

S20T-EDW Digital Repeater



Product Overview

With the rapid development of mobile communication technology, the limited spectrum resource is becoming more and more valuable to global wireless management authorities. Frequency resources of some bands are usually divided and distributed to multiple mobile operators. In this case, it will be more difficult to enlarge the signal coverage. Because device have to simultaneously amplify mobile signal of multiple operators and meanwhile, make sure that signal of each operators will not interfere another one. By this, the former analog repeaters are hard to meet the requirements, both economically and technically.

Adopting the latest RF technology, Amplitec S20T-EDW triple band digital repeater is equipped with FPGA chip, which enable digital filter function with an algorithm software. It supports separately setting multiple sub-bands in B1, B3, B8, and flexibly setting frequency and bandwidth according to users' requirements. With advantages of simultaneously enlarging signal coverage of all 2G 3G 4G network in most countries and regions around the world, it is a preferred choice for customers to optimize 2G 3G 4G signal problem for multiple mobile operators.

Product Features

- Digital filter technology makes out-of-band rejection more effective,
- Manual gain control function, to attenuate gain with 1dB step among range of 31dB,
- ALC, with wide range of 31dB, auto limit the output power to ensure stable performance,
- Device auto detect isolation after start-up, to avoid self-oscillation,
- Built-in web page monitoring software, device can locally connect to PC via LAN port. Device's system parameters can be checked and set after logging in with IP address,
- Built-in 3G modem, with wireless connection to monitoring platform, device's system parameters can be checked and set remotely. With 20dBm output power, coverage can be up to 1000sqm,
- MTBF can be up to 100,000 hours.

Technical Specification

Items		Uplink	Downlink
Frequency	B8	880 ~ 915 MHz	925 ~ 960 MHz
	B3	1710 ~ 1785 MHz	1805 ~ 1880 MHz
	B1	1920 ~ 1980 MHz	2110 ~ 2170 MHz
Bandwidth		0.2~10 MHz(Frequency can be set , 200 kHz step)	
Sub-bands	B1/B3/B8	1~4 / 1~8 / 1~3	
Output Power		15±2 dBm	20±2 dBm
Gain		65±2 dB	70±2 dB
Ripple in Band	B8	Type≤3 dB @10M	Type≤3 dB @10M
	B3	Type≤6 dB @10M	Type≤6 dB @10M
	B1	Type≤2 dB@3.84M	Type≤2 dB@3.84M
VSWR		≤2	≤2
Max. input without damage		-10 dBm	-10 dBm
Out-of-band Rejection		3GPP complaint	
Intermodulation Products		≤-30 dBm	≤-20 dBm
Spurious Emission	9KHz~1GHz	≤-36 dBm	≤-36 dBm
	1GHz~12.75GHz	≤-30 dBm	≤-30 dBm
ATT Range		31dB	31dB
ALC active 10dB, output error		△ ≤2 dB	△ ≤2 dB
ALC Alarm Indicator	ARM	Green on during ARM loading in system start-up; green & flashing after loaded.	
	FPGA	Green on during FPGA loading in system start-up; green & flashing after loaded.	
	ALM	Light off: starting up and isolation checking; Red light & flashing:isolation alarm occurs; Red light: sufficient isolation but other alarms exit; Green on: no alarm.	
Local Control Or Remote Control		1. UL&DL Gain	
		2. Frequency	
		3. Output Power	
		4. Uplink noise control	
Noise Figure		≤8dB	≤8dB
TimeDelay		≤13μs	≤13μs
Power Supply		DC: 12V /6.8A	
RF Connector		N-Female	
Environment Condition		IP40	
Humidity		< 90%	
Operating Temperature		-10℃ ~ +55℃	
Size		340*295*95mm	
Weight		<7.2kg	