

17dBm 1800 - 2100MHz Dual-Band Digital Mini Repeater

Model No: DMR-1821-17W80

Features:

- Dual Band Digital Pico Repeater 1800 and 2100MHz bands
- Fully comply with WCDMA, LTE and 5G at 2100MHz meets ETSI, and 3GPP standards and complies with CE standards
- Advanced Digital Filtering Technology with Customized frequency bands
- Fully comply with ETSI & 3GPP with 17dBm total composite power and 70dB gain
- Excellent EVM reduces the uplink noise to the base station and complies with the 5G standard at 2100MHz
- IMOP Support (Isolation Measurement and Oscillation Protection) & Smart mode to auto-adjust gain according to the isolation and signal level received by the donor site
- Supports WCDMA, LTE (and 5G at 2100MHz) in the same repeater
- Linear power amplification effectively suppresses inter-modulation and spurious emissions and minimizes uplink interference
- Local setting via Local control or WIFI, LCD display for the operation parameters



Introduction

EMTS Telecom Services Ltd. presents its cutting-edge Dual Band 1800/2100MHz Digital Pico Repeaters (DPR), a superior solution for addressing poor signal coverage issues in various scenarios, including building applications. These DPR units are expertly engineered to extend signal reach, catering to both 1800 and 2100MHz bands and covering expansive areas of up to 1500 sqm. It supports LTE and WCDMA and optionally 5G technologies, ensuring comprehensive connective. Our Pico Repeater uses an intelligent algorithm that actively minimizes uplink interference, delivering a smoother signal experience. Moreover, the built-in isolation detection function alerts users when the distance between the donor and service antenna falls short, ensuring optimal performance. Easy installation is a standout feature of the DPR, making it an outstanding choice for enhancing LTE/WCDMA coverage. This affordable solution is ideal for resolving indoor signal problems stemming from signal fading and attenuation caused by architectural obstacles, all while ensuring fast returns on investment. Configuration adjustments, facilitated by advanced digital technology, are a breeze with the EMTS Mobile App or direct USB connection. Our DPR unit is built upon state-of-the-art technology, incorporating advanced RF and digital modules that significantly reduce power consumption, elevate reliability, and extend Mean Time Between Failures (MTBF).

EMTS Telecom Services Ltd. 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.



Technical Specifications:

Electrical Performance			
		B3 (1800)	B1 (2100)
Frequency Range	Uplink	1710 – 1785 MHz Factory Set to 1740-1760 MHz	1920 - 1980 MHz Factory Set to 1840-160 MHz
	Downlink	1805 – 1880 MHz Factory Set to 1835-1855 MHz	2110 - 2170 MHz Factory Set to 2130-2150 MHz
Number of Sub-bands		1	1
Bandwidth (To be submitted before PO)		20MHz	20MHz
Max. Gain	Uplink	$\geq 80\pm 3$ dB	$\geq 80\pm 3$ dB
	Downlink	$\geq 80\pm 3$ dB	$\geq 80\pm 3$ dB
Manual Gain Control		30 dB in the step of 1 dB	
Automatic Gain Control		≥ 20 dB	
Gain Flatness (per sub-band)		$\leq \pm 2.0$ dB (peak-to-peak)	$\leq \pm 2.0$ dB (peak-to-peak)
Max. Input Power Without Damage		0 dBm	
Output Power	Uplink	$\geq 13\pm 2$ dBm	$\geq 13\pm 2$ dBm
	Downlink	$\geq 17\pm 2$ dBm	$\geq 17\pm 2$ dBm
Out of Band Gain		Comply with 3GPP	Comply with 3GPP
Spurious Emission		Comply with 3GPP	Comply with 3GPP
ACRR		Comply with 3GPP	Comply with 3GPP
EVM		$\leq 8\%$	$\leq 4.5\%$
Frequency Stability		$\leq \pm 0.01$ ppm	$\leq \pm 0.01$ ppm
Noise Figure		≤ 6 dB @ Max. Gain	
VSWR		$\leq 1.8:1$	
System Delay		≤ 5 μ s	
RF Connector		N-Female	
Impedance		50 Ω	
Power Supply		Input: AC 100~240 V, 50/ 60 Hz; Output: DC 24 V/ 4.2 A	
Power Consumption		≤ 25 W	

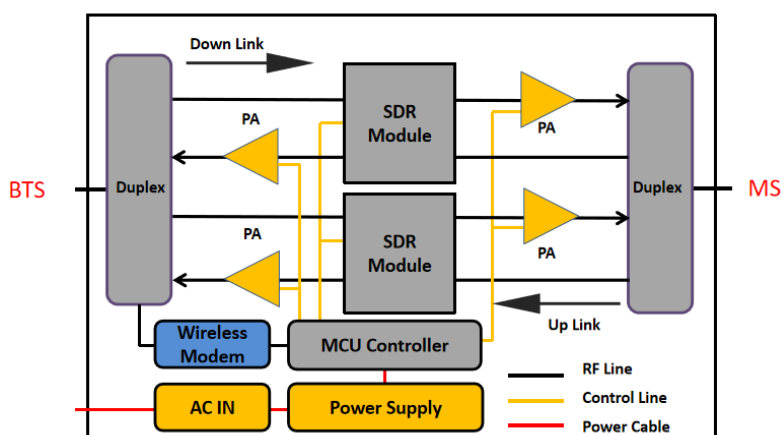
About EMTS Telecom Services Ltd.:

EMTS Telecom Services 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 Performance	
Dimensions	360*230*50 mm
Weight	≤ 4 kgs
Environmental Performance	
IP Rating	IP40
Operating Temperature	-20 °C to 55 °C
Relative Humidity Range	≤95%(non-Condensing)
MTBF	100,000 Hours
Monitoring & Control	
Local Control & Monitoring	Via Wi-Fi
Complied 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
CE	Comply



Schematic diagram of the repeater structure



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