

# C-BAND RADAR TRACKING TRANSPONDERS

MODELS 252 & 253

## DATA SHEET & TECHNICAL SPECIFICATIONS



### Features

- ▶ Small footprint ideal for missiles and smaller unmanned vehicles.
- ▶ Enhanced Pulse parameter capabilities
- ▶ 30% smaller than comparable units
- ▶ Minimum peak power outputs of 20 Watts or 50 Watts
- ▶ Infinite Shelf Life
- ▶ Reliable Solid State Transmitter using the latest GaAs technology

### Applications

- ▶ Vehicle Tracking

The C-Band Radar Tracking Transponders are compact precision augmentation systems for enhancing the tracking capability of C-Band Radars. It is particularly suitable for small missiles, targets, and aerial vehicles where weight and space are of a premium.

These units offer an industry first, providing a reliable solid state transmitter and using the latest in GaAs technology. The result is low modulation pulse voltages, increased reliability, infinite shelf-life, and no maintenance requirements. The transmit frequency, receive frequency, and all pulse code parameters are

externally programmable using a standard PC – another industry first. This series of transponders provides a substantial savings of time and money for testing, systems maintenance, and operational parameter changes. Minimum peak power outputs of 20 or 50 watts are available.

Our C-Band Transponders provide enhanced pulse parameter capabilities incorporating the latest range requirements in an effort to expand the operational capability of existing C-Band radar systems.

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### Electrical

- ▶ DC Power: 22 to 34 VDC (28 VDC nominal)
- ▶ Reverse Polarity: Series diode protection
- ▶ Impedance: 50 ohms
- ▶ Power Consumption: 11 Watts maximum (393 mA @ 28VDC)

### Environmental

- ▶ Temp, Operating: -40°C to +71°C; -54°C to +85°C
- ▶ Temp, Storage: -62°C to +95°C
- ▶ Vibration: MIL-STD-810C
- ▶ Altitude: 85,000 feet
- ▶ Acceleration: 50 G's all axis 1 minute
- ▶ Shock: 100 G's all axis 6 msec, 120 G's all axis 4 msec
- ▶ Humidity: 100%
- ▶ EMI/RFI: MIL-STD-461C, Class A1 equipment, IAW MIL-STD-462

### Physical

- ▶ Size: 3.50" W x 1.40" T x 3.95" D  
(8.9 x 3.6 x 10 centimeters)
- ▶ Weight: 18 ounces (510 grams)
- ▶ Volume: 18 cubic inches (295 cubic cm)
- ▶ Power Connector: MS27476Y8D35P

### Programmable:

- ▶ Transmit Frequency
- ▶ Receive Frequency
- ▶ Reply Delay
- ▶ Pulse Coding Type (Single/Double)
- ▶ Pulse Spacing
- ▶ Pulse Width

Models included: 252-2, 252-3, 253-2, 253-3

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