

# Digital RF Repeater\_Dual-Band



1800+2100 MHz

**JTD-DRP-DW-90-37** (37dBm)

**JIETONG DIGITAL**

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## LTE1800+LTE/UMTS2100

Digital Repeater use the software defined radio (here we call SDR) technology to transfer the mobile signals into digital numbers of 0 and 1, so that the signals can be processed in the digital mode. Compared with analog repeaters, SDR not only is able to improve the cell enhancement performance, but also strengthen and add more functions to the repeaters. SDR enables the future networks to work on a single hardware platform, and realize the systems of different frequencies and more functions simply by software, which in a long run will make the system more flexible, easier and quicker to implement without cost increase.

Compared with building a new base station, digital repeater is a more economical solution to improve signal coverage and communication quality. And it is easy to install and maintain, which can help operators quickly achieve coverage results.

The digital repeater is an amplifier between the base station and the mobile terminal. It receives the strongest signal from the base station through the donor antenna, linearly amplifies the signal and transmits it to the weak signal/blind area through the indoor signal distribution system. At the same time, the mobile signal can also pass Amplify and transmit to the base station via the opposite direction.

## Key features

- Two signal ports with full duplex design.
- Linear power amplification to effectively suppress inter-modulation and spurious emission.
- 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.

## Advantages

☑ Multi\_standards/Multi\_operators

☑ Remote control (Option)

☑ Bandwidth Programmable

☑ Multi-Band Selective

☑ Support to monitor donor signal parameters for easy optimization and troubleshooting



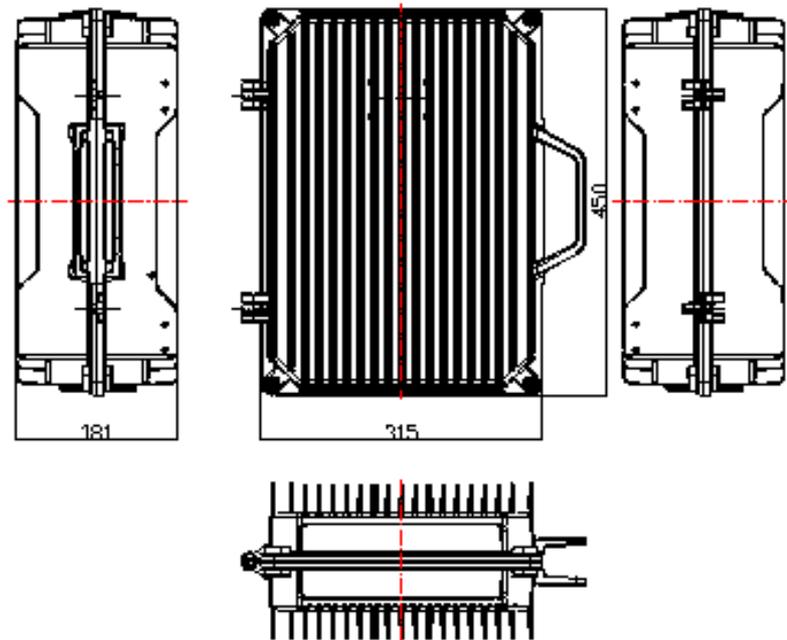
# Specifications

## Technical characteristics

Item		Specification	
		Uplink	Downlink
Frequency Range (MHz)	LTE FDD1800 Band	1710 ~ 1775	1805 ~ 1870
	LTE/UMTS FDD2100 Band	1920 ~ 1980	2110 ~ 2170
Bandwidth(MHz)	LTE FDD 1800 Band	0.2-20	
	LTE FDD/UMTS 2100 Band	0.2-20	
Sub band number	LTE FDD1800 Band	3	
	LTE/UMTS FDD2100 Band	3	
Max. Total Output Power(dBm)Center Frequency		23±2	37±2
Max. Gain (dB) Center Frequency at 25°C		85±3	90±3
ATT Adjustable Range (dB)/(Step) 1dB		0~30 @ 1 dB step	
ATT Adjustable Error (dB)		≤  ±1.5	≤  ±1.5
ALC (dB)		0~25	
Noise Figure (dB) (Max. Gain)		≤ 10.0	
Input VSWR(Power up, Min Gain, Pin=-30dBm)		≤ 2.0	
Ripple In Band (P-P) (dB)At +25°C	LTE FDD1800 Band	1712-1783M/1807-1878M: ≤±4.5@EBW; 1710-1785M/1805-1880M: ≤±6.5@EBW;	
	LTE FDD2100 Band	1922-1978M/2112-2168M: ≤±4.5@EBW; 1920-1980M/2110-2170M: ≤±5.5@EBW;	
Out of Band Rejection (dBc)At +25°C	±600KHz offset	≤-15	
	±1MHz offset	≤-30	
	±5MHz offset	≤-45	
Spurious Emission (dBm) @ Out Of Band 10MHz Offset	9kHz~150kHz	≤ -36dBm/1KHz	
	150kHz~30MHz	≤ -36dBm/10KHz	
	30MHz~1GHz	≤ -15dBm/100KHz	
	1GHz~12.75GHz	≤ -10dBm/1MHz	
EVM (%)		≤ 8.0	
Time Delay (us)		≤ 7.0	
RF Connector		N(f)	
Input / output Impedance (Ω)		50	

Power Supply		AC110-220V
Temperature Range (°C)		-25 ~ +55
Humidity Range (%)		5~95
Weight (Kg)		≤25
Dimension (mm)		450*315*181
Installation		Wall Mounting
Monitor & Alarm	Local Monitor	RJ45
	Remote Monitor	SMS(4G Modem)

**Outline Dimension:**



# 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, ...

