Tone Spread
Solutions for Wireless Signal

1800MHz&2100MHz&5G-3500MHz Triple Wide Band RF Repeater

Model: TSLA37A

The RF Repeater (RFR) is designed to provide a more cost-effective solution than adding a new Base Transceiver Station (BTS) to improve signal coverage and communication quality in triple system. And its easy installation and maintenance can help carrier get fast return.

The repeater is working as a relay between the BTS and mobiles. It receives the low-power signal from BTS via the Donor Antenna, linearly amplifies the signal and then retransmits it via the Coverage Antenna to the weak/blind coverage area. And the mobile signal is also amplified and retransmitted to the BTS via the opposite direction.

Features

- **Aluminum-alloy casing with IP65 protection for high resistance to dust, water and corroding**
- **Low interference to BTS by adopting linear amplifier with high gain and low noise**
- **Adopting filter with highly selectivity and low insertion loss eliminates interference between uplink and downlink**
- **RJ45 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 or LAN**

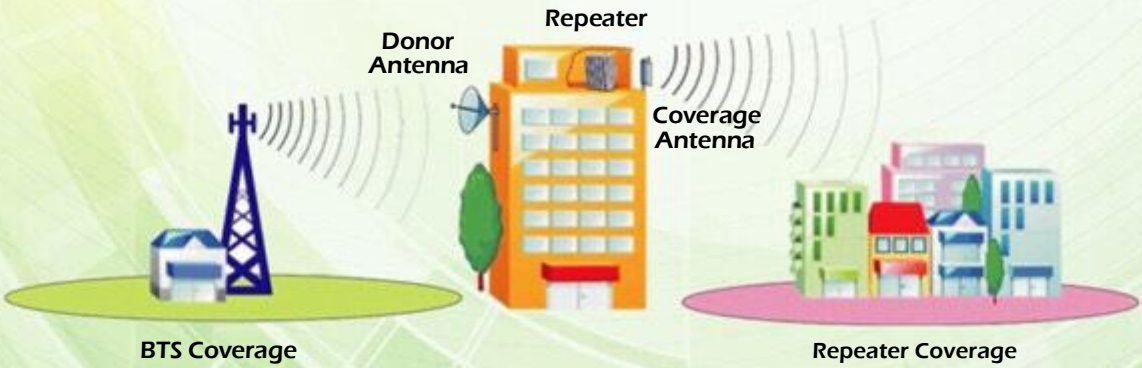
Applications

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, …

Application Diagram



ADD:11169 2F,No 141,Fu-Gang St. Taipei ,Taiwan TEL:+886-2-28828979 FAX:+886-2-28829196 E-mail: sales@tspd.com.tw

Technical Specifications

Items		Specifications		
System		LTE1800	LTE2100	NR3500(TDD)
Frequency Range	Uplink	1710~1775MHz	1920~1980MHz	3300~3570MHz
	Downlink	1805~1870MHz	2110~2170MHz	3300~3570MHz
Working Bandwidth		65MHz	60MHz	270MHz
Output Power	Uplink	30±2dBm	30±2dBm	30±2dBm
	Downlink	37±2dBm	37±2dBm	37±2dBm
Maximum Gain		Uplink: 85±3dB, Downlink: 85±3dB		
Gain Adjustment Range		0~31dB @ Step of 1dB		
VSWR		≤ 1.5		
ALC(Auto Level Control)		≤2dB(When The Maximum Output Power of Repeater is Reached, Increase Input Power by 1~20dbm, Output Variation ≤2dB)		
Noise Figure		≤ 6dB		
Spurious Emission		9kHz~1GHz: ≤ -36dBm/30kHz		
		1GHz~12.75GHz: ≤ -30dBm/30kHz		
System Delay		≤ 1.5μs		
I/O Impedance		50 Ω		
RF Connector		N-Type(2xFemale)		
Operation Temperature Range		-25°C ~ + 55°C		
Relative Humidity Range		≤ 95%(Non Condensing)		
Power Supply		AC220V, 50/60Hz		
Application		Indoor or Outdoor(IP65)		
Dimensions		500mm×440mm×235mm		
Weight		≤ 45kg		
Local Control		Web Browser GUI Local Via RJ-45 Interface or WiFi Hotspot		
NMS Mode		4G Wireless Modem (4G)		
NMS Function		Real-time Alarm for Door Status, Temperature, Power Supply, VSWR, etc; Remote Control Such as Turn On/Off, Increasing/Decreasing Output Power etc; Real-time Status for Output/Input Power, UL/DL Gain, All Status of Repeater etc.		

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