



## Optical Link – Modular Version



The optical link is designed for the transmission of signals (CW and pulses) up to 1 or 3 GHz. The electrical signal is conditioned and converted into an analogue optical signal in the transmitter module and is transmitted to the optical receiver through a fibre optic cable. The receiver module converts back the optical signal into an electrical signal. The remote units are powered with a rechargeable battery.

The system consists of: a modular mainframe, plug-in modules, remote units, fibre optic cable and a charger. The main frame accepts up to 6 plug-in modules (12 for the 3 GHz version). An optional GPIB / RS232 serial bus controls the modules and allows a daisy chain up to 4 mainframes. The mainframe controls the power of the remote units, the battery check, the attenuator/amplifier settings, etc. The system contains a built-in test generator for the calibration process.

The modular optical link can be used for instance to monitor electric, magnetic field sensors and current probe in the same time. Acquisition and stimulus (in option) signals can be transmitted. See the specific datasheet about the field sensors.

### SPECIFICATIONS

|                                   |  |  |
|-----------------------------------|--|--|
| <b>Bandwidth (- 3 dB)</b>         | 1 kHz to 1 GHz                         | 500 kHz to 3 GHz                       |
| <b>Flatness</b>                   | ± 2 dB                                 | ± 4 dB                                 |
| <b>Risetime</b>                   | < 350 ps                               | < 150 ps                               |
| <b>Inst. signal / noise</b>       | > 45 dB                                | > 45 dB                                |
| <b>Absolute maximum input</b>     | 600 mV / 50 Vdc                        | 500 mV / 40 Vdc                        |
| <b>Input / output impedance</b>   | 50 Ω                                   | 50 Ω                                   |
| <b>VSWR</b>                       | < 1.4:1                                | < 1.4:1                                |
| <b>Operating temperature</b>      | 10 to 40 °C                            | 10 to 40 °C                            |
| <b>Battery operating duration</b> | 8 h                                    | 8 h                                    |
| <b>Electrical connectors</b>      | SMA                                    | SMA                                    |
| <b>Optical connector</b>          | Single mode FC/ST                      | Single mode FC/ST                      |
| <b>Remote unit size</b>           | 108 x 90 x 69 mm                       | 150 x 80 x 70 mm                       |
| <b>Mainframe size (W x H x D)</b> | 430 x 130 x 379 mm                     | 430 x 130 x 379 mm                     |
| <b>Supply (mainframe)</b>         | 230 / 115 Vac 50 / 60 Hz<br>100 VA max | 230 / 115 Vac 50 / 60 Hz<br>100 VA max |

### SYSTEM PARTS

|          |  |
|----------|--|
| OMF1000  | Mainframe for 6 or 12 plug-in modules (depending of the size of the module)                    |
| GPIB     | GP-IB and RS232 option   |
| OSA1000  | TX remote unit 1 kHz – 1 GHz   |
| OSA3000  | TX remote unit 500 kHz – 3 GHz   |
| ORE1000  | RX plug-in module 1 kHz – 1 GHz  |
| ORE3000  | RX plug-in module 500 kHz – 3 GHz  |
| CM230L/H | Charger for the remote unit battery pack (CM230L for 1 GHz modules / CM230H for 3 GHz modules) |
| FCA50    | Fibre cable 50 m (other length on request)   |

*A stand-alone version without mainframe is also available. See the specific data sheets.*