

# X-BAND Radar Transponder



## MODEL.KTP-8R7CM, 8R9CS

KTP-8R7CM & KTP-8R7CS Transponder is a tracking radar transponder for use in missiles or aircraft. It is designed for use in conjunction with an X-Band tracking radar.

The unit maybe operate for single-pulse and double-pulse interrogation.

### Main Features

- 500watt minimum peak power output
- Tunable over 8.8 ~ 9.5GHz
- Superheterodyne receiver
- Reverse polarity protection



### Reception Specifications

#### Transmitter

- Frequency range 8.8~9.5GHz
- Frequency stability  $\pm 3$ MHz (for all operating conditions)
- Output power 500watt peak min.
- Pulse width Adjustable from 0.2 $\mu$ s to 0.6 $\mu$ s
- Jitter 0.01 $\mu$ s max.
- Random triggering 10 pulse per second max.
- Rise time 0.1 $\mu$ s max.
- Fall time 0.2 $\mu$ s max.
- PRF 10 to 2600 pulses per sec.
- Pulse delay Adjustable 1.5 $\mu$ s ~ 9 $\mu$ s

#### Receiver

- Frequency range 8.8~9.5GHz
- Dynamic range +20dBm ~ -70dBm
- Design Superheterodyne
- Stability  $\pm 2$ MHz
- 3dB Bandwidth 11 $\pm 3$ MHz
- Pulse decoder Single or double pulse operating
- Pulse width 0.25 ~ 5 $\mu$ s (single pulse operating)  
0.25 ~ 1 $\mu$ s (double pulse operating)
- Pulse coding space Adjustable 3 ~ 15.5 $\mu$ s

### 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) 189 x 104.0 x 84.0mm
- Weight Approx. 1.6Kg

### 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
- RF/EMI MIL-STD-461D
- Humidity Any, up to 100% including condensation

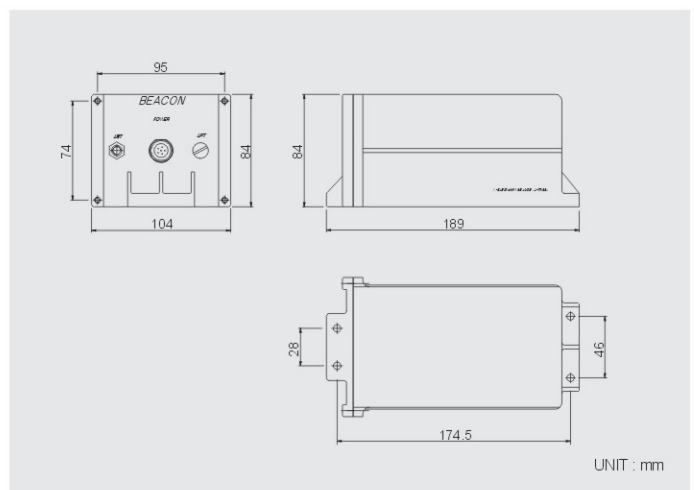
#### Primary power

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

### Ordering Information

- Model reference BEACON  
(KTP-8R9CS)  
(KTP-8R7CM)

### Dimensions



UNIT : mm