

S-BAND PATCH ANTENNA

Datasheet

Model no. SBPA2022A001

Summary

Mu Space's S-band patch antenna is a metasurface-based wideband circularly polarized antenna with a low profile and high performance for satellite communications systems. We designed the antenna to operate the telecommand and telemetry signals between low-Earth orbit satellites and ground stations. The operating frequency band of the antenna is from 2025 MHz to 2110 MHz and 2200 MHz to 2290 MHz.

Key Features

- Wide frequency bandwidth
- High gain
- Right-handed circular polarization
- Low cost
- Operating temperature: -40° to $+125^{\circ}$
- SMA female connector
- Mass of $139\text{ g} \pm 1.00\text{ g}$

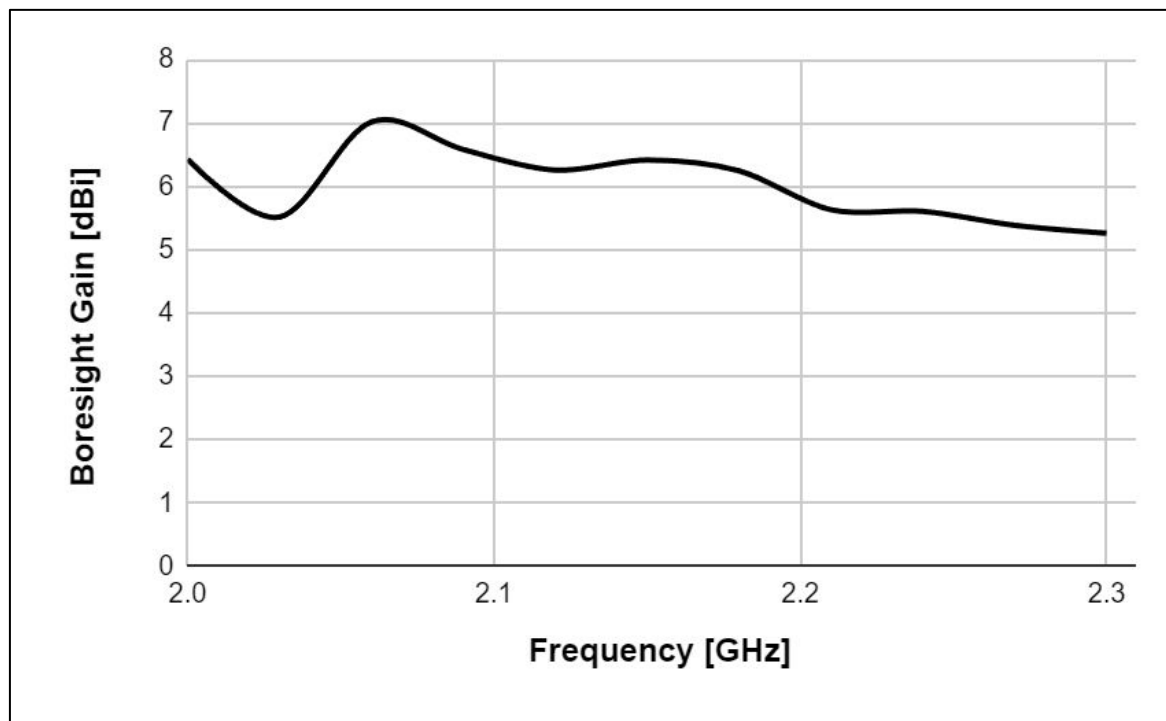
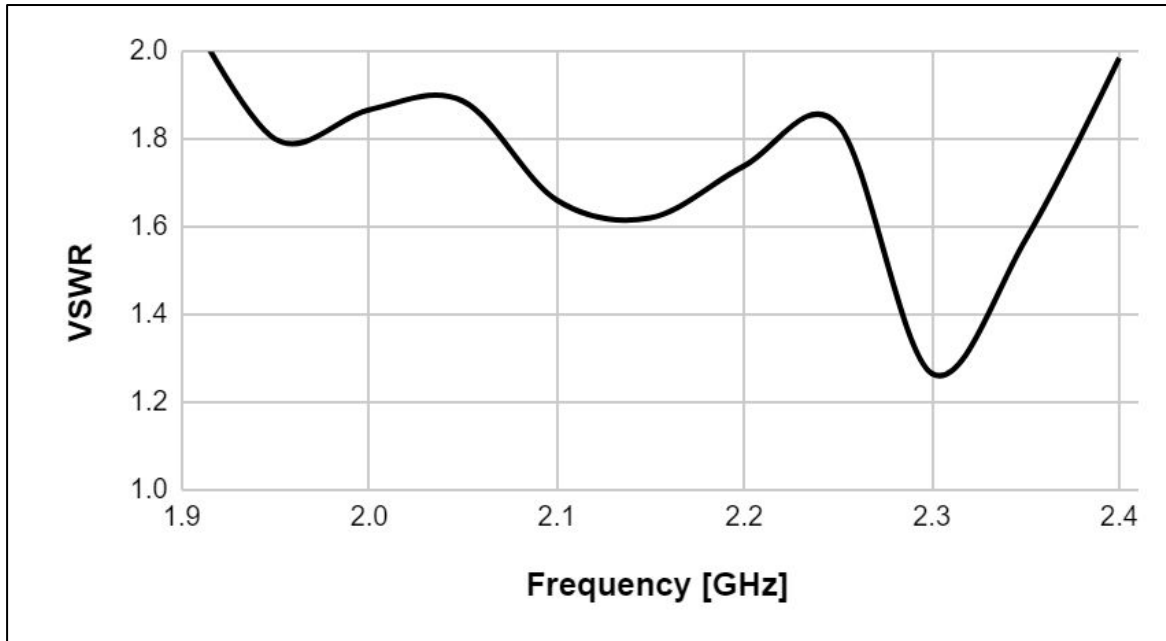
Test

Qualification tests profile following ESA standard ECSS-E-ST-10-03C and GEVS standard GSFC-STD-7000A.

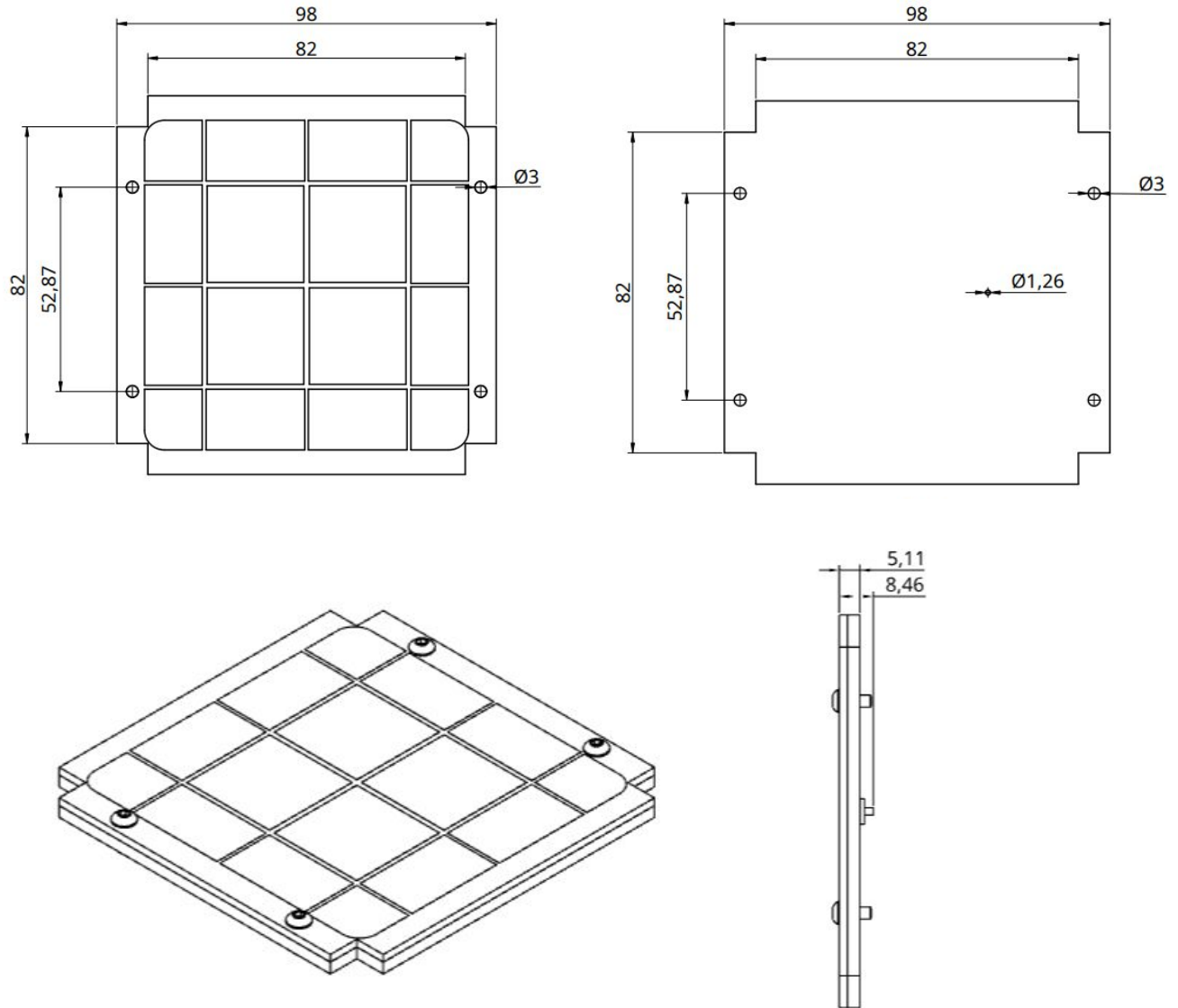
Key Specifications

Frequency range	2025 MHz to 2290 MHz
Bandwidth	> 250 MHz
HPBW	70 deg
Gain @2150 MHz	Boresight > 6 dBi $\pm 30^{\circ}$ > 4.5 dBi
Axial ratio @ 2150 MHz Axial ratio @ 2260 MHz	< 3 dB < 5 dB

Typical Measured Performance



Mechanical Layout



NOTES:

1. Four mechanical interfaces with ISO7380-1 TX M3 A2 screws
2. RF connector surface is connected to a ground plane
3. All dimensions are in mm

Contact Us

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