

VSP6037L



When precision matters.®

VeroStar VSP6037L Precision Antenna

Frequency Coverage: Support Full GNSS Spectrum + L-band Corrections

Overview

The patent pending, compact VeroStar™ VSP6037L antenna supports the full GNSS spectrum (all constellations and signals) plus L-band correction services.

The antenna provides exceptional low elevation satellite tracking with a high efficiency radiating element.

The VeroStar element has a low axial ratio through all elevation angles providing strong multi-path rejection.

The antenna also exhibits a very stable phase center variation and a strong PCV repeatability.

The VeroStar™ VSP6037L provides high receive gain over the full GNSS spectrum: Low GNSS band (1164MHz to 1300MHz) L-band correction services (1539MHz to 1559MHz) and High GNSS band (1559MHz to 1610 MHz).

It has a robust pre-filtered LNA, with high IP3 to minimize de-sensing from high-level out-of-band signals, including 700MHz LTE, while still providing a noise figure of 1.6dB.

The performance of the VeroStar™ VSP6037L antenna rivals all compact full band GNSS antennas but is lighter, smaller, more power efficient, more robust and very economical.



Applications

- High Precision GNSS systems
- Land Survey
- Marine
- RTK/PPP systems
- Reference Networks
- Deformation Monitoring Stations

Features

- Light, compact and very robust design
- Very Tight Phase Center Variation (<2 mm)
- Low axial ratios from zenith to horizon
- Low current (60 mA)
- Invariant performance from: +3 to 16 VDC
- High G/T at low elevation angles

Benefits

- Consistent performance across all frequency bands
- Broadest tracking elevation (0° - 90°)
- Extreme precision
- Excellent multipath rejection
- REACH and RoHS compliant
- Reduced time to market

About Tallysman: With global headquarters and manufacturing in Ottawa, Canada, Tallysman is a leading manufacturer of high-precision antennas and components for Global Navigation Satellite System (GNSS) applications. Tallysman'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.tallysman.com

Revision: 1

Contact us:
info@tallysman.com
T: +1 613 591-3131

VeroStar VSP6037L Precision Antenna

Frequency Coverage: Support Full GNSS Spectrum + L-band Corrections

Antenna

Technology Full GNSS frequency crossed dipoles

		Gain dBic typ. at Zenith	Axial Ratio dB at Zenith
GNSS			
GPS / QZSS	L1	4	<1
	L2	4.5	<1
	L5	4	<1
GLONASS	G1	4	<1
	G2	4.5	<1
	G3	4.5	<1
Galileo	E1	4	<1
	E5A	4	<1
	E5B	4.5	<1
	E6	4	<1
BeiDou	B1	4	<1
	B2	4.5	<1
	B2a	4	<1
	B3	4	<1
IRNSS / NavIC	L5	4	<1
QZSS	L6	4	<1
L-Band Services (1525 MHz - 1559 MHz)		4	<1
Satellite Communications			
Iridium		-	-
Globalstar		-	-
Other			
Axial Ratio at 10°	5 dB max	Efficiency	>70%
PC Variation	+/- 2mm (all freq.)		

Mechanicals

Size	170mm D x 74.9mm H
Weight	500 g
Radome	White
Mount	-

Environmental

Operating Temperature	- 45 °C to + 85 °C
Storage Temperature	- 50 °C to + 95 °C
Vibration	MIL-STD-810-D
Shock	Vertical axis: 50G, other axes: 30G
Salt Fog	-
IP Rating	IP69K Housing
Compliance	IPC-A-610, FCC, RED / CE Mark, RoHS, REACH

Warranty:

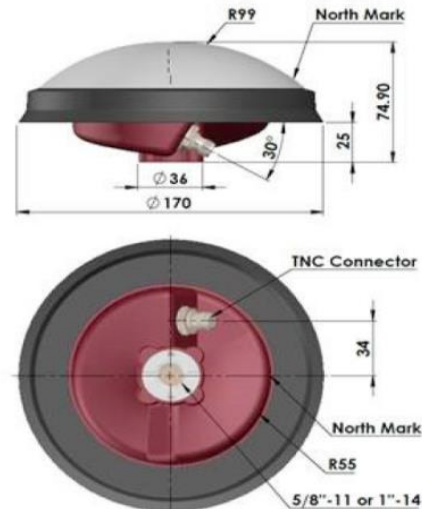
Parts and Labour	One year (Extended warranty available)
------------------	--

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

Frequency Bandwith		Out of Band Rejection	
		Upper Band	Lower Band
1164 - 1300 MHz	1539 - 1610 MHz	1430 MHz 60dB > 1630MHz 75dB > 1710 MHz > 60dB	< 800 MHz > 60 dB < 900 MHz > 28 dB < 1000 MHz > 15 dB

Architecture	Pre-filtered
Gain	37 dB
Noise Figure	1.6 typ at 25 °C
VSWR	<1.5:1 typ 1.8:1 max.
Supply Voltage Range	+ 3 to 16 DVC nominal
Supply Current	50 mA
ESD Circuit Protection	15 Kv air discharge
P 1dB Output	+ 6 dBm
Group Delay	< 10 ns

Mechanical Diagram



Ordering Information

Part Number **33-VSP6037L-01-zz**

Mounting Type (zz): zz = 58 | 5/8"-11 TPI zz = 01 | 1"-14 TPI

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