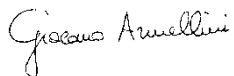


RAPPORTO DI PROVA / TEST REPORT

Rif./Ref.No. MPETR_160556-0	Data / Date:01/08/2016	Pagine / Pages : 7
Scopo delle prove / Test object :	Prove di tipo in accordo a / Type test according to FCC Cfr 47 part 15 - §15.247 d)	
Richiedente / Applicant :	EMBIT S.r.l EMBEDDED & WIRELESS SOLUTION Via Emilia Est, 911 – 41100 Modena (MO) Italy Phone +39 059 371714 Fax +39 059 3680498	
Persona di riferimento / Applicant's referee :	Mr. Alessandro Rigamonti	
Marchio commerciale / Trade mark :	 TECNIPLAST Innovation through passion™	
Fabbricante / Manufacturer :	Tecniplast S.p.A	
Prodotto / Product :	IVC Air Handling Units	
Modello / Model :	WiFLOW	
Data ricevimento campioni / Date of test samples receipt:	08/04/2016	
Data verifiche / Testing date :	From 08 to 29 April 2016	
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 e RADIO/ EMC and RADIO Laboratory Manager	
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_160556-0	Original Release	01/08/2016

1 TECHNICAL INFORMATION OF EQUIPMENT UNDER TEST (EUT)

1.1 EUT Identification

DESCRIPTION :	IVC Air Handling Units
MODEL:	WiFLOW
TRADEMARK:	 TECNIPLAST <i>Innovation through passion™</i>
S/N:	Not present
MANUFACTURER:	Tecniplast S.p.A.
COUNTRY OF MANUFACTURER:	Italy
MODULE MANUFACTURER:	OGEMRAY TECHNOLOGY (HK) CO., LIMITED
DESCRIPTION	USB Wireless Module
MODULE NAME	GWF-3M08
MODULE FCC ID	QR4WF5370M08
ANTENNA TYPE:	Pulse Electronics Corporation mod. W1030 Gain 2 dBi
EUT DIMENSIONS :	See Photographic documentation
EUT STANDING:	Floor

1.2 EUT Technical Data

POWER SUPPLY NOMINAL VOLTAGE:	115V~ 60Hz
NOMINAL POWER OR ABSORBING CURRENT :	not declared
TYPICAL USAGE :	RADIO EQUIPMENT
TYPE:	INTENTIONAL RADIATOR

1.3 Ports identification

This section contains descriptions of all signal ports and AC/DC power input/output ports, the length and the type of the cable provided by manufacturer needed for the tests. Moreover it is specified if the ports are ever or optionally connected.

Port		Description	Connection
1	Enclosure	Metallic	Screw
2	AC Power Supply	115V 60Hz	Power supply cable with a plug (max cable length 3m)
3	DC power supply	Port not present	-----
4	Signal lines	LAN Port	RJ45 (max cable length 3m)
5	Telecomm. Lines	Not present	-----
6	Antenna port	For external antenna	u.FI connector

Note: During the tests all cables must be what provided the manufacturer or the same that used in the real employment of the EUT.

1.4 Auxiliary equipment

- None

2 REFERENCE STANDARDS

See test report FCCTR_160556_0

3 MEASUREMENTS AND CALCULATION RESULTS

3.1 Calculation Method

Far Field Power flux Calculation model.

This model is applicable in the far-field region and over-estimates in the radiating near-field region. The far-field calculations are accurate when the distance, r , from an antenna of length D to a point of investigation is greater than

$$r = \frac{2D^2}{\lambda}$$

The Power Flux is

$$S = \frac{PG}{4\pi r^2} \quad \text{or equivalent} \quad S = \frac{EIRP}{4\pi r^2}$$

where

P = input power of the antenna

G = antenna gain relative to an isotropic antenna

r = distance from the antenna to the point of investigation.

EIRP = Effective Isotropic Radiated Power

3.2 Limits

Tab. 1 of CFR Title 47 Part 1 Subpart I § 1.1310

Table 1—Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(B) Limits for General Population/Uncontrolled Exposure				
.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f ²	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

Note to Table 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

3.3 Measurements

WORST CASE (from MPE report of module release by CCIS)

Frequency (MHz)	Maximum Output Power (dBm)
2462	17.43

3.4 RF Exposure Evaluation

TX Freq. (MHz)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	Evaluation distance (m)	Power density at evaluation distance (W/m ²)	FCC Power density Limit (W/m ²)	RESULT
2462	2	19.43	87.7	0.20	1.74e-1	10.00	WITHIN THE LIMIT