

S20T Series Dual Band Digital Repeater



Product Features

- Sub-band frequency and bandwidth can be set by local monitoring panel, which is easier and more convenient,
- Digital filter technology makes out-of-band rejection more effective,
- OLED screen can clearly display working frequency, gain, output power and easily check working status of the device,
- Manual gain control function, to attenuate gain with 1dB step among range of 31dB,
- Digital ALC, auto control of output power ensuring stable signal coverage,
- Device auto detect isolation after start-up, to avoid self-oscillation,
- Can be controlled and monitored, via USB connects PC for local control, via 3G or4G modem connects PC for remote control.

Model List

Model	Uplink Frequency Range	Downlink Frequency Range
S20T-B3B8	$880 \sim 915/1710 \sim 1785 \mathrm{MHz}$	$925 \sim 960/1805 \sim 1880 \mathrm{MHz}$
S20T-B1B8	880 ~ 915/1920 ~ 1980 MHz	$925 \sim 960/2110 \sim 2170 MHz$
S20T-B1B3	1710 ~ 1785/1920 ~ 1980 MHz	1805 ~ 1880/2110 ~ 2170MHz
S20T-B8B20	832 ~ 862/1710~1785 MHz	925 ~ 960/791 ~ 821 MHz
S20T-B2B5	1850 ~ 1910/824 ~ 849 MHz	1930 ~ 1990/869 ~ 894 MHz
S20T-B4B5	1710 ~ 1755/824 ~ 849 MHz	2110 ~ 2155 /869 ~ 894 MHz
S20T-B5B28	703 ~ 748/824 ~ 849 MHz	758 ~ 803/869 ~ 894 MHz



Professional mobile communication seamless coverage solution provider

Technical Specification

Operating Bandwidth 0.2 ~ 20 MHz (can be set, step of 200KHz) Output power 15 ± 2dBm 20 ± 2dBm Gain 70 ± 2dB 70 ± 2dB Ripple in Band ≤4 dB ≤4 dB ALC control range ≥ 42dB ≥ 42dB VSWR ≤2 ≤2 Max. input power without damage -10dBm -10dBm Out of Band Gain Fully comply with 3GPP EVM Fully comply with 3GPP EVM Fully comply with 3GPP PCDE Fully comply with 3GPP ACRR Fully comply with 3GPP Spurious Emission 9KHz~1GHz ≤-36dBm ≤-36dBm Spurious Emission 9KHz~1GHz ≤-36dBm ≤-36dBm Spurious Emission 9KHz~1GHz ≤-36dBm ≤-36dBm Soontrol Remote Local OLED operation panel or PC Via USB Control Remote PC Via 4G Modem Control Remote PC Via 4G Modem Control Sub-band switch Monitoring Sub-band switch More persuph	Items		Uplink	Downlink
Output power 15 ± 2dBm 20 ± 2dBm Gain 70 ± 2dB 70 ± 2dB Ripple in Band ≤4 dB ≤4 dB Gain attenuate range 1~31 dB, step of 1 dB ALC control range ≤ 2dB ≤2 VSWR ≤2 ≤2 Max. input power with ut damage -10dBm -10dBm Out of Band Gain Fully comply with 3GPP EVM Fully comply with 3GPP EVM Fully comply with 3GPP FCDE Fully comply with 3GPP ACRR Fully comply with 3GPP Spurious Emission 9KHz~1GHz ≤-36dBm ≤-36dBm ACRR Fully comply with 3GPP Frequency, Bandwith 3GPP Spurious Emission 9KHz~1GHz ≤-36dBm ≤-36dBm ACRR Fully comply with 3GPP Frequency, Bandwith 3GPP Bontrol Frequency, Bandwidth S-30dBm Control Frequency, Bandwidth Sub-band switch Monitoring Output power Alarms (Over output, over temperature, PLL alarm) Noise Figure ≤8dB ≤8dB Time Delay ≤13µs ≤13µs	Sub-bands		1~3 Can be set	
Gain 70 ± 2dB 70 ± 2dB Ripple in Band ≤4 dB ≤4 dB Gain attenuate range 1~31 dB, step of 1 dB ALC control range ≥ 42dB ≥ 42dB VSWR ≤2 ≤2 Max. input power without damage -10dBm -10dBm Out of Band Gain Fully comply with 3GPP EVM Fully comply with 3GPP FCDE Fully comply with 3GPP ACRR Fully comply with 3GPP Spurious Emission 9KHz~1GHz ≤-36dBm 1GHz~12.75GHz ≤-30dBm ≤-36dBm Monitoring & Local Local OLED operation panel or PC Via USB Control Remote PC Via 4G Modem Control Remote PC Via 4G Modem Control Via Us Digain Frequency, Bandwidth Sub-band switch Sub-band switch Monitoring Local Output power Temperature Alarms (Over output, over temperature, PLL alarm) Noise Figure ≤8dB ≤8dB Time Delay ≤13µs ≤13µs Power Consumption <60 W	Operating Bandwidth		$0.2 \sim 20 \text{ MHz}$ (can be set , step of 200KHz)	
Ripple in Band ≤4 dB ≤4 dB Gain attenuate range 1~31 dB, step of 1 dB ALC control range ≥ 42dB ≥ 42dB VSWR ≤2 ≤2 Max. input power with ut damage -10dBm -10dBm Out of Band Gain Fully comply with 3GPP EVM Fully comply with 3GPP FCDE Fully comply with 3GPP ACRR Fully comply with 3GPP Spurious Emission 9KHz~1GHz ≤-36dBm ≤-36dBm Spurious Emission 9KHz~1GHz ≤-30dBm ≤-30dBm Monitoring & Local Local OLED operation panel or PC Via USB Control Remote PC Via 4G Modem S-30dBm Control Remote PC Via 4G Modem POUTA Control Qub D gain Frequency, Bandwidth Sub-band switch Sub-band switch Qubus power Monitoring SadB ≤8dB Noise Figure ≤8dB ≤8dB Sigure ≤8dB ≤8dB Time Delay ≤13µs ≤13µs<	Output power		15 ± 2dBm	20 ± 2dBm
Gain attenuate range 1~31 dB, step of 1 dB ALC control range ≥ 42dB ≥ 42dB VSWR ≤2 ≤2 Max. input power with out damage -10dBm -10dBm Out of Band Gain Fully comply with 3GPP EVM Fully comply with 3GPP FCDE Fully comply with 3GPP ACRR Fully comply with 3GPP Spurious Emission 9KHz~1GHz ≤-36dBm ≤-36dBm Monitoring & Local Local OLED operation panel or PC Via USB Control Remote PC Via 4G Modem Saddem Control Remote PC Via 4G Modem Sub-band switch Monitoring Frequency, Bandwidth Sub-band switch Monitoring Output power Temperature Alarms (Over output, over temperature, PLL alarm) Noise Figure \$8dB \$8dB Time Delay \$13µs \$13µs \$13µs Power Consumption \$60 W \$60 W RF Connector N-Female Frequency (Gain		70 ± 2dB	70 ± 2dB
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Max. input power without damage -10dBm -10dBm Out of Band Gain Fully comply with 3GPP EVM Fully comply with 3GPP PCDE Fully comply with 3GPP ACRR Fully comply with 3GPP Spurious Emission 9KHz~1GHz ≤-36dBm ≤-36dBm Spurious Emission 9KHz~1GHz ≤-30dBm ≤-30dBm Monitoring & Local Local OLED operation panel or PC Via USB Control Remote PC Via 4G Modem Control Frequency, Bandwidth Sub-band switch Monitoring Output power Temperature Alarms (Over output, over temperature, PLL alarm) Noise Figure Noise Figure ≤8dB ≤8dB Time Delay ≤13μs ≤13μs Power Supply C0 27V / 3A Power Consumption <60 W	ALC control range		≥ 42dB	≥ 42dB
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PCDE ACRR Fully comply with 3GPP Fully comply with 3GPP Spurious Emission 9KHz~1GHz ≤-36dBm ≤-36dBm ≤-30dBm Monitoring & Local Local OLED operation panel or PC Via USB control Remote PC Via 4G Modem Control UL & DL gain Frequency, Bandwidth Sub-band switch Monitoring Temperature Alarms (Over output, over temperature, PLL alarm) Noise Figure Temperature Alarms (Over output, over temperature, PLL alarm) Noise Figure SedB SedB Time Delay F13µs S13µs Power Supply DC 27V / 3A Power Consumption Control F140 Humidity Sub-band switch F140 F140 F140 F140 F140 F140 F140 F140	Out of Band Gain		Fully comply with 3GPP	
Fully comply with 3GPP Spurious Emission 9KHz~1GHz ≤-36dBm ≤-36dBm IGHz~12.75GHz ≤-30dBm ≤-30dBm Monitoring & Local Local OLED operation panel or PC Via USB control Remote PC Via 4G Modem Control UL & DL gain Frequency, Bandwidth Sub-band switch Monitoring Output power Temperature Alarms (Over output, over temperature, PLL alarm) Noise Figure ≤8dB ≤8dB Time Delay ≤13µs ≤13µs Power Supply DC 27V / 3A Power Consumption <60 W RF Connector N-Female Environment Condition IP40 Humidity <90% Dimension ≤68*250*96mm	EVM		Fully comply with 3GPP	
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Monitoring & control Local Local OLED operation panel or PC Via USB Control UL & DL gain Frequency, Bandwidth Sub-band switch Monitoring Output power Temperature Alarms (Over output, over temperature, PLL alarm) Noise Figure ≤8dB ≤8dB Time Delay ≤13μs ≤13μs Power Supply DC 27V / 3A Power Consumption < 60 W	Spurious Emission	9KHz~1GHz	≤-36dBm	≤-36dBm
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Control $ \begin{array}{c} UL \& DL \ gain \\ Frequency, Bandwidth \\ Sub-band \ switch \\ \\ Monitoring \\ \hline \\ Output \ power \\ \hline \\ Temperature \\ Alarms (\ Over \ output, \ over \ temperature, \ PLL \ alarm) \\ \hline \\ Noise Figure \\ \\ Alarms (\ Over \ output, \ over \ temperature, \ PLL \ alarm) \\ \hline \\ Noise Figure \\ \\ \leq 8dB \\ \\ \leq 8dB \\ \hline \\ Time \ Delay \\ \\ Power \ Supply \\ DC \ 27V \ / \ 3A \\ \hline \\ Power \ Consumption \\ RF \ Connector \\ N-Female \\ \hline \\ Environment \ Condition \\ IP40 \\ \hline \\ Humidity \\ \\ Coperating \ Temperature \\ \hline \\ -10^{\circ}C \ \sim +55^{\circ}C \\ \hline \\ Dimension \\ \hline \end{array} $	Monitoring &	Local	Local OLED operation panel or PC Via USB	
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Environment Condition IP40 Humidity <90% Operating Temperature -10°C ~ +55°C Dimension 268*250*96mm	Power Consumption		< 60 W	
Humidity $< 90\%$ Operating Temperature $-10^{\circ}\text{C} \sim +55^{\circ}\text{C}$ Dimension $268*250*96\text{mm}$	RF Connector		N-Female	
Operating Temperature $-10^{\circ}\text{C} \sim +55^{\circ}\text{C}$ Dimension $268*250*96\text{mm}$	Environment Condition		IP40	
Dimension 268*250*96mm	Humidity		< 90%	
	Operating Temperature		-10°C ∼ +55°C	
Weight <5.5kg	Dimension		268*250*96mm	
	Weight		<5.5kg	



