Preliminary

23dBm TDD LTE 2300MHz High Efficiency Band-40 Min-Repeater

Model No: MR-T23-23W80

Main Features

- **Support single band LTE 2300 MHz TDD-LTE standard, fully comply with CE, ETSI, and 3GPP Standards with 23dBm composite power**
- **Built-in Base-band demodulation synchronization algorithm for TDD system to ensure accurate synchronization and eliminate interference to Donor BTS.**
- **Built-in wireless modem for remote monitoring by SMS or cloud NMS**
- **Local interactive GUI interface for local control.**
- **Adopting the DSP technique to archive ultra-far distance transmission.**
- **Effectively Improved CINR / RSSI and Data Throughput.**
- **IP 65 Housing.**
- **Innovative Filtering technology to provide excellent signal selectivity and minimum time delay.**

Introduction

The EMTS Telecom Services 2300MHz Band Selective TDD Mini Repeaters (MR), supporting band-40, provide an excellent solution to the problem of poor signal coverage for coverage extension and in building & outdoor applications. TDD communication uses one frequency for transmitting and receiving; LTE/5G TDD has several significant advantages, including significantly higher spectrum efficiency. Our TDD LTE/5G repeaters utilized advanced Frame Synchronization arithmetic, which grantee switching between the different time slots for uplink and downlink., The unit TDD sync module, which is the basis of the FPGA & DSP platform, will acquire the switch point between Uplink Pilot Time Slot (UPTS) and Downlink Pilot Time Slot (DPTS). The EMTS LTE/5G TDD Repeaters allow operators to exploit the full capabilities of LTE/5G services for powerful, versatile, and designed for network safety. The MR-2600 unit is the ideal solution for in, offices, restaurants, hotels, apartments, parking lots, etc., where initially blocked by structures and obstacles or coverage is limited. Operators are looking to extend their LTE/5G network's in-building or outdoor coverage. The EMTS LTE/5G Repeater family supports LTE/5G TDD or FDD networks at the bands 700, 800, 1800, 2100, 2300, and 2600MHz bands.

EMTS 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 issues, 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 Specification

	Specifications	
	Downlink	**Uplink**
Frequency	2300~2400MHz	
Composite Output Power	+23 dBm	+23 dBm
Operating Bandwidth	100MHz Full band or digital band selective with up to 4 sub-bands	
Channel Bandwidth	20 MHz	
Modulation Type	LTE -TDD	
Out of band spurious	As per 3GPP standard	
Gain	80dB	80dB
Gain flatness	±2 max	±2 max
Gain Adjust(1dB Step)	0~30dB	0~30dB
ALC Range	30dB	30dB
ALC Level	22~23dBm	22~23dBm
Sync detect Level	-90dBm min	-
EVM	5% max.	
Frequency Stability	±0.05ppm max.	
VSWR	1.5:1 max.	
Group Delay	5usec max.	
Noise Figure @ Max Gain		8dB max
Up/Down Isolation check	90dBc min 90dBc min	
Control	Local Control with GUI	
Remote monitoring (optional)	Via 4G modem	
Power	AC 240V (50Hz)	
Compliance Standards		
Standard	Fully comply with 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	

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. Thecompany 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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