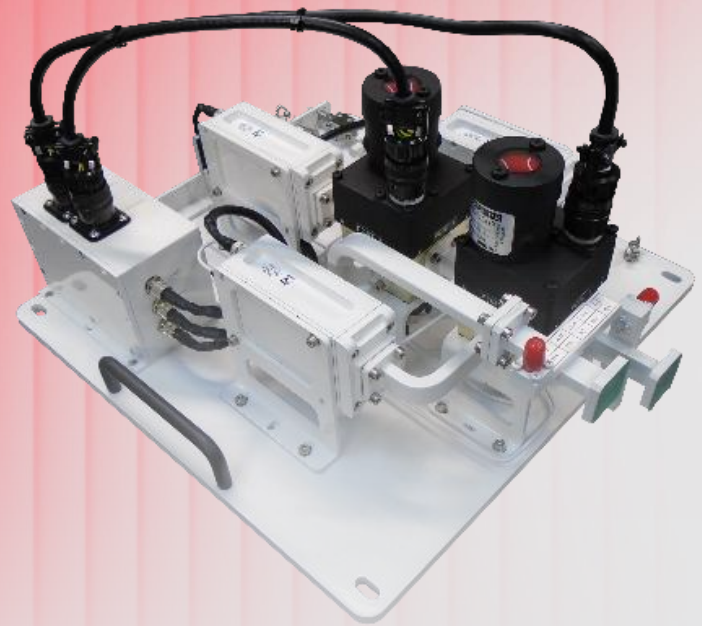
ACORDE Space & Defence RF EXPERTS

ACRS-Ka-ODU-12-V1

Redundancy Ka-band LNA plate 1:2 Horus Series



The ACRS-Ka-ODU-12-V1 family of LNA plate is designed for the most challenging Ka-band professional & military satellite communication systems.

Latest technology is applied to obtain the best noise figure, linearity, gain stability and return losses according to MIL-STD-188-164C. The ACRS-Ka-ODU-12-V1 family is a high reliability solution designed for harsh environmental conditions, with every single production unit fully tested in an environmental chamber and delivered with a complete factory acceptance test report.

- Low noise figure in the whole frequency range
- High linearity performance
- Extended temperature range -40 °C to +60 °C
- High spur rejection in the whole output band
- Input in-built waveguide isolator

HORUS

God of silence who identifies himself with the low noise of our LNAs, able to distinguish even the slightest whisper of the gods, however low and far away it may be.

Receiver

RF frequency	17.7 to 22.2 GHz
Input Ka-band VSWR (50 Ω)	< 1.5:1
Output Ka-band VSWR (50 Ω)	< 1.3:1
Max. input level without damage	0 dBm
Gain	> 50 dB
Gain flatness	±1.25 dB over whole BW ±0.5 dB over 500 MHz ±0.2 dB over 40 MHz
Gain stability (24 hours)	±0.2 dB @ constant T
Gain variation over temperature	±1.5 dB
Noise figure @ 25 °C	≤ ACLNA-Ka-Ex-V1$_{NF}$ + 0.3 dB
Noise temperatura @ 25 °C	≤ ACLNA-Ka-Ex-V1$_{NT}$ + 30 K
Output P1dB	> +18 dBm
Output IP3	> +28 dBm
Spurious @ P_{OUT} = 0 dBm	< -70 dBc
AM/PM conversion @ P_{OUT} = -10 dBm	> 0.1 °/dB
Group delay over 40 MHz	Without option F
Linear Parabolic Ripple	0.02 ns/MHz 0.001 ns/MHz^2 0.1 ns pp
Switching time	< 100 ms
Desensitivity threshold	> -30 dBm
Channel isolation	> 45 dB

Enviromental

Storage temperature	-40 °C to +85 °C
Operating temperature	-40 °C to +60 °C
Relative humidity	up to 100%
Operating altitude	up to 4500 m

Mechanical

Size (LxWxH)	305 x 305 x 200 mm 12.0 x 12.0 x 7.9 in
Weight	5.5 kg 12.1 lbs
Finish	RAL 9003 (White)

Power Supply

DC input voltage (from IDU)	15 V_{DC}
Consumption	10 W steady state 60 W switch peak

Interfaces

All mating connectors provided

RX input (Ka-band)	WR42 grooved (PBR 220)
RX outputs (Ka-band)	Type SMA(F) 50 Ω
Standby output (Ka-band)	Type SMA(F) 50 Ω
Standby input (Ka-band)	Type SMA(F) 50 Ω
Output test coupler (Ka-band)	Type SMA(F) 50 Ω
Input test coupler (Ka-band)	Type SMA(F) 50 Ω
IDU controller	MS3112E16-26P

Options

Option F	Input transmit reject filter (NF+0.3 dB)
Option O	Output test coupler 10 dB
Option I	Input test coupler 40 dB (NF+0.1 dB)

Any other frequency band or custom specification available under request.
Please, contact factory. Specifications are subject to change without notice.

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