EMTS
Telecom Services
TURNING TECHNOLOGY INTO SOLUTIONS

LTE / WCDMA 2100 MHz
Digital ICS Technology
40 dBm Band Selective Repeater

Model No: IHPR-21-40W95

Features:

- **Supporting LTE and WCDMA using an advance algorithm, +40dBm Downlink composite power, comply with the 3GPP ETSI standards.**
- **Advanced Digital ICS technology - function to prevent self-oscillation, enhance gain and coverage range and reduce isolation requirement for selectable band.**
- **Real-time cancellation of interference signal (fading & feedback signal)**
- **Comprehensive GUI, very easy to use and install.**
- **Compact Size - waterproof IP-65 enclosure suitable for outdoor & indoor deployments, supporting wide range of temp. -20 to 55 ℃.**
- **Metal cavity filter technology allows wider receive and transmit separation, better gain flatness, higher stability and lower noise figure.**
- **Intelligent design with built-in ALC function provides auto amplitude fixing and noise reduction to the LTE or WCDMA BTS.**
- **Remote Monitoring & Alarm (NMS) via 3G/4G modem, WIFI functionality**

Introduction

The EMTS Telecom Ltd. 2100MHz ICS High Power Repeaters (IHPR) provides an excellent solution to the problem of poor signal coverage for coverage extension and for outdoor or in building applications. The HHPR utilized Digital ICS technology (Interference Cancellation System), The RF Repeater that can automatically detect and cancel the interference signal caused by oscillation of RF feedback between the Donor and Services Antennas in real time by adopting DSP (Digital Signal Processing) technology. It restores full operational capability against multi-path fading cellular signals and feedback signals by oneself and all types of waveforms from both friendly and intentional sources of interference. Easy installation, lightweight design and very friendly GUI make the EMTS HHPR as a very cost-effective and practical solution for extending signal coverage. The EMTS High Power Repeater series supports all combination of frequencies includes WCDMA & LTE selected by a digital mechanism.

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.

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Electrical Specification

	Uplink	Downlink
Bandwidth (selectable band)	1920 - 1980 MHz	2110 - 2170MHz
Maximum Gain	85 dB±3dB	85dB±3dB
Frequency Error	≤±0.5ppm	
MGC (Manual Gain Control)	1 to 31dB @ step of 1dB	
AGC (Automatic Gain Control)	1 to 31dB @ step of 1dB	
Composite RF Output Power	30dBm +/-2 dB	40dBm +/-2 dB
Noise Figure	≤5dB	
Group Delay	≤4.5us	
Interference Signal Cancellation Capacity (Direct Feedback and Static Multi-path Feedback)	≥30dB (Antenna Isolation +15dB)	
Interference Signal Detecting Range (Direct & Multi-path Feedback)	≤ 7 µs	
Passband Ripple (in Band)	≤ 3 dB	
Frequency Stability	≤ 0.01 ppm	
ACRR (Adjacent Channel Rejection Ratio)	P ≥ 31 dBm (Offset 5MHz): ≥ 33dB	
	P ≥ 31 dBm (Offset 10MHz): ≥ 33dB	
Out of band Gain (DL / UL	2.7 ≤ f_offset <3.5MHz: ≤ 60.5 dB	
	3.5 ≤ f_offset <7.5MHz: ≤ 45.5 dB	
	7.5 ≤ f_offset <12.5MHz: ≤ 45.5 dB	
	12.5 MHz ≤ f_offset: ≤ 35.5 dB	
Spurious emission	≤-36dBm/30KHz@9KHz-1GHz	
	≤-30dBm/30KHz@1GHz-12.75GHz	
VSWR	≤1.5:1 The repeater included a VSWR protection system, in case or disconnecting the service antenna or decreasing of the performance of the antenna the repeater will detect	
Power Supply	220 VAC / 45-55 Hz	
Power Consumption	180 watts	
Protection	The downlink output will be protected against open or short	
Backup battery for 4 hours (optional)	Will be supplied by the local partner	
Input & Output Impedance	50 Ohm	

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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Mechanical & Environmental Specifications

Dimensions	428*328*175mm
Weight	≤20kg
Mounting Kit	Included Wall / Pall
Grounding kit	Included
Operating temperature	-20º to +50°C
Standard against dust and water	IP65
Relative humidity	≤95%
RF connectors	N-Type (optional) 7/16 DIN Female
Operation Configuration	LED Display for status and alarm, PC RJ45Port, Local WIF functionality for easy setting and alarming
Remote Monitoring and Alarm	NMS via internal 3G/4G modem, Supports SMS/SNMP real time status and alarm reporting Remote configuration
Standard	Fully comply with UMTS ETSI and LTE standard: ETSI TS 136 106 V15.0.0 / ETSI TS 136 143 V15.0.0 TSI EN 301 908-1 V11.1.7
MTBF (Mean time between failures)	≥ 80000 hours

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