

## **CDMA – WCDMA 450MHz Band Selective Mini Repeater**

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**Model No: MR-450-20W70**



### **Features:**

- **High system gain, with full duplex design**
- **20 dBm downlink & uplink composite power**
- **Meets LTE, CDMA & WCDMA standards**
- **Modern design based on reliable SAW filtering technology.**
- **Automatic Level Control (ALC) ensures output level stable and adjustable continuously**
- **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 external AC/DC adapter**

### **Introduction**

The EMTS Telecom 450MHz Mini Repeaters (MR) provides an excellent solution to the problem of poor signal coverage for coverage extension and for in Outdoor & In-Building applications. The MR is working as a relay between the BTS and mobiles. It picks up the strongest signal from BTS via the Donor Antenna, linearly amplifies the signal and then retransmits it via the Indoor Signal Distribution System to the weak/blind coverage area. And 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 at areas with limited signal strengths. The AHPR is connected to an outdoor 'donor' antenna using a coaxial cable. The donor antenna transmits signals from mobile phones and receives signals from the BTS. Easy installation, lightweight design and very friendly GUI makes the High Power Repeater a very cost-effective and practical solution for extending signal coverage. The EMTS High Power Repeater series can supports all combination of frequencies including LTE, CDMA, GSM and WCDMA.



**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.

## Electrical Specification

Frequency Range	Uplink	410-470 MHz Please specify
	Downlink	410-470 MHz Please specify
Maximum Gain		: $\geq 70\text{dB}$
Uplink/Downlink composite Output Power		20dBm
AGC control range		$\geq 30\text{dB}$
Maximum Input power(Non-destructive)		$\leq 0\text{dBm}$
In-Band Ripple		+/- 1.5 db
VSWR		2:1
Group delay time		$\leq 5\mu\text{s}$
I/O Impedance		50 $\Omega$
Noise Figure		$\leq 6\text{dB}$
Third-order Inter-Modulation		$\leq -40\text{dBc}$
Out of Band Gain	$\pm 400\text{KHz}$	$< 50\text{dB}$
	$\pm 600\text{KHz}$	$< 40\text{dB}$
	$\pm 1\text{MHz}$	$< 35\text{dB}$
	$\pm 5\text{MHz}$	$< 25\text{dB}$
Intermodulation Products	9kHz~1GHz	$\leq -36\text{dBm}/30\text{kHz}$
	1GHz~12.75GHz	$\leq -30\text{dBm}/30\text{kHz}$
Spurious Emission	9kHz~1GHz	$\leq -36\text{dBm}/30\text{kHz}$
	1GHz~12.75GHz	$\leq -30\text{dBm}/30\text{kHz}$
RF Connector		N-Type (Female)
Power Consumption		$\leq 35\text{W}$
Power Supply		Input AC100 to 240V, output DC9V 5A
Dimensions		265*188*68mm
Weight		$\leq 5\text{kg}$
Alarm Monitoring System		Alarm for uplink self-oscillation
Indication LED		Power supply, Alarm, state
Operating Temperature		-20 to +50 °C
Application		Indoor(IP40)
Humidity		$\leq 95\%$

### Ordering information:

Model no.: MR-450-20W70-X-Y

X=Downlink center Frequency, Y=bandwidth in MHz

**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.





TURNING TECHNOLOGY INTO SOLUTIONS



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