
Unity™ LTE Integrated Base Station 2x40W FDD Product Description

Version: V1.0

Version History

Version	Date	Remark
V1.0		Original Version

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1. Overview

1.1 Overview

Unity™ LTE Integrated Base Station is an advanced outdoor LTE compact product that operates in FDD mode. This eNB provides users with high-speed broadband wireless access to the Internet using 2x40W output power (2x2 MIMO with 40W output each channel). This eNodeB can operate in 5, 10, 15 or 20 MHz bandwidth, supporting 192 concurrent users and 384 RRC users.



Figure 1-1 Unity™ LTE Integrated Base Station 2x40W FDD

1.2 Highlights

- Standard LTE FDD Band 3/Band 5 or customized
- Complies with 3GPP Release 13 standard
- Supports 5/10/15/20 MHz bandwidth
- GUI-based local and remote web management
- TR069 network management interface support
- External high-gain antenna
- Peak rate (per unit): DL 145 Mbps, UL 45 Mbps @ 20 MHz bandwidth
- 192 concurrent users per eNodeB, 384 RRC users per eNodeB
- Passive Cooling IP65

1.3 Use Cases



In rural and suburban areas, the wireless network coverage is relatively wide, but the users are less fixed than the fixed ones. By deploying LTE integrated high-power base stations in a town or natural village, the signal coverage in a small area can be achieved, reaching low Investment in rural 4G wireless access.

In order to solve the indoor and outdoor coverage problems of large and medium-sized scenes in Hunan Province, Hunan Mobile purchases our integrated high-power base stations to increase the breadth and depth of network coverage, which greatly improves network quality and service quality.



Rural



Road



Industrial Campus



Capacity Compensation

Figure 1-2 Use Cases

2. System Specifications

2.1 Hardware Appearance



Figure 2-1 HW Appearance

2.2 Software Specifications

Item	Specification
LTE Standard	3GPP Release 13
User Capacity	192 concurrent users, 384 RRC users
Modulation	QPSK, 16QAM, 64QAM
Network Management	TR069
Maintenance	Remote or local maintenance Online status management Performance statistics Fault management Local or remote software upgrade

Table 2-2 Software Specification

2.3 Hardware Specification

Item	Specification
LTE Mode	FDD
Frequency Bands	B1/B3/B7 or customized
Channel Bandwidth	5 MHz, 10 MHz, 15 MHz, 20 MHz
Max Output Power	46dBm / channel
Receive Sensitivity	< -101.5dBm
Synchronization	GPS, 1588 (optional)
Interfaces	One optical (SFP) and one RJ-45 Ethernet interface
MIMO	2 x 2
Antenna Type	External high-gain antenna compatible with eNodeB 4.3-10 Female interface

Table 2-3 Radio Specification

2.4 Dimension

Item	Specification	Weight
FDD/2x40W	420 x 450 x 164.5 mm 16.5 x 17.7 x 6.48 in	< 22 kg 31.1 lbs (exclude accessories)

Table 2-4 Dimension

2.5 Electrical Characteristics

2.5.1 Voltage

Item	Specification	Remark
220V AC (176V ~ 264V)	AC Power Module	

Table 2-5-1 Voltage

2.5.2Power Consumption

Item	Consumption (W)
Power Consumption	<350 W

Table 2-5-2 Power Consumption

2.6 Environmental

Item	Specifications
Operating Temperature	-40 °C ~ +55 °C -40 °F ~ +131 °F
Storage Temperature	-40 °C ~ +75 °C -40 °F ~ +158 °F
Humidity	5% ~ 95%
Ingress Protection Rating	IP65
Heat Dissipation	Passive Cooling

Table 2-6 Environmental

3. Technical Support

- (1) Provide SW and HW technical documents;
- (2) Assist clients in solving abnormal problems while in operating;
- (3) Assist in detecting product faults;
- (4) Provide source code, and assisting in building up a compilation environment and extending development.
- (5) Warranty period is 1 year(please consult your AM if to extend the warranty)

4. Customization Service

√Project Cooperation Development

√Source Code

√Technical Training

More Support

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