**Improved Voice Coverage:** Enables clear and reliable 3G voice connections within the coverage area — usually up to 1235 m² (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 subscriber devices 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 configuration 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, or other Cel-Fi devices.

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

**Higher Data Service Usage:** By supporting advanced multi-carrier features, the second generation Cel-Fi system ensures that customers can maximize their data rates.

**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 authorized the system.

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

**Multi Carrier Support:** The Cel-Fi RS2 system supports multiple carriers (up to three simultaneous).
Cel-Fi Features

• Fully wireless, plug-and-play architecture for supporting bands I, IV, and V—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.

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-specified 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/b/g/n, cellular, and femtocell devices.

Processor

• Nextivity’s IntelliBoost Baseband Processor II

High-Level Specifications

• Support for 3GPP Rel. 8 features
• 5 GHz link compliant with ETSI EN301 893 V1.5.1
• Up to 100dB path loss between units (approx. 20 meters between WU and CU)
• Max Band 1 and 4 EIRP for 3 carriers: 14.7 dBm downlink & 25.2 dBm uplink
• Max Band 5 EIRP for 3 carriers: 12.7 dBm downlink & 23.2 dBm uplink
• Up to 100 dB system gain
• Availability greater than 99.9%

Specifications

WINDOW UNIT
212MM (8.35”)H
144MM (5.67”)W
146MM (5.75”)D
Weight: 1.02kg (2.25lbs.)

COVERAGE UNIT
158.5MM (6.24”)H
146MM (5.75”)W
59MM (2.32”)D
Weight: 0.39kg (.81lbs.)

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 Rel.8

SAFETY
• EN 62311:2008 1999/519/EC EMF

EMC/EMI/IMMUNITY
• EN55022 Class B
• EN61000-3-2, 3
• EN61000-4-2~6,11
• EN 301 489 -1,17, 23
• EN 301 893 V1.5.1
• EN 301 908-1,11

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

CERTIFICATIONS
• CE Mark
• CB Mark

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