

# 41-FXWT4637BA-G1

## 5W UHF DIRECT COUPLING FIBER OPTICAL BROADBAND BDA

Frequency: 350-500MHz | Output Power: 37dBm | Power Supply: AC100V /260V | Type: Direct Coupling  
 Working Band: Broad band | Usage: Indoor & Outdoor  
 Special Functions : Support AC , PSU, PA, optical module and optical link backup



Master Unit

Remote Unit

### OVERVIEW

BRIDGE FOR BDA is the product to solve single coverage problem of indoor and outdoor, including master unit (MU) and remote unit (RU) as a system transmission product. MU comes with options of direct or wireless coupling to offer flexible applications on site, receiving signal resources from Base station and transmitting the signal by optical to RU, located at another areas. RU boosts the signal to target areas, fast providing strong signal in weaky area or zero signal area. BRIDGE provide a full series of product family to support various combinations of frequency bands, such as single-band, dual-bands, and triple-band systems, offering flexible solutions.

BRIDGE FOR BDA utilizes multimode technology compatible with digital and analogue network to support TETRA, DMR or PDT system. The full series of product family support single Tx /Rx, dual Tx /Rx and multiple Tx /Rx systems. The noise and interference control technology reduces the noise floor and interference. Various RF functions are optional and customizable with different features to fulfill every circumstance on site.

In the section of material selections, BRIDGE products are all made of good and rugged stuff and guarantee adopting brand new chipset and electronic components to ensure stable performance and long product life.

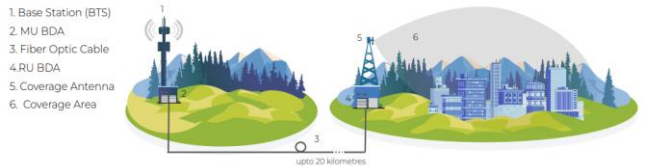
### FEATURES

- Operation frequency is customizable in the frequency range 350-500MHz with 0.5-5MHz bandwidth and fixed 10MHz duplex Tx /Rx separation as individually indicated at the purchase order (PO).
- MU:RU configuration is 1:4 star topology.
- Supports the power backup function (AC and PSU backup) with 2 PSU and 2 AC ports connecting to 2 separate external AC power sources
- PA, optical module and optical link backup
- With good interference handling processes of out of channels, reducing Tx /Rx interference in system.
- LED lights to indicate the alarm and operation situations, easy to check the product status.
- Software programmable the operation parameters
- Power supply with EN 60950 compliance

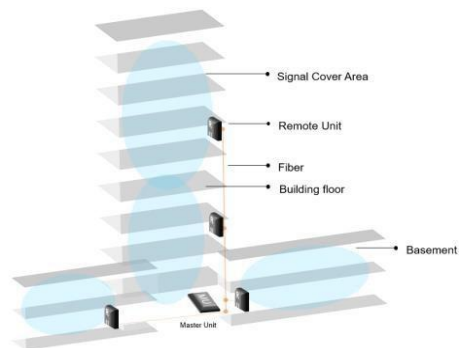
### SITE APPLICATIONS

#### Outdoor Coverage

##### OUTDOOR FIBER-OPTIC BDA COVERAGE



#### Indoor Coverage



Product Number	
Master Unit	41-FMWT4637BA-G1
Remote Unit	41-FRWT4637BA-G1

Disclaimer : All images are for reference purposes only and specifications are subject to change without notice

Revised | B.1.2

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### TECHNICAL DATA

#### Electrical Specifications

Frequency Range (Customizable as indicated in the PO)	Uplink 350-500MHz	Downlink 350-500MHz
Gain	50 ±3dB	55 ±3dB
Output Power	-10 ±2 dBm	37 ±2dBm
Automatic Level Control (ALC)	Output power variation ≤2dB or be off when adding 10dB at max output power.	
Gain Adjustable Range	30dB /1dB step	
Noise Figure	≤5dB	/
Max. No Damage Input Power	-10dBm	10dBm
Time Delay	≤1.5µs	
VSWR	≤1.5	
Pass Band Ripple	≤3dB	
Spurious Emission	In-Band	≤-36dBm/3kHz or ≤-60dBc/3kHz
	Out-Of-Band (offset=2.5MHz)	9kHz ~ 1GHz : ≤-36dBm 1GHz ~ 12.75GHz: ≤-30dBm
IMD	In-Band	≤-45dBc/30kHz
	Out-Of-Band (offset=2.5MHz)	9kHz ~ 1GHz: ≤-36dBm 1GHz ~ 12.75GHz: ≤-30dBm
Frequency Stability	≤0.05ppm	

#### Optical & Mechanical Specifications

RF Connection Mode	N Female, 50Ω
Number of Remote Units	Up to 4 Remote Units per 1 Master Unit
Type of Fiber Optical	Single Mode
Fiber Optical Interface	FC /APC; MU 8 ports (Port 1-4 Main, Port 5-8 Backup); RU 2 ports (Port 1 Main, Port 2 Backup)
Fiber Optical Loss	Max 8dB <sub>o</sub>
Optical Wavelength	1310nm /1550nm, WDM
Optical Receiving Sensitivity	-15dBm
Monitoring & Control	Local: RS232, Remote: RJ45 (IP Ethernet)
Power Supply Mode	AC100V ~ 260V, 50±5Hz (2 separate AC power sources for AC backup function)
Power Consumption	≤35W (MU)
	≤150W (RU)
Dimensions (L xW xH)	483 x400 x133mm (MU)
	447 x357 x203mm (RU)
Weight	≤8kg (MU)
	≤25kg (RU)
Installation Method	19" Cabinet Mounted (MU)
	Wall /Pole Mounted (RU)

#### Environmental & Miscellaneous Specifications

Operation Temperature	-25°C to +55°C
Humidity	≤95%
IP Rating	IP30, Indoor (MU)
	IP65, Indoor & Outdoor (RU)
MTBF	≥50000h

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