

Brochure

VIAVI

TC-201

TCAS/Transponder Antenna Couplers

A combined TCAS and transponder directional antenna coupler for the avionics maintenance industry.

The VIAVI TC-201 Antenna Coupler is used on TCAS and combined TCAS and transponder directional antennas, to shield the RF signal during testing of the TCAS or transponder system. The TC-201, when used with the AVX-10K, IFR6000, IFR6015 or APM-424(V)5, supports maintenance testing in the airborne condition while working to reduce interference with air traffic control or nearby aircraft.



Features

- Accommodates both phase and amplitude type antennas
- Reliable, FAR Part 43, Appendix F, ERP and MTL testing in high multi-path environments
- Provides >20 dB of isolation
- Provides shielding for all transponder and ADS-B performance testing
- Lower antenna adjustable support pole
- Perform four-quadrant testing by simply rotating the bearing selector dial
- TCAS bearing accuracy < 10 degrees

Benefits

- Reduces interference with air traffic control and nearby aircraft
- High level of measurement repeatability is achieved, saving test time
- Tests all quadrants of directional TCAS or TCAS/Transponder antennas
- No need to achieve line-of-sight with the antenna under test
- Eliminates the need for DD-1494 Frequency Authorization
- Universal design allows coupler to be used with any suitable TCAS/transponder test set



General Specification

Frequency	1030 MHz, 1090 MHz
Return Loss	> 9 dB
Insertion Loss	15.5 dB typical
Repeatability	< 1 dB
Isolation	> 20 dB
Bearing Accuracy	$\pm 18^\circ$ max, < $\pm 10^\circ$ typical
Connector	TNC female

Physical Characteristics

Size:	
Coupler only	19 in. diameter (48.26 cm)
Kit with transit case	24.81 x 24.98 x 14.15 in. (63 x 63.45 x 35.94 cm)
Weight:	
Coupler only	11 lbs. (4.9 kg)
Kit with transit case	41 lbs. (18.6 kg)
Accommodates Antenna Dimensions:	Diameter: 9.25" max Oval Dimension: 11" max Antenna Height: 2" max

Supported Antennas

Supported Equipment	TC-201A	TC-201B
 Collins TSA-4100 and Similar	✓	✓
 Honeywell/ACSS AT-910 and Similar	✓	
Minimum Recommended Fuselage Size	110"	92"

Order Information

Versions and Options

Order Number	TC-201A TCAS/Transponder Antenna Coupler
140889	Single Coupler Kit
22164588	Dual Coupler Kit
22130799	Coupler Only

Order Number	TC-201B TCAS/Transponder Antenna Coupler
22163082	Single Coupler Kit
22163085	Coupler Only

Standard Accessories

142743	Transit Case
142839	Coax TNC, 50'
142742	Extension Pole Kit
92863	Attenuator, 30 dB

Optional Accessories

90177	Monopole Extension
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