Brickcom

WIXC-100
802.16d Outdoor CPE

The WIXC-100 Outdoor CPE is designed as one part of BrickOne Solution. Based on the IEEE 802.16 specification, WIXC-100 is optimized and designed to provide high-rate, long range transmission and support multiple services with guaranteed QoS.

Superior QoS mechanism

WIXC-100 implements connection-oriented architecture that is able to support multiple connections, each with its own QoS requirement, defined in IEEE 802.16. It supports traffic scheduling flow, which determines the transmission order of each packet and offers fairness amongst service classes and bandwidth utilization.

Excellent RF technology and NLOS capability

WIXC-100 supports adaptive modulation and coding in both downlink and uplink and dynamically change modulation schemes in established link. It significantly increases the system overall capacity, maximizes the throughput and extends effective range. WIXC-100 also supports advanced antenna technology to provide good non-line-of-sight (NLOS) characteristics, making wireless connection more stable and reliable.

Integrated all-in-one with IP68 weather-proof design

WIXC-100 integrates control unit and RF unit altogether within a compact enclosure and eliminates the installation efforts and makes devices easy to maintenance. Designed specifically with industrial grade components and IP68 weather-proof enclosure, WIXC-100 is able to operate under harsh condition, like humid, water splash and dust environment.

Cost-effective solution

WIXC-100 offers several channel bandwidth settings ranging from 5MHz

to 20MHz, flexible for the increase of user connection without wasting channel bandwidth and makes it highly scalable. Moreover, operating over 5.8GHz unlicensed band, WIXC-100 can be rapidly deployed around the world without licensing expensive spectrum fee to reach possibly the lowest Total-Cost-of-Ownership (TCO).

WIXC-100 is suitable for the following fixed deployment applications:

- Last-mile high-speed broadband connections (SMB, Residential and SOHO)
- Cost-effective building-to-building connectivity (PtP, PtMP)
- Broadband access extension in licensed and/or unlicensed bands to suburban, rural, off-shore areas
- Backhaul applications for mobile networks
- Private network or proprietary applications for police or military as far as security is concerned
- Disaster recovery, mobile emergency station or distant health-care
- Video surveillance

General Specifications

Model Name	WIXC-100
Standard	IEEE802.16-2004
Radio	
RF Power	+17 dBm (typical)
Frequency Band	5.725~5.850GHz
Channel Bandwidth	5MHz/ 10MHz/ 15MHz/ 20MHz
Transmission Scheme	256 FFT OFDM
Modulation	BPSK, QPSK, 16QAM, 64QAM
Duplexing	TDD
Throughput	Up to 60 Mbps @ 20MHz
Coverage	Non-Line-of-Sight
Antenna	N-type connector for external antenna

Networking	
Network connection	10/100Base-T Ethernet RJ-45
IP	Static IP for management / DHCP Client
Bridge mode	Transparent bridge
NAT mode	Supported
DHCP server	Supported
MAC	
Scheduling	UGS, rtPS, nrtPS, BE
QoS	Compliant to IEEE802.16-2004
Access	TDMA, UL/DL split
Security	
Device Authentication	PKMv1/ X.509
Wireless encryption	DES/AES
Management	
Remote Management	SNMPv1/v2, standard MIB and private MIB WEB HTTP
Log	System log, remote syslog server
Upgrade	LAN, over-the-air
Other	
Power consumption	10 W (maximum)
Power requirement	802.3af Power-over-Ethernet Power adapter 100~240VAC/ 0.5A
Dimension	203×203×70(mm)
Weight	1.35 kg
Operating temperature	-30℃ ~ 70℃
Operating humidity	0~95%
Enclosure	Water-proof, IP68
Type Approval	FCC, CE, SRRC, ITU-T K.21 (Lightening), NCC RoHS