EMTS Telecom Services

TURNING TECHNOLOGY INTO SOLUTIONS

3G/4G/5G Band 1 2100MHz High-Quality Band Selective Mini Repeater

Model No: MR-21-20W85

Features:

- Fully comply with LTE/WCDMA (optional 5G) standard at the 2100 MHz band.
- 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 and automatically keeping optimal conditions.
- Isolation detection function - Auto Isolation check between service and donor antennas to eliminate the self-oscillation. 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 MHz per block
- Simple installation with an external AC/DC adapter
- Optional for remote monitoring and alarm using a 4G internal modem

Introduction

The 2100MHz EMTS Telecom Services Band Selective Mini-Repeater optionally supports LTE & WCDMA and 5G network deployment. It extends the coverage by receiving processes and amplifying the RF signal. The single-band LTE/WCDMA-2100 MHz is a 20dBm mini-Repeater providing an affordable solution to solve the indoor signal coverage problems in LTE/WCDMA 2100MHz 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. Two versions of tunable band selective and fix band (factory set) types are provided. The band-selective function can choose to amplify the signal within the customized band. The EMTS LTE/WCDMA Micro Repeater is designed explicitly for in-building LTE/WCDMA applications. It supports different LTE/WCDMA channel bandwidths (1.4, 3, 5, 10,15,20MH) and can meet any future LTE/WCDMA and optionally 5G channel allocation need (applicable for tunable band selective type)

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.

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Technical Specifications

Items		Specifications
System		LTE_WCDMA_2100
Frequency Range	Uplink	1920-1980 MHz (Fixed band –factory set or digital band selective)
	Downlink	2110-2170 MHz (Fixed band –factory set or digital band selective)
Output Power	Uplink	20±2dBm (optional low power type with 13dBm)
	Downlink	20±2dBm (optional low power type with 13dBm)
Gain	Uplink	85±3dB
	Downlink	85±3dB
AGC&MGC Range		≥20dB
In-Band Ripple		≤±2dB
Noise Figure		≤6dB
VSWR		≤2.0
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
RF Connector		N-Type (Female)
Power Supply		Input AC100~ 240V
Dimensions		Indoor type 184X150X40mm
Weight		≤3kg
Application		Indoor
Alarm Monitoring System		Alarm for Uplink Self-Oscillation
Isolation Detection		Isolation Check During Boot-Time
LED Indicator		Power Supply, Alarm, State
Operating Temperature		-20 to +45 °C
Relative Humidity Range		≤95% (No Condensing)
MTBF		120,000 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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Compliance Standards	
Standard	Fully comply with ETSI Standards: **Safety** : EN 60950 **EMC** : ETSI 301 489-50, ETSI 301 489-1, **Rado**: 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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