

Triple -Band Digital Mini Repeater 20dBm 700-1800-2500MHz

Model No: DMR-71825-20W80

Features:

- **4G/5G Triple-band Repeater** (700/1800/2600 MHz) with **dynamic digital filtering and gain control** for optimal signal clarity, **designed to meet the requirements of explosive environment**
- **Advanced uplink interference mitigation algorithm** ensuring minimal disruption to the macro network.
- **Built-in isolation detection system**, providing real-time alerts for insufficient antenna separation and preventing feedback loops.
- **Support for both FDD (Bands 28 & 3) and TDD (Band 41)**, enabling flexible deployment in multi-operator or shared-spectrum scenarios.
- **Enhanced ICS (Isolation Cancellation System) or IMOP** (Intelligent Management of Oscillation Prevention) ensuring stable, oscillation-free performance.
- **Remote management** via LTE modem with full integration into the **EMTS NMS (Network Management System)**, allowing monitoring, configuration, and alarms.
- Configuration via the **EMTS mobile app** or C-Type connection, simplifying deployment and tuning.
- Compact, lightweight design with **low power consumption** and **high MTBF**, reducing maintenance and OPEX.
- Ideal for **5G dead zones**, LTE indoor enhancement, and enterprise-level mobile signal optimization.

Introduction

The **EMTS Triple-Band Digital Mini Repeater** is a compact, high-performance signal enhancement solution supporting **4G (LTE) and 5G** technologies. It covers **700 MHz (Band 28, FDD)**, **1800 MHz (Band 3, FDD)**, and **2600 MHz (Band 41, TDD)** frequency bands, making it ideal for improving 4G and 5G coverage in indoor environments.

Engineered for **intelligent coverage extension**, the repeater delivers reliable indoor signal distribution across up to **1500 square meters**, efficiently supporting both voice and high-speed data services in **low-signal environments** such as buildings, underground areas, and commercial zones. This solution is **cost-effective, quick to install**, and designed to meet modern carrier-grade demands for quality of service and network reliability.



EMTS Telecom Services Ltd. 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:

Electrical Performance				
		B28 (700) FDD	B3 (1800) FDD	B41 (2500) TDD
Frequency Range	Uplink (adjustable)	703-748 MHz	1710-1785 MHz	2496-2690 MHz
	Downlink (adjustable)	758-803 MHz	1805-1880 MHz	2496-2690 MHz
Number of Sub-bands		1-2	1-2	1
Bandwidth per Sub-band		0.2- 35 MHz adjustable	0.2- 35 MHz adjustable	5-100 MHz adjustable
Max. Gain	Uplink	75±2 dB	75±2 dB	75±2 dB
	Downlink	80±2 dB	80±2 dB	80±2 dB
Manual Gain Control		31 dB in step of 1 dB		
Automatic Gain Control		≥ 20 dB		
Gain Flatness (per sub-band)		≤ ±3.5 dB (peak-to-peak)		
Max. Input Power Without Damage		0 dBm		
Output Power	Uplink	20±2 dBm	20±2 dBm	20±2 dBm
	Downlink	20±2 dBm	20±2 dBm	20±2 dBm
Out of Band Gain	2.5≤f_offset_CW< 5.0 MHz	≤60 dB		
	5.0≤f_offset_CW<10.0 MHz	≤45 dB		
	10.0 MHz≤f_offset_CW	≤35 dB		
Spurious Emission	9KHz-1GHz	≤ -36dBm		
	1GHz-12.75GHz	≤ -30dBm		
ACRR	±10/20MHz	≤-36dBc/30KHz		
	±20/40MHz	≤-40dBc/30KHz		
EVM		≤ 6%	≤ 8%	≤ 3.5%
Frequency Stability		≤ ±0.01 ppm		
Noise Figure		≤ 8 dB		
VSWR		≤ 2:1		
System Delay		≤ 6 μs		

About EMTS Telecom Services Ltd.:

EMTS Telecom Services 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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Mechanical Performance	
RF Connector	2xN-Female
Power Consumption	≤ 70W
Power Supply (AC to DC)	Input AC220V,50/60Hz
Dimensions	330*258*95 mm
Weight	≤7kg
Mounting	Wall Mounting
Environmental Performance	
Operating Temperature	-20 ~ +50 °C
Application	Outdoor IP67 (explosion protection)
Relative Humidity Range	≤95%(non-Condensing)
Control and Indications	
LED Indicator	Power Supply, Alarm, Running
Local Control	Via Type 3 connectivity
NMS Mode (optional)	Cloud NMS via 4G Wireless Modem
Complied Standards	
Conformance Standard	Safety: EN 60950 EMC: ETSI 301 489-50, ETSI 301 489-1, Radio: ETSI 301 908-11, ETSI 301 908-15
3GPP standards	TS 25.106, TS 36,106, TS 38.104
CE	Comply with CE standard



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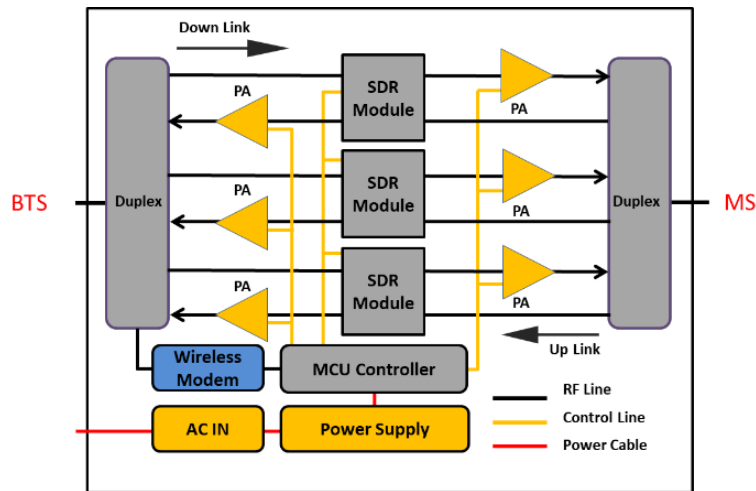


Figure 1 - schematic diagram of Repeater structure



Figure 2 - schematic diagram of system application scenario

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