

40dBm 700/800MHz High Performances Fiber Optic Repeating System



Features:

- The Fiber repeating system is a reliable solution to extend and improve the coverage area of 700/800 MHz Networks; it consists of two main modules, a Fiber Master unit (FMU), and multiple Slave units – a Fiber Remote Unit (FRU)
- FBU supports 8 outputs
- Fully comply with P25 and other DMR standards.
- 40dBm downlink composite power, meet DMR/LMR/PMR system standards (optional 30dBm)
- Easy field installation and maintenance reduce rollout and operational costs.
- No outside influences on the signal transmission to the fiber unit
- Provide quick RF coverage service to your DMR/LMR/PMR Base Station.
- FRU design for wall mounting & FMU design for 19-inch rack or IP65 enclosure.

Introduction

EMTS Telecom Services Fiber Optic Repeating system is the best and more reliable solution to extend and improve 700/800 MHz DMR /LMR coverage area. The Fiber Optic Repeating system consists of two modules, Master and Slave. The Master module (FMU) is connected to a Channel Selective BDA receiving signals from the BTS, while the Slave (FRU) module provides coverage in the service area. Fiber Optic Repeaters amplify in directions, uplink and downlink a continuous bandwidth, factory tuned. Its rugged construction and easy field maintenance reduce operational costs and ensure a high MTBF. The EMTS Fiber optic repeating system is a cost-effective and practical solution for extending signal coverage in subways, tunnels, and Indoor or outdoor distribution systems.



EMTS Telecom Services offers a comprehensive portfolio of enhanced coverage solutions for Wireless Networks, Based on advanced technologies. EMTS proven indoor and outdoor solutions solve a wide range of network challenges, including interference and oscillation problems, challenging coverage holes, rapid response deployment, and inadequate in-building coverage. Regardless of the technology or frequency, EMTS can provide customized coverage solutions that address any combination of unique and complex network needs for Wireless Networks.

Technical Specifications

Remote Unit Model No: FRU-700/800-40W60

Specifications		Downlink	Uplink
Frequency Range		758-775 MHz	788-805 MHz
		851-869 MHz	806-824 MHz
Bandwidth		Supporting Duplex system for full or partial bandwidth	
Composite Output Power		40dBm	-20~0dBm
Manual Gain control range		≥30dB at 1dB step	
Gain		55dB	55dB
Gain control linearity		±1dB	
Automatic Level Control (ALC)		≥25dB	
Inter-modulation attenuation (In-band)		≤-40 dBc/30KHz	≤-50 dBc/30KHz
Inter-modulation attenuation (out-band)	9kHz ~ 1GHz	≤-36dBm/30KHz	
	1GHz ~ 12.75GHz	≤-30dBm/30KHz	
Spurious		≤-22dBm/100KHz	
Spurious (out-band)	9kHz ~ 150kHz	≤-36dBm/1KHz	
	150kHz ~ 30MHz	≤-36dBm/10KHz	
	30MHz ~ 1GHz	≤-36dBm/100KHz	
	1GHz ~ 12.75GHz	≤-30dBm/1MHz	
	825MHz ~	≤-47dBm/100KHz	
	870MHz ~	≤-47dBm/100KHz	
	1.71GHz ~ 1.92GHz	≤-47dBm/100KHz	
	3.4GHz ~ 3.53GHz	≤-47dBm/100KHz	
Noise figure		≤6dB	
Propagation delay		≤5μs	
VSWR		≤1.5:1	
Impedance		50 ohms	
Frequency tolerance		≤±0.05ppm	
Power Supply		110 to 220VAC ±15% 50-60Hz or -48 VDC	
Enclosure		Remote unit design for wall mounting.	
Fiber type included		recommended Single-mode, WDM	
Wavelengths		1310 and 1550 uM	
Operating Temperature Range		-20 to +55 °C	
Environmental Sealing		IP65 Convection Colling	
Operating Humidity		Up to 95% (non-condensing)	
Complies with		Digital Conventional, IP Site Connect, Capacity Plus, Linked Capacity Plus, Connect Plus Analogue Conventional, MPT 1327	
Standard		Design to comply with CE	



About EMTS Telecom Services Ltd.:

EMTS is a leading supplier of high-quality RF coverage solutions designed to maximize wireless network coverage in difficult RF environments and complex settings. The company specializes in extending RF radio coverage to rural areas, office buildings, subways, tunnels, and shadowed areas. The EMTS coverage solution supports all major mobile technologies and standards of Wireless Networks.

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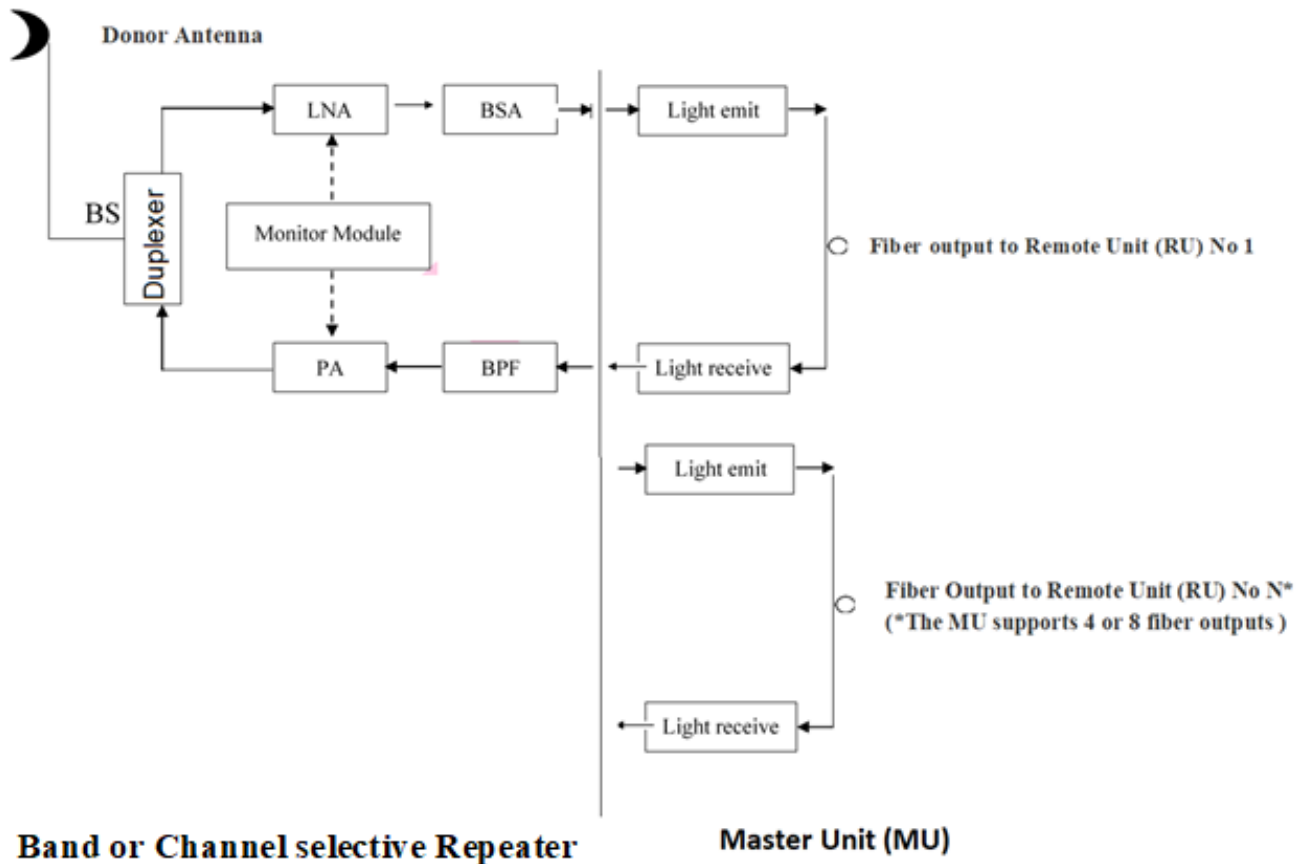
Mater Unit Model No: FMU-700/800-AW60

Specifications		
Items		Master Unit
Working Frequency (Customized)	Uplink	788-805 MHz and 806-824 MHz
	Downlink	758-775 MHz and 851-869MHz
Bandwidth		Supporting Duplex system with frequency suppression of 1MHz or more between Uplink and Downlink bands
Transmission Distance		$\leq 20\text{Km}$
Max. Input Level (Non-destructive)		+10dBm
Output Power (RF)		-10 $\pm$ 2dBm (Uplink)
Output Power (Optical)		0 $\pm$ 3dBm (1310nm) / -6 $\pm$ 3dBm (1550nm)
System Gain (Cable Access)		0 $\pm$ 3dB
VSWR		≤ 1.5
I/O Impedance		50 Ω
Connector	RF Connector	1x N Female
	Optical Connector	8 X FC/APC
Optical Receiver Sensitivity		$\leq -15\text{dBm}$
Temperature Range		Operation: - 20°C ~ + 50°C
Relative Humidity Range		$\leq 95\%$ (non-condensing)
Power Supply		AC110 - 220V,50/60Hz or -48 VDC
Dimensions		19-inch 3U
Weight		$\leq 4\text{kg}$
Application		Indoor (IP40)
Monitoring and Control		RJ45 (for Local), Wireless Modem (Remote)
Summary Alarm		Via Dry Connect
Standard		Design to comply with CE



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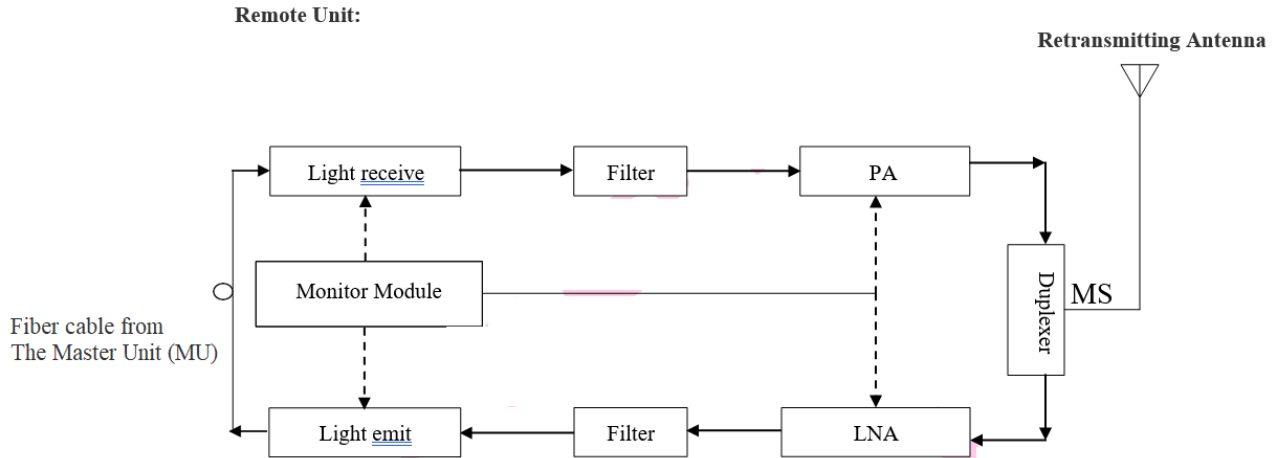
Channel Selective Bi-Directional Amplifier(BDA) And Master Unit (FMU)



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Remote Unit (FRU)



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