

Brochure

# VIAMI

## TC-201

### TCAS/Transponder Antenna Couplers

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

The VIAMI 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	±18° max, <±10° 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

Item Number	Description	Quantity		
		TC-201A Single Coupler Kit (140889)	TC-201A Dual Coupler Kit (22164588)	TC-201B Single Coupler Kit (22163082)
22130799	TC-201A Coupler	1	2	—
22163085	TC-201B Coupler	—	—	1
142743	Transit Case, Single	1	—	1
22164587	Transit Case, Dual	—	1	—
92863	Attenuator, 30 dB	1	2	1
142742	Extension Pole Kit	1	1	1
142839	Coax Cable TNC, 50'	1	2	1
90177	Monopole Extension	Optional	Optional	Optional

