



# ANTENNA EXPERTS

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Model # TPA-1060      1030 – 1090 MHz.      2.14 dBi. Gain

## TRANSPONDER ANTENNA

**DESIGN FEATURES:** TPA-1060 vertical polarized, omni-directional transponder antenna is deign to operate from 1030-1090MHz, compliant to supports 1030-1090MHz ATC Mode-S applications. This transponder antenna is a higher performance, coaxial dipole type antenna designed specifically for use in aircraft for transponder application. The transponder antenna uses extended stub in order to keep the radiator away from aircraft so that the interference caused by aircraft body could be minimize. The antenna does not use any junction to prevent RF inter-modulation and is completely protected within a high-tech ruggedized fiber glass radome to ensure survivability in the worst environments. The compact size of transponder antenna allows easy handling and shipping. Bulkhead N-Female connector is fixed at the bottom of antenna which allow smooth mounting of antenna thru aircraft chassis.

**CONSTRUCTIONS:** This transponder antenna is rugged all weather model uses 6063T6 ultra corrosion resistant architectural aluminum alloy and does not require any field tuning or adjustments. The special stub matching is used for smooth VSWR and constant gain over the entire frequency band. This transponder antenna consist of large diameter brass radiating element, vertically positioned and enclosed in fiber glass tube. The antenna termination is enclosed at bottom of the antenna for complete weather protection. The antenna is free from ground plane and can be installed on metallic or non-metallic surface which eliminates the distortion of the radiation pattern and ensures a true omni-directional horizontal pattern. One holes of 16mm diameter is required to mount the antenna. A rubber "O" gasket and high quality nuts are supplied with the antenna to mount the same on aircraft body.

### ELECTRICAL SPECIFICATIONS:

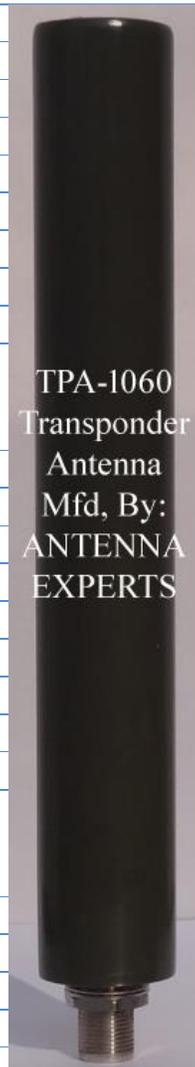
Frequency Range	1030-1090MHz (ATC Mode-S)
Gain	2.14 dBi.
Bandwidth	Entire Band
Polarization	Vertical
Input Impedance	50 Ohms.
Radiation Pattern	Omni Directional
Vertical Beam-width –Half Power Points	78 Degrees
VSWR – Better Than	1.5:1
RF Power Handling Capacity	150 Watts.
Input Termination	N-Female

### MECHANICAL SPECIFICATIONS:

Mounting Type	Thru Chassis
Gross Weight	350 Grams.
Wind Rating	300 Knots TAS
Antenna Length	235 mm
Shipping Length	250 mm
Radiating Elements Materials	6063T6 Aluminum Alloy
Mounting Hole Diameter	16 mm
Enclosure Materials	Fiberglass/ABS
Enclosure Outer Diameter	28 mm
Color/Finish	Olive Green

### ENVIRONMENTAL SPECIFICATIONS:

Operating Temperature	(-) 30 to +70 Degrees Celsius
Storage Temperature	(-) 40 to +80 Degrees Celsius
Humidity	0 to 95% RH
Altitude	35000 Feet
Vibration	30 Gs



Note: All information contained in the datasheet is subject to change without any prior notice.