

TW3990E



Embedded Multi-Constellation Full-Band Antenna

Frequency Coverage: GPS L1, L2, L5 | QZSS L6 | GALILEO E1, E5a, E5b, E6 | BEIDOU B1, B2a, B2b, B3 | GLONASS G1, G2, G3 | NavIC L5 + L-Band

The TW3990E is a precision-tuned full band Accutenna® technology antenna providing full coverage of GPS/QZSS-L1/L2/L5/L6, GLONASS-G1/G2/G3, Galileo-E1/E5a/E5b/E6, BeiDou-B1/B2/B2a/B3, NavIC-L5L5, including the satellite-based augmentation system (SBAS) available in the region of operation [WAAS (North America), EGNOS (Europe), MSAS (Japan), or GAGAN (India)], plus L-Band correction services. It is especially designed for precise full-band GNSS positioning.

The TW3990E features a precision-tuned, twin circular dual-feed, stacked patch element. The signals from the two orthogonal feeds are combined in a hybrid combiner, amplified in a wideband LNA, then band-split for narrow filtering in each band and further amplified prior to recombination at the output. The antenna also has a strong pre-filter to mitigate inter-modulated signal interference from LTE and other cellular bands. The TW3990E offers excellent axial ratio and a tightly grouped phase centre variation.

Ideal for train control sensors, autonomous vehicle tracking and guidance, precision agriculture, and other applications where precision matters, The TW3990E provides superior multipath signal rejection, a linear phase response, and tight phase centre variation (PCV).

The OEM TW3990E is supplied with a standard 60 mm diameter circular ground plane, with a coaxial cable terminated with a connector (right angle MCX is shown in the drawing). Mounting holes are provided for attachment to larger ground planes. Custom tuning and ground plane options may be available, depending on purchase level commitment.



This product is also available in a housed format: TW3990

Applications	Features	Benefits
<ul style="list-style-type: none">• Precision GPS position• Triple Frequency RTK receivers• Law enforcement and public safety	<ul style="list-style-type: none">• Very low noise preamp < 2.5 dB• Axial ratio: < 2.0 dB typ.• Tight phase centre variation• High-gain LNA: 37 dB typ.• Low current: 24 mA typ.• ESD circuit protection (15 kV)• Invariant performance from 2.5 to 16 VDC	<ul style="list-style-type: none">• Ideal for full-band RTK surveying systems• Great multipath rejection• Increased system accuracy• Great signal-to-noise ratio• REACH and RoHS compliant

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

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