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www.ppmtest.com

Sentinel 3 - Speed, flexibility, certainty

Sentinel 3 is the most advanced RF over fiber test and measurement system for:

- EMP test and EMC conformance
- HIRF aircraft clearance
- · Simulated lightning testing
- Impulse / time domain / NEMP testing
- Low and high level swept frequency coupling measurements

Ultra-compact remote transmitters (Single or 8-input)

Double-screened to maximise shielding effectiveness, *Sentinel 3* remote transmitter units feature a debug mode and incorporate power detection which enables automatic power tracking. Transmitters can be remotely controlled to perform functions such as:

- Gain setting verification
- Link parameter modification
- Self-test / signal selection
- Link calibration
- Enter or exit sleep mode
- Battery level monitoring

Flexibility

Sentinel 3 is designed to reduce setup time and maximise measurement certainty. A variety of connector options offer a balance of robustness and compact size. Multi-core cross-site cables and compact patch leads provide additional options for easier test setup.

A wide, touch-screen controller supports connectivity via Ethernet and serial interfaces.

Multi-core cross-site cables

Multiple receiver designs and cross-site cable options allow a variety of test configurations including simultaneous monitoring of two channels or sequential monitoring of up to 48 sensors.

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High density, scalable system

Each chassis accepts up to six single or dual receivers and a controller.

- Up to eight inputs per remote transmitter
- Up to six remote transmitters per receiver
- Up to six receivers per chassis

The system can be expanded up to $8 \times 6 \times 6 = 288$ inputs monitored by a single chassis.

19" 3U chassis

- Up to 6 receiver modules
- Power and control distribution via chassis backplane

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Sentinel (3)

· Integrated battery charging (4 batteries simultaneously)

Plug-in optical receiver

- AGC RF amplifier
- Relays control signals to transmitters via optical fibre link
- N-type connectors
- Shuttered fibre optic connector
- Calibration function

Shielded optical transmitter

- RF pre-amplifier
- Attenuation blocks
- Laser driver
- Broadband, high linearity LNA
 Power supply filtering and regulation
- Choice of one or 8 inputs
- High impedance buffer option Sleep mode

Bi-directional communication

· Shuttered fibre optic connector

• SMA type RF connectors

• Remotely operated from system controller

• User controllable test signal

World class performance

- Multiple modes: super low noise mode, high power mode and high impedance mode
- Increased sensitivity means lower test field strength and reduced ERP
- 145dB/Hz instantaneous dynamic range
- Thermal compensation = "calibrate once" to maintain 0.25dB accuracy

System controller

- Remote gain control Remote power up/down
- LAN interfaces
- Serial interfaces
- Automatic unit detection
 on startup
- System self-test
 Large touch-screen display

