

## TECHNICAL BULLETIN:

# SMU Jr-VIBE



### SMU JR - VIBE

This special version of our Satellite Monitoring Unit SMU Jr offers all the same benefits and features you are used to with the added function of sensing mechanical vibration. This provides you important information and alerts you to critical conditions, including earthquakes.



### KEY FEATURES

- 3-axis Vibration Sensor**
- Solar-Powered**
- 2-Way Communications**
- Simple installation with no wiring required**
- Expandable Independently Configurable I/O, can be Digital Input, Digital Output, or Analog input**
- 36 Month Warranty**



### PRODUCT BENEFITS

- Notifies Customers when Unit Stops Running**
- Magnetic Mounting for Easy Installation - No Poles or infrastructure needed**
- Programmable Over-The-Air (OTA) Saving Time and Effort**
- Various Sensitivity Levels to Suit Different operational Conditions**
- Extremely Robust and Long Lasting**
- 24/7 Technical Support**

## SatAlarm® Server Web-Based SCADA

- Web browser based historian
- Color graphical interface
- User configurable displays
- Customizable dashboard
- Multi data point graphs
  - Data tracking
- Integrated Maps
- Equipment configuration
- Device control
- Data conditioning
- Reporting

## EXTERNAL INTERFACES

- Serial: 2 ports; RS-232 and RS-485
- Built in internal 3-axis vibration sensor
- I/O: 4 channel; individually configurable as analog input or digital input/output
  - o Analog inputs: 0 – 3.0V, 1.0mV (12-bit) resolution; 4-20mA, 143  $\Omega$  loop resistor
  - o Digital inputs: -10 – 150VDC safe, pull-up or pull-down
  - o Digital outputs: 32VDC safe, 250mA sinking (open drain), or 3VDC, 25 $\mu$ A (push-pull)
- Additional I/O available using Modbus I/O expansion modules

## PROGRAMMING

- Reporting (configured over the air):
  - o Configurable time-of-day based schedule
  - o Configurable interval-based schedule
  - o 3 minutes up to once every 3 days
  - o By exception; user definable test conditions
- Modbus RTU:
  - o 16 configurable commands
  - o Data reportable by schedule, interval, threshold test, any change, or pattern match

## GPS

- Acquisition Time: 27 seconds (warm & cold)
- Accuracy: 2.5 meters (CEP-Horizontal)
- Sensitivity:
  - o Acquisition: -147 dBm
  - o Tracking: -159 dBm

## SATELLITE MESSAGING

- Two-way, global, IsatData Pro
- From terminal (max per message) - 6400 bytes
- To terminal (max per message) - 10,000 bytes

## SATELLITE COMMUNICATION

- Frequency:
  - o From terminal: 1626.6 – 1660.5 MHz
  - o To terminal: 1525 – 1559 MHz
- Elevation Angle: 20° to 90° for communications link
- Maximum EIRP: 7.0 dBW
- Maximum Antenna Gain: 4.5 dBic

## POWER

- Solar Power: 12VDC, 5W, 7Ah

## CERTIFICATIONS/COMPLIANCE

- Satellite - Inmarsat
- Other - C-Tick, CE, FCC, IC, Anatel, RoHS(?)

## ENVIRONMENTAL

- Operating Temperature: -20°C to +50°C
- Storage Temperature: -40°C to +85°C
- Humidity: 90%RH @ 85°C; meets SAE J1455
- Dust and Water Ingress: IP66/Nema-6P (with door screws installed)

## ENCLOSURE

- Polycarbonate
- Nema-4x/6P (with door screws installed)
- 1x ½-inch pass-thru cord grip
- Lockable

## PHYSICAL

- 16.0 x 10.5 x 9.3 in. (40.6 x 26.7 x 23.6 cm)
- 13.9 lbs. (6.3 kg)

## WARRANTY

- 3 year standard limited warranty

*Disclaimer AMCi warranties SMU Jr - Vibe hardware for a full three years (36 months) \* \* Warranty is subject to AMCi published Terms and conditions. Contact your AMCi representative to obtain a copy or visit [www.amci-wireless.com](http://www.amci-wireless.com)*



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