

FOS 1200A OMI Instrument

Laser Transmitter Optimization



Reduces time spent optimizing laser transmitters
Measures OMI automatically

DOCSIS-compatible
Useful for several key applications

The new 1.2GHz FOS 1200A is the fastest, most effective tool available for optimizing laser transmitter performance in the forward and return bands. With the powerful ability to measure OMI, users can reduce time spent optimizing transmitters by 85% or more compared to alternative approaches,

Traditional methods for setting OMI require several pieces of expensive laboratory-grade equipment, along with a highly trained engineer familiar with the manual tasks for determining the level. As several variables can and do affect OMI, this is a time-consuming process, taking as long as an hour or more per transmitter to complete.

When using the FOS 1200A, all of these variables are taken into account automatically, eliminating the need for manual tasks and calculations. In addition to saving time, by incorporating all necessary components into a single device, users save valuable money and the easy-to-use device can be operated by technicians of all levels.

Applications for CATV & Multi-Channel Operators

- Laser transmitter setup
- Laser transmitter maintenance
- Network troubleshooting
- Performance benchmarking

Applications for CATV Equipment Manufacturers

- Laser transmitter development & manufacturing
- Quality assurance testing

Display/Front Panel Specifications:

Status/Control Display	2 line, 48 character LCD (backlight)
Display Status Mode Selection	
• mW or dBm	Front Panel SPST Push Button Switch
• Wavelength	Front Panel SPST Push Button Switch
• Relative/Absolute	Front Panel SPST Push Button Switch
• Number of Channels	Three section BCD Push Button Switch
• Wavelength	1290nm to 1610nm
• Mode	Absolute, Relative
• Optical Power	mW or dBmW
• RF Power	Estimated per Carrier Power in dBmV; ± 2 dB
• OMI per Channel	Measured in Percent Peak (Fro Chan N > 1)
• OMI Total	Measured in Percent RMS



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Internal Optical Input	FC/APC, front panel accessible
Front Panel Optical Input Adapter	SC/APC Standard (Others Optional)
Optical Input Nominal Standard	-8 dBmW to +2 dBmW
OMI Reading Accuracy	±10% of the OMI reading; ± 0.2%
Optical Receiver ENI	≤ 4.8 pA per root Hz; 15 MHz to 1200 MHz
Integrated Optical Attenuator	0.25 to 25 dB Continuous from Front Panel
Optical Input Threshold, Typical	-2 dBmW Optical, 85 channels, 1% OMI
Measurement Threshold Standard	-3 dBmW Optical, 79 channels, 3.5% OMI
with Option 1 (see below)	8 dBmW Optical, 79 channels, 3.5% OMI

RF Specifications:

RF Output Connector	75 ohm BNC
RF Output Return Loss	> 16 dB typical; > 12 dB max
RF Output Level, Above Threshold	2dBmW Total RF Power (No Attenuation)
Output (3 dB) RF Frequency Range	15 MHz to 1200 MHz
RF Output Flatness (Typical)	±0.75 dB (20 MHz to 1200 MHz)
Internal Attenuator Range	0 to 44 dB in 2 dB steps
Internal Attenuator Accuracy	±0.25 dB (20 MHz to 1200 MHz)
Internal Attenuator Flatness	±0.25 dB (20 MHz to 1200 MHz)
RF Output Distortion Performance	CSO, CTB - better than -70 dBc

Additional Specifications:

Temp Range (No Damage)	-20 to +60 degrees C (No Damage); 0 to +50 degrees C (Operating)
Overall Dimensions	10" Deep X 8" wide X 4.75" High (excluding Handle)
AC Power Requirements	110V/220V, 50-60 Hz, < 25 Watts Total
AC power Range	85V to 250V



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