



OPTICAL SPECTRUM ANALYSER: PROLITE-60

The first truly portable and economic analyser for WDM applications

One of the priorities for the telecommunication operators is to make the already existing optical networks profitable. The first step to achieve that goal is to increase fibre capacity using more wavelengths simultaneously to carry information. In order to evaluate the quality of an optical signal in a fibre that carries more than one wavelength it is not enough with a power meter, for this type of equipment can not discriminate between two or more of the carriers. It becomes necessary to have test equipment that can guaranty the correct transmission of information in each one of the carriers, that is to say it requires an optical spectrum analyser.

Adapted for operating in the field

The optical spectrum analysers available until now have very high measurement capacity but they were very bulky and extremely expensive. In few words they were ideal for laboratory use but were lacking the characteristics required for measurements in the field.

The **PROLITE-60** changes the way to understand optical fibre measurements.

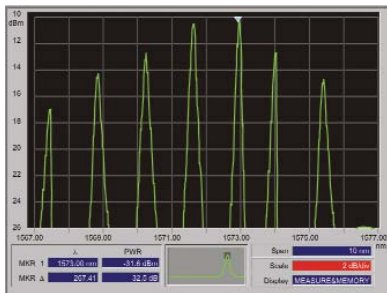
PROMAX presents the **PROLITE-60** portable optical spectrum analyser ready to work in extreme conditions. It has an internal battery that provides up to 4 hours operating time and is protected against ingress of water and dust.



Easy to use

Different parameters can be configured that substantially affect the form in which the measured signal is displayed such as the vertical or horizontal scales (or Span).

For convenience, so that the user is aware at any time of the portion of the whole spectrum being displayed, the **PROLITE-60** shows in a smaller window in the lower part of the screen as a Reference Display with indication of the whole spectrum and the part being magnified.



Spectrum area displayed



Trace memory

A measurement can be stored in the memory for later display and comparison with the current measurement.

Since the **PROLITE-60** can be operated in the temperature range from 0° to 40° C this feature can be very useful for a number of applications. For instance, to observe the wavelength and power drift of a light source with changes of ambient temperature.

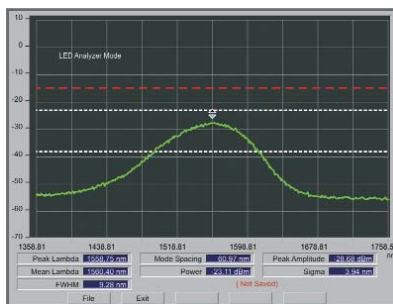
It is possible to store up to 10 different traces.

SLED Option

Optionally, the **PROLITE-60** can be delivered with a SLED (Superluminescent Light Emitting Diode) light source.

These sources provide a light of a wide spectral content, covering a wavelength range of approximately 100 nm.

The SLED option can be requested



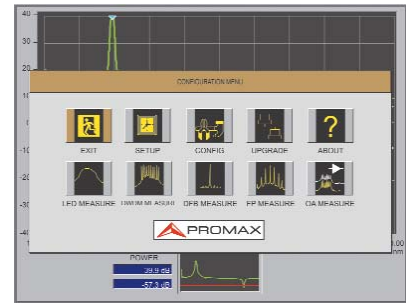
for centre wavelengths of 1310 nm or 1550 nm thus being able to analyse the response of devices in both bands.

The possibility to insert a known test signal into an optical fibre system can be very useful for certification purposes both for its active components as for the optical fibre itself.

Special functions

When a **PROLITE-60** user needs to certify an optical fibre network or is working in a production line for optical devices it becomes essential to accelerate the measurement processes.

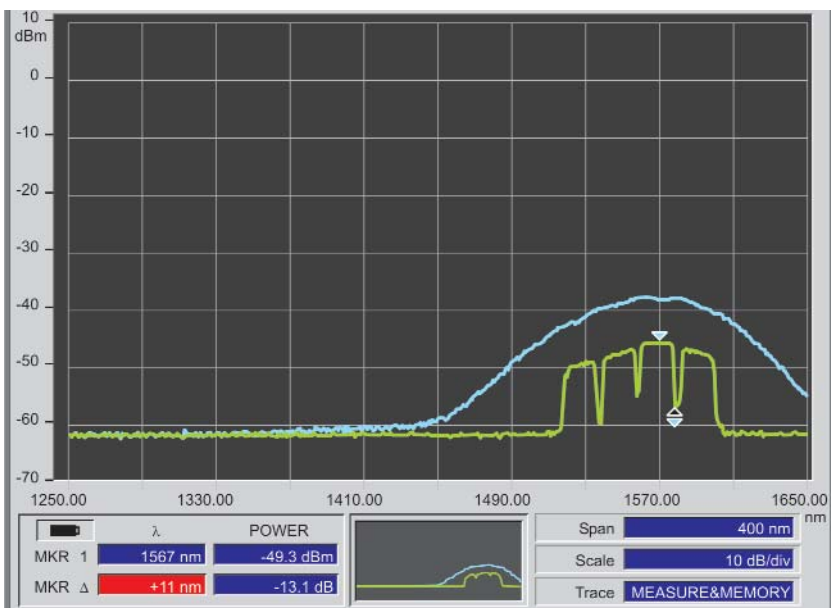
The **PROLITE-60** has a menu with



several functions made specifically for most of the situations a user will encounter in everyday work.

Thanks to the technology used in the design of the **PROLITE-60** it is possible to add special functions at any time after the purchase.

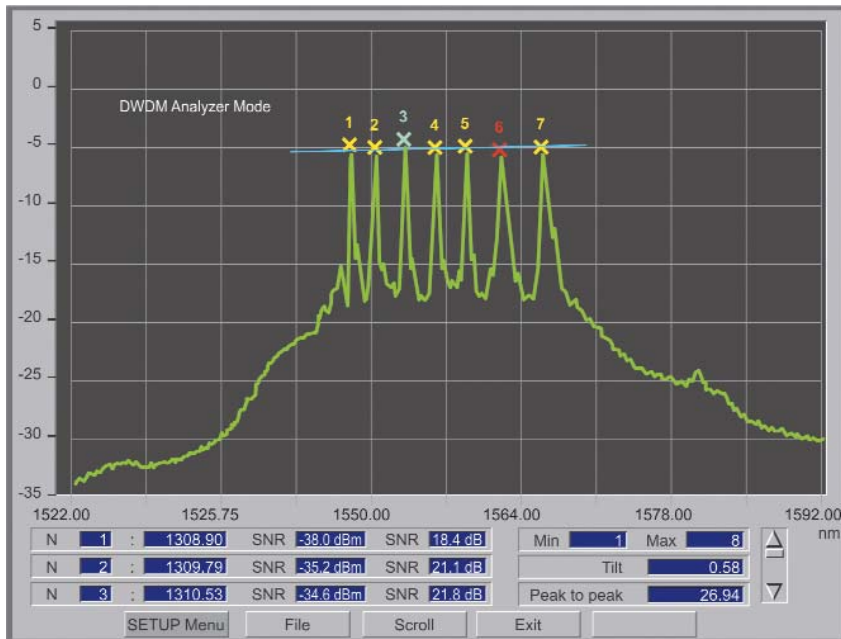
It is because of these special functions the **PROLITE-60** can make a great number of tests in a precise and automatic way.



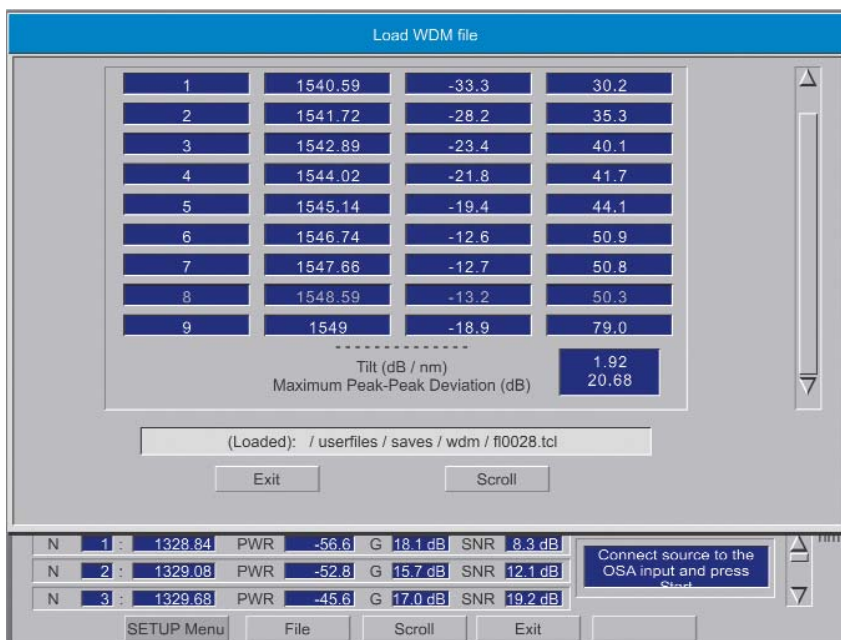


WDM analysis

Working with a WDM optical network, both CWDM and DWDM types, it is vital to know constantly if all the carriers (LASER) involved are present and transmit at the expected wavelengths.



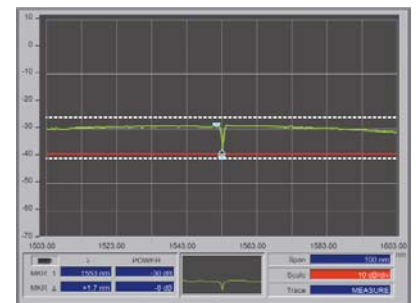
By having the WDM function the **PROLITE-60** can identify, automatically and immediately all the carriers together with their power level and wavelength. Once all the carriers are identified it is possible to store the measurement data in a file to process and review at a later stage.



Analysis of optical devices

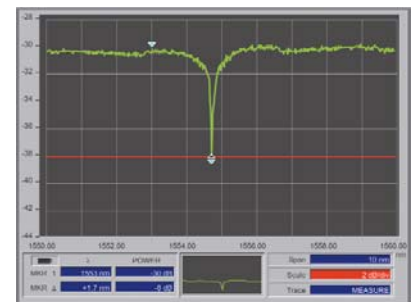
There is a great number of active and passive components in addition to the optical fibre itself in any optical fibre network, even more now with FTTP (couplers, multiplexers, amplifiers, circulators, etc) that may require adjustments and can also be potential sources of errors in the network.

With the SLED option the **PROLITE-60** user can make the



necessary adjustments of such optical components by inserting the reference test signal.

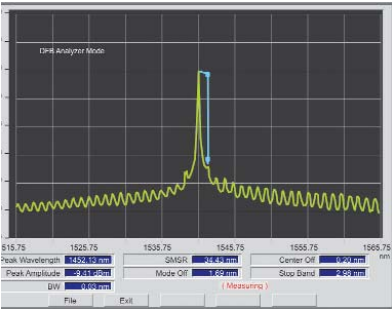
In addition to the field applications the **PROLITE-60** is an excellent



option for optical equipment production lines. Custom functions for specific production needs are also available.

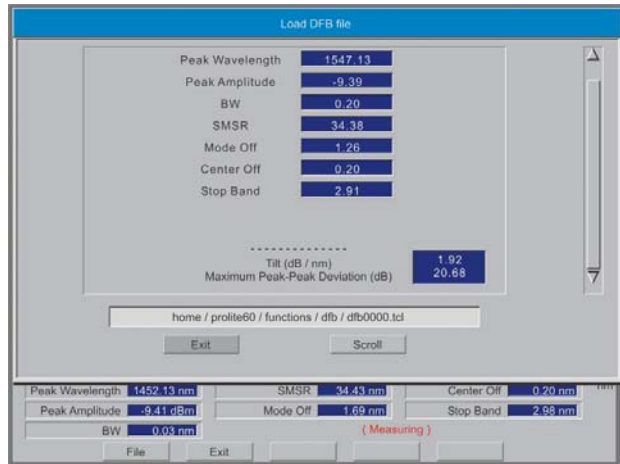
Analysis of optical source quality (DFB & F.P.)

Depending on the application (network size, capacity, budget, etc.) the optical fibre network operators have to decide what type of light sources need to be used and also what will be the homologation and maintenance procedures.



Nowadays optical communication networks commonly use two types of LASER. The F.P. is used for short distances or LAN Local

Area Networks and the D.F.B is used for long distance high capacity links.



It is essential in both cases to ensure that the transmitters are operating properly. The **PROLITE-60** offers two special functions designed for the testing of these two types of LASER in an automatic way.

Self-calibration and firmware upgrade via Internet

The **PROLITE-60** has three types of communication ports (RS-232, parallel and Ethernet). These are of special interest as they provide high flexibility to upgrade the instrument's firmware via internet or PC connection.

Thanks to these capabilities any additional function can be updated simply by connecting to Internet



Web server

Sometimes it is necessary to monitor optical fibre networks remotely. It is possible that an optical fibre system has to be monitored 24 hours a day or alternatively a system technician must travel long distances to be able to make the necessary measurements and analysis.

Unwanted travelling can be also avoided thanks to the Web Server option since complete system control can be performed remotely.

