

C23S Series Dual Band Repeater



Product summary:

C23S series dual band repeater, developed by Amplitec R&D team, is a new intelligent repeater that offers two work modes: smart mode and manual mode. In smart mode, it could detect the ISO, input and output power and adjust the UL & DL gain automatically to keep the UL & DL balanced; in manual mode, the user could adjust the UL & DL gain accordingly to realize the best coverage.

C23S series features a smooth line style and classic white appearance that will fit in any surroundings. It offers multiple choices of models to support 2G, 3G, 4G, and 5G networks worldwide. It has 23dBm output power and could cover up to 1000 m² with proper design and installation, which provides an optimal choice for signal coverage in houses, offices, hotels, parking lots etc.

Product features:

- ◆ **OLCD** display of system operating status such as frequency, gain, output power and isolation.
- ◆ ISO display and alarm function make installation and debugging easy.
- ◆ Able to increase signal coverage, decrease mobile phone radiation, and increase mobile phone battery lifespan.
- ◆ **ALC**, accurate auto level control ensures stable coverage.
- ◆ **MGC**, manual gain attenuation of system gain within 1-31dB range, with 1 dB step.
- ◆ Coverage up to 1000 m²
- ◆ **MTBF**: Up to 100,000 hours.

Model list:

Model	Uplink	Downlink
C23S-ED	880 ~ 915/1710 ~ 1785 MHz	925 ~ 960/1805 ~ 1880MHz
C23S-EW	880 ~ 915/1920 ~ 1980 MHz	925 ~ 960/2110 ~ 2170MHz
C23S-CW	824 ~ 849 /1920 ~ 1980 MHz	869 ~ 894/2110 ~ 2170MHz
C23S-CP	824 ~ 849/1850 ~ 1910 MHz	869 ~ 894/1930 ~ 1990MHz
C23S-DW	1710 ~ 1785/1920 ~ 1980 MHz	1805 ~ 1880/2110 ~ 2170MHz
C23S-EL20	832~ 862/880 ~ 915 MHz	791 ~ 821/925 ~ 960 MHz

Technical specification:

Item	Uplink	Downlink
Output power	23±2 dBm	23±2 dBm
Gain	73±2 dB	73±2 dB
Ripple in band	B1≤6 dB / B2≤15 dB / B3≤10 dB /B5≤6dB /B8≤15 dB	
Intermodulation products	9KHz~1GHz 1GHz~12.75GHz	≤-36 dBc ≤-36 dBc
Spurious emission	9KHz~1GHz 1GHz~12.75GHz	≤-36 dBm ≤-30 dBm
ATT range	1~31dB, 1dB step	
ALC active @10dB, output error	△ ≤2 dB	
Idle turn-off	While working at max. gain, if uplink input is <90dBm (idle threshold value) for 5±1 continuous minutes, system will turn off uplink PA; whenever the uplink input is >-90dBm, it will turn on uplink PA instantly.	
Self-oscillation and ISO alarm and over-input alarm	If ATT+ALC>20 and ALC>0, the system will turn off uplink PA and set AGC ALARM in 5s, and reboot the uplink PA in 30±5s. If it happens for 5 continuous times, the system will permanently turn off uplink PA, until the device is turned on again.	If ATT+ALC>20 and ALC>0, the system will turn off uplink PA and attenuate downlink output 30dB simultaneously, and set AGC ALARM, it will reboot the uplink PA in 30±5s. If it happens for 5 continuous times, the system will turn off uplink PA permanently, until the device is turned on again
Noise figure	≤8 dB	≤8 dB
Group delay	≤1.5 μs	≤1.5 μs
I/O impedance	50Ω	
Power supply	DC: +12 V	
Power consumption	< 20 W	
RF connector	N-Female	
Operating temperature	-10°C ~ +55°C	
Size	292*140*48mm	
Weight	<1.8kg	

***C23S-DW and C23S-EL20 are with black 268 molded case as following photo.**

