



OVERVIEW

BRIDGE Repeater is the product to solve signal coverage problem of indoor and outdoor. Fiber Optical Repeater (FOR) includes master unit (MU) and remote unit (RU) as a system transmission products. The MU with optional direct or wireless coupling type to provide flexible applications on sites. The MU receives signal resources from Base station either directly or via air interface and forward the signal through fiber optical cable(s) to RU(s) located in another service areas. The RU boosts the signal to target areas, fast to provide strong signal in poor coverage areas. BRIDGE product portfolio includes a full series of flexible product family to support single band, dual band, triple band, and multiple band systems.

BRIDGE Repeater adopts multimode technologies, compatible with GSM /WCDMA /LTE /NR systems. Its noise and interference control technology reduces the noise floor and interference. BRIDGE product utilize High-quality linear power amplifier to always effectively maintain signal operation in a linear status. Various RF features are optional and customizable to fulfill different deployment scenarios on site.

In the section of material selection, BRIDGE products are all made of good and rugged stuffs, including brand new chipsets and electronic components, ensuring stable performance and long product life.

FEATURES

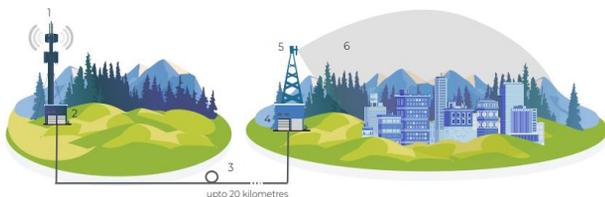
- Fully compatible with multi-mode systems.
- MU:RU = 1:4 with star topology
- Customizable operation frequency band is much suitable for customer's networks, rejecting the interference.
- Perfect calling and data transmission performance by high linear amplifier technology
- Remote control is an option, able to manage and check the product status in offices.
- Compact size and light weight
- Power supply complies with EN 60950.

Product Number	
Master Unit (MU)	41-FMWL18L2133-C1
Remote Unit (RU)	41-FRWL18L2133-C1

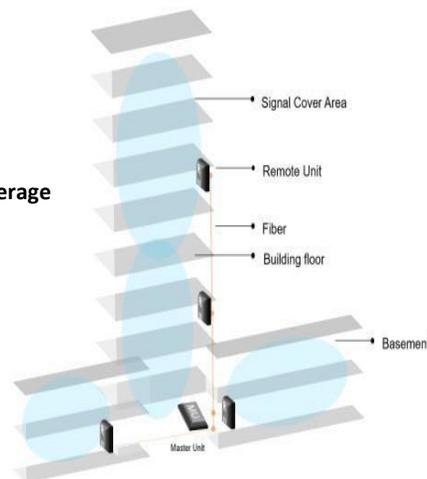
SITE APPLICATION

Outdoor Coverage

1. Base Station (BTS)
2. MU BDA
3. Fiber Optic Cable
4. RU BDA
5. Coverage Antenna
6. Coverage Area



Indoor Coverage



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DATA SHEET

41-FXWL18L2133-C1

2W FIBER OPTICAL REPEATER

Frequency: 1710-1880 /1920-2170MHz | Output Power: 33dBm | Power Supply: MU AC220V /RU DC48V

Type: Wireless Coupling | Operation Band: Wide Band | Usage: Indoor

TECHNICAL DATA

Electrical Specifications				
Item	FDD-LTE1800 (B3)		FDD-LTE2100 (B1)	
	Uplink	Downlink	Uplink	Downlink
Frequency Range	1710-1785MHz	1805-1880MHz	1920-1980MHz	2110-2170MHz
Output Power	20 ±2dBm	33 ±2dBm (2x SISO)	20 ±2dBm	33 ±2dBm (2x SISO)
Max Gain		≥85dB		≥85dB
Max Input Power	10dBm	10dBm	10dBm	10dBm
Noise Figure (Mini system MU + 1 RU)	≤9dB	/	≤9dB	/
Gain Adjustment Range	30dB /1dB step			
Automatic Level Control (ALC)	≤25dB			
In-band Ripple	≤10dB			
VSWR	≤2.5			
TimeDelay	≤4.5μs			
Frequency Stability	±0.01ppm			
EVM	8% (256QAM)			
Out-of-band Rejection	≥20dB @3MHz ≤f_offset <5MHz ≥25dB @5MHz ≤f_offset			
Input inter-modulation	3GPP TS 36.106 Chapter 11			
Output inter-modulation	3GPP TS 36.106 Chapter 12			
	3GPP TS 36.106 Chapter 9			
Operating band unwanted spurious	Category B requirements (Option 2)			

Optical & Mechanical Specifications	
RF Connection Mode	MU: 2x SMA Female, 50Ω, 1 Port per Band RU: 2x N Female, 50Ω
FO Connector	MU: 4x FC/APC can be optional RU: 1x FC/APC can be optional
Type of Fiber Optical Cable	Single Mode
Monitoring & Control	Local: TYPE-C USB (MU) Remote: 4G Modem (MU)
Number of Remote Unit	4 Remote Units per 1 Master Unit
Power Supply Mode	MU: AC220V RU: DC48V (Remote Power Supply from MU)
Power Consumption	MU: ≤25W (Local Unit), 500W (Remote power supply with 4 RU) RU: ≤90W
Dimension (L xW xH)	MU: 440mm x215mm x44mm (excluding mounting ears) RU: 364mm x210mm x111mm (excluding mounting brackets)
Weight	MU: ≤10.2kg RU: ≤7kg
Mounting	MU: 19" Cabinet mounted RU: Wall mounted
MTBF	≥50000h

Environmental Specifications	
Operation Temperature	-10°C ~ +55°C
Humidity	≤85%
IP Rating	MU: IP30, Indoor RU: IP30, Indoor

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