VHF Fiber Optical BDA (Cable Access)

Model: Fiber Link 104

The 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(MU) and Remote Unit(RU). The MU captures the BTS signal via coupler, then converts it into optic signal and transmits the amplified signal to the RU via fiber optic cable. The RU 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.

Features

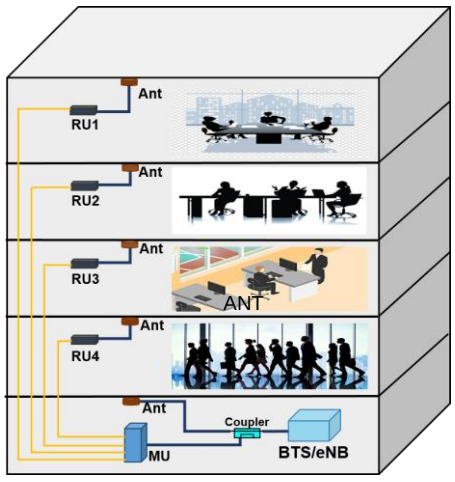
- Aluminum-alloy casing with IP65 protection has high resistance to dust, water and corrosion
- Adopting WDM module to realize long-distance transmission
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable
- One Master Unit can support up to 4 Remote Units to maximize utilization of fiber optic cable
- USB port provides a link to a notebook for local supervision or IP Based NMS(Network Management System) that can remotely supervise DAS's working status and download operational parameters to the DAS Via Ethernet or LAN.

Applications

To expand signal coverage or fill signal blind area where signal is weak or unavailable.

Outdoor: Airports, tourism regions, golf courses, tunnels, factories, mining districts, villages, …
Indoor: Hotels, exhibition centers, basements, shopping malls, offices, parking lots, …

Application Diagram



ADD:11169 2F,No 141,Fu-Gang St. Taipei ,Taiwan TEL:+886-2-28828979 FAX:+886-2-28829196 E-mail: sales@tspd.com.tw

Technical Specifications

Items		MU	RU
		VHF	
Frequency Range	Uplink	166~168MHz	
	Downlink	150~152MHz	
Bandwidth		2MHz	
Maximum Input Power (Non-Destructive)		0 dBm	
Transmission Distance		≤ 20km	
Maximum RF Output Power		-5±2dBm(UL)	37±2dBm(DL)
System Gain(Wireless Access)		45±3dB(MU+RU)	
Gain Adjustment Range		≥20 dB @ Step of 1dB	
Gain Adjustable Linear		±1.0dB@10dB, ±1.5dB@20dB	
ALC		≤ 2dB(When The Maximum Output Power of BDA is Reached, Increase Input Power by1~20dB,Output Variation≤ 2dB)	
VSWR		≤ 1.5	
Noise Figure		≤ 5dB(Only for Uplink)	
In-band Ripple		≤±3dB	
Spurious Emission		9kHz~1GHz: ≤ -36dBm/30kHz	
		1GHz~12.75GHz: ≤ -30dBm/30kHz	
Inter-Modulation Attenuation		≤ -45dBc	
Frequency Tolerance(ppm)		≤ 0.05	
System Delay		≤ 5μSec	
I/O Impedance		50Ω	
Connector	RF Connector	2xN-Female(One Tx Port and One Rx Port)	1xN-Female
	Optic Connector	4X FC/APC	1X LC/UPC
Fiber Optical Type		Single Mode	
Optical Output Power		0±3dBm(1310nm) / -3±3dBm(1550nm)	
Optical Receiver Sensitivity		≥-15dBm	
Temperature Range		Operation: -20°C ~ + 55°C	
Relative Humidity Range		≤ 95% (Non Condensing)	
Power Supply		AC110/220V,50/60Hz	
Power Consumption		≤ 50W	≤ 120W
Application		Indoor(IP30)	Indoor or Outdoor(IP65)
Dimensions		485mm X 350mm X 90mm	428mm X 328mm X 154mm
Weight		≤ 6kg	≤ 15kg
Local Control		Local Via USB Interface or WiFi Hotspot	
Remote Mode(Optional)		Wireless Modem (3G/4G), IP Connectivity	
NMS Function(Optional)		Real-time Alarm for Door Status, Temperature, Power Supply, VSWR, etc; Remote Control Such as Turn On/Off, Increasing/Decreasing Output Power etc; Real-time Status for Output/Input Power, UL/DL Gain, All Status of BDA etc.	

ADD:11169 2F,No 141,Fu-Gang St. Taipei ,Taiwan TEL:+886-2-28828979 FAX:+886-2-28829196 E-mail: sales@tspd.com.tw