

43dBm 700MHz 3G/4G/5G Band 28 ICS High Power Repeater

Model No: IHPR-7-43W95



Features:

- Supporting 5G, LTE, and WCDMA using an advanced algorithm with +40dBm Downlink composite power complies with the 3GPP ETSI standards.
- Advanced function to prevent self-oscillation via EMTS IMOP and ICS functionality
- Comprehensive GUI, extremely easy to use and install.
- Compact Size - waterproof IP-65 enclosure for outdoor & indoor deployments
- Metal cavity filter technology allows wider receive and transmits 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 4G modem, WIFI functionality

Introduction

The EMTS Telecom Ltd. Band 28 ICS High Power Repeaters (IHPR) provide an excellent solution to the problem of poor signal coverage for coverage extension and outdoor or in-building applications. The IHPR 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 friendly and intentional interference sources. Easy installation, lightweight design, and friendly GUI make the EMTS IHPR a cost-effective and practical solution for extending signal coverage. The EMTS, High Power Repeater series, supports all frequencies, including WCDMA & LTE & 5G, 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 has proven, that 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

	Uplink	Downlink
Frequency Range	703 – 748MHz	758 – 803MHz
Bandwidth (selectable band)	Selected Band via GUI 0.2-25MHz	
Maximum Gain	90dB±3dB	95dB±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	24dBm +/-2 dB	43dBm +/-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	
Error Vector Magnitude (EVM)	≤ 8% Optional ≤ 4.5% (meets 5G NR requirements)	
ACRR (Adjacent Channel Rejection Ratio)	P ≥ 31 dBm (Offset 5MHz): ≥ 33dB	
	P ≥ 31 dBm (Offset 10MHz): ≥ 33dB	
Spurious emission	≤-36dBm/30KHz@9KHz-1GHz	
	≤-30dBm/30KHz@1GHz-12.75GHz	
VSWR	≤1.5:1 The repeater included a VSWR protection system	
Power Supply	220 VAC / 45-55 Hz	
Power Consumption	150 watts	
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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Specifications are subject to change without notice



Mechanical&Environmental Specifications

Dimensions	460 X 370 X 180mm
Weight	≤20kg
Mounting Kit	Included Wall / Pall
Grounding kit	Included
Operating temperature	-20° 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
Conformance 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 38.104
MTBF (Mean time between failures)	≥ 100,000 hours



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