

# Adjustable Gain Amplifier L-band

## Key features



- Flat 24 dB gain or Slope 18-25 dB gain
- 22 kHz and 10 MHz bypass
- Gain adjustable 0 to -10 dB
- High P1 dB and IP3
- Available with F, N or SMA connectors
- Separate DC input as option
- Equivalent with previous version, ILA 18-24

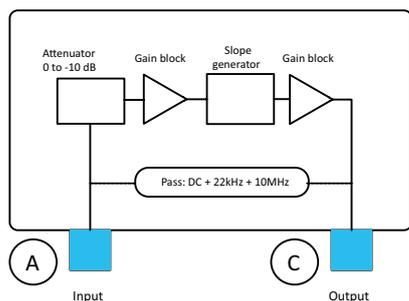
### Description

Our new gain adjustable Low power Line Amplifiers have very high IP3 and P1dB to allow to be installed direct after or close to the LNB. Can be ordered as Flat 24 dB gain or Slope 18-25 dB gain.

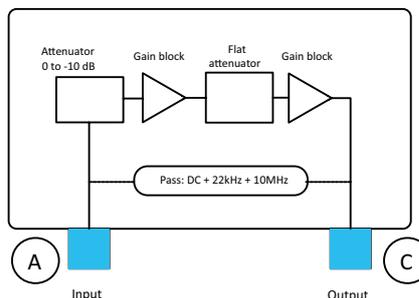
Available with F-, N- or SMA-connectors.

DC, 22 kHz and 10 MHz bypass, is standard. Options include Separate DC power input via connector (F, N or SMA) or via cable (pigtail).

### Slope 18-25 dB gain model



### Flat 24 dB gain model



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# Adjustable Gain Amplifier L-band

## Technical specifications

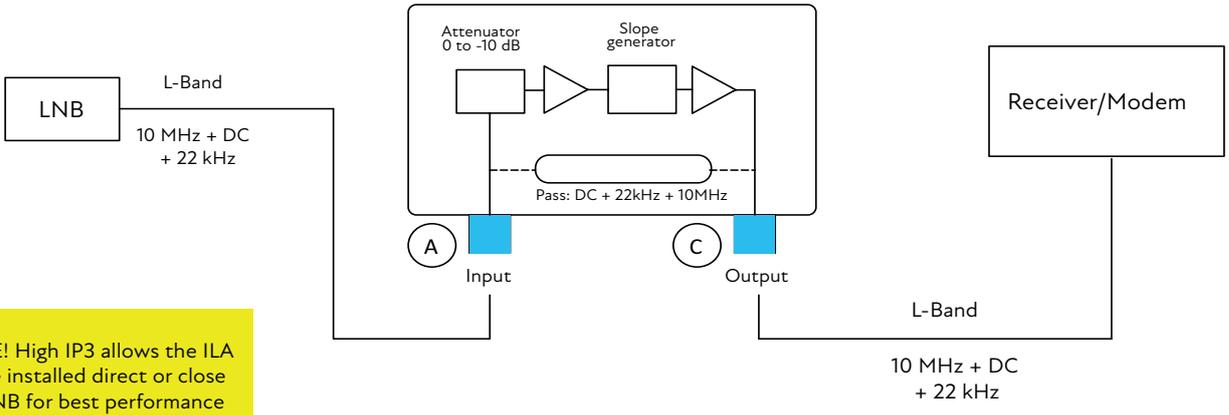
MODEL	ILA 18-25 dB, slope	ILA 24 dB flat
Frequency range	950-2150 MHz	
DC input	+12 to +28 V, 1A max. bypass	
Power consumption	70 mA @ 12 V, 40 mA @ 26 V typ.	
Gain typ.	18 dB @ 950 MHz, 25 dB @ 2150 MHz, adjustable 0 to -10 dB	24 dB @ 950 - 2150 MHz, adjustable 0 to -10 dB
Gain Flatness 30 MHz	n/a	±0.2 dB
Gain flatness full band	Slope 7 dB typ.	±1 dB
Gain adjustment	Use a Philips nr 2 screwdriver to remove the cover screw and use a 2mm flat screwdriver to adjust the gain.	
Bypass standard	10 MHz and 22 kHz ( 22 kHz n/a with DC block IN or OUT )	
Output P1dB	+16 dBm typ.	
Output IP3	+32 dBm typ.	
Input IP3	min. +7 dBm @ max. gain, min. +18dBm @ min. gain	
Group delay	± 1 ns max.	
Return loss in/out	N- and SMA-connector: min. 10dB, typ 15 dB, with F connector min. 8dB, typ. 13 dB	
Noise Figure / Noise Temperature	max. 8 dB / 1540 K @ spec. max. gain, max. 18dB / 18008 K @ spec. min. gain.	
Dimensions	96 x 28 x 89 mm ( N connectors )	
Weight	208 g ( F & SMA connectors ), 250 g ( N connectors )	
Temperature Range	Storage and operating: -40 to +80°C, -40 to +176°F	
MTBF	MTBF as per MIL-HDBK-217F Notice 2: Environmental Condition GF (Ground Fixed): >9000000 hours, Environmental Condition A1C (Airborne, Inhabited, Cargo): >45000000 hours, Quality level: Commercial, Temperature used for MTBF calculation: +35°C Ambient	
Ingress protection code	IP 67	
Material & Finish	Die-cast aluminium, Powder coated	
Input connector (A)	SMA-type 50Ω female, N-type 50Ω female or F-type 75Ω female	
Output Connector (C)	SMA-type 50Ω female, N-type 50Ω female or F-type 75Ω female	
Options	Separate DC input (via F / N / SMA-connector, or cable) with integrated DC-block(s)	

GENERAL

# Adjustable Gain Amplifier L-band

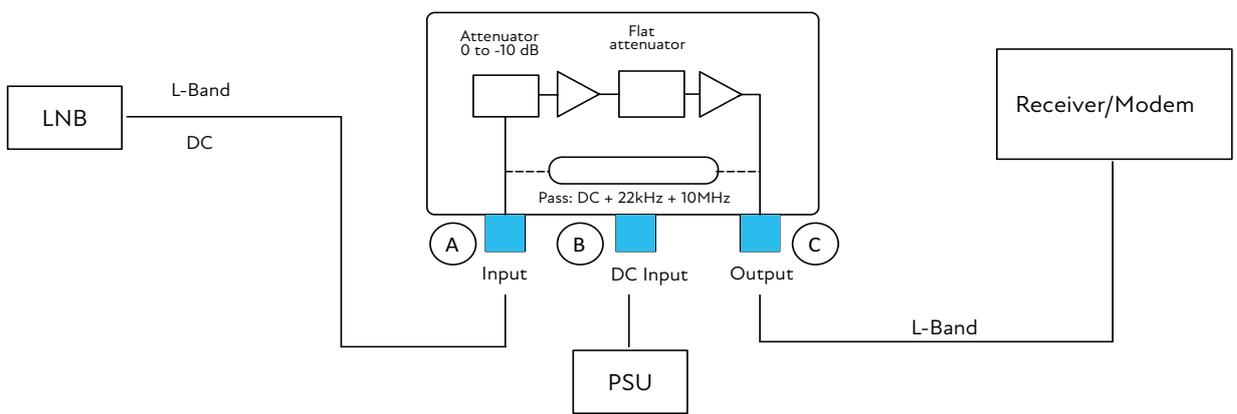
## Installation examples

P/N LILA-?X?S-XXXX-02 (Slope 18-25 dB gain)



**NOTE!** High IP3 allows the ILA to be installed direct or close to LNB for best performance

P/N LILA-???F-XXXX-02 (Flat 24 dB gain & Sep. DC input)



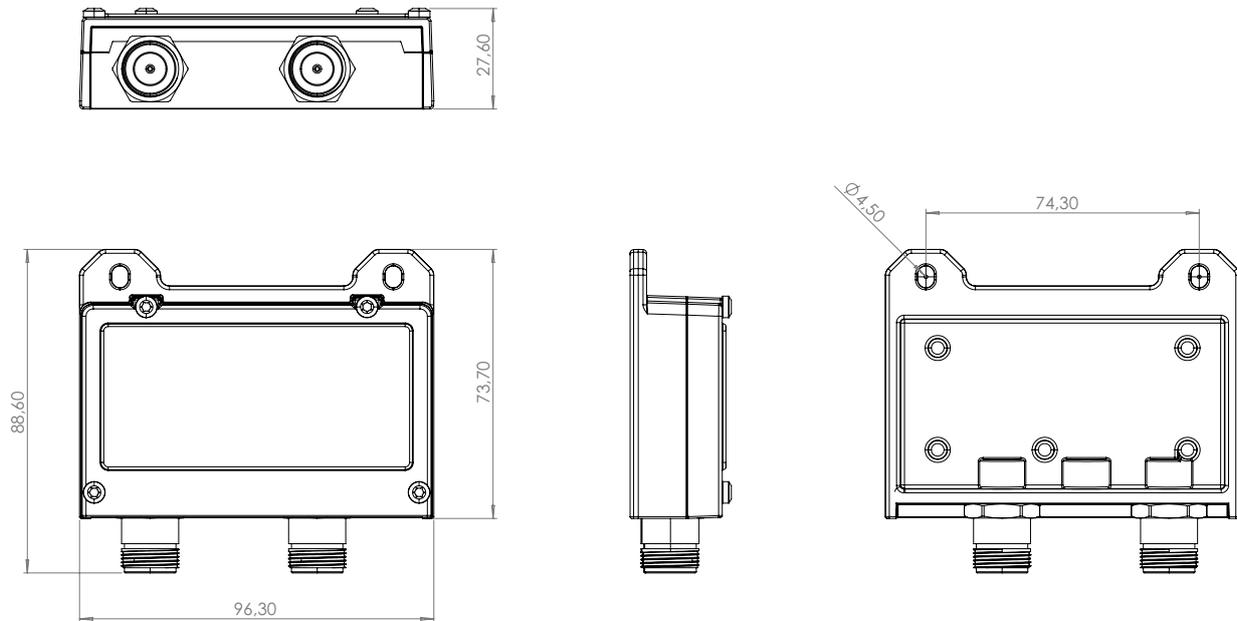
### Part number designation for the Adjustable ILA

Model	ILA input Connector A		Sep. DC input B		ILA output Connector C		Type		DC Block A	DC Block C	Future use	Future use	Version
LILA	?		?		?				?	?	X	X	02
	0	F	X	No	0	F	F	Flat 24 dB	X	No DC block			
	5	N	0	F	5	N	S	Slope 18-25 dB					
	8	SMA	5	N	8	SMA							
			8	SMA					1	DC Block			
			9	Pigtail									

Example: Adjustable Line Amplifier with slope & N connectors + sep. DC input (pigtail) and DC block at Output = LILA-595S-X1XX-02

# Adjustable Gain Amplifier L-band

## Technical Drawing



Designed and  
Manufactured



Professional Satcom Frequency Converters & Components. All products are fully CE and RoHS compliant and every unit includes full documentation of performance tests and quality control. Please contact [sales@smw.se](mailto:sales@smw.se) to configure or customize the unit to your needs. Visit [smw.se](http://smw.se) or scan QR code to see our full product range and request a quote.

