

Digital MIMO RF Repeater



1800-2100 MHz

JTD-DMRP-DW-37-90 (37dBm)

JIETONG DIGITAL

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LTE1800+UMTS/LTE2100

This type of repeater belongs to the same frequency digital amplification device, which refers to a radio transmission relay device that enhances the signal in the process of wireless communication transmission. By setting up a digital repeater, it can not only improve the coverage effect, but also greatly reduce the cost of investing in base stations.

The LTE wireless band selection digital repeater is a communication equipment designed and produced to eliminate the small-scale signal blind area or weak signal area of the LTE frequency band mobile communication network. It is widely used to eliminate the shadow area of outdoor local signal caused by the influence of high-rise buildings in the city or the weak signal area of individual villages and towns in remote suburbs.

Key features

- Two signal ports with full duplex design.
- Aluminum-alloy casing with IP65 protection has high resistance to dust, water and corrosion.
- Linear power amplification to effectively suppress inter-modulation and spurious emission.
- Adopting filter with highly selectivity and low insertion loss eliminates interference between uplink and downlink.
- Stable and improved signal transmission quality.
- Smart Automatic Level Control (ALC) ensures output level stable and adjustable continuously.
- Auto Isolation check between service and donor antennas.
- Smart mode to auto-adjust gain according to the isolation and signal level received by donor site.
- USB port provides a link to a notebook for local supervision or IP Based NMS (Network Management System) that can remotely supervise repeater's working status and download operational parameters to the repeater Via Ethernet (option).

Advantages

- ☑ Multi_standards/Multi_operators
- ☑ Remote control (Option)
- ☑ Digital features:
 - Balancing operator level
- ☑ Bandwidth Programmable
- ☑ Multi-Band Selective



Specifications

Technical characteristics

Electrical Data			
Item		Uplink(MIMO)	Downlink(MIMO)
Frequency Range (MHz)	LTE FDD1800 Band	1710 ~ 1785	1805 ~ 1880
	LTE FDD2100 Band	1920 ~ 1980	2110 ~ 2170
Max. Total Output Power(dBm)		27±2(per band)	37±2(per band)
Max. Gain (dB) Center Frequency at 25°C		85±3	90±3
ALC control		20 dB Overdrive Protection	
Gain control range		30 dB/1 dB step	
Gain control Error (dB)		≤ ±1.5	
Ripple In Band (P-P) (dB) At +25°C	LTE FDD1900 Band	1712-1783M/1807-1878M: ≤±4.0@EBW; 1710-1785M/1805-1880M: ≤±5.0@EBW;	
	LTE FDD2100 Band	1922-1978M/2112-2168M: ≤±3.5@EBW; 1920-1980M/2110-2170M: ≤±4.5@EBW;	
Noise Figure		≤ 8 dB	≤ 8 dB
Spurious Emission	9kHz~150kHz	≤ -36dBm/1KHz	
	150kHz~30MHz	≤ -36dBm/10KHz	
	30MHz~1GHz	≤ -36dBm/100KHz	
	1GHz~12.75GHz	≤ -10dBm/1MHz	
Out of Band Rejection (dBc)At +25°C	±1MHz offset	≤-15	
	±2MHz offset	≤-30	
	±5MHz offset	≤-45	
EVM		≤ 8%	
VSWR(Power up, Min Gain, Pin=-30dBm)		≤ 1.8	≤ 1.8
Transmission delay		<7μS	<7μS
Max. non-destructive input power		≤ -10 dBm	≤ -10 dBm
Impedance		50 Ω	50 Ω
Power consumption rating		≤ 400W	
Power Adapter supply input /current		110 - 220VAC~2.5A, 50 ~ 60 Hz	
Functions -Variable Multiple Sub-band			
Instantaneous Bandwidth of each band		75 MHz @ LTE FDD1800 Band	
		60 MHz @ LTE FDD2100 Band	

Max bandwidth of Sub-band	200kHz - 20 MHz @ 200 kHz /step
Number of sub-band	3 @ LTE FDD1800 Band
	3 @ LTE FDD2100 Band
Environmental Data	
Operating temperature range	-25°C to +55°C
Storage temperature range	-40°C to +85°C
Relative humidity	5% - 95%
Applications	IP65
Monitoring and control	USB Local)
	RJ45 (Remote)
Mechanical Data	
Dimensions	489*409*186.5mm
Weight	≤35Kg
Connectors type	N-Female*2(MAIN)+ N-Female*2(MIMO)
Mounting	Wall
Packing	1 PCS in box

Applications

To expand signal coverage or fill signal blind area where signal is weak or unavailable.

Outdoor: Airports, tourism regions, golf courses, tunnels, factories, mining districts, villages, ...

Indoor: Hotels, exhibition centers, basements, shopping malls, offices, parking lots, ...

