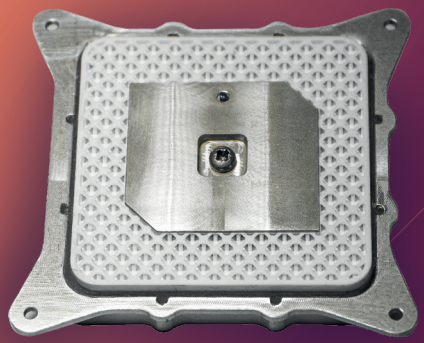
ANYWAVES
CONTROL MATERIAL TO MASTER WAVES

Ceramic 3D printed GNSS L1/E1 Band Antenna

Rx | Hemispherical coverage | HPBW = 90° | Size < 1U



Benefits

- Acceptance Tests (RF, Mechanical,Thermal) included :
  - Return loss
  - Z-axis random vibration
  - Thermal cycling
- ITAR Free

ANYWAVES, a French space equipment manufacturer based in Toulouse, provides high-performance and high-quality antennas for satellite constellations.

ANYWAVES GNSS L1/E1 Band antenna brings together a unique technology of 3D printing and robustness of ceramic material within a very compact volume.
This antenna features excellent radiation characteristics within a compact and sleek design. It can withstand harsh environment without radome thanks to material selection and solderless feed system.

ANYWAVES
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Waiver : Fact and figures herein are for information only and do not represent any warranty of any kind

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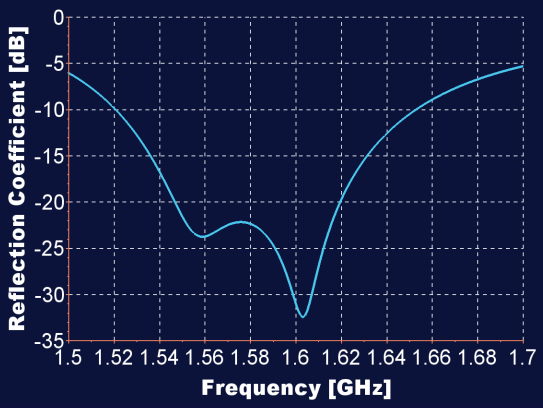
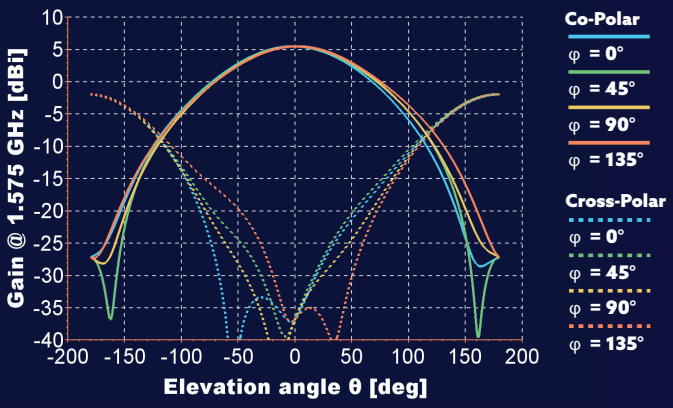
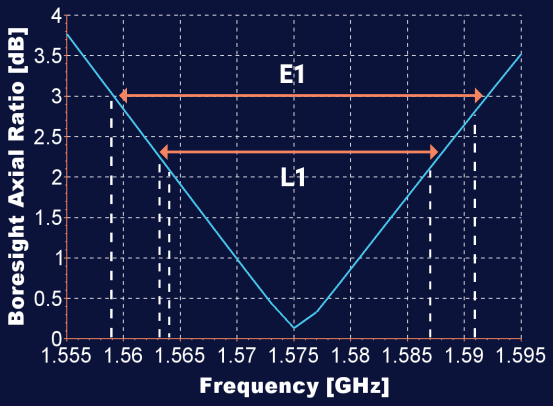
Simulated RF Performance







Typical performance

Central frequency	1.575 GHz
Bandwidth	**L1** : 1.563 - 1.587 GHz **E1** : 1.559 - 1.591 GHz
Realized gain	> 5.5 dBi at boresight > 4.3 dBi at ± 30° > 1.1 dBi at ± 60°
Half Power Beam Width	± 45° over bandwidth
Axial Ratio	< 3 dB from 0° to ± 40° (all planes) < 5 dB from 0° to ± 80° (all planes) < 8 dB from 0° to ± 90° (all planes)
Reflection coefficient	< -10 dB
Polarization	Right Hand Circular Polarization
Efficiency	> 95 %

Physical characteristics

Envelope size without connector	L 68 x W 70 x H 12.2 mm³ Protruding height: 4.5 mm
Mass with connector	86 g ± 2 g
Operational temperature	-150°C / + 150°C
Connector	Coaxial SMA female (50 Ω)
Mechanical interface	4 x M3 (unthreaded hole)
Acceptance Tests	Performed on Flight Models only

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