Anteral

2211-218 K/Ka band

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K/Ka-Band DCP Antenna 2U Space System

DESCRIPTION

K/Ka-Band Subsystem is a **4-port dual-circular-polarized dual-band antenna**. It has been specially design for **space applications**, being perfect for smallsats for its **2U size**.

HERITAGE

With many years of experience within the aerospace sector, we offer the best of our experience in each new project, combining our know-how with the fulfillment of the highest quality standards

+ 20 SPACE PROGRAMS + 10 YEARS OF EXPERIENCE + 10 DEVELOPMENTS IN ORBIT

CLIENTS

Clients in more than **50 countries** trust in us. Leading companies all over the world believe in our capabilities to face the most demanding challenges.







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Cesa

ThalesAlenia



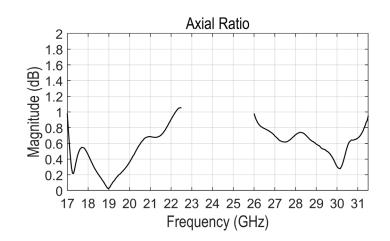
Massachusetts Institute of Technology

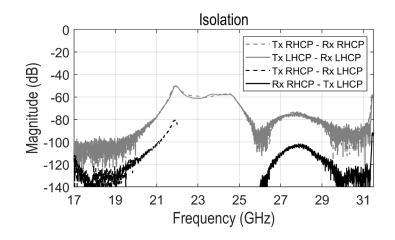
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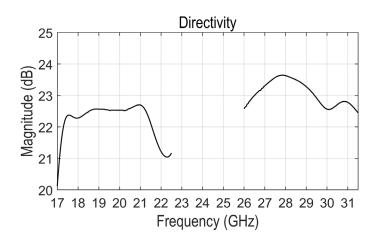
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ELECTRICAL SPECIFICATIONS

Parameter	Typical value
Frequency band - Pass band TX	17.3 - 21.2 GHz
Frequency band - Pass band RX	27 - 31 GHz
Return Loss	18 dB
Isolation TX/RX & RX/TX	80 - 100 dB
Directivity	21 dB
Axial Ratio	0.8 dB
Cross-Polar	-20 dB
Angular Beamwidth	10°
Polarization	RHCP & LHCP for both TX and RX







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0

-40

-50

-30

-20

-10

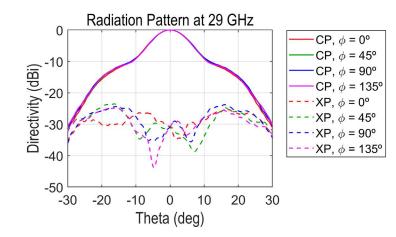
CP, $\phi = 0^{\circ}$ CP, $\phi = 45^{\circ}$

CP, $\phi = 90^{\circ}$ CP, $\phi = 135^{\circ}$ - XP, $\phi = 0^{\circ}$ - ·XΡ, φ = 45° $- - \cdot XP, \phi = 90^{\circ}$ ·XP, $\phi = 135^{\circ}$

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MECHANICAL SPECIFICATIONS

Parameter	Description
RHCP TX Port	Coaxial 2.92 mm (F)
RHCP RX Port	Coaxial 2.92 mm (F)
LHCP TX Port	Coaxial 2.92 mm (F)
LHCP RX Port	Coaxial 2.92 mm (F)
Size	102 x 102 x 197 mm (2U)
Weight	620 g
Material	Aluminum



Radiation Pattern at 19.2 GHz

0

Theta (deg)

10

20

30

Additional notes

All values are typical and correspond to a measured sample. Actual values could vary slightly. The complete performance will be checked before delivery to fulfill specifications.



Last version: 27/02/2023

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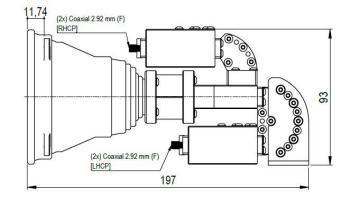
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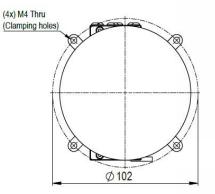
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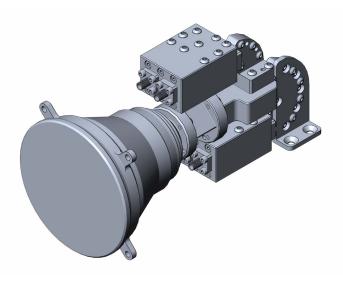
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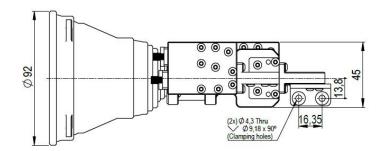
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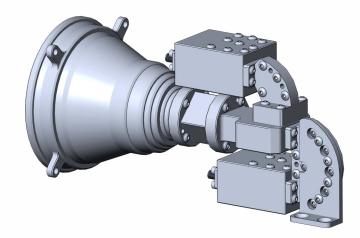
MECHANICAL OUTLINE











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