

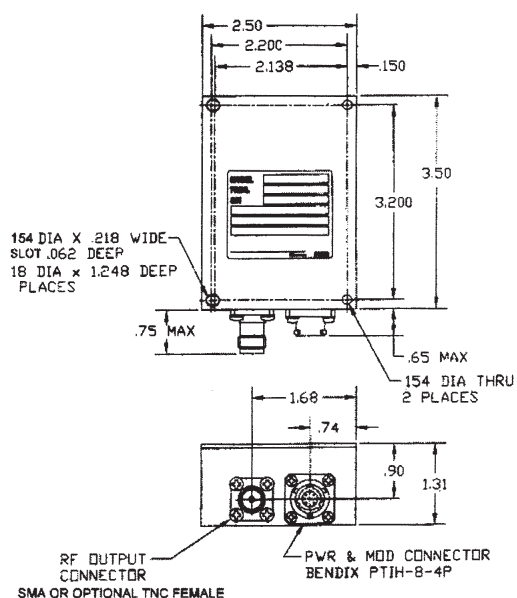
# Product Bulletin

## T702/705 DC Response Telemetry Transmitters Airborne Telemetry Products



### FEATURES

- DC Response
- 2 and 5 Watt
- FM
- Range Qualified
- L, S and Upper "S" Band Coverage
- 11.4 Cubic Inches



communications

## SPECIFICATIONS

### Power Matrix

| Model Number | Output* Power (Min). | Input Current (Max) |
|--------------|----------------------|---------------------|
| T702L        | 2 Watts              | .65A                |
| T702S/HS     | 2 Watts              | .80A                |
| T705L        | 5 Watts              | 1.4A                |
| T705S        | 5 Watts              | 1.8A                |

(\*50 OHM LOAD; 1.5:1 VSWR MAX. FOR SPECIFIED MINIMUM OUTPUT POWER)

### Electrical

|                      |                                                                                                    |
|----------------------|----------------------------------------------------------------------------------------------------|
| Frequency Range:     | 1435 MHz - 1540 MHz<br>2200 MHz - 2300 MHz<br>2310 MHz - 2390 MHz<br>Fixed Frequency (Factory Set) |
| Frequency Stability: | ±0.003%                                                                                            |

### Power Requirements

|                                              |                                                     |
|----------------------------------------------|-----------------------------------------------------|
| Voltage:                                     | 28 ±4 VDC                                           |
| Current:                                     | See Power Matrix                                    |
| Isolation:                                   | Band Modulation Return are common to Chassis Ground |
| Reverse Polarity and Overvoltage Protection: | The application of ±40 VDC will not damage the unit |
| VSWR:                                        | Isolater protected against damage from any VSWR     |

### Modulation Characteristics

|                                  |                                                                  |
|----------------------------------|------------------------------------------------------------------|
| Type:                            | FM                                                               |
| Coupling:                        | DC                                                               |
| Deviation                        |                                                                  |
| Sensitivity:                     | L-Band: 300 kHz peak/VRMS ±10%<br>S-Band: 500 KHz peak/VRMS ±10% |
| Carrier Deviation:               | L-Band: 350 kHz peak<br>S-Band: 500 kHz peak                     |
| Frequency Response:              | DC to 500 kHz ±1.5 dB                                            |
| Input Impedance:                 | 10K ohm min.<br>shunted by 10pF max.                             |
| Distortion:                      | 2% max.                                                          |
| Incidental Frequency Modulation: | 5 kHz peak max.                                                  |
| Incidental Amplitude Modulation: | 5% max.                                                          |

### Environmental

|               |                                                              |
|---------------|--------------------------------------------------------------|
| Temperature   |                                                              |
| Operating:    | -20°C to +70°C, Baseplate                                    |
| Non-Operating | -55°C to 100°C                                               |
| Vibration     |                                                              |
| Sine:         | 20g, 20-2000 Hz, 3 axes                                      |
| Random        | 0.1g <sup>2</sup> /Hz, 20-2000 Hz, 3 axes                    |
| Acceleration: | 100g, 3 axes                                                 |
| Shock:        | 100g, 11 msec., 3 axes                                       |
| Altitude:     | Unlimited                                                    |
| Humidity:     | MIL-STD 810C, Method 507                                     |
| EMI:          | MIL-STD 461A. (IRIG 106 for Antenna conducted and radiated.) |

### Options (Consult Factory)

- Higher Efficiency (Lower Input Current)
- Other Connector Styles
- Extended Temperature Range (-40°C to +85°C)
- Isolation (Power and/or Modulation Returns)
- Higher Vibration/Shock Levels
- Extended Frequency Response
- Extended Carrier Deviation
- Negative Sense

### Gains and Linearity

- Center Frequency
- Deviation Sensitivity
- Modulation Input Impedance

