

# 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)

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

|                  |                                                    |
|------------------|----------------------------------------------------|
| <b>APPLICANT</b> | URMET S.p.A. ~ Via Bologna, 188/c ~ I-10154 TORINO |
|------------------|----------------------------------------------------|

|             |                                                |  |
|-------------|------------------------------------------------|--|
| 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<br>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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## 1. GENERAL DATA

| SAMPLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                       |                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Samples received on                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2022-03-17                                                                                                                                            | (Item(s) sampled and sent by applicant) |
| IMQ reference samples                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>BEM</b>                                                                                                                                            | 108019                                  |
| Samples tested No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1                                                                                                                                                     |                                         |
| Object under analysis recognition                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Not carried out</b><br>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.<br>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.<br>The ability or reliability of this product to perform its intended function in a particular application has not been investigated.<br>Unless otherwise specified, warnings, installation instruction and/or user manual provided with the sample have been checked in Italian or English version only.<br>IMQ declines any responsibility derived from missing or wrong information provided aside by the applicant. |                                                                                                                                                       |                                         |

## 2. REFERENCE DOCUMENT

|                                     | DOCUMENT       | DATE | TITLE                                                                                                                                                               |
|-------------------------------------|----------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | 47 CFR Part 15 | 2015 | Radio Frequency Device                                                                                                                                              |
| <input checked="" type="checkbox"/> | 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 |
| <input checked="" type="checkbox"/> | 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                                                                                                     |
| Manufacturer           | URMET S.p.A. ~ Via Bologna, 188/c ~ I-10154 TORINO                                                            |
| Type of equipment      | DTS - Digital transmission equipment (Wi-Fi radio module)                                                     |
| Operating frequency    | 2412-2462MHz for 802.11b/g/n(HT20)<br>2422-2452MHz for 802.11n(HT40)                                          |
| Max RF conducted power | 802.11b : 19.54 dBm<br>802.11g : 13.94 dBm<br>802.11n(HT20) : 13.90 dBm<br>802.11n(HT40) : 13.40 dBm          |
| Modulation             | 802.11b : DSSS(DBPSK/DQPSK/CCK)<br>802.11g/n : OFDM(BPSK/QPSK/16QAM/64QAM)                                    |
| Number of channel      | 802.11b/g/n(HT20) : 11<br>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 <sup>2</sup> ) | Averaging time (minutes) |
|-----------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| <b>(i) Limits for Occupational/Controlled Exposure</b>          |                               |                               |                                     |                          |
| 0.3-3.0                                                         | 614                           | 1.63                          | *(100)                              | ≤6                       |
| 3.0-30                                                          | 1842/f                        | 4.89/f                        | *(900/f <sup>2</sup> )              | <6                       |
| 30-300                                                          | 61.4                          | 0.163                         | 1.0                                 | <6                       |
| 300-1,500                                                       |                               |                               | f/300                               | <6                       |
| 1,500-100,000                                                   |                               |                               | 5                                   | <6                       |
| <b>(ii) Limits for General Population/Uncontrolled Exposure</b> |                               |                               |                                     |                          |
| 0.3-1.34                                                        | 614                           | 1.63                          | *(100)                              | <30                      |
| 1.34-30                                                         | 824/f                         | 2.19/f                        | *(180/f <sup>2</sup> )              | <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 <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
| 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 <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
| 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 <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
| 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 <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
| 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