INTRODUCING
SSTDR S100
LIVE DETECTION AND LOCATION OF FAULTS IN ELECTRICAL CABLES AND WIRES

AWARD WINNING PRODUCTS AND SERVICES TAKING OUT COST AND INCREASING OPERATING EFFICIENCY
THE SSTDR S100 IS A FULLY ENGINEERED, READY TO INTEGRATE, BOARD-LEVEL FAULT DETECTION ENGINE.

The fully engineered, credit card-sized board and corresponding chipset enables engineers, OEMS, end-equipment manufacturers, as well as system operators to quickly develop and integrate the ability to monitor live cables, wires and electrical systems for the detection and location of critical open and short circuits, arc faults, and hard to see intermittent events. Importantly, it can operate on live systems. The S100 also allows system operators to collect valuable baseline data that can be used to help predict and prevent outages.

Applications

- General industry applicability in utilities, aerospace, rail systems, PV array, telecoms, industrial and power systems
- Live cable monitoring
- Live cable power theft/damage detection
- Cable harness testing

Key Features

- Continuous monitoring of live electrical systems
- Detects short circuits, open circuits, circuit impedance changes
- Detects intermittent and persistent faults
- Distance to fault accuracy up to 98%
- Covers wide range of cable lengths, from cms to kms
- Multiple SSTDR S100 modules can be used on the same conductors without interference
- Small, credit-card sized form factor
- Fully engineered, ready to integrate board-level fault detection engine

Mechanical

- Dimensions: 86.36mm x 50.8mm
- Weight: 29g

Note: Dimensions in mm

Mounting

Mounting: 4 Screws - 4-40 thread x 1/4”
SSTDR S100

PRODUCT SPECIFICATION

Measurements

- Single channel
- Maximum Output Voltage: 3.3V
- Default Output Voltage: 1.27V
- Output Voltage Resolution: 33mV
- Test Frequencies: 93.75kHz to 24MHz
- Distance Range (cable dependent):
  - Electrical cable: 0 to 5km
  - Data cable: 0 to 1km
  - Coaxial cable: 0 to 1km
  - Shield power distribution cable: 0 to 6km
- Unit types: metres or feet
- Test modes:
  - **Static**: single measurement using all frequencies
  - **Sweep**: continuous monitoring using 4 pre-programmed frequencies
  - **Dynamic**: continuous monitoring using a single frequency
- Results can include: fault notification, fault type, fault distance, fault duration, waveforms

Communications Interface

- Serial Interface UART
- Reset

Support Board Requirements

- S100 module requires support board
- Front-end coupling determines maximum operating voltage

Operating Characteristics

- Input voltage: 2.7 to 12Vdc
- Typical Power Consumption: 1.2W

Environmental

- Operating / Storing Temperature: -40 °C to + 85 °C

Standard / Compliance

- CAT III 600V
- RoHS compliant

Order Code

- VA-229154  SSTDR S100 Module

Other Products

- VA-227852/EVAL  SSTDR S100, RS485, 750V, DIN*
Please contact Viper Innovations for further information on SSTDR S100.

PORTISHEAD OFFICE
Viper Innovations Ltd
Unit 3, Marine View Office Park
45 Martingale Way
Portishead
Bristol
BS20 7AW
United Kingdom
Tel: +44 (0) 1275 787878

ABERDEEN OFFICE
Viper Innovations Ltd
Unit A, Ketsock Lodge, Campus 2
Aberdeen Innovation Park
Balgownie Drive,
Bridge of Don
Aberdeen
AB22 8GU
Tel: +44 (0) 1224 519944

E-mail: enquiries@viperinnovations.com