



ZEUS Technology Systems, Inc.
Technical Data Sheet

ZSR-010
Miniature Microwave Tuner

DESCRIPTION

The Zeus Technology Systems' Model **ZSR-010** Miniature Microwave Surveillance Tuner features contiguous coverage from 20 MHz to 10.0 GHz in a compact 8.0" x 4.0" x 2.5" chassis. In spite of the extremely compact packaging the **ZSR-010** delivers the superior performance required to handle modern analog and digitally modulated signals, yet consumes less than 12 watts. Offering both IF and near baseband outputs allows for traditional and DSP analysis of the signal environment. Features such as multiple IF bandwidths, excellent sensitivity, high dynamic range, extremely low Noise Figure, low phase noise, and fine-tuning resolution allow a diverse array of applications to be supported. Sophisticated step/sweep algorithms programmed within the tuner allow multiple bands to be processed with independent bandwidth and gain settings for autonomous signal detection. Dual Antenna Ports allow use of multiple antennas for instant wideband search, as required when collecting signals over the huge band coverage offered by the **ZSR-010**.



FEATURES

- **0.020 to 10 GHz** contiguous coverage
- Multiple selectable 70 MHz IF wideband outputs: **5 MHz; 10 MHz; 20 MHz** and **35 MHz** (Other BW's optional)
- Near Baseband output
- Small size: **8"x 4"x 2.5"** (Chassis less than a 1/20 of a cubic foot)
- Light weight: **≤ 6 lbs**
- Minimal Power: **≤ 12 Watts**
- Low Noise Figure: **10dB ≤ NF ≤ 15 dB**
- Low Phase Noise: **≤ 1.0⁰ RMS**
- **RS-232** and **USB Control**

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All specifications subject to change without notice*

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ZSR-010 Series SPECIFICATIONS

| | |
|---|--|
| Frequency Coverage | 0.020 - 10.0 GHz |
| IF Center Frequency | 70 MHz |
| Baseband Center Frequency | Bandwidth dependant: 5; 10; 20 and 35 MHz, selectable |
| 70 MHz IF Bandwidth | (Any 4 of above available; other choices optional) |
| Preselector | Tracking & Switched, full band |
| Tuning Resolution | 1 Hz |
| Tuning Time | 0.5 mSec |
| Tuning Modes | Fixed, Step, Sweep, w/Stop or Rpt on COR |
| Phase Noise | < -90 dBc/Hz @ 1 KHz offset < -100 dBc/Hz @ 10 KHz offset < -110 dBc/Hz @ 100 KHz offset |
| Antenna Port | Dual Ports, both SMA |
| Noise Figure | <10, typical. <12 @3GHz, < 15 @10 GHz |
| VSWR | 2.0:1 max. typ. |
| IF Output Power in AGC | -20 dBm, nominal |
| Baseband Output Power in AGC | -20 dBm, nominal |
| Reference Frequency | Internal, or External, Auto switching |
| Power | 12 Watts |
| Size | 8" x 4" x2.5" |
| Weight | 5.8 lbs |
| Control | USB, RS-232 |
| Operational Temperature | -20 to +70 ⁰ C |
| Maximum RF Input Level | +15dBm |

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