

# Ka band compact Cryo LNA for lunar communication & radioastronomy



USING CUTTING-EDGE TECHNOLOGY, THE NEW Ka COMPACT CRYO LNA FAMILY OFFERS OUTSTANDING PERFORMANCE

## Innovative technology

State-of-the-art technology provides a very low noise figure at Ka band: 25.5-27 GHz, with superior performance from a highly compact unit.

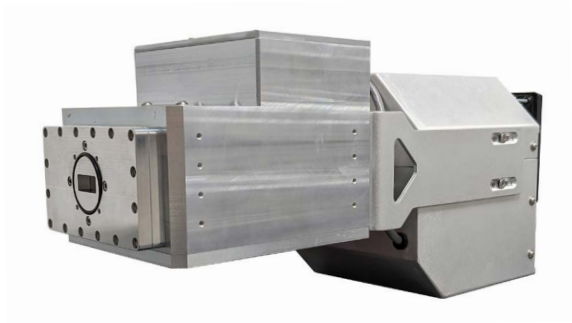
With this innovative technology a superior antenna G/T is achieved to improve link margin.

## Efficiency & Reliability

- Each unit is fully tested and delivered with a complete factory acceptance test report.
- Advanced design and construction mean the equipment can be operated in the toughest environments.
- Exceptional performance combined with reliability and cost effectiveness.
- Low power consumption and virtually maintenance free.

## Configurability

- Plug and play unit, vacuum pump not required.
- The unit can operate in any orientation on movable antenna structure.



## Key Features

- \* Satcom and radioastronomy applications
- \* Superior performance
- \* High reliability & efficiency
- \* Ultra-low noise figure
- \* High gain & low ripple
- \* Low input & output VSWR
- \* Compact size & lightweight
- \* Wide operating temperature range
- \* Redundant configurations (1:1, 1:2, N:1)

OPTIONS

- \* Indoor power supply unit
- \* Redundant systems  
1:1, 2:1, N:1
- \* NT Boost to attain 35 K NT  
at LNA

RF performance

Operating freq. range	25.5-27 GHz
Noise temperature	<40 K
Noise figure	<0.56 dB
Input VSWR	<2.0:1
Output VSWR (50 Ω)	<1.3:1 (with output isolator)
Gain	>50 dB
Gain flatness	2 dB pp max
Gain variation over temp.	±1.5 dB
Output P1dB	>10 dBm
3 <sup>rd</sup> OIP	>25 dBm
Group delay	<0.5 ns

Power supply & monitoring

Input voltage	230 VAC / 50 Hz or 110 VAC / 60 Hz
Current consumption	200 W
Connection	Remote TCP/IP

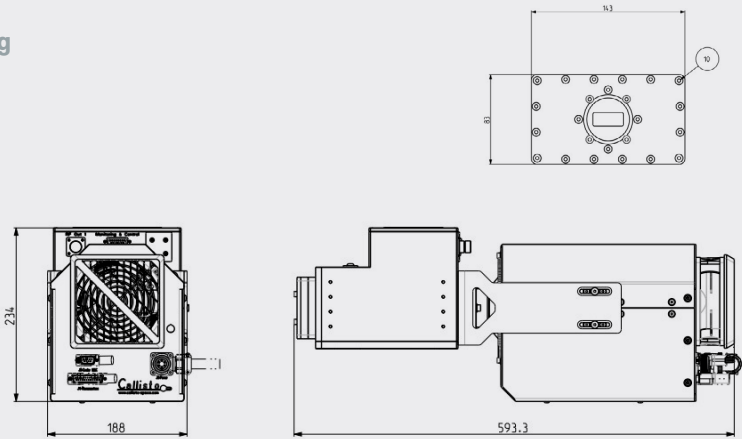
Interfaces & physical

Dimensions (L x W x H)	512 x 235 x 188 mm
Weight	11 kg
Interfaces	RF input flange: WR34 RF output: K (f) DC & monitoring: PT02A10-5P

Environmental

Operating temperature	-10 °C to +40 °C
Storage temperature	-40 °C to +60 °C
Humidity	100 % condensing

Outline drawing



callisto-space.com  
sales@callisto-space.com

Information contained in this document  
is subject to change without notice.

Unless otherwise specifications, tests  
have been done at 23 °C.

Dimensions are in "mm" and after treatment  
Tolerance according to ISO 2768-f