

Cel-Fi[®] Cellular Indoor Coverage Solution with IntelliBoost[®]

Nextivity's Cel-Fi is a cost-effective and intelligent Indoor Coverage Solution for 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.



B E N E F I T T O C O N S U M E R S

Improved Voice Coverage Enables clear and reliable 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.

B E N E F I T T O O P E R A T O R S

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.

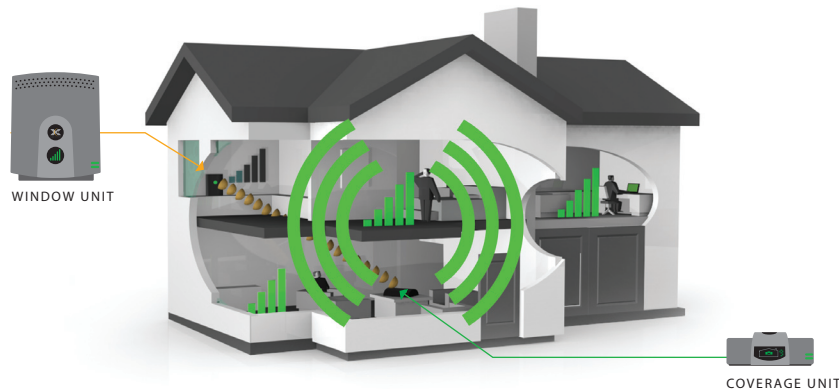
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Cel-Fi Features

- 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 transmits power to deliver maximum gain.
- Intuitive LED User Interface (UI) allows quick and easy installation by end-user.

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 eliminates unnecessary rise in base station noise level.
- Uplink Muting Mode automatically shuts down uplink cellular transmissions when no active user equipment is detected.
- Embedded software ensures optimal performance and prevents out-of-specification operation.
- System shuts down upon Operator's network command or failure detection.
- Maintains end-to-end cellular communication encryption without additional risk of vulnerability.
- Peaceful coexistence with adjacent Cel-Fi systems, 802.11a/n, cellular, and femtocell devices.



Processor

- Nextivity's IntelliBoost Baseband Processor

High-Level Specifications

- 3GPP Band I, II, IV and V
- 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%

Physical Dimensions

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)

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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