### Product Brief

# VIAVI UC-584

Universal Transponder Antenna Coupler

# A time-saving device that provides repeatable test results on the flight line or in the hangar

The UC-584 Universal Transponder Antenna Coupler solves the problem of reliable FAR Part 43 Appendix 'F' ERP (Effective Radiated Power) and transponder MTL (Minimum Trigger Level) testing in multi-path environments. The coupler mounts directly over the aircraft transponder antenna(s) and is secured in place with a toggle action grip, or slipped onto the top antenna when using the top mount coupler.

The UC-584 provides 20 dB of isolation, ensuring airborne TCAS systems and air traffic controllers do not see UUT transponder altitude replies under test conditions. The innovative design of the UC-584 includes an integral positioning slot, ensuring a high level of measurement repeatability is achieved, saving test time. The UC-584 can be connected to the VIAVI IFR6000, IFR6015, and APM-424 flight line test sets or to the VIAVI IFF-45TS direct-connect port, or to any suitable transponder test set.



#### Features

- Reliable FAR Part 43 Appendix 'F' ERP and MTL testing in high multi-path environments
- Provides >20 dB of isolation
- Provides proper shielding for ADS-B performance testing UUT parametric tests
- Quick action antenna grip/release action
- Dual antenna kit configuration
- Top mount antenna for easy placement on larger aircraft
- Rugged design for ramp use
- Fits most 'Shark Fin' L-Band antennas

#### **Benefits**

- Eliminates false intruders and interference with air traffic control tower
- High level of measurement repeatability is achieved, saving test time
- Universal design allows coupler to be used with any suitable transponder test set



## **General Specification**

Transponder Antenna Coupler				
Frequencies	1030 MHz, 1090 MHz			
Return Loss	>7.71 dB at both the antenna under test input and coupler input			
Insertion Loss	0.6 dB ±0.5 dB typical			
Repeatability	<1 dB			
Isolation	>20 dB			
Connector	TNC Female			

#### **Physical Characteristics**

Dimensions (UC-584 and UC-584S)	8.2 in x 5.75 in x 5.25 in (20.9 cm x 14.6 cm 13.3 cm)
Weight (UC-584 and UC-584S)	2 lbs (0.9 kg)

#### Maximum aircraft antenna size accommodated

UC-584		
	Width	3.9 in (9.9 cm)
	Thickness	0.325 in (0.825 cm)
	Height	2.9 in (7.37 cm)
UC-584s		
	Width	3.9 in (9.9 cm)
	Thickness	0.25 in. (0.635 cm)
	Height	3.75 in. (9.52 cm)

# **Ordering Information**

#### Versions and Options

Order Number	Description			
112350	UC-584 Coupler Kit, single antenna			
112349	UC-584 Coupler Kit, dual antenna			
Optional Accessories				
90106	20106 Kit, Antenna Coupler Pole, 8 ft. w/ D Ring			

Kit Contents			Single Antenna Coupler Kit (112350)	Dual Antenna Coupler Kit (112349)
lt	em	<b>Part No.</b> 87341	Qty	Qty
	UC-584 L-Band Coupler (w/ clamping)		1	1
	UC-584s L-Band Coupler (top mount)	142094	0	1
0	Coaxial Cable (25 ft) (TNC- TNC)	62462	1	1
O	Coaxial Cable (25 ft) (TNC- TNC, right angle)	141131	0	1
	Soft Case	88846	1	1
	ID Card	139823 (single) 139824 (dual)	1	1
	Application Notes	89148	1	1
	Instruction Sheet	92715	1	1



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