

# 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: 31.8-32.3 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.

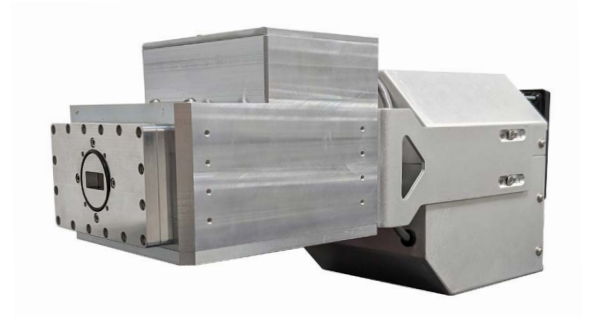
Exceptional performance combined with reliability and cost effectiveness.

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

- \* Lunar communication
- \* 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	31.8-32.3 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

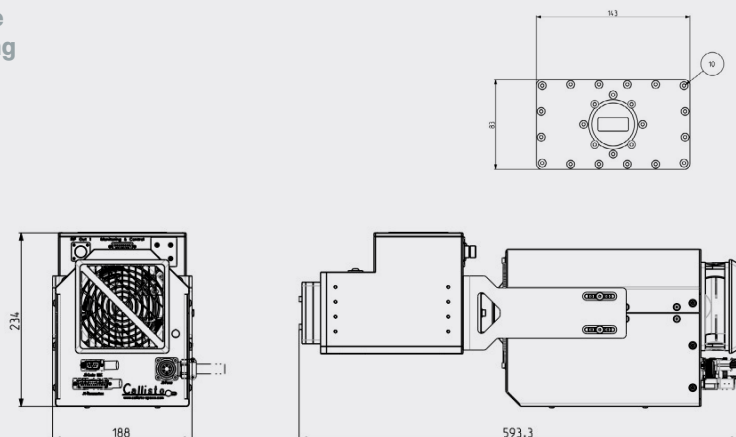
**Interfaces & physical**

Dimensions (L x W x H)	612 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



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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