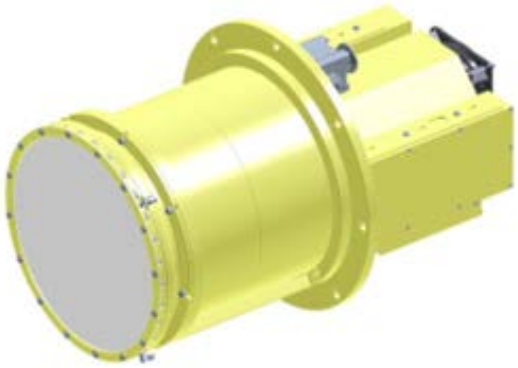
CELESTIA | *Callisto*

Cryo Compact QRFH
2.3-14 GHz
40 K

Cryogenic Compact QRFH receiver for radioastronomy and wideband applications



USING **CUTTING-EDGE TECHNOLOGY,** THE WIDE BAND CRYO COMPACT QRFH RECIEVER OFFERS EXCEPTIONAL RECEPTION OVER 12 GHZ OF BANDWIDTH

Innovative technology

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

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.

The frequency band can be adapted to customer needs.

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 & zero maintenance
* Wide operating temperature range

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Technical specifications

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OPTIONS

* Indoor power supply unit
* 45° or 60° QRFH feed horn cooled inside the unit

RF performance

Operating freq. range	2.3 – 14 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	>55 dB
Gain flatness	10 dB pp min, 14 dB typical
Gain variation over temp.	±1.5 dB
Output P1dB	>20 dBm

Power supply & monitoring

Input voltage	90 – 264 VAC / 47 – 63 Hz
Current consumption	400 W max, 340 W typical
Connection	SMA

Interfaces & physical

Dimensions (Ø x L)	380 x 618 mm
Weight	27 kg
Interfaces	45° or 60° QRFH
	RF output: SMA
	DC & monitoring: PT02A10-5P

Environmental

Operating temperature	-10 °C to +40 °C
Storage temperature	-40 °C to +60 °C
Humidity	90 % condensing (air supply ≤25°C recommended)

Outline drawing

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

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