

## Specifications of 3G&LTE Penta-band Trunk Amplifier

**Model: TSML43A**

The Penta-band Trunk Amplifier is designed to provide a more cost-effective solution than adding a new Base Transceiver Station (BTS) to extend signal coverage and to improve communication quality in Penta-band system. And it's easy installation and maintenance can help carrier get fast return.

The Trunk Amplifier is working as a relay between the BTS and distributed antennas. It receives the low-power signal from Trunk line of indoor distribution system via the coupler, linearly amplifies the signal and then retransmits it via the cables to the antenna distribution system. And the mobile signal is also amplified and retransmitted to the BTS via the opposite direction.



### Features

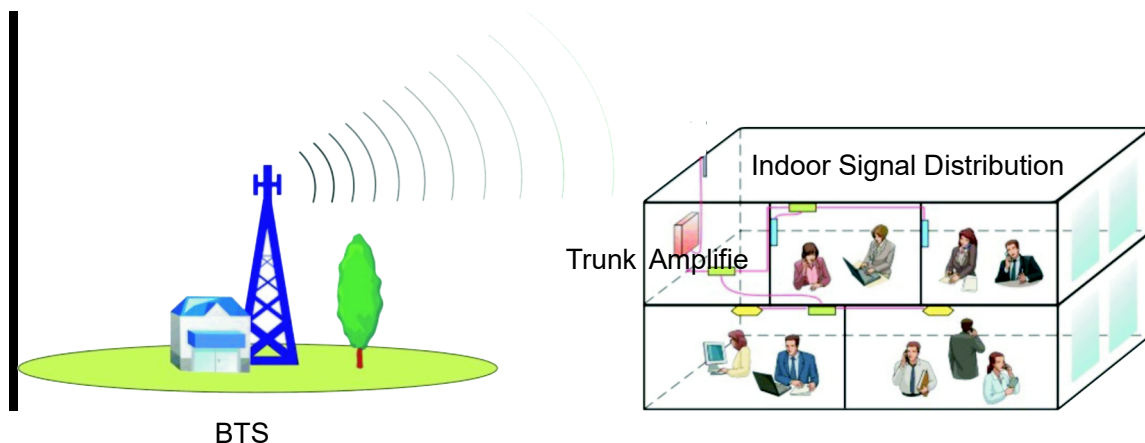
- Aluminum-alloy casing with IP65 protection has high resistance to dust, water and corroding
- Low interference to BTS by adopting linear amplifier with high gain and low noise
- Adopting filter with highly selectivity and low insertion loss eliminates interference between uplink and downlink
- USB port provides a link to a notebook for local supervision or to the built-in wireless modem to communicate with the NMS (Network Management System) that can remotely supervise repeater's working status and download operational parameters to the repeater

### Applications

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

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

### Application Diagram



## Technical Specifications

Items		Specifications
Working Frequency	Uplink	703~748MHz/885~915MHz/1710~1775MHz/1920~1980MHz/2500~2570MHz
	Downlink	758~803MHz/930~960MHz/1805~1870MHz/2110~2170MHz/2620~2690MHz
Output Power	Uplink	0±2dBm
	Downlink	43±2dBm
Gain		45±3dB
Gain Adjustment Range		0~20 dB@ step of 1 dB
Gain Flatness		±3dB for all band
AGC/ALC Function		Support
AGC/ALC Range		10dB
Noise Figure @Max.Gain(DL/UL)		≤5dB
ACLR		3GPP TS 25.104(R10),3GPP TS 36 104(R10)
Spurious and Emissions ( PAR=8 )		3GPP TS 25.143(R10),3GPP TS 36 143(R10)
Intermodulation		3GPP TS 25.143(R10),3GPP TS 36 143(R10)
Out of Band Gain		3GPP TS 25.143(R10),3GPP TS 36 143(R10)
EVM		3GPP TS 25.143(R10),3GPP TS 36 143(R10)
Group(System) Delay		≤1.5us
Voltage Standing Wave Ratio		≤1.5
Ingress Protection		IP65
Cooling Function		Heatsink
Local Monitoring Interface		USB2.0
I/O Impedance		50Ω
RF Connector Type		2XN-Female
Operating Temperature		-10°C~55°C
Relative Humidity		≤95%
Dimensions		980mm×420mm×230mm
Weight		55kg(without bracket)
Mounting Type		Wall & Pole



<b>Power Supply</b>	AC100V- AC240V, 50/60Hz
<b>Power Supply Protection</b>	Include short circuit, Over Voltage and Surge protection
<b>Power Consumption</b>	≤500W
<b>Battery Backup/Time</b>	30minutes
<b>MTBF</b>	>50000hours
<b>Adjustable Parameters Function</b>	Adjust the Downlink/Uplink gain, turn on/off the RF power amplifier,
<b>Monitored Parameters</b>	Real-time status for downlink output power, temperature;
<b>Alarm Type Classification</b>	Three levels (such as Major, Minor, and Warning)
<b>Interface Remote/Local Software</b>	Terminal software suitable for Windows 7 and the above system
<b>Remote Control Unit</b>	WCDMA Wireless Modem (via SMS)
<b>NMS Monitoring Function</b>	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 power, UL/DL gain, all status of repeater etc.