



Smart amplifier with 20 dB gain

GNSS-SMART-A

Key Features

GNSS +20 dB Amplifier with Bias-T, designed to boost GNSS signals and compensate for losses in demanding RF installations.

With 20 dB gain, the amplifier helps overcome signal attenuation caused by long coaxial cable runs, connectors, splitters, and other RF components. For flexible powering, the amplifier can be powered using the integrated Bias-T functionality, or DC power can be supplied directly over the coaxial output. This provides greater flexibility when integrating the amplifier into different GNSS system architectures.

Typical use cases

- Long antenna cable runs — Compensate for signal loss between the GNSS antenna and receiver.
- GNSS distribution systems — Recover losses introduced by splitters, cables, and other passive RF components.
- Remote antenna installations — Choose between Bias-T powering or DC power supplied over the coaxial output.
- Timing and synchronization systems — Maintain strong GNSS signal levels in infrastructure and timing installations.
- Test and laboratory setups — Add a controlled 20 dB gain stage to GNSS RF signal chains.
- Complex GNSS installations — Easily integrate the amplifier into systems with different RF and power configurations.

Compact and easy to integrate, the +20 dB GNSS Amplifier with Bias-T provides a practical solution for maintaining strong GNSS signal levels while offering flexible power options for a wide range of GNSS installations.

General				
Size	130x89x42 mm 5.12x3.54x1.65 inches 			
Weight	0.29 kg, 0.64 pounds			
Operating Temperature	-25 - +55°C			
RF IN (1) and RF OUT Connectors (4)	TNC female			
Impedance	50 Ω			
IP Rating	IP66			
Electrical				
	Min	Typical	Max	Unit
Frequency Range	1.150		1.627	GHz
Gain (GNSS bands)	19	21	23.5	dB
RF Input			-20	dBm
Input Voltage	4.2		15	VDC
Current Consumption @ 5V		10		mA
Output Voltage		Dependent on input voltage		
Voltage drop from RF OUT to RF IN @ 100mA		5		mV
Max. Antenna Current			100	mA



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