



TURNING TECHNOLOGY INTO SOLUTIONS

# 900-1800-2100MHz 30dBm High Power Triple Band Digital Repeater



**Model No: DPR-91821-30W90**

## Features:

- Supports WCDMA & LTE & GSM technologies with advanced digital filtering.
- Fully comply with 3GPP and TS-136 standards
- Very low uplink noise – an excellent solution to extend BTS coverage range for Outdoor or In-Building deployments for single or multi operator uses.
- Tunable bandwidth to supports multi band, multi sub bands & multi operator uses
- 43dBm composite power per band
- Isolation detection function to prevent self-oscillations
- Linear power amplification to suppress inter-modulation and spurious emission
- Smart Automatic Level Control (ALC) ensures a stable output level and continuously adjustable.
- Local alarm via visual LED enables an easy installation.
- Support OMT/NMS (optional) for remote control systems

## Introduction

The EMTS Telecom Services Ltd. Triple Band Digital Power Repeater (DPR) provides an excellent solution to the problem of poor signal coverage by conveying coverage extension for in building & outdoor applications. The DPR designed to support signal coverage for three bands 900, 1800 and 2100MHz. The repeater amplifies the signals from mobile phones and base stations and can be used in dead areas where service is poor. It's designed to provide a more cost-effective solution than adding a new Base Transceiver Station (BTS) to improve signal coverage and communication quality in a triple band system. Its easy installation and maintenance can help carrier get faster return. The DPR is also improving the capacity of the cellular network and the data coverage in areas with limited signal strengths. The unit is connected to an outdoor donor antenna using a coaxial cable. The donor antenna transmits signals from mobile phones and receives signals from the BTS. Service antennas are placed in dead zones or in the tower for outdoor applications. Signals from mobile phones used in the dead zones are then received by the service antenna and transmitted to the DPR donor antenna, which in turn transmits the signals to the base station.

**EMTS Telecom Services Ltd.** 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.



## Technical Specifications:

Frequency (MHz) Full band or any partial bandwidth	WCDMA / LTE 900MHz		LTE 1800MHz		WCDMA / LTE 2100MHz	
	Uplink	Downlink	Uplink	Downlink	Uplink	Downlink
	880-915 or 890-915	925-960 or 935-960	1710-1785	1805-1880	1920-1980	2110-2170
Composite Output Power	24dBm	30dBm	24dBm	30dBm	24dBm	30dBm
Bandwidth	4 sub-bands, each band 0.2 to 20MHz		4 sub-bands, each 0.2 to 30 MHz		4 sub-bands, each 0.2 to 20MHz	
Frog Part code	FRD4393-3211					
Nominal Gain	90dB	90dB	90dB	90dB	90dB	90dB
Gain Adjustment Range	1 to 40dB @step of 1dB (Adjustable for each sub band)					
Automatic Level Control	≥25dB		≥25dB		≥25dB	
Pass Band Ripple	+/- 3 dB ptp		+/- 3 dB ptp		+/- 3 dB ptp	
Noise Figure	≤ 6dB		≤ 6dB		≤6 dB	
Third-order Inter-Modulation	≤ -45dBc		--		--	
Spurious emission	≤-36dBm/9KHz-1GHz ≤ -30dBm/1GHz-12.75GHz					
Error Vector Magnitude (EVM)	≤ 12.5%					
Peak Code Domain Error (PCDE)	≤ -35dB					
VSWR	≤2:1		≤2:1		≤2:1	
Group Delay	≤ 8.0μs		≤ 8.0μs		≤ 8.0μs	
<b>Monitoring Specifications</b>						
Local Control / Local alarm	Local control via RJ45 port, Local alarm via LED – AC Power , Low RF Input ,General Alarm					
Remote Control Module	3/4G Modem					
OMT / NMS (optional) Monitoring Function	Real-time alarm for door status, temperature, power supply, VSWR, Remote control such as Bandwidth tune, turn on/off, increasing/decreasing output power, real time status all status .					
<b>Environment &amp; Mechanical</b>						
Temperature range	-25°C to +55°C					
RF connectors	Donor port - NF-Type Service Port NF-Type					
Humidity	95%					
Environment class	Outdoor / Natural Convection					
Power Supply	110-240V AC / 500 Watts					
Dimensions	500*440*187mm - Wall mounted					
Weight	≤50kg					
MTBF	100,000 Hours					

### 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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