Cel-Fi™ RS1 Smart Signal Booster™

Cellular Indoor Coverage Solution with IntelliBoost

Nextivity's Cel-Fi is a cost effective and intelligent Indoor Coverage Solution (WCDMA/HSPA+), designed to dramatically increase indoor voice quality and data throughput for 3G consumers while significantly improving network capacity for Mobile Operators, Small Businesses and MVNOs. Breakthrough, patented technology enables a wireless, indoor, plug-and-play, user-installable coverage solution that's so "no-touch" easy to use it obviates the need for support calls to the Operator's Help Desk.

BENEFIT TO CONSUMERS

Improved Voice Coverage: Enables clear, reliable and stable 3G voice connections within the coverage area – usually up to 1235 m2 (about 13,000 Sq. Ft.).

Improved Data Throughput: For indoor areas with poor reception, Cel-Fi offers significant data throughput improvements – often in excess of four times the current rate!

Improved Battery Life: Cel-Fi manages the power levels between the cell tower and user devices so that subscribers enjoy significant improvements in battery life.

Ease of Installation: Cel-Fi is a true "Plug and Play" system that doesn't require the installation of external antennas, bulky coaxial cables or a complex set-up by the subscriber. In fact, Cel-Fi intelligently and automatically senses and adapts to its environment – including changes made by the Operator or those caused by nearby user equipment like WiFi, Femtocells or other Cel-Fi devices.

BENEFIT TO OPERATORS

Reduced Churn: Fewer dropped calls and higher data rates help ensure customer retention.

Higher Data Service Usage: The Cel-Fi system significantly improves data rates by delivering a better signal and less noise to subscriber devices.

Decreased Operational Cost: Lowers cost of indoor coverage and increases capacity of 3G networks.

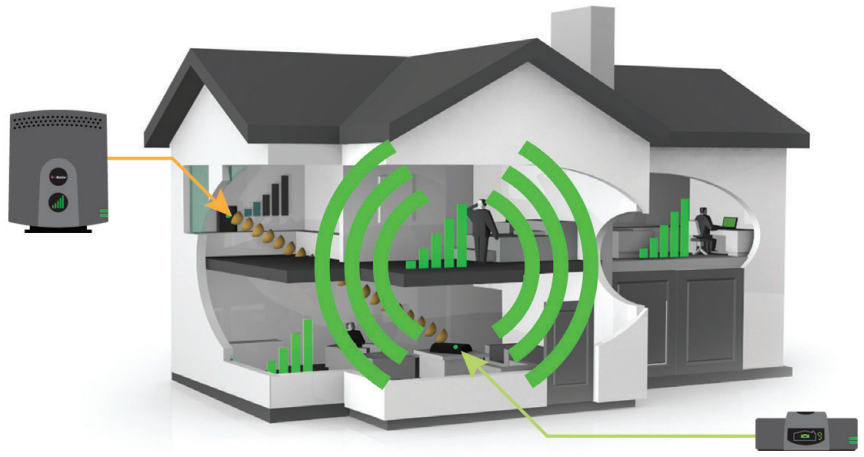
Network Safe: Cel-Fi's embedded System-On-a-Chip technology provides real-time and automatic end-to-end gain control, thus guaranteeing it will complement the existing macro network's capabilities.

Operator Specific: Cel-Fi's On-Board IntelliBoost processor securely manages the enhanced services only for the Operator who supplied the system.

Self Adjusting: Cel-Fi automatically selects the correct frequency for use based on UARFCN and Operator PLMNID codes, thereby eliminating additional and costly Operator provisioning efforts.

Cel-Fi Features

- Fully wireless, plug-and-play, digital architecture for supporting WCDMA/HSPA with up to 100dB of system gain.
- Patented 2-unit, 3-hop system allows flexible placement for optimal coverage.
- Processor running advanced digital echo cancellation and channel select filtering algorithm.
- Software-based optimization of integrated antenna coverage pattern which maximizes system gain and provides improved coverage and signal quality.
- Automatic Gain Control (AGC) continuously monitors system path loss and transmit power to deliver maximum gain.
- Intuitive LED User Interface (UI) allows quick and easy installation by end-user.



Processor

- Nextivitiy's IntelliBoost Baseband Processor

Network-Safe Features

- Securely provisioned operation with ciphered software which only operates on authorized operator's network.
- Network-Safe software prevents uplink system gain from exceeding path loss, and eliminate unnecessary rise in base station noise level.
- Uplink Muting Mode automatically shuts down uplink cellular transmissions when no active UE is detected.
- Embedded software ensures optimal performance and prevents out of specification operation
- System shuts down upon operator's network comand or failure detection.
- Maintains end-to-end cellular communication encryption without additional risk of vulnerability.
- Peaceful coexistence with adjacent Cel-Fi systems, 802.11a, cellular, and Femtocells.

High-Level Specifications

- WCDMA Band I, II, IV, V and VIII
- Support for HSPA+
- 5 GHz link compliant with ETSI EN301 893 V1.4.1 (2005-08)
- and European Commission Decision 2005/513/EC
- Up to 100dB path loss between units (approx 20 meters between WU and CU)
- Max EIRP: 13 dBm downlink & 24dBm uplink
- Up to 100 dB system gain
- Availability greater than 99.9%

Specifications

WINDOW UNIT

241mm (9.5") H
216mm (8.5") W
51mm (2") D

COVERAGE UNIT

57mm (2.25") H
178mm (7") W
165mm (6.5") D
(Each unit weighs less than .45kg)

ENVIRONMENT

- Operating temperature: 0° to 40°C
- Storage temperature: -25° to 60°C
- Relative humidity: 5 to 95%, non-condensing
- Operating altitude: -60m to 3,050m
- Storage altitude: 12,000m
- RoHS (2002/95/EC) six of six compliant
- WEEE (2002/96/EC) compliant

3GPP COMPLIANCE

- 3GPP TS 25.143

SAFETY

- EN60950-1:2000
- EN50385:2002
- EN50392:2004

EMC/EMI/IMMUNITY

- EN55022 Class B
- EN61000-3-2, 3
- EN61000-4-2~6,11
- EN 301 489 -1,17, 23
- EN 301 893
- EN 301 908-11-1, 2
- IEC 62209

POWER

- +12VDC via external supply (2 included)
- External supply: 100 to 240 VAC, 47 – 63 Hz.
- Power consumption less than 15W per unit

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