



Alto series C-band Amplifier Module

Local control only, with settable variable gain

The Alto series of amplifiers provide excellent RF performance with a wide range of functionality, in a compact chassis. They are designed with hot swap amplifier modules to enhance resilience and flexibility.

Other options in the Alto range: The Alto amplifier range is also available with additional features such as AGC (automatic gain control), LNB powering, 10MHz and DC pass and redundancy configurations up to 4+2.

Typical applications:

- Compensation for passive splitters/combiners and cable loss
- General satcoms—teleports, video head-ends, TVRO

Amplifier Module

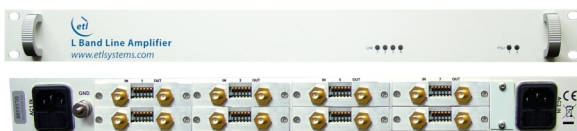


5800 - 6500 MHz
operating C-Band frequency range



15-30 dB Variable gain to balance input signals

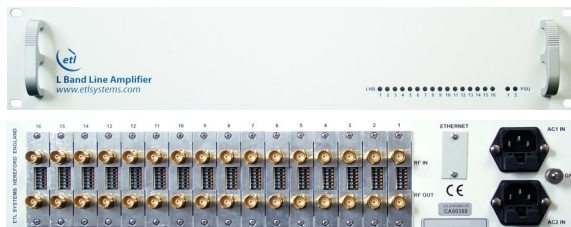
Chassis Options



Chassis Model ALT-C100-1U



Compact chassis options, which can house 8 to 16 amplifier modules



Chassis Model ALT-C101-2U



Local control & monitoring via module DIP switches & front panel LEDs



Resilience from dual redundant power supplies & hot swap amplifier modules





Amplifier Module Specifications

RF Parameters			
Frequency Range		5800 to 6500MHz (C-band)	
RF Connectors		50Ω SMA	
Gain	Maximum	30±2 dB	Mean gain over 5.8 6.5 GHz
	Minimum	15±2 dB	
Flatness	Full band	±1.5 dB	
	Any 36MHz	±0.4 dB	
Gain Steps		1 ± 0.2 dB (Over 15 dB gain range)	
Input Return Loss	Typical	14 dB	
	Minimum	10 dB	
Output Return Loss	Typical	14 dB	
	Minimum	10 dB	
1dB Gain Compression		>5 dBm	Maximum gain
OIP3		> 15 dB	Max gain, 3rd order interception point, output power
Isolation		> 50 dB	With amplifiers sat at the same gain level. Worst case isolation is between adjacent amps, isolation degrades dB-to-dB for different gain levels
Reverse Gain		< - 35 dB Typical	
Noise Figure	Typical	9.5 dB	At maximum gain
	Maximum	11 dB	
In band, signal related spuri		-85 dBm max	Very low level spuri from CPU clock, switch mode PSU and other electronics inside the chassis
MTBF		> 250,000 hours	
Maximum input level		+20dBm Absolute maximum	

Environmental	
Operating temperature	0 to 55°C
Location	Indoor use only
Storage temperature	-20°C to +75°C
Humidity	20 to 90% non-condensing

System Control	
Local Control	Via DIL switches on the module

Power	
LNB Power	None

RF connector & impedance options
Please add the relevant suffix to the model number to indicate your required connectors: BNC 50 Ω - B5B5 BNC 75 Ω - B7B7 F-type 75 Ω - F7F7 SMA 50 Ω - S5S5

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.

Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

Chassis Options

Chassis Specifications		
Model Numbers	ALT-C100-1U	ALT-C101-2U
Dimensions	1U high x 350mm deep x 19" wide	2U high x 450mm deep x 19" wide
Capacity	Up to 8 modules (up to 4 modules with N-type connectors)	Up to 16 modules (up to 8 modules with N-type connectors)
Weight	6 kg Fully populated	8 kg Fully populated
Colour	White 00-E-55 semi-gloss	
AC Power	85-264Vac 50/60 Hz, Fused 2A	
PSU	Dual redundant, Diode OR. Monitored via front panel LEDs	
Hot-swap PSU	No	
Power Consumption	< 100W all channels	
LNB Power	N/A	N/A
Monitoring	Via front panel LEDs for power supplies & amplifier modules	