

Cel-Fi Compass XR

Installation & testing tools

Model no. J11-900-100



The Cel-Fi COMPASS XR scanning receiver is the complete solution to enable integrators to install and optimize Cel-Fi cellular and 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 rubberized 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.



Hardware

Item	Type
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
Weight (With Batteries)	1.61 lb (730g)
Size (With Exoskeleton)	4.7" W x 1.6" D x 8" H
Shipping Dimensions	15.75" W x 12.75" D x 7.5" H

Interfaces

Item	Type
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

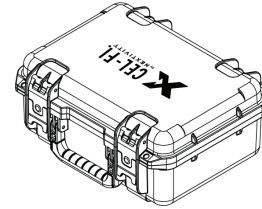
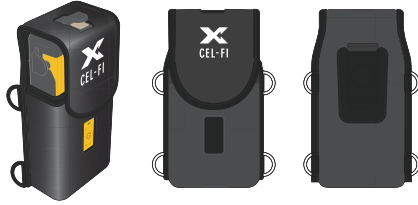
Item	Type
5G NR	n1/n2/n3/n5/n7/n8/n12/n20/n25/n28/n38/n40/n41/n48/n66/n71/n77/n78/n79
No. of Cells	B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71
Dimensions (mm)	B34/B38/B39/B40/B41/B42/B43/B48
Weight (kg)	758-775 / 851-861 MHz
CBRS*	3550 – 3700 MHz

*enabled in future software release.

Included Accessories

Cases

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 carry 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 COMPASS XR in its Carrying Case or separately
- Extra space for additional cables and connectors

In The Box

Item	Type
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) 5GNR/UHF 410-5925MHz (Replacement model: Nextivity A21-ML3-600)
Battery Charger	5V, 3.2A USB-C charger with 1m cable & global plug adapters

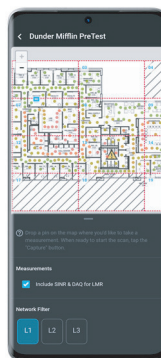
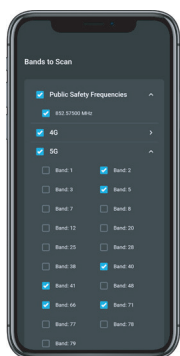
Item	Calibration Certificate (LMR 700/800, US only)
Certifications	FCC
	CE

User Interface

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 optimize Cel-Fi systems 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 & 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 WAVE PRO's Grid Test. Whether performing an initial site survey or post-install acceptance testing, 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 COMPASS XR and the WAVE PRO App will guide you through the positioning process, automatically calculating the optimal direction to point the antenna per operator.