TW2926

CALIAN®
Confidence. Engineered.

Embedded Multi-Constellation Antenna

Frequency Coverage: GPS L1 | GALILEO E1 | BEIDOU B1 | GLONASS G1

The TW2926 is an Accutenna® technology antenna that covers GPS-L1, GLONASS-G1, BeiDou B1, Galileo E1, SBAS (WAAS, EGNOS, GAGAN, & MSAS) and the downlink L-Band (1525 – 1559MHz). The TW2926 provides superior multipath signal rejection, a linear phase response, and tight phase centre variation (PCV). This antenna is ideal for precision agriculture, autonomous vehicle tracking and guidance, and other applications where precision matters.

The TW2926 features a dual-feed wideband patch element, plus a low-loss pre-filter followed by a three stage low-noise amplifier (LNA) including an additional mid-section SAW. This configuration provides excellent axial ratio across the full frequency band and strong protection against high-level sub-harmonic signals like LTE and near frequency signals such as WiFi.

The TW2926 is available with a variety of connectors and custom cable lengths.

It is highly recommended to take advantage of Calian's custom tuning service to ensure optimal performance of this antenna in your housing and with your ground plane.

Applications

- High-accuracy & mission-critical global positioning
- Precision agriculture, mining, and construction
- Law enforcement and public safety
- Avionics
- Law enforcement and public safety
- Fleet management and asset tracking

Features

- Covers B1 / E1 /L1 / G1 Frequencies, plus L-Band correction services
- Great axial ratio: 1 typ., 3 dB max
- Low noise LNA: ≤ 2.5 dB typ.
- High-rejection SAW filter
- LNA gain (28 dB typ.)
- Low current: 18 mA typ.
- Wide voltage input range: 2.5 to 16 VDC

Benefits

- Excellent multipath rejection
- Increased system accuracy
- Excellent signal-to-noise ratio
- Great out-of-band signal rejection
- Ideal for harsh environments
- RoHS and REACH compliant

Embedded Multi-Constellation Antenna

Frequency Coverage: GPS L1 | GALILEO E1 | BEIDOU B1 | GLONASS G1

Antenna - Measured with a 100 mm ground plane

Technology	Dual-feed Patch, Quadrature Feeds

		Gain	Axial Ratio
		dBic typ. at Zenith	dB at Zenith
GNSS			
GPS / QZSS	L1	4.25	≤ 1
	L2	-	-
	L5	-	-
GLONASS	G1	4.25	≤ 1
	G2	-	-
	G3	-	-
Galileo	E1	4.25	≤ 1
	E5A	-	-
	E5B	-	-
	E6	-	-
BeiDou	B1	4.25	≤ 1
	B2b	-	-
	B2a	-	-
	B3	-	-
IRNSS / NavIC	L5	-	-
QZSS	L6	-	-
L-Band Services (1525 MHz - 1559 MHz)		4.00	≤ 1
Satellite Communications			
Iridium		-	-
Globalstar		-	-
Other			
Axial Ratio at 10°		-	Efficiency	-
PC Variation		-		

Mechanicals

Size	56 mm (dia.) x 9.8 mm (h.)
Weight	45 g
Radome	-
Mount	-
Available Connectors	Please refer to ordering guide

Environmental

Operating Temperature	-40 °C to +85 °C
Storage Temperature	-55 °C to 95 °C
Vibration	MIL-STD-810D Method 514.3-1
Shock	Vertical axis: 50 G, other axes: 30 G
Salt Fog	-
IP Rating	-
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

Upper Band	Lower Band
Frequency Bandwith	
1540 - 1606 MHz	-
Out-of-band Rejection	
> 30 dB @ < 1465 MHz > 55 dB @ > 1700 MHz	-

Architecture	Pre-filtered
Gain	28 dB typ., 26 dB min.
Noise Figure	2.8 dB typ.
VSWR	< 1.5:1 typ., 1.8:1 max
Supply Voltage Range	2.5 to 16 VDC nominal, up to 50mV p-p ripple
Supply Current	18 mA typ.
ESD Circuit Protection	15 kV air discharge
P 1dB Output	-
Group Delay	-
PCO	-

Mechanical Diagram - Units in 'mm'
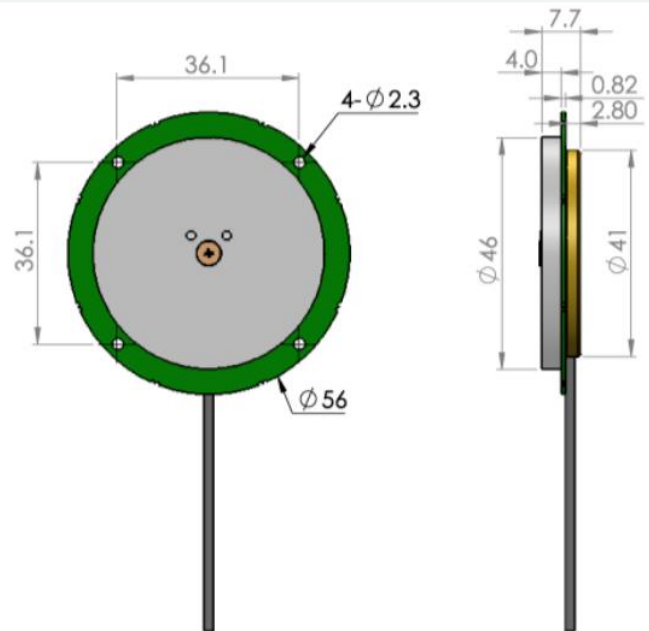
Ordering Information

Part Number **33-2926-xx-yyyy**

Where xx = type of connector yyyy = cable length in mm and zz = reserved for Calian's use

Please refer to our **Ordering Guide** to review available radomes and connectors at:
https://www.tallysman.com/resource/tallysman-ordering-guide/