

C20L Series Single Band Repeater



Product overview

C20L, 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, 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.

In order to provide the coverage solutions for different countries and regions, C20L series offer frequency bands such as B1, B2, B3, B7, B5, B8, B12, B20, B28, etc. Besides its elegant appearance, compact size and easiness to install and maintain, it has an output power of 20dBm and could cover an area of 500m² with proper design and installation, which makes it an 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.
- **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 for stable coverage.
- Linkage between uplink and downlink gain, keeping uplink and downlink balanced.
- Compact size, low power consumption, low interference, low noise and easy to install.
- **MTBF**: up to 100,000 hours.

Model list :

Model	Uplink	Downlink
C20L-B1	1920 ~ 1980 MHz	2110 ~ 2170MHz
C20L-B2	1850~1910 MHz	1930~1990MHz
C20L-B3	1710 ~ 1785 MHz	1805 ~ 1880MHz
C20L-B5	824~849 MHz	869~894 MHz
C20L-B7	2500 ~ 2570 MHz	2620 ~ 2690 MHz
C20L-B8	880 ~ 915 MHz	925 ~ 960 MHz
C20L-B20	832 ~ 862 MHz	791 ~ 821 MHz
C20L-B28(A)(B)	703~733MHz or 718~748MHz	758~788MHz or 773~803MHz

Technical specification :

Item	Uplink	Downlink
Output power	15±2 dBm	20±2 dBm
Gain	65±2 dB	70±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
Intermodulation products	≤-30dBm	≤-40 dBc
Spurious emission	9KHz~1GHz	≤-36 dBm
	1GHz~12.75GHz	≤-30 dBm
ATT Step of 1dB	1~10dB	Δ ≤1 dB
	10~20dB	Δ ≤1 dB
	20~25dB	Δ ≤1.5 dB
ALC active 10dB	Δ ≤2 dB	Δ ≤2 dB
LCD Indication	Band	Band name & frequency
	Gain	Uplink & downlink gain
	Pout	Downlink output power
	Work	Device work indication
	ISO	Isolation status indication
Automatically mute when there is no user:	Available	
Self-oscillation elimination & turn-off function:	Available	
Over input turn-off:	Available	
Noise figure	≤8 dB	≤8 dB
Group delay	≤1.5 μs	≤1.5 μs
Power supply	DC: 5 V / 2 A	
RF connector	N-Female	
Environment	IP40	
Humidity	< 90%	
Operating	-10°C ~ +55°C	
Size	220*140*37mm	
Weight	<1.2kg	