

C23L Series Triple Band Repeater



Product Summary

C23L series triple band repeater, developed by Amplitec R&D team, is a mobile signal repeater with high intelligence and excellent technical index. It is empowered with EDA digital simulation and Amplitec unique 50Ω impedance matching wiring technology. Equipped with electronic devices and RF components originated from international famous brands, the repeater's excellent technical index and performance are guaranteed even from the circuit design.

In order to provide 2G, 3G, 4G, 5G coverage solutions for different countries and regions, C23L series repeaters offer multiple choices of triple band combination from the most common frequency bands such as B1, B2, B3, B5, B8, B12, B20, B28, etc. Besides its elegant appearance, compact size and easiness to install and maintain, it has an output power of 23dBm which enables the device to cover an area of 1000 m² with proper installation and operation. That makes it an excellent option to solve weak signal problems for homes, offices, elevators, basements, etc.

Product Features

- **LCD display** of operating figures.
- Real time isolation check and alarm.
- **Self-oscillation elimination**, auto degrading of output power in case of insufficient isolation detected.
- **Auto turn-off** in case of excessive self oscillation or over input.
- **Idle turn-off**, auto turn-off of uplink while no active users in the coverage, lowering interference to BTS.
- **MGC**, Manual control of output gain with 1dB step in the range of 31dB.
- **ALC**, auto control of output power, ensuring stable coverage.
- Linkage between uplink and downlink gain, keeping uplink and downlink balanced.
- Compact size, low power consumption and easy to install.
- **MTBF**: up to 100,000 hours.

Model List:

Model	Uplink	Downlink
C23L-B1B3B5	824~849/1710~1785/1920~1980 MHz	869~894/1805~1880/2110~2170 MHz
C23L-B1B3B8	880~915/1710~1785/1920~1980 MHz	925~960/1805~1880/2110~2170 MHz
C23L-B2B4B5	824~849/1850~1910/1710~1755 MHz	869~894/1930~1990/2110~2155 MHz
C23L-B1B3B20	832~862/880~915/1710~1785 MHz	791~821/925~960/1805~1880 MHz
C23L-B2B5B28	703~748/1710~1785/1920~1980 MHz	758~803/1805~1880/2110~2170 MHz

Technical Specifications:

Item	Uplink	Downlink
Output Power	15 ± 2 dBm	23 ± 2 dBm
Gain	65 ± 2 dB	70 ± 2 dB
Ripple in Band	≤ 6~15 dB	≤ 6~15 dB
Max Input Power Without Damage	-10 dBm	-10 dBm
Spurious Emission	9KHz~1GHz	≤ -36 dBm
	1GHz~12.75GHz	≤ -30 dBm
Gain Attentute Range	1~31 dB, step of 1 dB	
ALC control Range	≥ 25 dB	≥ 25 dB
LCD Indication	Band	working band and frequency
	Gain	uplink and downlink gain
	Pout	downlink output power
	Work	Normal operating: display; Uplink idle shutoff: no display
	ISO	Normal operating: no display; De-rated ISO operating: display; Self oscillation shutoff: flashing
Idle Shut-off Function	Available	
Real-time Self Oscillation Elimination Function	Available	
Shutoff Function	Available	
EVM	Fully comply with 3GPP	
PCDE	Fully comply with 3GPP	
ACRR	Fully comply with 3GPP	
Noise Figure	≤ 8 dB	≤ 8 dB
Time Delay	≤ 1.5 μs	≤ 1.5 μs
Power Supply	DC: 12 V / 3 A	
RF Connection	N-Female	
Protection Classes	IP40	
Operating Temperature	-10°C ~ +55°C	
Dimension	178*253*59mm	
Weight	<2.4kg	