

3-Band PLL LNB

Part no: KA-AOPXXXXX-152A-XX-33-SE

Key features



- SES O3b mPOWER certified
- Auto LO ref Ext. 10 MHz / Internal ± 1.5 ppm
- High P1dB and IP3
- DVB-S2X VSAT profile compliant.
- 3 sub-band, 17.70-20.20 GHz
- Wide operating temperature range



Description

The Ka-band 3-Band PLL LNB is certified by SES O3b mPOWER for use within the frequency range of 17.70 to 20.20 GHz. Band switching via Voltage/tone (13/18V/22 kHz). Includes enclosure fixing points and Low Loss Waveguide Isolator.

As a well known manufacturer of high quality, high performance, cost effective Professional Satcom Block Downconverter products, we applied our knowledge and experience in this extensive collaboration to develop this LNB. Succesfully meeting all requirements set by SES.

LNB rear connector



Connector A (standard)

Type: N-f
 Functions: L-Band out, DC in, External 10 MHz in,
 Band switching 13/18V & 22 kHz

Technical references:

1. SES mPower UT RF Components Technical Requirements Document, Oct. 14, 2019, v1.8
2. SES mPower UT RF Components Test Report - SMW, July 22, 2020, v.02

3-Band PLL LNB

Part no: KA-AOPXXXXX-152A-XX-33-SE

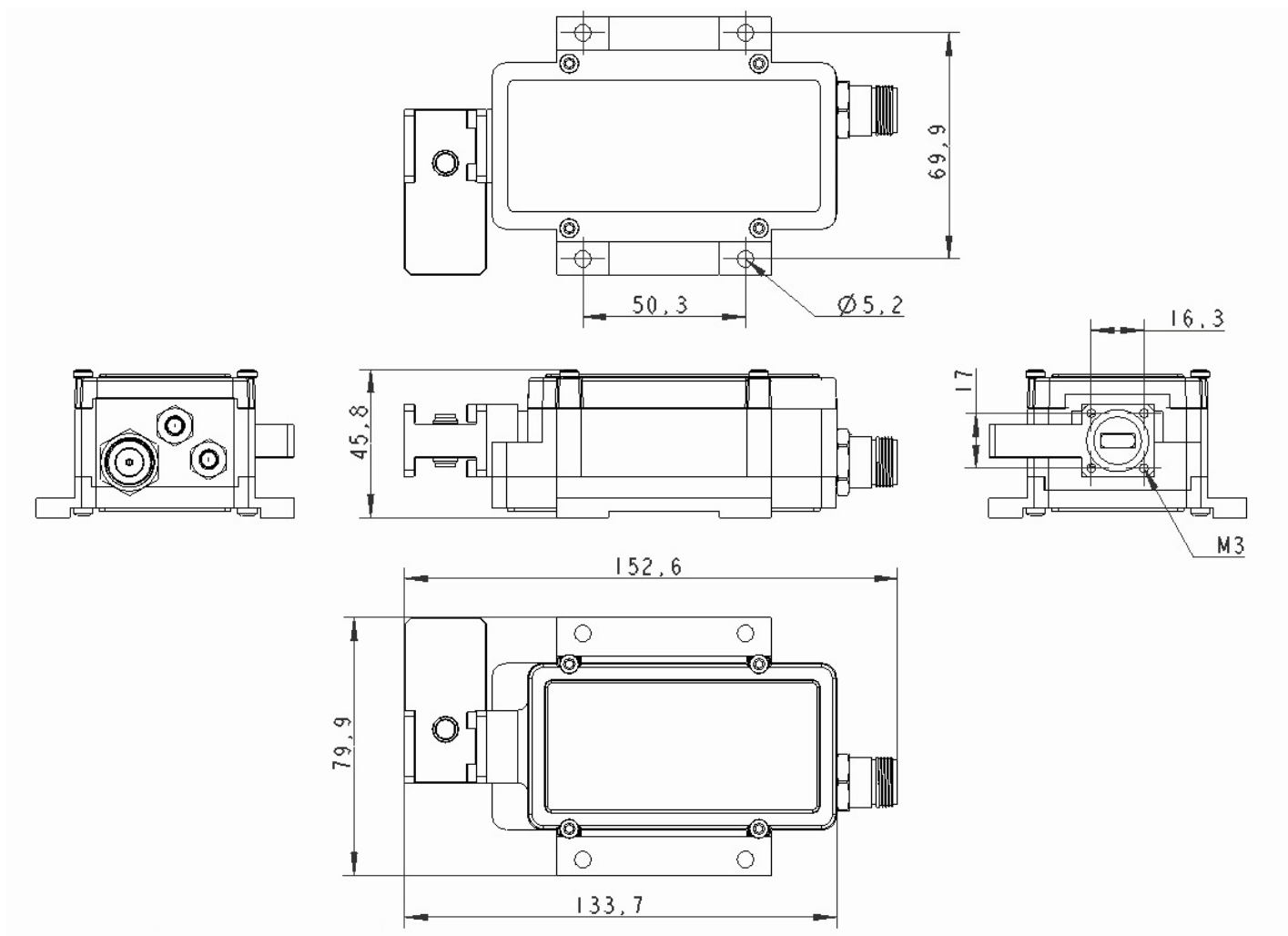
Technical specifications

MODEL		KA-AOPXXXXX-152A-XX-33-SE		
INPUT	Input frequency	17.70-18.70 GHz	18.45-19.45 GHz	19.20-20.20 GHz
	LO frequency	16.75 GHz	17.50 GHz	18.25 GHz
	Band switching	13 V (11.5-14.9 V), No tone	18 V (15.2-26.0 V), No tone	18 V (15.2-26.0 V), 22 kHz tone
	Input	Flange PBR220, waveguide WR42		
	Pressurizable	0.1 bar max.		
	DC Input	See switching voltage above.		
	Power consumption	5W max.		
INTERNAL	Return loss	-15 dB max.		
	LO ref.	Auto switch External / Internal		
	Internal LO ref.	± 1.5 ppm -20 to +60°C		
	External LO ref.	Sine Wave, Sine wave, Level -10 to +10 dBm. Supplied through output connector.		
	LO Leakage	-60 dBm max.		
	Gain	60 dB typ. 55dB min. standard		
	Flatness each band	±2 dB max.		
	Noise figure	1.5 dB max.	1.5 dB max.	1.6 dB max.
	Phase Noise	-33 dBc @ 10 Hz -63 dBc @ 100 Hz -73 dBc @ 1 kHz -83 dBc @ 10 kHz -93 dBc @ 100 kHz -93 dBc @ >1 MHz max.		
	Image Rejection	40 dB min.	40 dB min.	35 dB min.
OUTPUT	IF out	950-1950 MHz	950-1950 MHz	950-1950 MHz
	P1dB	+15 dBm min.		
	IP3	+25 dBm min.		
	Return loss	-10 dB max.		
	Connector	N-type 50Ω		
GENERAL	Dimensions	153 x 80 x 46 mm, including isolator		
	Weight	425 g including isolator		
	Temperature range	Storage and operating: -40 to +80°C, -40 to +176°F		
	Miscellaneous	Enclosed conductive O-ring, mounting screws (M3 x 8) 4 pcs		

3-Band PLL LNB

Part no: KA-AOPXXXXX-152A-XX-33-SE

Technical Drawing



Designed and
Manufactured



IN SWEDEN

SMW 

ESATCOM 
INC

SMW authorized distributor

ESATCOM INC.

3628 Francis Lewis Blvd.

Flushing, NY 11358

www.esatcom.com

Tel: 718.799.0084

Email: sales@esatcom.com