Fiber Optic Repeater_Penta-Band

700-2600 MHz

Fiber Link-104/404(Remote Unit)

Tone Spread
Solutions for Wireless Signal

700+900+1800+2100+2600 MHz

The Fiber Optic Repeater (FOR) 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 donor antenna, 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.

Key features

- Aluminum-alloy casing with IP65 protection has high resistance to dust, water and corrosion.
- Tx/Rx control and alarm messages can be transmitted via one fiber optic cable.
- Stable and improved signal transmission quality.
- Adopting WDM module to realize long-distance transmission.
- One MU can support up to 8 RUs to maximize utilization of fiber optic cable, A star topology is supported between MU and RUs.
- USB/RJ45 port provides a link to a notebook for local supervision or IP Based NMS (Network Management System) that can remotely supervise repeater's working status and download operational parameters to the repeater via Ethernet by a notebook or mobile phone with APP.

Advantages

- ✧ Modular Design
- ✧ Adopting WDM module
- ✧ Support MIMO(2x2)
- ✧ NMS (Network Management System)
- ✧ IP Based diversity supports all networks such as browsers/SMS/Apps/E-Mail, etc.

 Website https://www.tspd.com.tw

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Specifications

Item		Specifications
Working Frequency	Uplink(MHz)	703~748/885~915/1710~1775/1920~1980/2500~2570
	Downlink(MHz)	758~803/930~960/1805~1870/2110~2170/2620~2690
Working Bandwidth		45MHz/30MHz/65MHz/60MHz/70MHz
Frequency Stability(+/-0.01ppm)		≤0.01ppm
RMS Output Power@Bandwidth		≥43dBm
IM3@LTE900&LTE1800&LTE2600		≥60dBc
Gain Flatness		≤±3dB for all band
AGC/ALC Function		Support
AGC/ALC Range		10dB
ACLR		3GPP TS 25.104(R10),3GPP TS 36 104(R10)
Noise Figure@Max.Gain(DL/UL)		≤5dB
Spurious and Emissions		3GPP TS 25.143(R10),3GPP TS 36 143(R10)
Intermodulation		3GPP TS 25.143(R10),3GPP TS 36 143(R10)
Out of Band Gain		3GPP TS 25.143(R10),3GPP TS 36 143(R10)
EVM		3GPP TS 25.143(R10),3GPP TS 36 143(R10)
Group(System) Delay		≤1.5us
Ingress Protection		IP65
Cooling Function		Heat sink
Local Monitoring Interface		USB2.0
Remote Monitoring Module		Through MU via fiber
Optical Output Power		≥3dBm@1310nm
Optical Connector Type		1xLC/UPC
RF Connector Type		1xN(DIN)-Female
Operating Temperature		-10℃~55℃
Relative Humidity		≤95%
Dimensions		980mm×420mm×230mm
Mounting Type		Wall & Pole
Power Supply		AC100V~AC240V, 50/60Hz
Power Supply Protection		Include short circuit, Over Voltage and Surge protection
Power Consumption		≤550W
Battery Backup/Time		30minutes
MTBF		>50000hours
Software Support MU/RU Models		Same EMS support different model of MU/RU
Adjustable Parameters Function		Set and display MU and RU ID and Location, adjust the Downlink/Uplink gain, turn on/off the RF power amplifier, remote turn on/off or restart RU;
Monitored Parameters		Real-time status for downlink output power(RSSI),temperature, optical power; display the optical output power and input power of the Optical/RF conversion module, display the output power of each LNA uplink, display the input power of each downlink PA
Alarm Type Classification		Three levels (such as Major, Minor, and Warning)
Alarm Parameters		Real-time alarm for door status, temperature, power supply, VSWR, etc;
Interface Remote/Local Software		Terminal software suitable for Windows 7 and the above system

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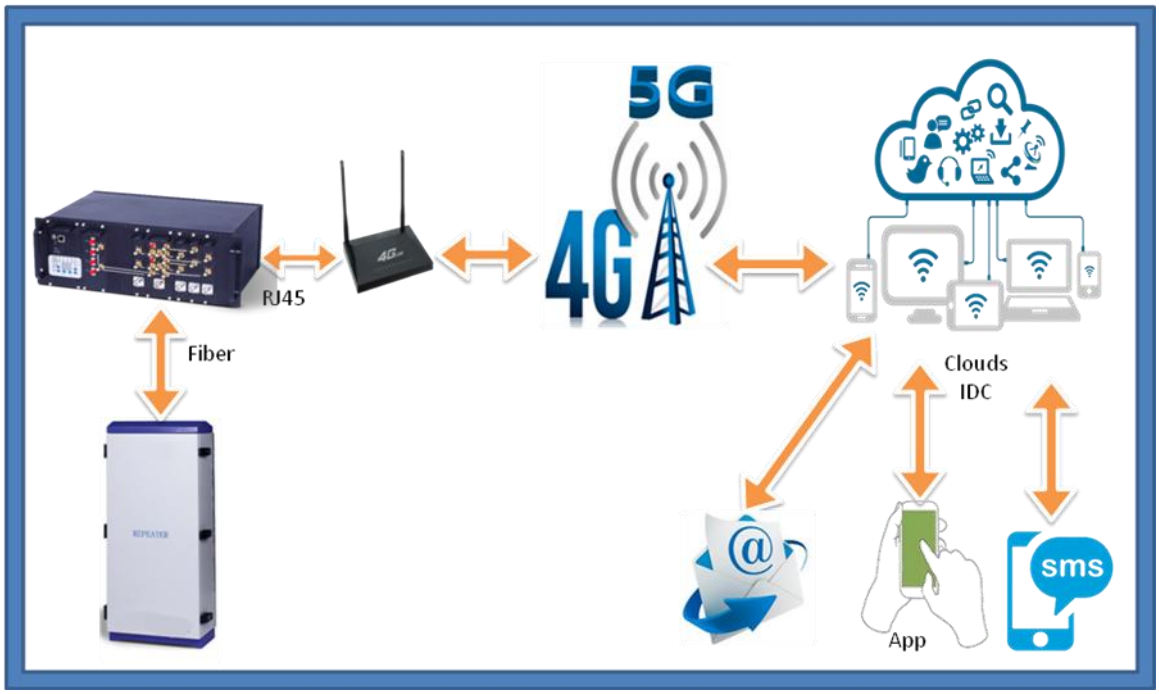
EMS Server	Provide GUI interface for configuration the MU and RU, remote management each RU by MU, to set the parameters of RU, and monitoring the status and alarms

Network Management System (NMS)

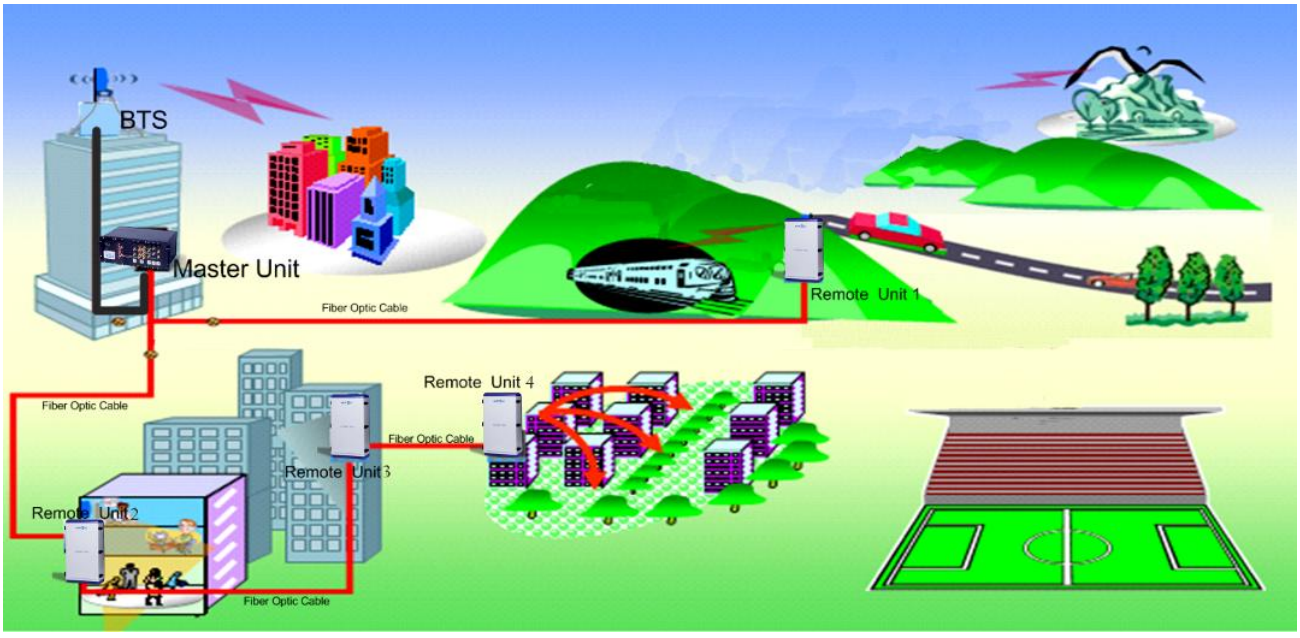


Applications

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, …



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