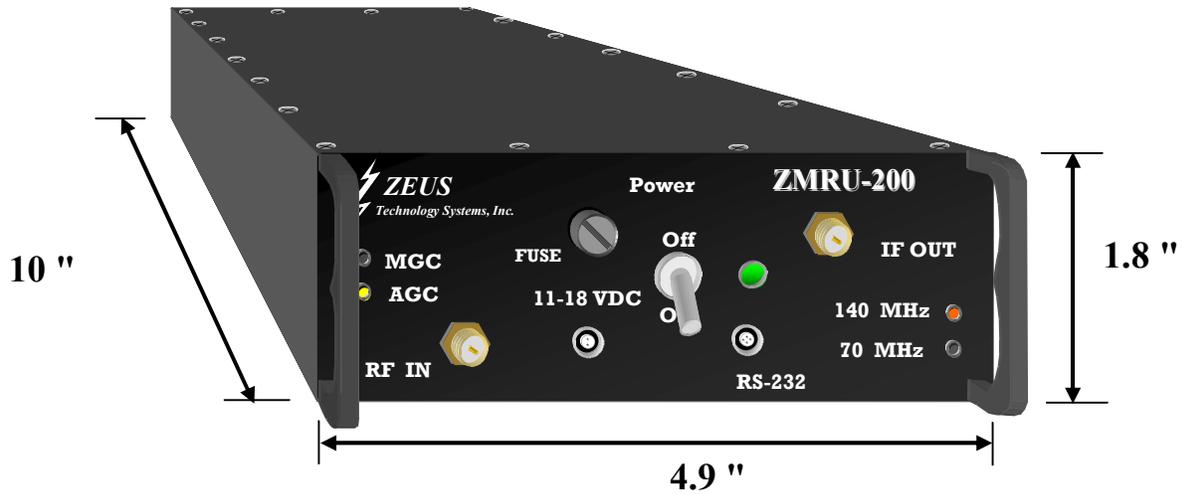




ZEUS Technology Systems, Inc.
Technical Data Sheet

ZMRU-200
Tunable Microwave Receiver



DESCRIPTION

The ZMRU-200 is a low cost tunable microwave receiver with the superior performance (8 dB NF, typ.; -90 dBc/Hz Phase Noise, and -98 dBm Internal Spurious) necessary to capture modern and emerging high data rate signals. Its small size and rugged construction allow deployment in the most challenging conditions. Ease of operation, versatile input voltage requirements and straight forward set up, facilitate rapid yet precise field deployment. Once installed, the ZMRU-200 can be controlled remotely via RS-232 interface, tuning the 600 MHz wide bandwidth to any frequency between 3 and 40 GHz, in 10 KHz steps +/- 3 parts in 10 E-7 accuracy. IF output is user selectable for either 70 or 140 MHz, with either Inverted or Non-Inverted spectrum. The intuitive control software allows for the complete control of up to 4 ZMRU-200 receivers from a conventional Lap Top. RF Input and IF Output are via standard SMA connectors (2.9 mm conn. Above 26 GHz input frequency) and the Lemo connectors provide positive locked connections for power and control lines, to prevent disconnects under strenuous operating conditions.

FEATURES

- **Center Frequency Coverage:** 3.0 - 40 GHz
- **Bandwidth:**.....600 MHz
- **Tuning Resolution:**.....10 KHz
- **Low Noise Figure:**.....8 dB, typ.
- **Low Phase Noise:**...-90 dBc/Hz, @10 KHz
- **Image Rejection:**.....60 dB
- **IF Outputs:**.....70 or 140 MHz, selectable
- **IF Bandwidth:**.....60 MHz
- **Control Software:** Intuitive, User-Friendly
- **IF Spectrum:**Inverted or Non-Inverted
- **Gain Control:**.....AGC or MGC
- **Control Interface:**RS-232
- **Small size:**1.8” x 4.9” x 10”
- **Light weight:**.....≤ 3 lbs
- **Construction:** ..Rugged, Milled Aluminum
- **Operating Temperature:**.....-20° to +50

ZMRU-200 SPECIFICATIONS

Interfaces

Power Input	2 pin Lemo (ECG.0B.302CLL)
RF Input	SMA
IF Output	SMA
RS-232 Input	4 pin Lemo (ECG.0B.304CLL)

Specifications

Frequency Coverage	Any 600 MHz from 3.0 GHz to 40 GHz
Tuning Range	600 MHz
Tuning Resolution	10 KHz
Tuning Accuracy	+/- 3 parts in 10 E-7
Noise Figure	8 to 12 dB, frequency band dependent
Phase Noise @ 10 KHz Offset	- 90 dBc / Hz
Internally Generated Spurious	- 98 dBm equivalent RF INPUT
Image Rejection	
140 MHz	60 dB
70 MHz	60 dB
IF Frequency	70 MHz or 140 MHz, User Selectable
IF Spectrum	Inverted or non-Inverted, User Selectable
IF Bandwidth	
140 MHz	60 MHz
70 MHz	60 MHz
	} Other Bandwidths available
IF Output Level	AGC set to -10 dBm
Gain Control	AGC or MGC, User Selectable
Power Input Required	11 to 18 VDC
Power Consumption	10 Watts, max.
Size	1.8" x 4.9" x 10.0"
Weight	3.0 lbs.
Operating Temperature	- 20 deg. C to + 50 deg. C

Specifications subject to change