TETRA / DMR/ P25 800MHz
Fiber Optic DAS
Fiber Remote Unit (FRU)



Model No: FRU-800-40W55

Features

- Designed to support TETRA/DMR/PMR/LMR Mission Critical Services at 800MHz bands
- Fully comply with TETRA and APCO25 standards
- Fiber optic DAS (Distributed Antenna System) extends network coverage in shadow zones
- Expand signal coverage or fill the signal blind area where weak or unavailable signals such as tunnels, railway stations, enterprises, hotels, airports, etc.
- Customized design for TETRA/PMR/LMR, Suitable for large-scale indoor installations.
- One Master Unit supports up to 4 or 8 remote units
- Low optical transmission loss, stable and improved signal transmission quality
- A USB port provides a link to a notebook for local supervision
- Advance feature of WIFI connectivity for local setup
- Remote monitoring and alarm through the master unit

Introduction

The EMTS Telecom Services Ltd. Fiber Optic DAS system is built out of two main components: MU (Optical Master Unit) and the FRU (Fiber Remote Unit). EMTS provides high-end solutions for any system components to ensure your fiber DAS system's high performance. The optical master unit (MU) converts the BTS RF signals from RF to an optical signal using optical cables transmit. It provides a fiber interface to RU, converts RF to fiber (DL), converts fiber to RF (UL), and balances fiber losses. The optical Fiber Remote unit (FRU) reconverts the optical input signal to RF and feeds it to the antennas. It's designed for modularity and high performance. It is the end unit in the system and connects directly to the antenna system. The FRU includes amplification modules in multiple output levels and various combinations of various frequency bands, filtering modules, optical to RF, and RF to optical converters. It provides USB or WIFI connectivity for local settings and a wireless modem for remote control and alarm. The EMTS Fiber optic repeating system is a cost-effective and practical solution for extending signal coverage in subways, tunnels, etc. for indoor or outdoor distribution systems.



EMTS Telecom Services offers a comprehensive portfolio of enhanced coverage solutions for the 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 the Wireless Networks.

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Technical Specifications

Items		Uplink	Downlink
Frequency (MHz)		805-825 MHz	850-870 MHz
Bandwidth		Fix band - Specific band will be specify	
Transmission Distance		≤ 20Km	
Max. Input Level		+10dBm	
Downlink Output Power		40dBm minimum	
Optical Output Power		0±3dBm (1310nm) / -6±3dBm (1550nm)	
System Gain		40dB	
ALC Range		Output increment will not exceed 2dB when input increasesby 20dB	
Gain Adjustment Range		≥30dB, 1dB Step	
Intermodulation		≤ -45dBc	
Spurious Emission (Out of Band)		≤ -36dBm@9KHz-1GHz	
		≤ -30dBm@1GHz-12.75GHz	
Noise Figure		≤ 5dB	
Group Delay		≤ 5μSec	
VSWR		≤ 1.5:1	
Optical Receiver Sensitivity		≤ -15dBm	
Connector	RF Connector	1x N Female	
	Optical Connector	1X LC/UPC	
Temperature Range		Operation: - 25°C to + 55°C	
Relative Humidity Range		≤ 95% (non-condensing)	
Power Supply		AC 220V or DC Power Supply -48V	
Dimensions		428 × 328 × 175mm	
Weight		≤18kg	
Application		Outdoor (IP65)	
Monitoring and Control		USB (local), WIFI – Via Mobile app, Remote control through connection to Master Unit	
Comply with Standards			
Safety		EN60950-1, EN 50385	
EMC		EN 301 489-1, EN 301 489	
DMR		ETSI Technical Report TR 102 398. Technical Specification TS 102 362 parts 1 to 3. Technical Report TR 102 335-1 (Tier 1 DMR) and TR 102 335-2 (licensed).	
CE		Comply	



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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