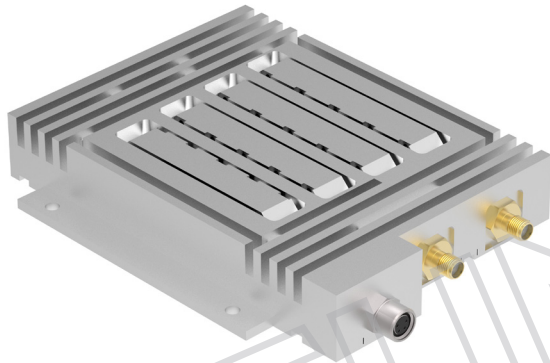


AESA Ka-Band MPA and filter 27-31 GHz

Key features



- Switchable filters
- DVB-S2X compliant VSAT profile
- High P1dB and IP3
- Compact & Lightweight 25.4 mm (1 inch) height
- Monitoring & Control via RS-485 Interface

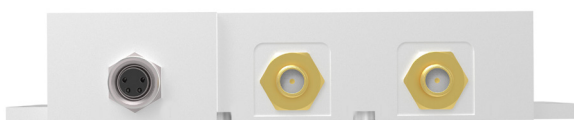
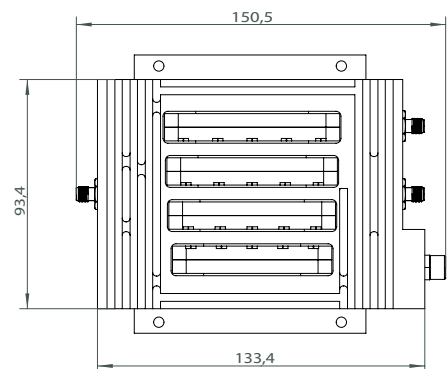
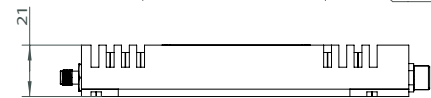
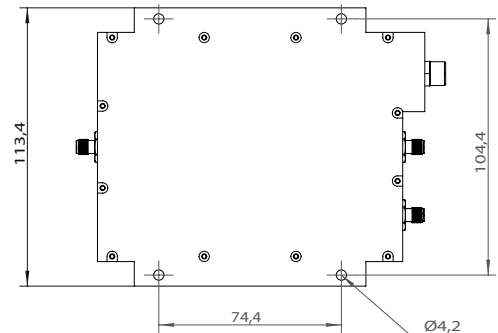


Description

AESA MPA and filter – one of our most advanced products to date. Active Electronically Scanned Array (AESA) Frequency Converter Modules, designed for integration in AESA antennas.

In the era of New Space – LEO, MEO and GEO HTS satellite constellations and addressing the New Ground segment – AESA antennas are believed to be key.

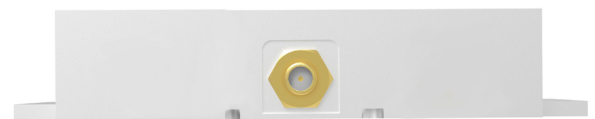
As a well known manufacturer of high quality, high performance, cost effective Professional Satcom Block Downconverter products and related equipment, we wanted to apply our knowledge and experience in Block Frequency converters to the AESA market. We started development with a modular approach for both Uplink and Downlink Block Frequency converter products. The MPA and filter module is to be combined with the Block Upconverter module.



A

B

C



D

Connector A

Type: M8 female, 4 pin, A coded
Functions: Alarm and M&C

Connector B

Type: 2.92 50 Ω female
Function: Unfiltered HF in

Connector C

Type: 2.92 50 Ω female
Function: DC input

Connector D

Type: 2.92 50 Ω female
Function: Filtered HF out

AESA Ka-Band MPA and filter 27-31 GHz

Technical specifications

GENERAL	Input Frequency	27.00 - 31.00 GHz
	Output Frequency	27.00 - 31.00 GHz in 4 bands
	Filter frequencies	27.50-28-50 GHz, 28.25-29.25 GHz, 29.00-30.00 GHz, 30.00-31.00 GHz
	DC Input	+12 to +28 V (max. 11-30 V)
	Power consumption	3.5 W max.
	Dimensions	151 x 113 x 21 mm
	Weight	410 g
	Temperature Range	Storage and operating: -40 to +80°C
INTERFACES	Filter switching	Via Modbus M&C
	Input connector	2.92 female
	Output Connector	2.92 female
	Alarm	Interface: Separate M8 connector (B), Open collector, Open on fault, 3.3 to 24 V, max. 200 mA Alarm for MPA drain current
INTERNAL	M&C	Via MODBUS RTU RS485 electrical interface, see sep. document for details. NOTE! Mates with M8 male connector. Cable: shielded min. CAT 5
	Gain	16 to 18 dB @ 27-29 GHz, 18 to 19 dB @ 29-31 GHz
	Gain variation each band	±0.5 dB max.
	Noise figure	12 dB typ.
	Group Delay	TBD
	Image Rejection	40 dB @ LO < 26.05, 30 dB @ LO 27.55, 22 dB @ LO 29.55 GHz
	Input VSWR	1.7:1 max.
	Output P1dB	+28.5 dBm typ.
Output IP3	+37 dBm typ.	
Output VSWR	1.7:1 max.	



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 to configure or customize the unit to your needs. Visit smw.se or scan QR code to see our full product range and request a quote.

