Amplitee[®] All interconnection Amplitec achieves

S27S 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
- 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
- With 20dBm output power, coverage can be up to 1000 m^2
- MTBF can be up to 100,000 hours

Models	Uplink	Downlink
S27S-B3B8	880 ~ 915/1710 ~ 1785 MHz	925 ~ 960/1805 ~ 1880MHz
S27S-B1B8	880 ~ 915/1920 ~ 1980 MHz	925 ~ 960/2110 ~ 2170MHz
S27S-B1B3	1710 ~ 1785/1920 ~ 1980 MHz	1805 ~ 1880/2110 ~ 2170MHz
S27S-B3B20	830 ~ 862/1710~1785 MHz	791 ~ 821/1805~1880 MHz
S27S-B1B20	791 ~ 821/1920 ~ 1980 MHz	832 ~ 862/2110 ~ 2170 MHz
S27S-B7B8	880 ~ 915/2500 ~ 2570 MHz	925 ~ 960/2620 ~ 2690MHz
S27S-B7B20	791 ~ 821/2500 ~ 2570 MHz	832 ~ 862/2620 ~ 2690MHz

Model List



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Professional mobile communication seamless coverage solution provider

Technical Specification

Noise Figure≤6 dB≤6 dBTime Delay≤13 μs≤13 μsPower SupplyDC: 27 V /5 ARF ConnectorN-FemaleEnvironment ConditionIP40Humidity<90%Operating Temperature-10°C ~ +55°CDimension350*200*58mm	Items		Uplink	Downlink
Output power20±2 dBm27±2 dBmGain75±2 dB80±2 dBRipple in Band<4 dB	Operating Bandwidth		0.2~20 MHz(Frequency can be set , 200 kHz step)	
Gain75± 2 dB80± 2 dBRipple in Band<4 dB	Sub-bands		1~3	
<table-container>Ripple in Band≤4 dB≤4 dBVSWR52<2</table-container>	Output power		20±2 dBm	27±2 dBm
VSWR<2Max. input power withut damage-10 dBm-10 dBmOut of Band GainFully comply with 3GPPEVMFully comply with 3GPPPCDEFully comply with 3GPPACRRFully comply with 3GPPACRRFully comply with 3GPPSpurious Emission9KH2~1GHZGain Attentute Range1~31 dB,step of 1 dBALC active 10dB, output power error △ ≤2 dBALC active 10dB, output power error △ ≤2 dBALC active 5~10dB-ALC active 5~10dB-Somantic2. Frequency3.Bandwidth-Sole 100 power-3.Aarms(Over output alarm, over treparture alarm,PLL alarm)Noise FigureSo 6 dBTime Delay-Vorter SupplyCi 27 V /5 ARF ConnectorN-FemaleEnvironment ConditiorP40Humidity<90%	Gain		75±2 dB	80±2 dB
Max. input power witbut damage-10 dBm-10 dBmOut of Band GainFully comply with 3GPPEVMFully comply with 3GPPPCDEFully comply with 3GPPACRRFully comply with 3GPPACRRFully comply with 3GPPSpurious Emission9KH2~1GHZGain Attentute Range1~31 dB,step of 1 dBALC active 10dB, output power error △ ≤2 dBALC active 10dB, output power error △ ≤2 dBALC active 5~10dB-ALC active 5~10dB-Monitoring and contr-Control2. Frequency3.Bandwidth-Salandwidth-Salandwidth-Salarms(Over output alarm, over treature alarm,PLL alarm))Noise FigureS6 dBSig 13 μs<13 μs	Ripple in Band		≤4 dB	≤4 dB
Out of Bain Gain Fully comply with 3GPP EVM Fully comply with 3GPP PCDE Fully comply with 3GPP ACRR Fully comply with 3GPP Spurious Emission 9KHz~1GHz <-36 dBm	VSWR		≤2	≤2
Fully comply with 3GPPPCDEFully comply with 3GPPACRRFully comply with 3GPPSpurious Emission9KHz~1GHz $3CRR9KHz~1GHzGain Attentute Range1~31 dB,step of 1 dBALC active 10dB, output power error \bigtriangleup \le 2 dBALC active 10dB, output power error \bigtriangleup \le 2 dBALC active 5~10dB-ALC active 5~10dB-ALC active 5~20dB-ALC active 5~20dB-Monitoring and control1.0Ll&DL gainControl1.0Ll&DL gainControl1.0utput powerNoise FigureSe dBSe dB<6 dB$	Max. input power without damage		-10 dBm	-10 dBm
PCDEFully comply with 3GPPACRRFully comply with 3GPPSpurious Emission $\frac{9KHz^{*1}GHz}{1GHz}$ $5-36$ dBm ≤ -36 dBmGain Attentute Range1~31 dB,step of 1 dBALC active 10dB, output power error $ \bigtriangleup \le 2$ dBALC Active 10dB, output power error $ \bigtriangleup \le 2$ dBALC Active 5~10dB—ALC Active 5~10dB—ALC Active 5~10dB—ALC active >20dB—ALC active >20dB—Monitoring and controlButton and OLED Display screen1.UL&DL gain-Control2. Frequency3.Bandwidth-Monitoring2. GdBMonitoringSed dBMonitoring1.0utput powerNoise FigureSed dBSpure SupplySed dBPower SupplyC:Power SupplyC:RF ConnectorN-FemaleEnvironment ConditiorIP40Humidity<90%	Out of Band Gain		Fully comply with 3GPP	
ACRR Fully comply with 3GPP Spurious Emission 9KH2~1GHz ≤-36 dBm ≤-36 dBm Gain Attentute Range 1°A1 dB,step of 1 dB ALC active 10dB, output power error △ ≤2 dB △ ≤2 dB ALC Attern Indicator ALC not active - Green ALC Alarm Indicator ALC active 5~10dB - Red Monitoring and control Button and OLED Display screen Red Monitoring and control Button and OLED Display screen I.UL&DL gain Control 2. Frequency 3.Bandwidth - Monitoring - Se dB Se dB Monitoring - Se dB Se dB Monitoring - Se dB Se dB Noise Figure Se dB Se dB Se dB Power Supply	EVM		Fully comply with 3GPP	
Spurious Emission9KHz~1GHz 1GHz~12.75GHz \le -36 dBm \le -30 dBm \le -30 dBmGain Attentute Range1~31 dB,step of 1 dBALC active 10dB, output power error $ \triangle \le 2$ dB $ \triangle \le 2$ dBALC active 10dB, output power error $ \triangle \le 2$ dB $ \triangle \le 2$ dBALC Alarm IndicatorALC not active ALC active 5~10dB $-$ GreenALC Alarm IndicatorALC active 5~10dB ALC active 5~10dB $-$ RedMonitoring and control LocalButton and OLED Display screenRedMonitoring1.UL&DL gain $ -$ Control2. Frequency 3.Bandwidth $ -$ Monitoring1.Output power $ -$ Monitoring2. Temperature 3.Alarms(Over output alarm, over temperature alarm,PLL alarm)Noise Figure \le 6 dB \le 6 dBTime Delay $ -$ Power Supply $ -$ RF Connector $ -$ RF Connector $ -$ RF Connector $ -$ Humidity $<$ $ -$ Operating Temperature $ -$ <td>PCDE</td> <td></td> <td colspan="2">Fully comply with 3GPP</td>	PCDE		Fully comply with 3GPP	
Spurious EmissionIGHz~12.75GHz≤-30 dBm≤-30 dBmGain Attentute Range1 31 dB,step of 1 dBALC active 10dB, outper error $ △ ≤ 2 dB$ $ △ ≤ 2 dB$ ALC active 10dB, outper error $ △ ≤ 2 dB$ $ △ ≤ 2 dB$ ALC Alarm IndicatorALC active 5~10dB $-$ GreenALC Alarm IndicatorALC active 5~10dB $-$ RedALC active >20dB $-$ RedMonitoring and controlLocalButton and OLED Display screenRedControl2. Frequency3.BandwidthControl2. Frequency3.BandwidthMonitoring2. Temperature2.TemperatureMonitoring56 dB≤6 dBTime Delay56 dB≤13 µsPower SupplyS13 µSS13 µSPower SupplyN- FemaleRF ConnectorN- FemaleHumidity< 90%	ACRR		Fully comply with 3GPP	
IGHz~12.75GHz ≤-30 dBm ≤-30 dBm Gain Attentute Range 1~31 dB,step of 1 dB ALC active 10dB, output power error △ ≤2 dB △ ≤2 dB ALC Active 10dB, output power error △ ≤2 dB △ ≤2 dB ALC Alarm Indicator ALC active 5~10dB - Green ALC Active 5~10dB - Red ALC Active 5~10dB - Red Monitoring and control Button and OLED Display screen Red Control 1.UL&DL gain 2. Frequency Control 2. Frequency 3.Bandwidth Monitoring 1.Output power 2. Temperature Monitoring 2. G dB ≤6 dB Monitoring <6 dB	Spurious Emission	9KHz~1GHz	≤-36 dBm	≤-36 dBm
ALC active 10dB, output power error $ \triangle \leq 2 dB$ $ \triangle \leq 2 dB$ ALC Alarm Indicator ALC not active - Green ALC Alarm Indicator ALC active 5~10dB - Orange ALC active >20dB - Red Monitoring and control Local Button and OLED Display screen Red Control 1.UL&DL gain 1.UL&DL gain 1.UL&DL gain Control 2. Frequency 3.Bandwidth 3.Bandwidth Monitoring 2.Temperature 3.Alarms(Over output alarm, over temperature alarm,PLL alarm)) Noise Figure <6 dB	Spurious Emission	1GHz~12.75GHz	≤-30 dBm	≤-30 dBm
ALC Alarm IndicatorALC not activeGreenALC Alarm IndicatorALC active 5~10dB-OrangeALC active >20dB-RedMonitoring and control LocalButton and OLED Display screenControl1.UL&DL gainControl2. Frequency3.BandwidthMonitoring1.Output powerALT arms(Over output alarm, over temperature alarm,PLL alarm))Noise Figure<6 dB	Gain Attentute Range		1~31 dB,step of 1 dB	
ALC Alarm Indicator ALC active 5~10dB — Orange ALC active >20dB — Red Monitoring and control Button and OLED Display screen Red Monitoring and control I.UL&DL gain IUL&DL gain Control 2. Frequency 3.Bandwidth Monitoring I.Output power I.Output power Monitoring I.Output power I.Output power Monitoring S.Alarms(Over output alarm, over treprature alarm,PLL alarm)) Noise Figure S6 dB S6 dB Time Delay I.S. 27 V / 5 A I.S. 200% Fronnector IP40 Interview Invironment Condition IP40 Interview Indicting Temperature -10°C ~ +55°C Interview Intersion S08*200*58mm Interview	ALC active 10dB, output power error		△ ≤2 dB	△ ≤2 dB
ALC active >20dB — Red Monitoring and control Local Button and OLED Display screen Monitoring and control Local 1.UL&DL gain Control 2. Frequency 3.Bandwidth 3.Bandwidth Monitoring 1.Output power Monitoring 2. Temperature 3.Alarms(Over output alarm, over t=perature alarm,PLL alarm)) Noise Figure ≤6 dB Time Delay ≤13 µs Power Supply DC: 27 V /5 A RF Connector N-Female Environment Condition IP40 Humidity <90%		ALC not active	_	Green
Monitoring and control LocalButton and OLED Display screenI.UL&DL gain2.Frequency3.Bandwidth3.Bandwidth2.Temperature3.Alarms(Over output alarm, over temperature alarm,PLL alarm))Noise Figure66 dB56 dB13 µsPower SupplyDC: 27 V/5 ARF ConnectorN-FemaleEnvironment ConditionIP40	ALC Alarm Indicator	ALC active 5~10dB	_	Orange
1.UL&DL gain 2. Frequency 3.Bandwidth 1.Output power 2.Temperature 3.Alarms(Over output alarm, over temperature alarm,PLL alarm)) Noise Figure ≤6 dB 11me Delay ≤13 µs Power Supply DC: 27 V /5 A RF Connector N-Female Environment Condition IP40 Humidity <90%		ALC active >20dB	_	Red
Control 2. Frequency 3.Bandwidth 3.Bandwidth Monitoring 1.Output power 2.Temperature 3.Alarms(Over output alarm, over temperature alarm,PLL alarm)) Noise Figure ≤6 dB Time Delay ≤13 µs Power Supply DC: 27 V /5 A RF Connector N-Female Environment Condition IP40 Humidity <90%	Monitoring and control Local		Button and OLED Display screen	
3.Bandwidth 3.Bandwidth 1.Output power 2.Temperature 3.Alarms(Over output alarm, over temperature alarm,PLL alarm)) Noise Figure ≤6 dB Time Delay ≤13 µs Power Supply DC: 27 V /5 A RF Connector N-Female Environment Condition IP40 Humidity <90%	Control		1.UL&DL gain	
1.Output power 2.Temperature 3.Alarms(Over output alarm, over temperature alarm,PLL alarm)) Noise Figure ≤6 dB Time Delay ≤6 dB Power Supply DC: 27 V /5 A RF Connector N-Female Environment Condition IP40 Humidity <90%			2. Frequency	
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3.Alarms(Over output alarm, over terreture alarm,PLL alarm))Noise Figure≤6 dB≤6 dBTime Delay≤13 μs≤13 μsPower SupplyDC: 27 V /5 ARF ConnectorN-FemaleEnvironment ConditionIP40Humidity<90%	Monitoring		1.Output power	
Noise Figure≤6 dB≤6 dBTime Delay≤13 μs≤13 μsPower SupplyDC: 27 V /5 ARF ConnectorN-FemaleEnvironment ConditionIP40Humidity<90%			2.Temperature	
Time Delay≤13 μs≤13 μsPower SupplyDC: 27 V /5 ARF ConnectorN-FemaleEnvironment ConditionIP40Humidity<90%			3.Alarms(Over output alarm, over temperature alarm,PLL alarm))	
Power SupplyDC: 27 V /5 ARF ConnectorN-FemaleEnvironment ConditionIP40Humidity<90%	Noise Figure		≤6 dB	≤6 dB
RF ConnectorN-FemaleEnvironment ConditionIP40Humidity< 90%	Time Delay		≤13 µs	≤13 µs
Environment ConditionIP40Humidity< 90%	Power Supply		DC: 27 V /5 A	
Humidity< 90%Operating Temperature-10°C ~ +55°CDimension350*200*58mm	RF Connector		N-Female	
Operating Temperature $-10^{\circ}C \sim +55^{\circ}C$ Dimension350*200*58mm	Environment Condition		IP40	
Dimension 350*200*58mm	Humidity		< 90%	
	Operating Temperature		-10℃ ~ +55℃	
	Dimension		350*200*58mm	
weight <4.5kg	Weight		<4.5kg	



Amplite: Corporation

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