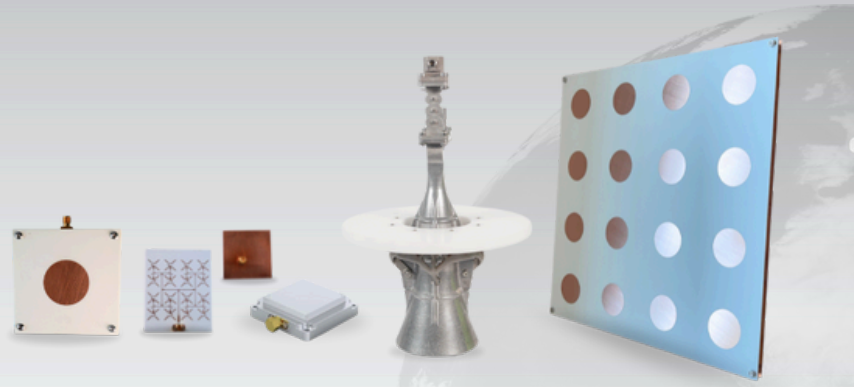




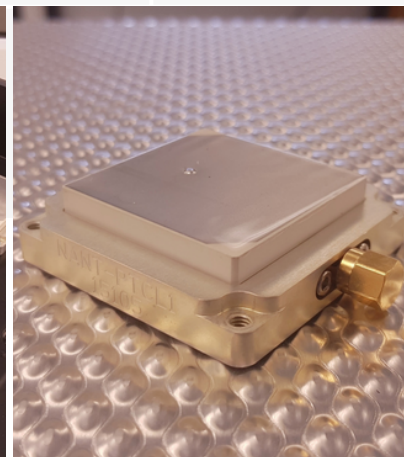
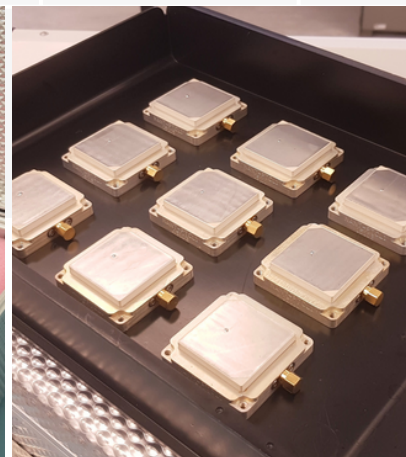
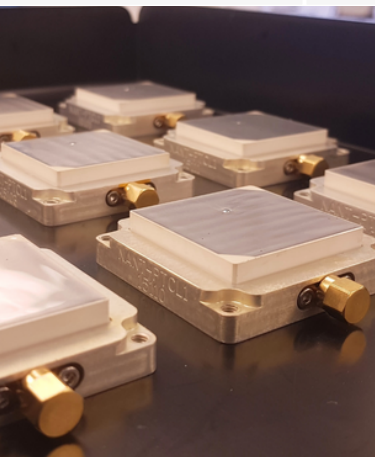
LYRA ANTENNAS



NewSpace Systems offers a range of high-reliability antennas designed to meet the stringent requirements of satellite and aerospace applications. Our antennas Perform across S-band and Ka-band frequencies, ensuring robust communication and data transmission for space missions. With a focus on durability and efficiency, our antennas are engineered for precision and reliability.

RF - ANTENNAS

	LYRA-H02 NANT-PTCL1	LYRA-S-AIR S-band Air	LYRA-S-PIN S-band Pin	LYRA-S- ARRAY S-band Array	LYRA-S- ARRAY Ka-band Array
PERFORMANCE					
FUNCTIONAL CHARACTERISTICS					
Frequency	1575.42 MHz	2200-2290 MHz	2200- 2290 MHz	2200- 2290 MHz	27-31 GHz
-3 dB beamwidth	$\geq 100^\circ$ ($\phi = 0^\circ$); $\geq 100^\circ$ ($\phi = 90^\circ$)	70°	80°	18°	10° @ 29 GHz
Return loss	≤ -5 dB	< -10 dB	< -10 dB	< -10 dB	< -10 dB
Active gain	≥ 16 dBiC (@ Zenith)	< -10 dB	≥ 6 dB	> 18 dB	> 20 dB @ 29 GHz
Polarization	Right Hand Circular (RHCP)	RHCP or LHCP preconfigurable	RHCP or LHCP preconfigurable	RHCP or LHCP Preconfigurable	RHCP or LHCP Preconfigurable
Axial Ratio	< 10 dB (@ Zenith)	< 2 dB	< 3 dB	< 3 dB	< 3 dB
PHYSICAL CHARACTERISTICS					
Dimensions	54 mm x 54 mm x 14.1mm	80 mm x 80 mm	50 mm x 50 mm	283 x 283 mm	53 x 53 mm
INTERFACES					
Connector	50 Ω SMA female	SMP or SMA	SMP or SMA	SMP	SMP



FUNCTIONAL CHARACTERISTICS

Frequency	1575.42 MHz
Bandwidth	20 MHz
-3 dB beamwidth	$\geq 100^\circ$ ($\phi = 0^\circ$); $\geq 100^\circ$ ($\phi = 90^\circ$)
Return loss	≤ -5 dB
Impedance	50 Ohm (matched)
Active gain	≥ 16 dBiC (@ Zenith)
Polarization	Right Hand Circular (RHCP)
Noise figure	< 2 dB
Axial Ratio	< 10 dB (@ Zenith)

PHYSICAL CHARACTERISTICS

Dimensions	54 mm x 54 mm x 14.1 mm
Mass	< 80 g
Power	< 80 mW

ENVIRONMENTAL CHARACTERISTICS

Thermal (operational)	-25 °C to +55 °C operating, -30 °C to +60 °C non-operating
Vibration (qualification)	17.28 gRMS (random)
Radiation (TID)	10 krad (component level)

INTERFACES

Power supply	5 VDC nominal
Connector	50 Ω SMA female
Mechanical	4 x M3 through hole