

C20M-5B Five Bands Repeater



Product overview

C20M-5B, 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 it's equipped with electronic devices and RF components originated from international famous brands, so its excellent technical index and performance are guaranteed from the circuit design. It also adopts Amplitec's "isolation detection" and "digital ALC" patented technology, and its performance and functions are better than similar products.

C20M-5B Supports five frequency combinations of B1, B2, B3, B4, B5, B7, B8, B20, B28, etc, and 2G, 3G, 4G wireless networks of all operators. Besides its elegant appearance, compact size and easiness to install and maintain, it has a downlink output power of 20dBm and could cover an area of 600m² with proper design and installation, which makes it a excellent option for solving signal weak zone in home, office, elevator, basement, etc.

Product features

- **LCD display** of operating figures;
- Real time isolation check and alarm;
- **Idle turn-off**, auto turn-off of uplink while no active users in the coverage, lowering interference to BTS;
- **Automatic linkage**, Link balance function;
- **MGC**, Manual control of output gain with 1dB step in the range of 31dB;
- **ALC**, auto control of output power for stable coverage;
- Compact size, low power consumption and easy to install;
- **MTBF**: up to 100,000 hours.

Model list:

Model	Uplink (MHz)	Downlink (MHz)
C20M-5B-BR1	703~748/824~849/1710~1785/1920~1980/2500~2570	758~803/869~894/1805~1880/2110~2170/2620~2690
C20M-5B-BR2	703~748/880~915/1710~1785/1920~1980/2500~2570	758~803/925~960/1805~1880/2110~2170/2620~2690
C20M-5B-SA	703~748/824~849/1710~1755/1850~1910/2500~2570	758~803/869~894/2110~2155/1930~1990/2620~2690
C20M-5B-EU	832~862/880~915/1710~1785/1920~1980/2500~2570	791~821/925~960/1805~1880/2110~2170/2620~2690

Technical specification :

Item	Uplink	Downlink
Output Power	15±2 dBm	20±2 dBm
Gain	70±2 dB	75±2 dB
Ripple in Band	≤6~15 dB	≤6~15 dB
VSWR	≤2.5	≤2.5
Max. input power without damage	-10 dBm	-10 dBm
Gain Attentute Range	1~31 dB,step of 1 dB	
ALC control Range	≥ 25 dB	≥ 25 dB
Spurious emission	9KHz~1GHz	≤-36 dBm
	1GHz~12.75GHz	≤-30 dBm
EVM	Fully comply with 3GPP	
PCDE	Fully comply with 3GPP	
ACRR	Fully comply with 3GPP	
LCD Indication	Band	Display Working Band and Frequency
	Gain	Display of UL&DL Gain
	Pout	Display DL output power
	Work	Working normally: no display, Uplink Stand-by:display
	ISO	Working normally: no display0; ISO alarm&auto degrading system gain:display; Self-oscillation Turn-off:display&flashing
	ALC	Not active:no display; Active@5-10dB:display; Active@15-29dB:display&flashing
Over input turn-off Function	Available	
Link Balance Function	UL&DL ALC linkage	
Auto screen lights off	No operation within 3 minutes	
Self-oscillation elimination	Available	
Noise Figure	≤10 dB	≤10 dB
Time Delay	≤1.5 μs	≤1.5 μs
Power Supply	DC: 12 V / 3 A	
RF Connector	N-Female	
Environment Conditions	IP40	
Operating Temperature	-10℃ ~ +55℃	
Size	250*230*50mm	
Weight	<2.5kg	