

Emerald Cellular Product Range (4G/LTE)

Enterprise 4G-CPE - Advanced LTE 4G/LTE CPE - Category 6

Overview



About Wireless Excellence

Founded in 1996 and with headquarters in Oxford UK, Wireless Excellence Limited is a leading designer and supplier of outdoor and indoor Broadband Wireless communication products.

With a complete range of Wireless solutions including Radio, Microwave, Millimeter-Wave, 4G/5G/LTE, Free Space Optics and Carrier WiFi, customers in over 80 countries have chosen CableFree as the "one stop shop" brand of choice for dependable wireless networking.

About 4G/LTE Solutions

Using the latest Software Defined Radio and RF technology, our cellular 4G/LTE solutions operate in all the common cellular bands from 380MHz-4400MHz, including Base Station and CPE devices for high performance mission-critical applications.

Our advanced Cellular CPE platform with IP/Ethernet interfaces offers simple installation, with either internal or external antenna options. Flexibility, performance and low cost of ownership are ensured.

Advanced 4G/LTE CPE solution (Cat6)

Wireless Excellence offers high performance 4G/LTE CPE solutions for a wide variety of applications. Covering all common 4G/LTE bands of the base stations which enables great flexibility of operation and future upgrade path.

4G/LTE networks using CableFree Emerald CPEs enjoys great flexibility, high performance as well as very low cost of operation and ownership. "Stand Alone" operation is possible which enables the 4G Base station to connect remote terminals without need for external network elements. This is ideal for closed network type applications such as CCTV, campus sites and disaster recovery scenarios, where there is no centralised infrastructure or Network Operations Centre.

System Features

- Compact, 4G/LTE CPE solution, Category 6 compliant
- Spectrally Efficient, Software-Defined Radio
- "Stand Alone" mode capable
- The Emerald Platform supports both FDD/TDD LTE and supports MIMO 2x2 natively
- Emerald CPE can accommodate analogue telephony plus VOIP and broadband Data

Applications

- Telecom Service Providers & ISPs
- Cellular Network operators
- Point-to-Multipoint Point Wireless networking
- CCTV connection for multiple cameras
- Oil & Gas Utilities
- Fast Roll-out & Temporary Deployment

Enhanced Performance, Flexibility & Features

The CableFree Emerald CPE is available as a full indoor unit, or an indoor unit with additional indoor panel antenna or with an outdoor antenna for longer distance links. . All units are highly versatile in deployment, with full support for LTE in both TDD & FDD as well as multi-mode wireless capabilities.

Key Features:

- TR-069 and OMA-DM network management protocols
- Can be adapted via modules to LTE support in several different frequency bands
- Support internal or external antenna
- Simple, elegant and suitable for multiple locations

CableFree Emerald Enterprise CPE Options:

CableFree Emerald Enterprise CPE units can be configured in a number of ways. Options include:

- Standard Whip Antennas (up to 3dBi)
- Panel Antenna (up to 4dBi)
- External Antenna (Up to 11dBi)
- 3 GBE Ethernet ports standard, optional Ports available (GBE, SFP)
- Desktop or rack mount options

Due to the modular design of the units we can expand the units to offer multiple LTE 4G, GBE & SFP options, please contact your local sales agent to discuss specific requirements.

System Variant	CF-Emerald-ENT-CPE-C6-X
System Parameters	
Max. Nb Carriers per TX/RX LTE	1 (1.4,3,5,10,20MHz) TDD/FDD with optional Carrier Aggregation (CA) support. Cat6
Supported Bands	Full Support of LTE in TDD, FDD or Multi-mode
VPN	Server or Client
SIM Card	Support for 1.8V/3.3V USIM cards
WiFi AP (integrated)	Built in, 802.11 b/g/n WiFi Access Point, integrated antenna
LTE Antenna	Internal 2-4dBi or supports External High Gain (Optional)
VOIP	Fully supported Option (Factory-fit option) with RJ-11 ports
Management	Web Interface, TR069 & OMA-DM
Indicators (Indoor unit only)	Signal strength, VOIP, Power, Mode, Ethernet
Interfaces	4x RJ45, 1x USIM, USB, 2x SMA (for external Antenna) , Optional 2x RJ11 (VOIP)
Power Supply	DC 12 V
Operating Temperature	-10°C to +45°C
Dimensions	184 x 166 x 42 mm
Regulatory	
LTE Compliancy	ETSI TS 136 104 cat B Opt2
Electrical safety	UL 60950 - Ed.3 2000, EN 60950 Ed.2001, CSA C22.2 No 60950
Environmental Conditions	ETSI EN 300 019-1, ETSI EN 300 019-1, ETSI EN 300 019-3, IP67

Product codes

Product Code	Description
CF-Emerald-ENT-CPE-C6-IDW	Emerald LTE Enterprise CPE Cat 6 Indoor Unit with Whip Antennas
CF-Emerald-ENT-CPE-C6-IDA	Emerald LTE Enterprise CPE Cat 6 Indoor Unit with Panel LTE Antenna
CF-Emerald-ENT-CPE-C6-ID+AX	Emerald LTE Enterprise CPE Cat 6 Indoor Unit with External LTE Antenna

Note – precise product code depends on frequency, band, antennas, resilience and other options. Please contact Wireless Excellence for more information

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