

20dBm 450MHz LTE – WCDMA Band 31 Band Selective Mini Repeater

Model No: MR-45-20W80



Features:

- High system gain, with the full-duplex design
- 20dBm downlink & uplink composite power
- Fully comply with LTE, & WCDMA standards
- Modern design based on reliable SAW filtering technology
- Automatic Level Control (ALC) ensures output level is stable
- Linear power amplification to effectively suppress inter-modulation and spurious emission with Extremely high reliability (MTBF more than 15 years)
- Unique color LEDs to indicate power supply and state and Alarm
- Simple installation with an external AC/DC adapter

Introduction

The EMTS Telecom Services 450MHz Mini Repeaters (MR) provide an excellent solution to the problem of poor signal coverage for coverage extension and Outdoor & In-Building applications. The MR is working as a relay between the BTS and mobiles. It picks up the signal from BTS via the Donor Antenna, linearly amplifies it, and then retransmits it via the Indoor Distribution Antenna System (DAS) to the weak/blind coverage area. The mobile signal is also amplified and retransmitted to the BTS via the opposite direction. The EMTS repeater also improves the network capacity by allowing better data coverage in areas with limited signal strengths. A coaxial cable connects the MR to an outdoor 'donor' antenna. The donor antenna transmits signals from mobile phones and receives signals from the BTS. Easy installation, lightweight design, and friendly GUI make the MR a cost-effective and practical solution for extending signal coverage. The EMTS Mini Repeater series can support all combinations of frequencies, including LTE, WCDMA (and optional 5G)



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.

Electrical Specification

Frequency Range	Uplink	452.5-457.5 MHz
	Downlink	462.5-467.5 MHz
Gain		75dB
Uplink/Downlink composite Output Power		20dBm
AGC control range		≥30dB
Maximum Input Power (Non-destructive)		≤0dBm
In-Band Ripple		+/- 1.5 dB
VSWR		2:1
Group delay time		≤ 5μs
EVM		<8% (optional<3.5%)
Noise Figure		≤6dB
Third-order Inter-Modulation		≤ -40dBc
Out of Band Gain	±400KHz	<50dB
	±600KHz	<40dB
	±1MHz	<35dB
	±5MHz	<25dB
Intermodulation Products	9kHz~1GHz	≤ -36dBm/30kHz
	1GHz~12.75GHz	≤-30dBm/30kHz
Spurious Emission	9kHz~1GHz	≤ -36dBm/30kHz
	1GHz~12.75GHz	≤-30dBm/30kHz
RF Connector		N-Type (Female)
Power Consumption		≤ 35W
Power Supply		Input AC100 to 240V, output DC9V 5A
Dimensions		265*188*68mm
Weight		≤ 5kg
Alarm Monitoring System		Alarm for uplink self-oscillation
Indication LED		Power supply, Alarm, state
Operating Temperature		-20 to +50 °C
Application		Indoor (IP40)
Humidity		≤95%
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

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.