



TW3040/TW3042 Permanent Mount GPS L1 Antenna

Specifications V_{cc} = 3V, over full bandwidth, T=25°C

Antenna

Antenna Architecture	Single-feed RHCP ceramic patch
Antenna Element Gain (100mm ground plane)	4 dBic at 90°
Axial Ratio (over full bandwidth)	4 dB at 90°

Electrical

Architecture	3 stage LNA circuit + a mid section SAW filter. (Pre-filter option available)
Frequency Bandwidth	1575 MHz ± 10 MHz
Polarization	RHCP
Gain	TW3040: 40 dB min. TW3042: 39 dB min
	TW3040 TW3042
Out-of-Band Rejection	<1560 MHz >42 dB
	>1600 MHz >31 dB
	>1620 MHz >45 dB >70 dB
VSWR (at LNA input)	<1.5:1 typ. 1.8:1 max.
Noise Figure	1 dB typ. (TW3040) 3 dB (TW3042)
Supply Voltage Range	+2.5 to 16 VDC nominal (12VDC recommended maximum)
Supply Current	15 mA typ.
ESD Circuit Protection	15 KV air discharge

Mechanicals & Environmental

Mechanical Size	66.5 mm dia. x 21 mm H
Operating Temp. Range	-40 to +85 °C
Enclosure	Radome: Dark Gray or White EXL9330 Base: Zamak White Metal
Weight	150 g
Environmental	IP67 and RoHS compliant
Shock	Vertical axis: 50 G, other axes: 30 G
Vibration	3 axis, sweep = 15 min, 10 to 200 Hz sweep: 3 G
Salt Spray	MIL-STD-810F Section 509.4

Ordering Information

TW3040 – GPS L1 antenna	33-3040-xx-yy-zzzz
TW3042 – GPS L1 antenna w/pre-filter	33-3042-xx-yy-zzzz

Where xx = connector type, yy = type and colour of radome and zzzz = cable length in mm (where applicable)

Please refer to the Ordering Guide (<http://www.tallysman.com/wp-content/uploads/Current-Ordering-Guide.pdf>) for the current and complete list of available radomes and connectors.

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