



CEL-FI COMPASS XR

CEL-FI Installation and Testing Tool



The COMPASS XR scanning receiver is the complete solution to enable integrators to install and optimise CEL-FI cellular and SHIELD public safety coverage systems. A convenient tool in a lightweight and portable package, it can be used globally to deploy and verify multiple technologies, including 5G New Radio networks in sub-6 GHz spectrum, LTE, CBRS, and LMR public safety coverage.

Key Features:

- Easily perform grid tests and site surveys with portable, handheld RF scanner
- Ideal for deployment of CEL-FI QUATRA cellular & RED public safety systems
- Single tool for a wide variety of networks with deep 5G-NR/4G-LTE/CBRS/FirstNet/LMR service scanner
- Supports operator service bands worldwide with ultra-wide frequency range of 617-5000 MHz
- Comes with all necessary accessories, including carrying case, hard storage case, antennas, and RF adapters
- Protected from drop, scraps and tumbles with rugged rubberised exoskeleton that provides a comfortable grip
- Works with CEL-FI WAVE PRO app (iOS & Android) for all operations, including Full Signal Report export (.CSV) and more



CEL-FI WAVE PRO

The User-Interface for CEL-FI COMPASS XR is CEL-FI WAVE PRO. This free mobile app (iOS and Android) pairs with COMPASS XR, allowing integrators to install and optimise CEL-FI installations without the need for local internet connectivity.

COMPASS XR performs a variety of installation and testing operations using WAVE PRO. Here are three examples:



Full Signal Report and Band Selection

Select the technologies, bands, and frequencies needed for quick and efficient scans. COMPASS XR collects all the data needed for the selected bands and saves time by excluding unnecessary frequencies. Get the Full Signal Report at the current location, and the WAVE PRO App saves selections for quick reuse at the next site.



Grid Test

Collect site survey data for public safety or cellular coverage, or even both at the same time, using the WAVE PRO App's Grid Test. Whether performing an initial site survey or post-install acceptance testing, the COMPASS XR works with the WAVE System to ensure a successful CEL-FI installation.



Antenna Positioning

Easily find the ideal position for your donor antenna. Connect the donor antenna to the COMPASS XR and the WAVE PRO App will guide you through the positioning process, automatically calculating the optimal direction to point the antenna.

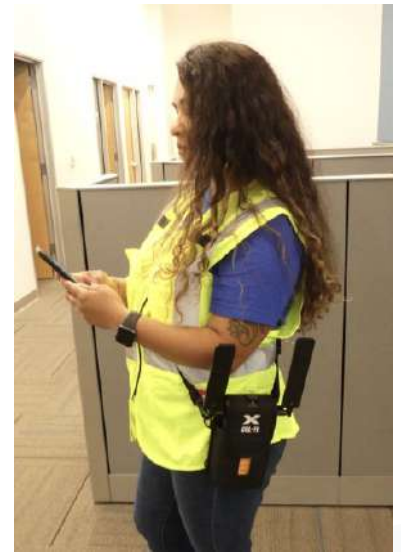
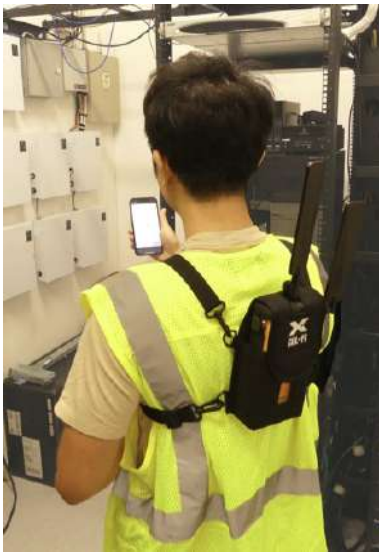
Download Now

CEL-FI WAVE PRO is available on both smartphones and tablets from the following app stores:



Transportation

The COMPASS XR comes in a complete kit containing the accessories needed to connect the device to CEL-FI equipment, from industrial QUATRA boosters to antennas. The kit also includes these two cases:



Carrying Case

- Designed for extended use in a variety of carrying configurations
- One-shoulder sling or two-shoulder backpack, straps included
- Integrated belt clip
- Internal pouch for spare antennas

Hard Case

- Rugged carry-on-sized transportation case
- Die-cut foam secures all included equipment
- Store the COMPASS XR either in its Carrying Case or separately
- Extra space for additional cables and connectors





Specifications

| HARDWARE | |
|-------------------------|--|
| Processor | Single Board Linux Computer |
| Battery | Two rechargeable 3500 mAh, 3.7V protected 18650 cells (Included) |
| Charger | Included, with plug adapter types A, C, G & I |
| Accuracy | +/- 2dB |
| Temperature Range | Operating: -20 to +60 deg C, Charging: 0 to +45 deg C |
| Weight (With Batteries) | 1.61 lb (730g) |
| Size (With Exoskeleton) | 119.1 mm (4.7 in) W x 41.3 mm (1.6 in) D x 204.2 mm (8 in) H |
| Shipping Dimensions | 419.1 mm (16.5 in) W x 327.66 mm (12.9 in) D x 185.42 mm (7.3 in) H |
| INTERFACES | |
| Charging | USB-C |
| Antenna Ports | SMA Male (Three: Main, MIMO, LMR) |
| Power Button | LED illuminated button |
| LED Indicators | Three: Power, Status and Charging |
| Bluetooth (LE Ver 4.2) | Frequency: 2402 – 2480 MHz. Power: 0 dBm. Connects to CEL-FI WAVE PRO App for UI |
| WiFi Access Point | Software upgradeable; enabled only when a Software Upgrade is in progress, while charging. |
| BAND SUPPORT | |
| 5G-NR SA & NSA* | n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48/n66/n71/n77/n78/n79 |
| LTE FDD | B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71 |
| LTETDD | B34/B38/B39/B40/B41/B42/B43/B48 |
| LMR | 758–775 / 851–861 MHz |
| UMTS** | B1/B2/B3/B4/B5/B6/B8/B19 |
| COMPLIANCE | |
| Certifications | FCC, CE |
| IN THE BOX | |
| RF Cable | SMA Female to N-type Male (2 meter length) |
| RF Adaptors | N-type Female to N-type Female |
| | N-type Female to QMA Female |
| | N-type Female to 4.3-10 Female |
| Antennas | Three (3) 5G NR/UHF 410–5925MHz (Replacement model: Nextivity A21-ML3-600) |
| Battery Charger | 5V, 3.2A USB-C charger with 1m cable & global plug adapters |

* 5G NSA (Non-StandAlone) scans are best-effort and may not contain all relevant measurements. 5G NSA support is carrier-dependent, generally based on SSB and the availability and content of SIB1 data within the 5G band.

** UMTS support to be enabled in a future software release.