



The **ACRS-Ka-ODU-12-V1** family of LNA plates is designed for the most challenging Ka-band **professional & military** satellite communication systems. It provides continuous operation without disruption of two receiving signals. Latest technology is applied to obtain the best noise figure, 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.

RECEIVER SPECIFICATIONS

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 min
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 @ const. temp.
Gain variation over temperature	±1.5 dB
Noise figure @ 25 °C	≤ ACLNA-Ka-Ex-V1 _{NF} + 0.3 dB
Noise temperature @ 25 °C	≤ ACLNA-Ka-Ex-V1 _{NT} + 30 K
Output P1dB	> +18 dBm
Output IP3	> +28 dBm
Spurious	< -70 dBc @ P _{OUT} = 0 dBm
AM/PM conversion	< 0.1 °/dB @ P _{OUT} = -10 dBm
Group delay over any 40 MHz	
Linear	0.02 ns/MHz
Parabolic	0.001 ns/MHz ²
Ripple	0.1 ns pp
Switching time	< 100 ns
Desensitivity threshold	> -30 dBm
Channel isolation	> 60 dB

POWER SUPPLY

DC input voltage	15 V _{DC} (from IDU controller)
Consumption	10 W steady state typ 60 W peak typ

MECHANICAL SPECIFICATIONS

Size (LxWxH)	305 x 305 x 200 mm	12 x 12 x 7.9 in
Weight	5.5 kg	12.1 lbs
Finish	RAL 9003 (White)	

ENVIRONMENTAL SPECIFICATIONS

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

INTERFACES

All mating connectors provided

RX inputs (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 (option LN5)
Input test coupler (Ka-band)	Type SMA(F) 50 Ω (option LN6)
IDU controller	MS3112E16-26P

OPTIONS

LN3	Input transmit reject filters (NF + 0.3 dB)
LN5	Output test couplers 10 dB
LN6	Input test couplers 40 dB (NF + 0.1 dB)

