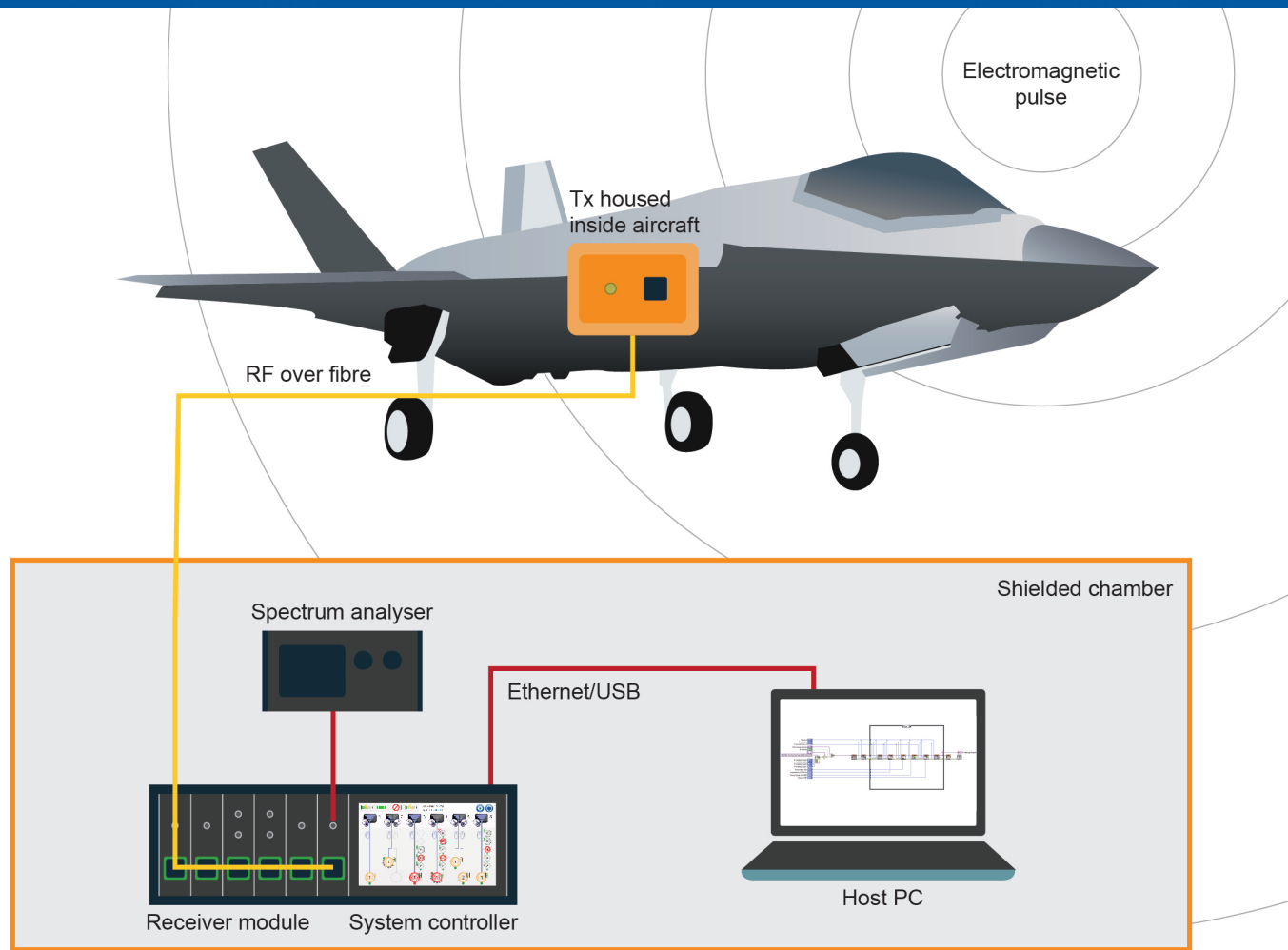


Sentinel 3 Fibre Optic Links



EXAMPLE TEST SETUPS

SIMPLE SINGLE LINK

For collecting measurements of a single probe or antenna (Tx1), or several within a small area (Tx8).



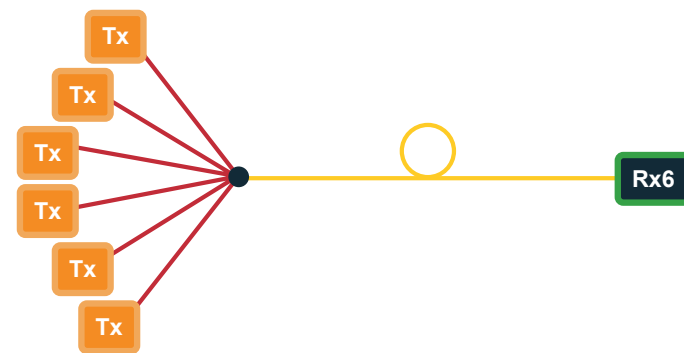
DUAL LOCATION LINK

For use where a number of measurements may be required from remote locations within the testing vehicle.



MULTIPLE LOCATION LINK

To collect multiple measurements during testing, reducing overall test time and minimising downtime due to reconfigurations.



Sentinel³

FOR TEST AND MEASUREMENT

ADVANCED RF OVER FIBRE TEST AND MEASUREMENT SYSTEM

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

19" 3U CHASSIS

- Up to 12 receiver channels
- Integrated battery charging (four batteries simultaneously)
- Ethernet and serial interfaces
- Desktop or 19" rack chassis versions
- Integrated touchscreen interface

WHY USE FIBRE OPTIC LINKS?

Fibre optic links are essential for test and measurement, including Aircraft EMC testing, as they provide full galvanic isolation and EM immunity; preventing the testing instrumentation from compromising the measurements.

Fibre link lengths of 100+ metres are possible, significantly reducing signal loss from the remote measurement equipment compared to coaxial cables. Fibre optic links also deliver a significant increase in measurement dynamic range, particularly at higher frequencies.

MEASUREMENT FIDELITY & CERTAINTY

The Sentinel 3 system's high dynamic range and accurate gain control supports high fidelity measurement of test signals. Its high sensitivity mode and shielding from interference allow lower field strengths to be used where regulatory limits are placed on open air test facilities.

Remote control of the transmitter units means they can be deactivated during test setup and battery status can be monitored to ensure the system remains live throughout a full day's testing.

DOUBLE-SCREENED SHIELDING

To maximise shielding effectiveness, Sentinel 3 remote transmitter units are double-screened to maintain isolation. This ensures the measurements are not distorted when operating in high energy environments.

HIGH DENSITY, SCALABLE SYSTEM

Each Sentinel 3 chassis accepts up to six single or dual receivers and a controller, making it scalable and adaptable during and after installation.

Additionally, there are up to eight inputs per remote transmitter and up to six remote transmitters per receiver, meaning the system can adjust to any scale of testing scenario.



PLUG-IN OPTICAL RECEIVER

- Single/dual channel and six-transmit head versions
- Light level monitoring for measurement certainty
- Integrated measurement and control channels
- Shuttered fibre optic connectors for dust protection

SYSTEM CONTROLLER

- Graphical display showing health status of entire system
- Monitoring of all charging and in-use batteries
- Automatic transmitter unit detection and remote control
- LabVIEW support for automated test

SHIELDED OPTICAL TRANSMITTER

- Choice of one or eight inputs
- Environmentally sealed to prevent dust and water ingress
- Integrated high impedance buffer option
- Remotely controlled sleep mode
- Highly compact form-factor