CELESTIA | *Callisto*

Cryo Ultra Wide-Band LNA
2.3 - 14 GHz
25 K

Cryogenic Ultra Wide-Band LNA for radioastronomy

USING **CUTTING-EDGE TECHNOLOGY**, THE WIDE BAND ULTRA LNA OFFERS EXCEPTIONAL RECEPTION OVER 12 GHZ OF BANDWIDTH

Innovative technology

State-of-the-art technology provides a very low noise figure over 12GHz of bandwidth.

The feed is included (CalTech's QRFH design), but is lodged inside the Dewar to be cooled as well.

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.

Patented sleeve system to simplify cold head service. No need for receiver realignment to antenna optics.

Configurability

The frequency band can be adapted to customer's needs.

The unit can operate in any orientation on movable antenna structure.

Key Features

* Radioastronomy applications
* Superior performance
* High reliability & efficiency
* Ultra-low noise figure
* High gain & low ripple
* Low input & output VSWR
* Wide operating temperature range
* Patented sleeve system for ease of coldhead maintenance

CELESTIA | Callisto

Technical specifications

Cryo Ultra Wide-Band LNA

2.3 - 14 GHz

25 K

RF performance

Operating freq. range	2.3 -14 GHz
Noise temperature	25 K mean
Noise figure	<0.56 dB
Input VSWR	<2.0:1
Output VSWR (50 Ω)	<1.3:1 (with output isolator)
Gain	>60 dB
Gain flatness	4 dB pp typical
Gain variation over temp.	±1.5 dB
Output P1dB	>+14dBm
3rd OIP	>25 dBm

Power supply & monitoring

Input voltage	3 phases (3W+PE) 380 VAC/50 Hz
Current consumption	8000 W max
Connection	Panel PC with TCP/IP

Interfaces & physical

Dimensions (L x Ø)	885 x 380 mm
Weight	<60 Kg
Interfaces	RF input flange: QRFH feed 45° or 60°
	RF output: SMA
	10 MHz phase cal. input: SMA

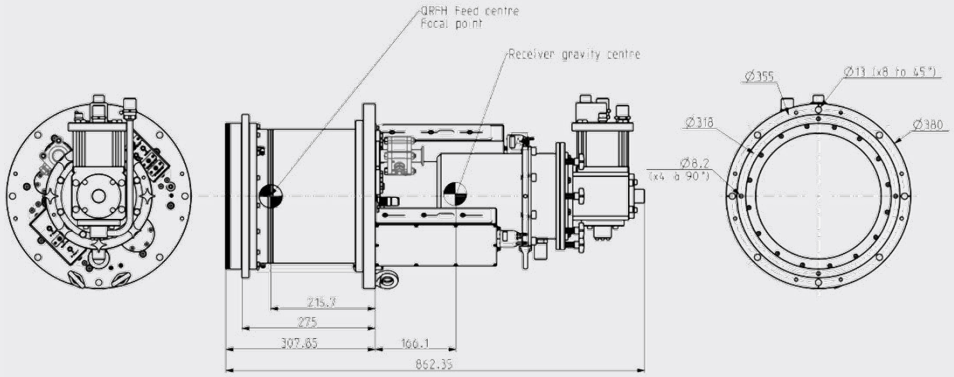
Environmental

Operating temperature	-10 °C to +40 °C
Storage temperature	-40 °C to +60 °C
Humidity	90 % condensing

OPTIONS

* Indoor power supply unit
* QRFH feed model 45 or 60 for compatibility with most VLBI telescopes
* Frequency band can be adapted to customer's requirement

Outline drawing



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

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

Rev. 1 03/25