

EMF ASSESSMENT REPORT

No. AR22-0076023-02

performed in accordance with

FCC Rules: Code of Federal Regulations (CFR) no. 47
Part 15 Subpart C Section 15.247(i)

PRODUCT	Multi-user call forwarding device for 2voice system with integrated Wi-Fi radio
MODEL(s) TESTED	1760/18
FCC ID	REA176018
TRADE MARK(s)	URMET

APPLICANT	URMET S.p.A. ~ Via Bologna, 188/c ~ I-10154 TORINO
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Tested by	Robertino Torri <i>[Laboratory Technician]</i>	
Approved by	Roberto Colombo <i>[Laboratory manager]</i>	

Revision Sheet

Release No.	Date	Revision Description
Rev. 0	2022-05-25	First edition Digital signed - AR22-0076023-02_TR_FCC RF Exposure - URMET - 1760-18.doc

The results of tests and checks reported in this Test Report refer exclusively to the samples tested and described in the Report itself.

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The authenticity of this Test Report and its contents can be verified by contacting IMQ S.p.A., responsible for this Test Report.

1. GENERAL DATA

SAMPLE		
Samples received on	2022-03-17	(Item(s) sampled and sent by applicant)
IMQ reference samples	BEM	108019
Samples tested No.	1	
Object under analysis recognition	Not carried out Except where stated, characteristics of products were taken from client description and were not verified by the laboratory	
Date of acceptance of test item	2022-03-21	
TEST LOCATION		
Testing dates	2022-04-05	
Testing laboratory	IMQ S.p.A. - Via Quintiliano, 43 – I-20138 Milano	
Testing site	Via Quintiliano, 43 – I-20138 Milano	
ENVIRONMENTAL CONDITIONING		
Parameter	Measured	
Ambient Temperature	20.8 ÷ 23.2 °C	
Relative Humidity	48 ÷ 54 %	
Atmospheric Pressure	999 ÷ 1001 mbar	
The laboratory is monitored by a continuous environmental conditions measurements system. Temperature, humidity and pressure data are recorded on a weekly basis and stored in local archive.		
REMARKS		
Throughout this report a point (comma) is used as the decimal separator. The ability or reliability of this product to perform its intended function in a particular application has not been investigated. Unless otherwise specified, warnings, installation instruction and/or user manual provided with the sample have been checked in Italian or English version only. IMQ declines any responsibility derived from missing or wrong information provided aside by the applicant.		

2. REFERENCE DOCUMENT

DOCUMENT		DATE	TITLE
☒	47 CFR Part 15	2015	Radio Frequency Device
☒	ANSI C63.4	2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
☒	ANSI C63.10	2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

3. EQUIPMENT UNDER TEST (EUT) DETAILS

GENERAL DATA (According to manufacturer declaration)

MODEL (basic)	Description
1760/18	Video doorphone with call forwarding device for 2voice system with integrated Wi-Fi radio and white enclosure
VARIANTS (derived)	Description
1760/19	As 1760/18 but black enclosure

FCC ID	REA176018
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Manufacturer	URMET S.p.A. ~ Via Bologna, 188/c ~ I-10154 TORINO
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Type of equipment	DTS - Digital transmission equipment (Wi-Fi radio module)
Operating frequency	2412-2462MHz for 802.11b/g/n(HT20) 2422-2452MHz for 802.11n(HT40)
Max RF conducted power	802.11b : 19.54 dBm 802.11g : 13.94 dBm 802.11n(HT20) : 13.90 dBm 802.11n(HT40) : 13.40 dBm
Modulation	802.11b : DSSS(DBPSK/DQPSK/CCK) 802.11g/n : OFDM(BPSK/QPSK/16QAM/64QAM)
Number of channel	802.11b/g/n(HT20) : 11 802.11n(HT40) : 7
Antenna	Integrated on PCB. Gain 0,3dBi
Interfaces	/
Integrated interfaces	/
Dedicated AC supply	URMET 1083/20A and 1760/110
Remarks	None

4. SUMMARY OF TEST RESULTS

POSSIBLE TEST CASE VERDICTS	
Test object meets the requirement	PASS
Test object does not meet the requirement	FAIL
Test case does not apply to the test object	N.A.
Test not performed	N.P.

CFR47 Part 15	TITLE	RESULT
§ 15.247(i), § 47CFR 1.1307(b)(1)	RF humane exposure	PASS

5. TEST RESULTS

5.1 RF EXPOSURE EVALUATION

TEST REQUIREMENT

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines § 1.1310.

EUT classification (fixed, mobile or portable devices)	Fixed according to § 2.1091(b) of this Chapter
LIMITS	According to Table 1 to §1.1310(e)(1) — Limits for Maximum Permissible Exposure (MPE)
Testing dates	2022-04-05

TABLE 1 TO §1.1310(E)(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)
(i) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	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.

Modulation 802.11b								
Channel No.	Conducted power (dBm)	Tune-up (dB)	Antenna gain (dBi)	Max Power (dBm)	Max Power (mW)	Min distance (cm)	Power density (mW/cm ²)	Limit (mW/cm ²)
1 (2.412GHz)	18.66	0	0.3	18.96	78.70	20	0.0157	1
6 (2.437GHz)	19.11	0	0.3	19.41	87.30	20	0.0174	
11 (2.462GHz)	19.54	0	0.3	19.84	96,38	20	0.0192	

Modulation 802.11g								
Channel No.	Conducted power (dBm)	Tune-up (dB)	Antenna gain (dBi)	Max Power (dBm)	Max Power (mW)	Min distance (cm)	Power density (mW/cm ²)	Limit (mW/cm ²)
1 (2.412GHz)	12.90	0.3	0.3	13.50	22.38	20	0.0045	1
6 (2.437GHz)	13.43	0.3	0.3	14.03	25.29	20	0.0050	
11 (2.462GHz)	13.94	0.3	0.3	14.54	28.44	20	0.0057	

Modulation 802.11n HT20								
Channel No.	Conducted power (dBm)	Tune-up (dB)	Antenna gain (dBi)	Max Power (dBm)	Max Power (mW)	Min distance (cm)	Power density (mW/cm ²)	Limit (mW/cm ²)
1 (2.412GHz)	13.21	0.3	0.3	13.81	24.04	20	0.0048	1
6 (2.437GHz)	13.48	0.3	0.3	14.08	25.59	20	0.0051	
11 (2.462GHz)	13.90	0.3	0.3	14.50	28.18	20	0.0056	

Modulation 802.11n HT40								
Channel No.	Conducted power (dBm)	Tune-up (dB)	Antenna gain (dBi)	Max Power (dBm)	Max Power (mW)	Min distance (cm)	Power density (mW/cm ²)	Limit (mW/cm ²)
3 (2.422GHz)	12.71	0.2	0.3	13.21	20.94	20	0.0042	1
6 (2.437GHz)	13.08	0.2	0.3	13.58	22.80	20	0.0045	
9 (2.452GHz)	13.40	0.2	0.3	13.90	24.55	20	0.0049	

TEST RESULT

This value is less than the low threshold limit. No SAR test is required.

Maximum radiated power was taken into consideration to establish the worst case aggregate maximum output power.

END OF TEST REPORT