ARM960P

CALIAN
Confidence. Engineered.

Multi-Constellation Triple-Band Antenna

Frequency Coverage: GPS L1, L2, L5 | GALILEO E1, E5a, E5b | BEIDOU B1, B2a, B2b | GLONASS G1, G2 | NavIC L5 + L-band

Calian is excited to announce that it has added the ARM960P triple-band plus L-Band GNSS passive antenna to its industry-leading line of GNSS antenna products. The ARM960P employs Calian's patented Accutenna® technology providing GPS/QZSS L1/L2/L5, GLONASS-G1/G2/G3, Galileo E1/E5a/E5b, and BeiDou B1/B2a/B2b + L-Band coverage. The ARM960P antenna is designed for precision triple-frequency positioning where lightweight and a low profile are important.

The ARM960P antenna is available in two form factors one includes a 100 mm integrated ground plane, weighing 140 g, and the other one is 83mm in diameter and weighs 138 grams. Both are 19 mm tall and support the ARINC mini bolt pattern of 2.0” x 1.66”. Calian's ARM960P is one of the smallest and lightest housed triple-band precision Mini ARINC GNSS antennas on the market. It has a very tight average phase center variation of less than 10 mm for all frequencies and overall azimuths and elevation angles. In addition to supporting two form factors both models are available with Low Earth Orbit (LEO) qualified components.

Housed in a weatherproof enclosure, the ARM960P is available in four versions. Model ARM960P-1 (ARM960P-1-S LEO Space qualified components) has an integrated 100mm ground plane, Model ARM960P-2 (ARM960P-2-S LEO Space qualified components) is 83 mm in diameter. All models are available with either a female SMA or TNC connector.

Configuration -1

Configuration -2

Applications

- Autonomous vehicle tracking and guidance
- Precise GNSS positioning
- Precision agriculture
- Triple-frequency RTK and PPP receivers
- Law enforcement and public safety
- Augmented GNSS positioning

Features

- Tight phase centre variation
- IP69K (non-space), REACH, and RoHS

Benefits

- Excellent interference mitigation
- Excellent multipath rejection
- Increased system accuracy
- Excellent signal-to-noise ratio

About Calian: With global headquarters and manufacturing in Ottawa, Canada, Calian is a leading manufacturer of high-precision antennas and components for Global Navigation Satellite System (GNSS) applications. Calian’s mission is to support the needs of a new generation of positioning systems by delivering unprecedented antenna precision at competitive prices. Learn more at www.calian.com/gnss

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Revision: 202501

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Antenna - Measured with a 100 mm Ground Plane

Technology: Dual-feed Stacked RHCP ceramic patch

		Gain dBic typ. at Zenith	Axial Ratio dB at Zenith
GNSS			
GPS / QZSS	L1	4.0	< 1.0
	L2	4.0	< 1.0
	L5	-1.5	< 1.5
GLONASS	G1	2.5	< 1.5
	G2	2.5	< 1.5
	G3	2.5	< 1.5
Galileo	E1	4.0	< 1.0
	E5A	-1.5	< 1.5
	E5B	2.5	< 1.5
	E6	-	-
BeiDou	B1	4.0	< 1.0
	B2	2.5	< 1.5
	B2a	-1.5	< 1.5
	B3	-	-
IRNSS / NavIC	L5	-1.5	< 1.5
QZSS	L6	-	-
L-Band Services (1525 MHz - 1559 MHz)		3.5	< 1.0
Satellite Communications			
Iridium		-	-
Globalstar		-	-
Other			
Axial Ratio at 10°	-	Efficiency	-
PC Variation	± 8 mm	PCO	-

Mechanicals

Size	See mechanical drawing
Weight	140g (-1), 138g (-2)
Radome	Radome: Thermoplastic, Base: Aluminum
Mount	ARINC Mini (2" · 1.66")
Available Connectors	TNC and SMA Female

Environmental

Operating Temperature	-65 °C to 125 °C
Storage Temperature	-70 °C to 125 °C
Vibration	MIL-STD-810-G - 514.6, NASA-STD-7001B
Shock	MIL-STD-810-G - Test Method 516.7
Salt Fog	MIL-STD-810-H - Test Method 509.7
Other Tests	Humidity (Method 507.4), Temp. (DO-160D)
IP Rating	IP69K (non-space)
Compliance	IPC-A-610, FCC, RED / CE Mark, RoHS, REACH

Warranty

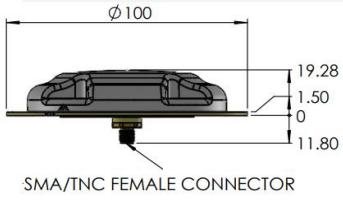
Parts and Labour: 3-year standard warranty

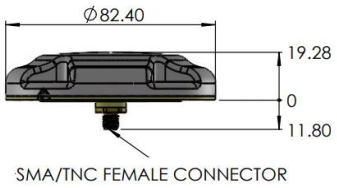
Low Noise Amplifier (LNA) - Measured at 3V and 25°C

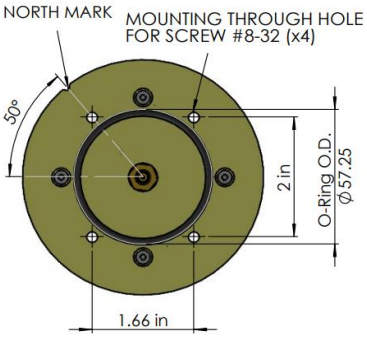
Frequency Bandwith		Out of Band Rejection
Lower Band	1164 - 1255 MHz	-
L-Band Corr.	1539 - 1559 MHz	-
Upper Band	1559 - 1606 MHz	

Architecture	Passive
Gain	-
Noise Figure	-
VSWR	< 1.5:1 typ., 2:1 max.
Supply Voltage Range	-
Supply Current	-
ESD Circuit Protection	-
P 1dB Output	-
Group Delay	-

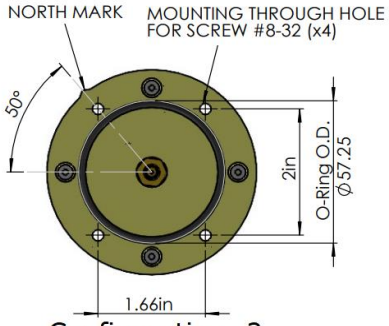
Mechanical Diagram







Configuration -1



Configuration -2

Ordering Information

Part Number **33-ARM960P-Y-XX; add -S for 'Space'**

where Y = configuration: 1 = 10cm GP | 2 = Standard GP
where XX = female connector: 01 = TNC | 07 = SMA
S = LEO Space Qualified Components

Please refer to our **Ordering Guide** to review available radomes and connectors at:
https://at.calian.com/gnss/information-support/part-number-ordering-guide/

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