

TETRA Digital Channel Selective Fiber Optic BDA



Tone Spread
Solutions for Wireless Signal

480-512 MHz TS-DFOR-500-80-30 (Master Unit)

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The Digital Channel Selective Fiber Optic BDA is designed to solve problems of weak mobile signal in the place that is far away from the Base Transceiver Station (BTS) and has fiber optic cable network underground. The system consists of two parts: Master Unit and Remote Unit. The Master unit captures the BTS signal via donor antenna, then converts it into optic signal and transmits the amplified signal to the Remote Unit via fiber optic cable. The Remote unit will reconvert the optic signal into RF signal and provide the signal to the areas where network coverage is inadequate. And the mobile signal is also amplified and retransmitted to the BTS via the opposite direction.

Key features

- Adopting WDM module to realize long-distance transmission.
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable.
- One MU support Up to 8 RUs.
- Linear power amplification to effectively suppress inter-modulation and spurious emission.
- Stable and improved signal transmission quality.
- Aluminum-alloy casing with IP65 protection has high resistance to dust, water and corrosion.
- Highly selective digital channel selector can process up to 16 channels simultaneously.
- Adopting filter with highly selectivity and low insertion loss eliminates interference between uplink and downlink.
- USB port provides a link to a notebook for local supervision or to the built-in wireless modem to communicate with the NMS (Network Management System) that can remotely supervise repeater's working status and download operational parameters to the repeater.

Advantages

- ☑ **Multi_standards/Multi_operators**
- ☑ **Remote control**
- ☑ **Digital features:**
 - Balancing operator level (Option)**
- ☑ **Low consumption**

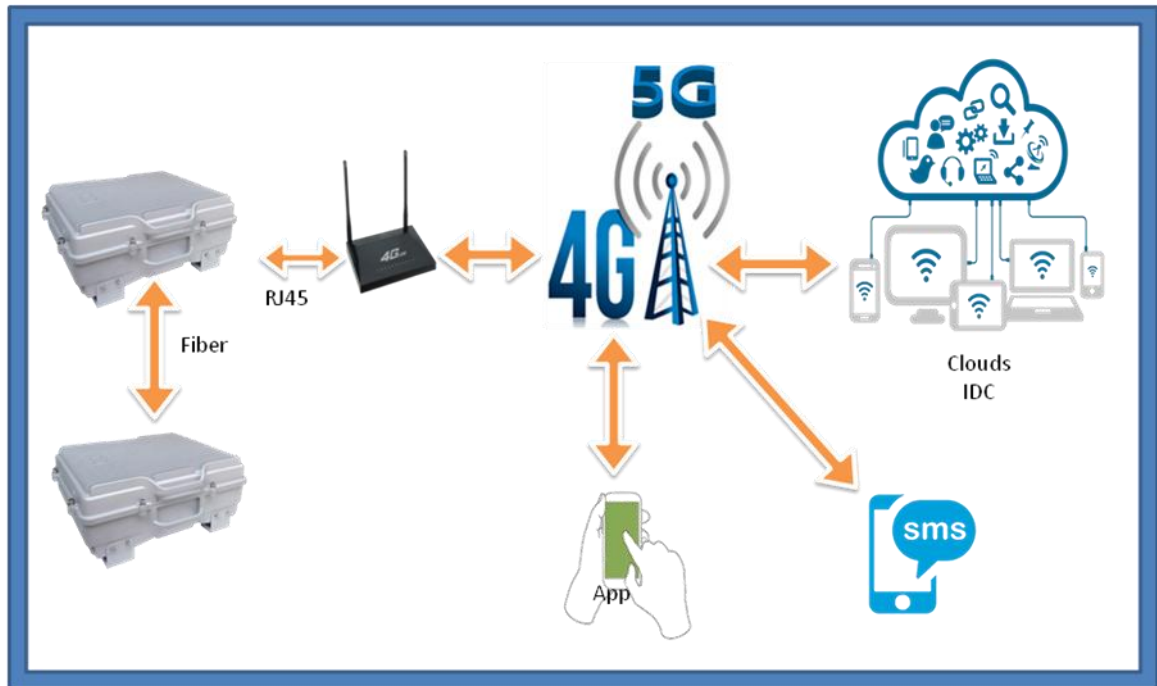


Specifications

Technical characteristics

Items		Specifications
System		TETRA
Working Frequency	Uplink	480~512MHz (Assign frequencies according to NCC assignments)
	Downlink	480~512MHz (Assign frequencies according to NCC assignments)
No. of Channels(Programmable)		Up to 8/12/16 channels
Maximum RF Output Power(Uplink)		≥ 30dBm@1ch(Carrier) ≥ 27dBm@2ch(Carriers) ≥ 24dBm@4ch(Carriers)
TX/RX Pass Band		≥5MHz
Maximum Gain(Wireless Access)		≥80dB/DL , ≥75dB/UL (MU+RU)
Manual Gain Adjustment Range		≥25dB@Step of 1dB
ALC		Support
MU Extensible Support the RU Quantity		8
VSWR		≤ 1.5
Maximum Input Power (Non-Destructive)		-10dBm
Noise Figure@1RU Connection		≤ 9dB
TX/RX Fiber Core		Share one core
Spurious Emission		≤ -13dBm
System Delay		≤ 35μSec@25KHz
I/O Impedance		50Ω
Connector	RF Connector	1xN-Female or 7/16DIN
	Optic Connector	1~8 x LC/UPC (Adapt to planning needs)
Fiber Optical Type		Single Mode
Optical Output Power		0±3dBm(1550nm)
Optical Receiver Sensitivity		≥-15dBm
Temperature Range		Operation: -25°C ~ + 55°C
Relative Humidity Range		≤ 95% (Non Condensing)
Power Supply		AC100~240V, 50/60Hz or DC48V
Application		Indoor or Outdoor(IP65)
Mounting		Wall Mounting
Dimensions		447mm X 357mm X 171mm
Weight		16kg
Local Control		Via USB Interface and Wi-Fi Hotspot
Remote Mode(Optional)		Cloud NMS via 4G Wireless Modem or RJ45 Port

Network Management System (NMS)



Applications

To expand signal coverage or enhance signal blind area where radio network signal is weak or unavailable.

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|-----------------|-------------------------|-------------|--------------|
| ■ Public Safety | ■ Transportation | ■ Utilities | ■ Government |
| ■ PAMR | ■ Commercial & Industry | ■ Military | ■ Oil & Gas |

