

High-Quality LTE 1800MHz Band 3 Band Selective Mini Repeater

Model No: MR-1800-20W80



Features:

- Fully comply with GSM and LTE meets CE, ETSI, and 3GPP standards
- User-friendly front panel control & plug and play installation- the repeater status can be known during installation
- A smart function can be activated via the front panel, preventing UL interference and self-oscillation using IMOP – Isolation Measurement Oscillation Preventing
- Isolation detection function - Auto Isolation check between service and donor antennas to eliminate with an optional for ICS, Smart Automatic Level Control (ALC) ensures output level is stable and adjustable continuously
- Low power consumption with an optional sleeping mode (saving power)
- Linear power amplification with an extremely low EVM and an option supporting 5G
- An optional digital module supporting multiple sub-bands, 5, 10, 20, 25 MHz per block.
- Simple installation with an external AC/DC adapter
- Remote monitoring and alarm using a 4G internal modem using EMTS cloud NMS enable getting status and warnings to any desktop or mobile phone using Web GUI

Introduction

The EMTS Telecom Services GSM/LTE/5G Band Selective Mini-Repeater is integral to the GSM/LTE/5G network deployment. It extends the coverage by receiving processes and amplifying the RF signal. The single-band LTE/5G 1800 MHz is a 20dBm mini-Repeater providing an affordable solution to indoor signal coverage problems in GSM/LTE/5G 1800MHz systems. Due to signal fading and attenuation caused by architecture obstacles, the signal strength is weak; our mini-Repeater and its easy installation & maintenance can help carriers get a faster return. The Repeater works as a relay between the BTS and mobiles. It picks up the strongest signal from BTS via the Donor Antenna, linearly amplifies it, and then retransmits it via the Indoor Signal Distribution System to the weak/blind coverage area. The mobile signal is also amplified and retransmitted to the BTS in the opposite direction. It provides two versions of tunable band selective and fixed band (factory set) types. The band-selective function can choose to amplify the signal within the customized band.



EMTS Telecom 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

System		GSM 1800 & LTE1800 (5G optional)
Electrical Specifications		
Frequency Range	Uplink	1710-1785MHz
	Downlink	1805-1880MHz
Bandwidth		Digital band selective with up to 4 digital filters 0.2-25MHz, each supporting multi-operator or a non-contiguous bandwidth.
Output Power	Uplink	20dBm
	Downlink	20dBm
Gain	Uplink	80±3dB
	Downlink	80±3dB
AGC&MGC Range		≥20dB
In-Band Ripple		≤±2dB
Noise Figure		≤5dB
VSWR		≤1.8
Maximum Input Power		0dBm
System Delay		≤5μs
I/O Impedance		50 Ω
Spurious Emission		9kHz~1GHz: ≤ -36dBm
		1GHz~12.75GHz: ≤-30dBm
EVM		≤8% An option for 5G with 4.5% EVM
Mechanical Specifications		
RF Connector		N-Type (Female)
Power Supply		Input AC100~ 240V
Dimensions		Indoor type 184X150X40mm
Weight		≤3kg
Environmental Condition		
Application		Indoor /IP30 (optional IP65)
Operating Temperature		-20 to +55 °C
Relative Humidity Range		≤95% (No Condensing)
MTBF		100,000 hours

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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Alarmer and control	
Alarm Monitoring System	Alarm for Uplink Self-Oscillation
Optional for ICS (Interference Signal Cancellation)	≥ 30dB (Antenna Isolation +15dB)
Isolation Detection	IMOP - Isolation Measurement Oscillation Preventing
LED Indicator	Power Supply, Alarm, State
Local setting	PC RJ45Port or USB port , Local WIF functionality for easy setting and alarming
Remote Control and Alarm	NMS via internal 4G modem, Supports cloud NMS real-time status and alarm reporting Remote configuration
Comply with standards	
ETSI Standards	Fully comply with CE and ETSI Standards: Safety: EN 60950 EMC : ETSI 301 489-50, ETSI 301 489-1, Radio: ETSI 301 908-11, ETSI 301 908-15 5G: ETSI TS 138 106
3GPP Standards	TS 25.106, TS 36,106, TS 138.106



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