

# **DATASHEET CEL-FI ROAM R41**



PART NO: 01104C06

## Mobile Cellular Coverage Solution

The CEL-FI ROAM R41 mobile cellular coverage solution delivers reliable 3G, 4G, and 5G connectivity inside cars and boats, including fleet vehicles. With the latest Nextivity proprietary IntelliBoost chip, ROAM R41 offers enterprise-grade performance to solve poor coverage and enable dependable calling, texting, and streaming on the move. The system features plug-and-play operation for quick and easy set up, improving connectivity in any car, truck, RV, or boat within minutes. ROAM R41 also supports carrier switching through the Nextivity WAVE App for iOS and Android devices.

#### **FEATURES**

- Suitable for Telstra / Optus / Vodafone
- Deploy the unit anywhere in the network, with full frequency coverage
- Latest 4th generation Nextivity proprietary IntelliBoost chip delivers channelized coverage for specific mobile network
- Support for 3G, 4G, and 5G dynamic spectrum sharing (DSS)
- Easy to install with plug-and-play operation









## **SPECIFICATIONS**

| Frequency Bands                                      | 1/3/5/7/8/20/26/28L                           |
|--|---|
| Relay Channel Bandwidths (MHz)                       | 5/10/15/20                                    |
| Networks   | 3G/4G/5G                                      |
| Network Protocols                                    | WCDMA/LTE/DSS                                 |
| Network Selection                                    | Automatically (MyWave App set to "Following") |
| Configured to authorized operator                    | PLMN-IDs                                      |
| Duplex Modes   | FDD   |
| # of Relay Bands (MHz max.)                          | 1   |
| Relay Bandwidth (MHz max.)                           | 20  |
| Output Downlink Power (All Bands) (dBm max.)         | 0   |
| Output Uplink Power (Bands 5/8/20/26/28L) (dBm max.) | 22  |
| Output Uplink Power (Bands 1/3/7) (dBm max.)         | 24  |
| System Gain (dBm max.)                               | 100   |
| Enterprise-Grade Echo Cancellation (dB min.)         | 30  |
| Return Loss (dB typ.)                                | -8  |

#### **BANDS**

| Frequency Bands | Downlink (MHz) | Uplink (MHz) | Max. Relay BW (MHz) |
|-----------------|----------------|--------------|---------------------|
| 1               | 2110-2170      | 1920-1980    |                     |
| 3               | 1805-1880      | 1710-1785    | 20                  |
| 5               | 869-894        | 824-849      |                     |
| 7               | 2620-2690      | 2500-2570    |                     |
| 8               | 925-960        | 880-915      | 15                  |
| 20              | 791-821        | 832-862      |                     |
| 26              | 859-894        | 814-849      | 20                  |
| 28L             | 758-788        | 703-733      |                     |



#### **INTERFACE**

| Donor RF Connector             | SMA (f)  |
|--------------------------------|--|
| Server RF Connector            | SMA (f)  |
| DC Input                       | 5.5 x 2.5 mm (f) Barrel                                    |
| Device Setup                   | Bluetooth for WAVE App                                     |
| Power & System Status          | Bi-color LED (Green/Red)                                   |
| Factory Debug only             | USB 2.0 Micro-B  |
| System Management & SW Updates | WAVE App for iOS 11.0 or later<br>WAVE App for Android     |
| Band Selection                 | MyWAVE App for iOS 11.0 or later<br>MyWave App for Android |

### **COMPLIANCE**

| 3GPP      | TS 25.143 Rel 13<br>3GPP TS 36.143 Rel 13 |
|-----------|---|
| CE        | Compliant<br>RED 2014/53/EU               |
| RoHS3     | EN 63000: 2018                            |
| ACMA/RCM  | AS/NZS CISPR, 32:2013                     |
| Bluetooth | LE Ver 4.2                                |

#### **POWER SUPPLY**

| Power Consumption (W) max. | 18                         |
|----------------------------|----------------------------|
| Input Voltage (VDC)        | 11.5 to 15                 |
| Input Current (A max.)     | 1.5                        |
| Power Supply Plug          | Automobile Auxiliary Power |
| Power Supply Cable         | 18 AWG                     |
| Power Supply Cable Length  | 5m                         |

#### **ENVIRONMENTAL**

| Operating Temperature               | 0 to 60 °C         |
|-------------------------------------|--------------------|
| Storage Temperature                 | -35 to 70 °C       |
| Heat Dissipation                    | Passive Convection |
| Surface Temperature max. at ambient | 44 °C              |
| Non-condensing<br>Humidity          | 0 to 95%           |
| Ingress Protection<br>Rating        | IPX0               |

## **PACKAGING**

|             |               | Multi-Carton |           | Individual Carton |           |
|-------------|---------------|--------------|-----------|-------------------|-----------|
| Part Number | Dimensions mm | # of Units   | Weight KG | Dimensions mm     | Weight KG |
| 01104C06    | 435*217*235   | 10           | 8.7       | 215*82*97         | 0.7       |

### **CEL-FI ROAM R41 MAIN UNIT OUTLINE**

