



3500 Shannon Park Drive  
 Fredericksburg, VA 22408  
 Tel (540) 374-1000

## Miniature S-Band Telemetry Transmitters

Syntronics' family of truly miniature S-Band Telemetry Transmitters range from 0.33 watts RF output power to 2 watts RF output power. These tiny S-Band Telemetry Transmitters allow you to integrate telemetry into even the smallest system. Also, the small size and high power of these transmitters allow telemetry for larger systems to be unobtrusive, requiring minimal volume, as well as being low in cost. The smallest Syntronics Telemetry Transmitter is on a single circuit board only 0.9 inches in diameter, yet has an RF output of 0.33 watts and runs on only 3.3 volts. Our Standard S-Band Telemetry Transmitter is mechanically identical to the M/A-COM HSTSS transmitter, but with better performance, lower price, and, more importantly, is always available in six weeks or less.

The transmitter frequency is specified at the time of the order and can be any where from 2.205GHz to 2.295GHz in 500kHz increments.

This family of S-Band Telemetry Transmitters have been extensively tested by our many customers and have been proven to be reliable in the harsh gun launch environment. In fact, they are specified to survive a gun launch environment of up to 20,000Gs when properly mounted.

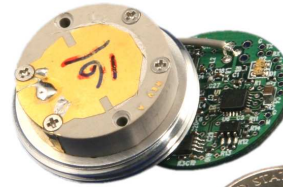
All of the miniature S-Band Telemetry Transmitter configurations are available with a three week typical, six week maximum, lead time from the recite of order.

*Not exactly what you need? Requests for custom configurations or complete Telemetry Solutions are welcome.*

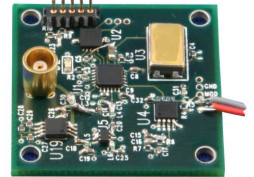
### Models Available:

- Standard S-Band Transmitter (INST-11A)
- Micro S-Band Transmitter (INST-11B)
- High Power S-Band Transmitter (INST-11C)
- Adjustable HP S-Band Transmitter (INST-11D)

MICRO S-BAND  
 TM TRANSMITTER WITH  
 A PATCH ANTENNA



STANDARD S-BAND  
 TM TRANSMITTER



### For more information contact:

Brian Tacke 540-374-1000 x118  
 btacke@syntronics.net

## Common Specifications

*\*User specified at the time of order*

### Mechanical:

- Single Circuit Board Design
- Gun Launch Shock: up to 20,000Gs\*

*\*Properly Mounted*

### Temperature Range:

- Operating: -40°C to +85°C
- Storage: -40°C to +125°C

### Input:

- Input Impedance: 10K ohms
- 3.3V Logic Level, 500 Kbits/sec to 2 Mbits/sec\*

### RF Output:

- Vertical MMCX Jack
- Load Impedance: 50 ohms
- VSWR: 2
- Carrier Frequency: S-Band, 2.205GHz to 2.295GHz\*
- Stability: Better than 0.002%
- Carrier Frequency Accuracy: ±50 ppm all causes

*\*User specified at the time of order in 500kHz increments*

## S-Band Transmitter Models

### Standard S-Band Transmitter (INST-11A)

*The Standard S-Band Transmitter is mechanically identical to the M/A-COM HSTSS but has better efficiency and more power output.*

Mechanical:

- *One 1.125" Square Circuit Board with four #4" mounting holes on a 0.9" square*

Input Power:

- *3.3VDC @ 500mA*

RF Output:

- *0.33 watts RF*

Input Connections:

- *Solder Pads for Power, Ground, and Modulation Input*

### Micro S-Band Transmitter (INST-11B)

Mechanical:

- *One 0.8" Diameter Round Circuit Board, No Mounting Holes*

Input Power:

- *3.3VDC @ 500mA*

RF Output:

- *0.33 watts RF*

Input Connections:

- *20 Pin Hirose DF12-20DS-0.5V(80)*

### High Power S-Band Transmitter (INST-11C)

Mechanical:

- *One 1.8" Diameter Round Circuit Board*

Input Power:

- *6.0VDC @ 750mA*

RF Output:

- *1 watt RF (30dBm)*

Input Connections:

- *Solder Pads for Power, Ground, and Modulation Input*

### Adjustable High Power S-Band Transmitter (INST-11D)

Mechanical:

- *One 1.8" Diameter Round Circuit Board*

Input Power:

- *5 VDC @ 1.3A (2W Out)*

RF Output:

- *1 to 2 watts RF, Jumper Selectable*

Input Connections:

- *Solder Pads for Power, Ground, and Modulation Input*