

1800MHz Single Band 40 dBm High Power Digital Repeater

Model No: HPR-18-40W90



Features:

- 40dBm downlink composite power complies with the 3GPP ETSI standards.
- Supporting 5G, LTE, and WCDMA using an advanced algorithm
- Explicitly designed to answer the needs of 1800MHz multi-operator usage.
- Advanced Digital ICS function to cancel feedback due to oscillation.
- Linear power amplification to effectively suppress inter-modulation and spurious emission; minimize possible uplink interference resulting in low EVM.
- Comprehensive GUI, extremely easy to use and install.
- Robust design - waterproof IP-65 enclosure suitable for outdoor & indoor deployments, supporting a wide range of operating temperatures from -40 to 55 °C
- Intelligent design with built-in ALC function provides auto amplitude correction and noise reduction to the BTS.
- Remote Monitoring & Alarm (NMS) via 4G modem

Introduction

The EMTS Telecom 1800MHz Digital High-Power Repeaters (DHPR) provides an excellent solution to the problem of poor signal coverage for coverage extension and outdoor or in-building applications. The DHPR utilizes Digital technology to support multi-operator applications; Easy installation, lightweight design, and friendly GUI make the EMTS DHPR 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:

	WCDMA / LTE 1800MHz	
Frequency Range (MHz)	Uplink	Downlink
	1710-1785	1805 to 1880
Max Output Power	27±2 dBm	40±2 dBm
Bandwidth	Up to 4 sub-bands, each 0.2-30 MHz	
Max Gain	95±3 dB	
Gain Adjustment Range	0~30 dB at step of 1 dB (Adjustable for each sub-band)	
Gain Control Accuracy	±0.05 dB	
Automatic Level Control	≥25 dB	
Pass Band Ripple	+/- 1 dB ptp	
Frequency Stability	≤ ±0.01 ppm	
Third-order Inter-Modulation	≤ -45 dBc	
Spurious emission	≤-36 dBm/9 kHz-1 GHz	
	≤ -30 dBm/1 GHz-12.75 GHz	
ACRR	P≥31dBm (offset 5MHz): ≥33dB, P≥31dBm (offset 10MHz): ≥33dB	
Error Vector Magnitude (EVM)	≤ 3.5%	
Peak Code Domain Error (PCDE)	≤ -35dB	
Noise Figure	≤ 3.5 dB	
VSWR	≤1.5	
System Delay	≤ 4.5μs	
Maximum Input Power	-10dBm	
Environmental & Mechanical		
Operating Temperature range	-40 °C to + 55 °C	
Humidity	0 %- 95 %	
Ingression Protection Class	IP 65	
MTBF	≥ 100,000 hours	
RF connector	4.3-10 Female x 2 / 50 Ω	
Power Supply	110-240 V AC / 150 Watts	
Dimensions	428 x 328 x 175 mm	
Weight	≤17 kg	



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

Compliance Standards	
ETSI Standards	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
Monitoring Capabilities	
Remote Control Module	USB for local / optional 3G/LTE modem for remote connectivity
NMS Monitoring Function	Real-time alarm: for door status, temperature, power supply, VSWR, etc. Remote control: on/off, increasing/decreasing output power, etc. Status for: output/input power, UL/DL gain, etc.



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