effettuate da / Verifications carried out by :	Giacomo ARMELLINI Responsabile Laboratorio EMC & Radio / Head of EMC & Radio Laboratory	
Approvato / Approved by :	Vincenzo LA FRAGOLA Direttore generale / Managing director	

I risultati delle prove riportati nel presente rapporto di prova si riferiscono solo ai campioni esaminati./
The test results reported in this test report shall refer only to the samples tested

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0 RELEASE CONTROL RECORD

TEST REPORT NUMBER	REASON OF CHANGE	DATE OF ISSUE
MPETR_140505-0	Original Release	30/06/2014
MPETR_140505-1	Editorial Change: new evaluation according to 2.1093 routine evaluations for portable devices	06/03/2015

1 TECHNICAL INFORMATION OF EQUIPMENT UNDER TEST (EUT)

1.1 EUT Identification

DESCRIPTION	In-ear monitor
TYPE	EME one (VHF Band 1 – Band 2)
TRADEMARK	
S/N	Not present (prototype)
HW HARDWARE STATUS	Not available
SW SOFTWARE STATUS	Not available
FCC ID	2ADDV-EMEONE
IC NUMBER	12207A-EMEONE
MANUFACTURER	AEB Industriale Srl
COUNTRY OF MANUFACTURER	Italy
SINGLE UNIT OR SYSTEM	Single Unit

1.2 EUT technical information

FREQUENCY RANGE:	Frequency range = 174.025 Mhz to 203.975MHz divided in 2switch bands ; Band 1 , Band 2		
BAND FREQUENCY	BAND 1	BAND 2	
	CH1 = 174,025 MHz	CH1 = 194,000 MHz	
	CH2 = 174,725 MHz	CH2 = 194,775 MHz	
	CH3 = 176,025 MHz	CH3 = 196,300 MHz	
	CH4 = 177,550 MHz	CH4 = 199,125 MHz	
	CH5 = 178,625 MHz	CH5 = 200,425 MHz	
	CH6 = 181,675 MHz	CH6 = 200,900 MHz	
	CH7 = 183,450 MHz	CH7 = 202,975 MHz	
	CH8 = 183,925 MHz	CH8 = 203,975 MHz	
MODULATION:	Analog FM max 40 KHz deviation hard limiting controlled		
ANTENNA:	External dedicated		
POWER SUPPLY:	12Vdc powered by external AC/DC adapter		
TEMPERATURE RANGE:	-30°C to + 55°C		

1.3 EUT modification

- None

1.4 Auxiliary equipment

- None

2 REFERENCE STANDARDS

CODE OF FEDERAL REGULATIONS	
Title 47 Part 2 Subpart J § 2.1093	Radiofrequency radiation exposure evaluation: portable devices.
ANSI C63.4	American National Standard for Methods of Measuring of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz – 40 GHz

3 MEASUREMENTS AND CALCULATION RESULTS

3.1 SAR exemption

This device has been excluded from SAR testing based on source-based time-averaged conducted output power and KDB 447498 D01 section 4.3.1 1). This document serves as the RF exposure exhibit in the FCC Form 731 application in lieu of a SAR report.

3.2 Operational Description

The EME One is an in-ear monitor system using FM modulation to transmit audio. The user's hand will touch the device when adjusting settings on the EMEOne when it is transmitting and there is nothing to stop him being within 20 cm therefore it is necessary a calculation for portable use demonstrating that the transmitter can be excluded from SAR testing.

3.3 RF Exposure Conditions:

The device is intended for use in the portable exposure condition and the General Population / Uncontrolled RF exposure environment.

3.4 RF Output Power:

Tx frequency range: BAND I : 174.025 – 183.925MHz; BAND II : 194.000 –203.975 MHz
Maximum Output Power including Tune-Up tolerance: 13.00 dBm+2dB = 15dBm (31.6 mW)

3.5 Calculation method and limits

SAR Test Exclusion Thresholds:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [f(\text{GHz})] \leq 3.0$ (for 1-g body SAR) or 7.5 (for 10-g extremity SAR)

where respectively

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

3.6 Calculation results

Maximum Output Power: 31.6mW

Min Test separation distance: 5mm

f: 0.204GHz (as worst case)

Exclusion Threshold: 7.5 (10-g extremity SAR)

$$\frac{31.6mW}{5mm} * \sqrt{0.204} = 2.85 \leq 7.5$$

RESULT: The device is excluded from SAR testing.

