Field Optical Spectrum Analyser

PROLITE-60

PROMAX

There is a growing number of applications in today's telecom world involving fibre optic communications using more than one wavelength on the same fibre.

It is not possible to properly install, maintain or troubleshoot systems using these technologies, weather they are the so called CWDM (Coarse Wavelength Division Multiplex) or DWDM (Dense Wavelength Division Multiplex) without having an optical spectrum analyser.

PROMAX ELECTRONICA S.A. introduces the **PROLITE-60** the first low cost field optical spectrum analyser. This unique masterpiece is possible thanks to the use of a new type of monochromator recently developed by **PROMAX** engineering team.

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Specifications	PROLITE-60
Wavelength range	1250-1650 nm
Span range	10 nm - 400 nm
Resolution	0,15 nm
Input range	-60 dBm to 20 dBm
Power supply	From internal battery or from the mains
Dimensions	W. 293.4 x H.126 x D. 273.9 mm
Weight	6 kg

Dual wavelength laser light source

PROLITE-90



DUAL WAVELENGTH

- 1310 / 1550 nm Laser source
- Multiplexed optical output
- Selectable dual / single wavelength

AUTOMATIC MEASUREMENTS

PROLITE-90 is a compact, battery operated dual wavelength laser light source. Using one single output connector it is ideal for testing of fibres intended to carry more than one wavelength.

Laser sources can be modulated in a special way to make optical power measurements on two different wavelenghts easier.

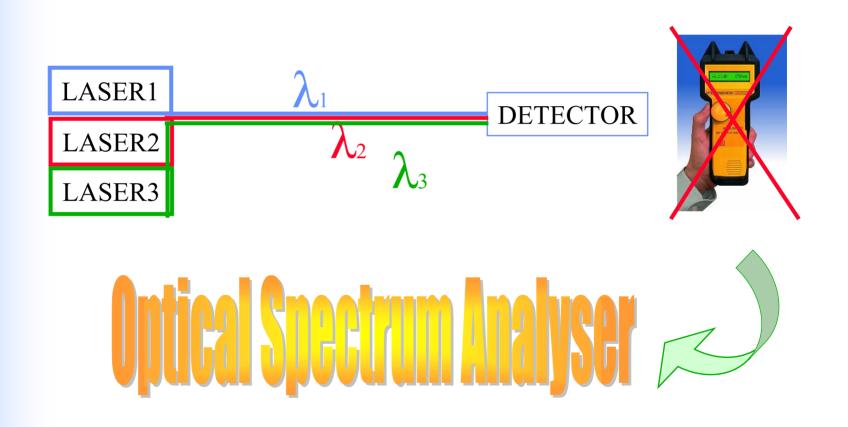


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WHY PROLITE-60





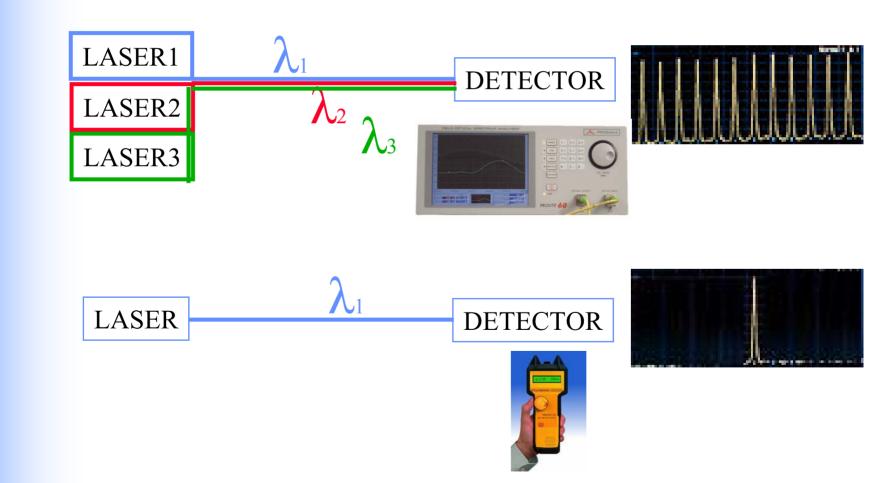
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WHY PROLITE-60





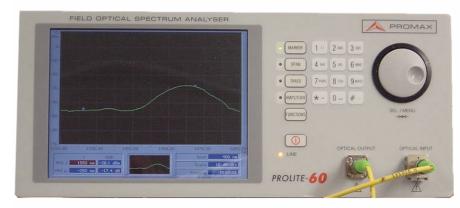
MEASUREMENTS ON WDM SYSTEMS

- Many signals, many levels
- Measurements at different wavelengths are required
- Different carrier measurements
- Regular Optical power meters are not sufficient
- Need to discern one carrier from another
- More complex and expensive instrumentation is required



FIELD OPTICAL SPECTRUM ANALYSER

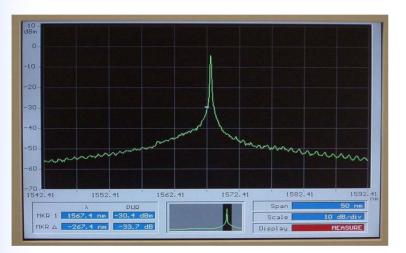
- Field is the KEY word
- Battery operated
- NiMh internal batteries
- Span from 10 to 400 nm
- 0.15 nm resolution
- Range from 1250 to 1650 nm
- Input range from -60 dBm to 20 dBm





GENERAL SPECS





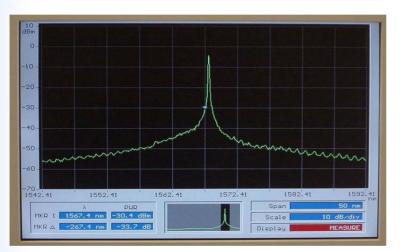
	λ	PUR
MKR 1	1567.4 nm	-30.4 dBm
	-267.4 nm	-33.7 dB

- Indication of current measurement
- Indication of Delta measurement
- Able to make an "optical" C/N measurement



GENERAL SPECS





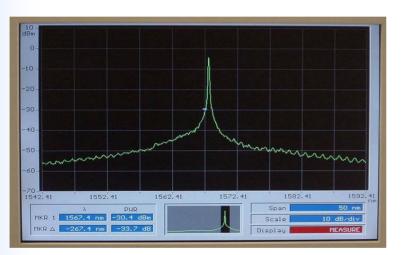
Span	50 nm	
Scale	10 dB∕div	
Display	MEASURE	

- Span selection
- Scale selection (10 dB/Div or 2 dB/Div)
- Indication of what is shown on the display



GENERAL SPECS





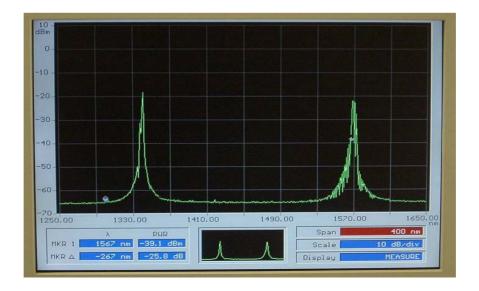


- Graphical indication of complete SPAN
- Indication of selected SPAN



SINGLE MODULATION CARRIERS

- Able to see performance of the LASER
- Able to analyse performance of the optical network
- Able to perform simultaneous measurements on two carriers



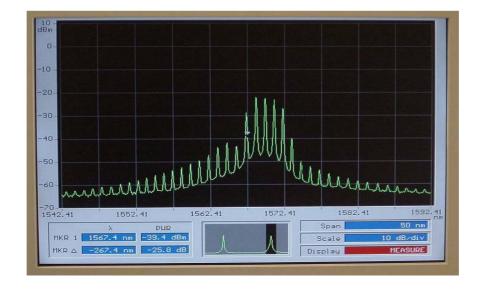


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TYPICAL RESPONSE OF A FABRY-PEROT LASER

- Zoom into a particular window
- Low quality LASER (used for short distance communications)
- Spectral analysis of performance of a LASER

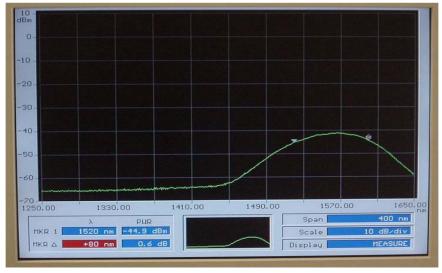




BROADBAND OPTICAL SOURCE OUTPUT (SLED)

- Many different applications
 - Network response to broadband optical signals
 - Filter responses
 - Other optical devises responses

Can be used for manufacturing as well as installation



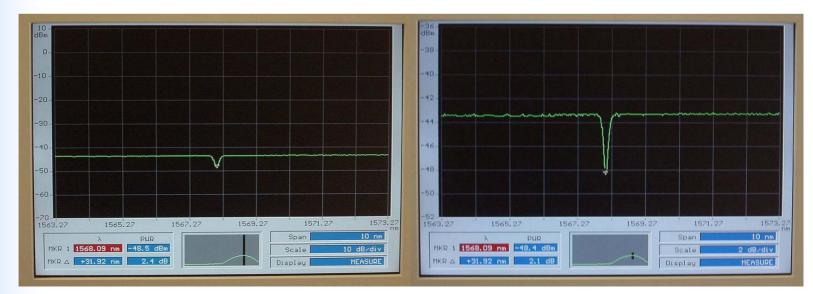


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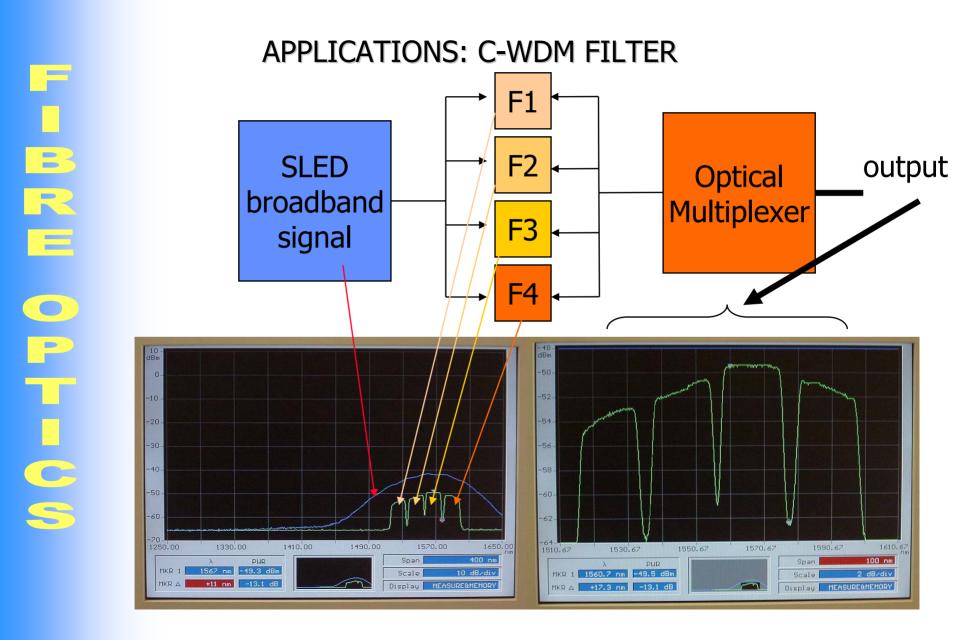
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APPLICATIONS: BRAGG FILTER RESPONSE

- As you would do with an RF Spectrum analyser with tracking generator
- Apply a known signal to the input of the filter
- Get resulting signal at output of the LASER
- Procedure similar for other Optical Devises







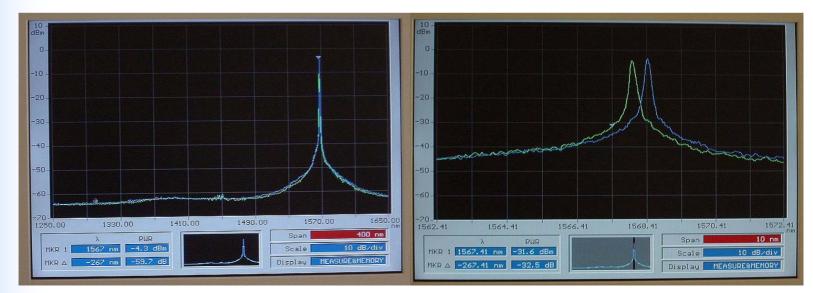


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APPLICATIONS: C-WDM DFB LASERS

- DFB LASERS (Distributed FeedBack LASERS) are "narrowband" signals
- Unable to discern with normal Optical Power meters
- Transmit different information
- Necessary to test/confirm that both signals are present





WHY PROLITE-60

- Existing O.S.A. Are heavy (weight and price)
- PROLITE-60 is suitable for installation and design applications
- Only one in the WORLD to be portable and battery operated
- Unique price margin
- Light and compact
 - Suitable for CWDM and DWDM

Why spend more if the PROLITE-60 has it all