

C-BAND Radar Transponder



MODEL.KTP-5R7I

KTP-5R7I Radar Transponder is suitable for use in missiles or aircraft. It is designed for use in conjunction with C-Band tracking radars. The design of the KTP-5R7I utilizes the latest in modern devices and circuitry. The unit maybe operate for single-pluse or double-pluse interrogation.

Main Features

- 300watt minimum peak power output
- Internally constructed high power RF switch
- Tunable over 5.4 to 5.9GHz
- Superheterodyne receiver
- Reverse polarity protection



Specifications

Transmitter

- Frequency range 5.4~5.9GHz
- Frequency stability $\pm 3\text{MHz}$ (for all operating conditions)
- Output power 300watt peak @port min.
- Pulse width Adjustable from 0.2 μs to 0.6 μs
- Random triggering 10 pulse per second max.
- Rise time 0.1 μs max.
- Fall time 0.2 μs max.
- PRF 10 to 2600 pulses per sec.
- Pulse delay Adjustable 1.5 μs ~ 9 μs
- Output select switching type Cold switching (using microwave switch)

Receiver

- Frequency range 5.4~5.9GHz
- Dynamic range +20dBm ~ -70dBm
- Design Superheterodyne
- Stability $\pm 2\text{MHz}$
- 3dB Bandwidth 11 $\pm 3\text{MHz}$
- Pulse decoder Single or double pulse operating
- Pulse width 0.25 ~ 5 μs (single pulse operating)
0.25 ~ 1 μs (double pulse operating)
- Pulse coding space Adjustable 3 ~ 15.5 μs

Electrical Characteristics

- In/Out Impedance 50 ohm nominal
- Open/Shot circuit Antenna input protected within unit
- Reverse polarity Internal series diode prevents damage from DC voltage reversal
- Voltage transient Internal power diode protection

Mechanical Characteristics

- Dimensions (L x W x H) 203.5 x 104.0 x 84.0mm
- Weight Approx. 2.2Kg

Interfaces

- Antenna connector SMA Female
- Power connector Circular 6-pin
PT07H10-98P (mates PT06E10-98S)
A = +28V D = Gate Delay
B = +28V Return E = Video Return
C = Video F = NC

Environmental Specifications

Operating conditions

- Temperature range -40°C to + 80°C
- Altitude 100km
- Vibration 20g rms sine, 20 to 2KHz
- Shocks 100g, 11msec. in any axis
- Acceleration 50g along any axis for 3 minutes
- RFI/EMI MIL-STD-461D
- Humidity Any, up to 100% including condensation

Primary power

- Input voltage range 24V to 32Vdc
- Nominal current <750mA@1000pps

Ordering Information

- Model reference BEACON (KTP-5R7I)

Dimensions

