The IQ Optical Test System

IQ-200

Integrated Test Solutions for Optical Qualification and Manufacturing

OPTICAL TEST SYSTEM IQ-203

Fiber-optic test, measurement and monitoring instruments

EXFO

One-Stop Test and Measurement
for Optical Manufacturers

You're working on a solution to bring tomorrow's optical technology closer to today's network. But how do you nurture your solution? Test it? See it through the qualification stages? And once it's out of the starting gate, how do you get it beyond the production floor and into your customers' systems by your delivery date?

The answer is the IQ-200 Optical Test System, EXFO's fully flexible, systems-based approach to optical test and measurement.

The IQ-200 Optical Test System includes top-of-the-line scalable hardware such as a modular platform, expansion units and a complete range of plug-in test modules. The IQ test modules cover the optical T&M spectrum, from simple insertion loss testers all the way up to sophisticated PMD analyzers. You get all this in a system that is up to speed for comprehensive test result analysis and that is mobilized for GPIB and network communications.

Plus, IQ building blocks bring you Visual IQ systems, turnkey software applications and hardware that provide speed, reliability and easy automation. Whether you test loss in patchcords, put optical filters through their environmental paces, or check the crosstalk on demuxes, Visual IQ applications are ready to help.

Now, take a good hard look at the IQ-200 Optical Test System. It's got the power, flexibility and compatibility to be the answer for you.

IQ-200 Optical Test System Building Blocks

The IQ-200 Optical Test System is based on standard PC architecture for easy flexibility and integration. The heart of the system lies in the IQ-203 Control Unit, which houses a Pentium processor and up to three test modules. As testing needs expand, successive six-slot IQ-206 Expansion Units can be added. Even better, over 20 test modules are now available for just about every optical test and measurement requirement. For unmatched connectivity and integration, OLE/OCX controls are included, and LabVIEW drivers and GPIB (IEEE-488.2) controllers can be added.

IQ-203 Control Unit

- Three slots for modules
- GPIB device or controller (optional)
- RS-232 port
- Ethernet card (optional)

IQ-206 Expansion Unit

- Six slots for modules
- Connects to IQ-203 Control Unit or standard PC using IQ-206 PC expansion card
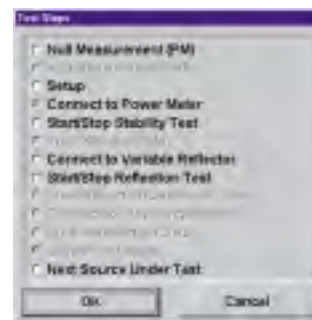
Test Modules

- IQ-1100 Power Meter
- IQ-1200 4-Channel Power Meter
- IQ-1500 Calibration Power Meter
- IQ-1600 High-Speed Power Meter

- IQ-2100 Light Source
- IQ-2300 ASE Broadband Source
- IQ-2400 WDM Laser Source
- IQ-2600B Tunable Laser Source

- IQ-3100 Variable Attenuator
- IQ-3200 Return Loss Meter
- IQ-3300 Variable Reflector
- IQ-3400 PDL/OL Meter

- IQ-5100 Polarization Controller
- IQ-5240 Optical Spectrum Analyzer
- IQ-5310 Wavelength Meter
- IQ-5320 Multi-Wavelength Meter
- IQ-5500 PMD Analyzer

- IQ-6100 EDFA

- IQ-7000 OTDR Series

- IQ-9100 Optical Switch
- IQ-9600 Utility Modules

Visual IQ Turnkey Software Solutions

Visual IQ systems integrate operations on several test and measurement instruments and provide an automated turnkey approach for qualification and production floor testing. The result is cost-effective testing for a wide range of optical components and subassemblies. Each Visual IQ application delivers

- familiar Windows-based environment including step-by-step procedures
- database storage of complete DUT information

- reporting features with data tables and graphs
- network compatibility
- report and label printing
- standards traceability

Visual IQ Systems

IQ-12001 Optical Fiber Assembly Test System
Streamline production testing and quality control of patchcords and other fiber assemblies.

IQ-12002 Optical Calibration System
Lower the cost of equipment calibration with this on-site system.

IQ-12003 Passive Component Environmental Test System
Qualify passive components to Telcordia standards.

IQ-12004B DWDM Passive Component Test System WDM
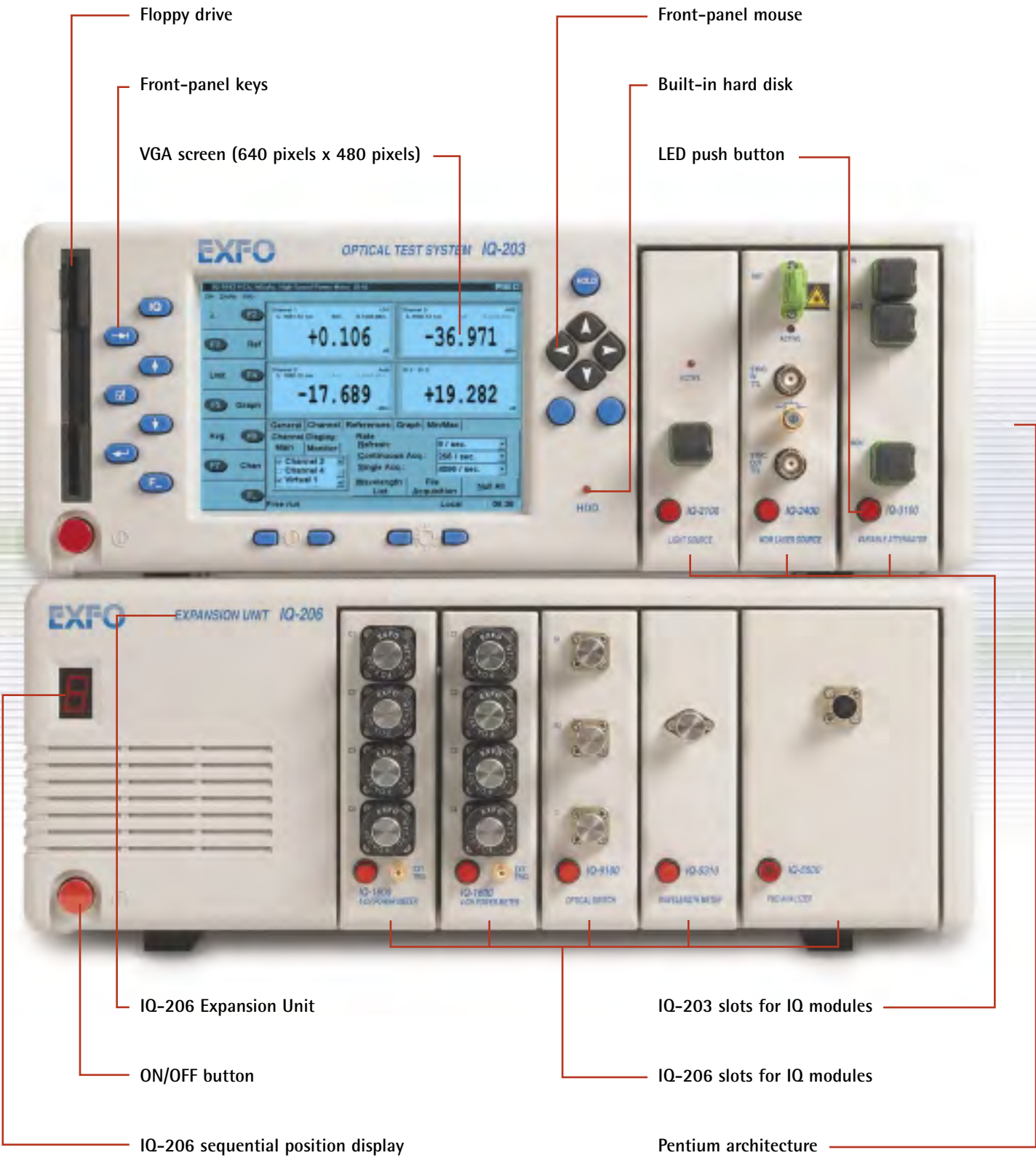Fully characterize DWDM passive devices using high-throughput algorithms.

System Overview

The IQ approach combines high-performance testing with a user-friendly approach.

Typical Visual IQ step-by-step procedure

Typical setup for components under test using the IQ-12001 Optical Fiber Assembly Test System

Flexible, Scalable, Cross-Compatible

Floppy drive

Front-panel keys

VGA screen (640 pixels x 480 pixels)

Front-panel mouse

Built-in hard disk

LED push button

IQ-206 Expansion Unit

ON/OFF button

IQ-206 sequential position display

IQ-203 slots for IQ modules

IQ-206 slots for IQ modules

Pentium architecture

IQ-200 Optical Test System

ULTIMATE FLEXIBILITY

Test instruments require different connectivity interfaces to enable remote control or data transfer. There are also times when the test instruments must work as stand-alone instruments. The flexibility of the IQ-200 Optical Test System provides the latitude you need and much more.

Stand-Alone Configuration

If effortless manual or automated measurements and data analysis are a priority, the powerful IQ-203 Control Unit, with its PC-based architecture and easy-to-use Windows environment, is your solution. Plus, the IQ-203 Control Unit is scalable—plug in up to four IQ-206 Expansion Units to interconnect up to 27 high-performance optical modules.

PC Expansion Card

If your priority is to optimize equipment that is already in place, consider IQ-206 PC expansion cards. These enable almost any personal computer to control up to four IQ-206 Expansion Units so that you can affordably transform your PC into a powerful test instrument. Available in ISA and PCI formats.

IQ-206
PC Expansion
Card

IQ-206
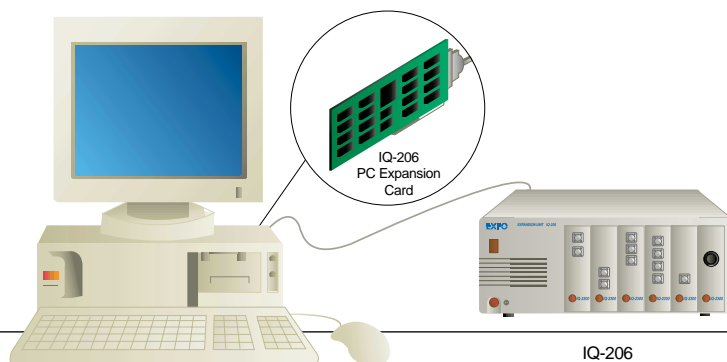
Computer

GPIB Controller Configuration

If you are putting together a new lab, equip an IQ-203 Control Unit with a GPIB controller card to streamline your non-EXFO instrument operation. In addition, you can simultaneously control up to 27 IQ modules. LabVIEW and/or LabWindows/CVI users can install these programs directly on the IQ-203 Control Unit.

GPIB
Controller

Other Instruments
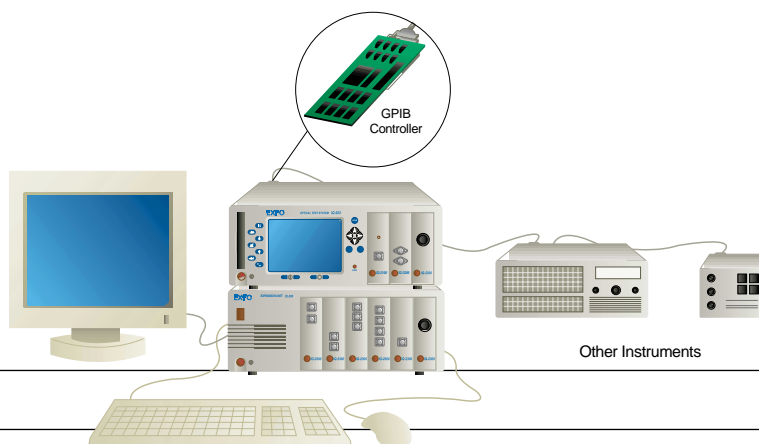
IQ-203 and IQ-206 with the external keyboard, mouse and VGA monitor

GPIB Device Configuration

If you already have a GPIB controller and you need to integrate the IQ-200 Optical Test System into an existing system, opt for the IQ-203 Control Unit by adding the GPIB device option. Just one GPIB address can control up to 27 IQ modules.

GPIB Controller

GPIB Device

GPIB/Controller

IQ-203 and IQ-206

Other Instrument
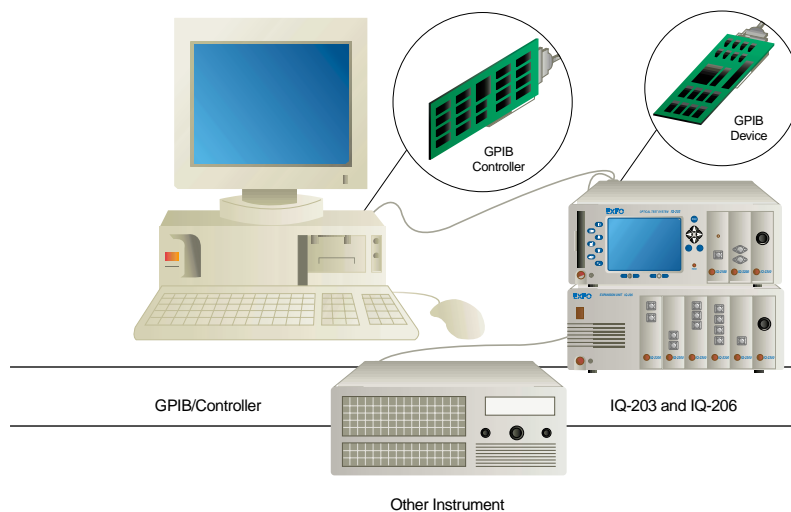
Network Connectivity

If you need data at your fingertips, connect the IQ-203 Control Unit to your network. This configuration will streamline data exchange through your choice of file sharing or programming automated data transfers to specific recipients. Your IQ-203 Control Unit can access resources such as a CD-R/W elsewhere on a network.

Network Connectivity

OLE

Network

Ethernet
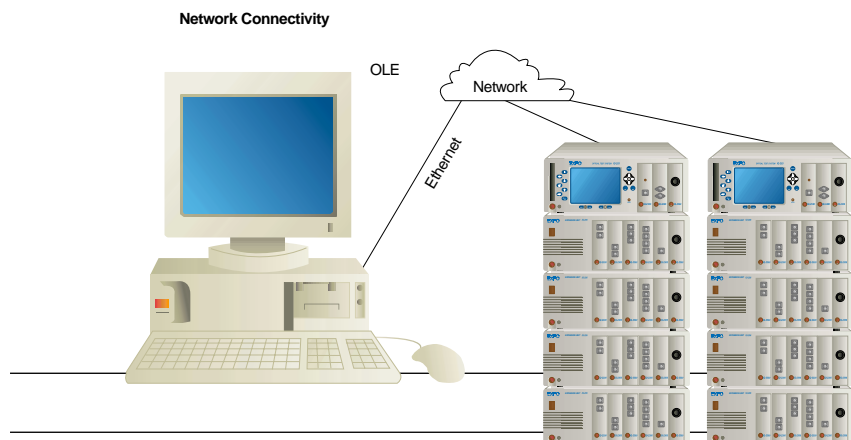
RS-232 Configuration

If you need to control a single instrument or just the IQ-200 Optical System, opt for the simplicity of the RS-232 configuration.

IQ-203

RS-232

Other instrument
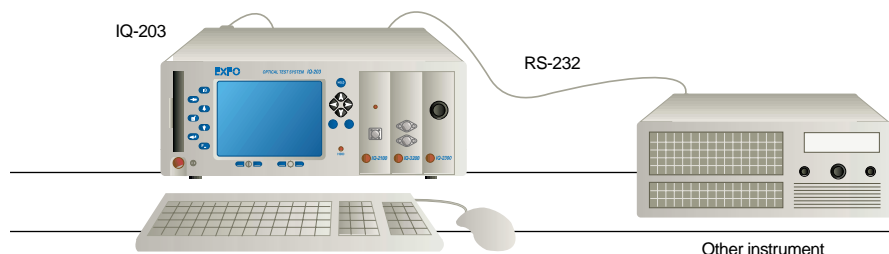
The IQ-200 Optical Test System delivers everything you need for your applications.

IQ–203 Operating Specifications

CPU	Pentium MMX 200 MHz		
RAM	32 MB		
Hard drive	Windows 98™		
	>10 GB		
Power	100 VA at 115/230 VAC (50/60 Hz)		
Dimensions (H x W x D)	14.5 cm x 36 cm x 30.5 cm		
	$5^3/_4$ in. x $14^1/_4$ in. x 12 in.		
LCD (VGA) monitor (H x W)	9 cm x 12.5 cm		
	$3^1/_2$ in. x 5 in.		
Resolution	640 pixels x 480 pixels		
External monitor resolution	1024 x 768 pixels		
Weight	5.3 kg	11.7 lb.	
Temperature	operating	0 to 50°C	32 to 122°F
	storage	−20 to 60°C	−4 to 140°F
Relative humidity	≤80% non-condensing		
Standard PS2 mouse, parallel port, connector for external SVGA monitor, serial port			

IQ–206 Operating Specifications

Power	175 VA at 115/230 VAC (50/60 Hz)		
Dimensions (H x W x D)	14.5 cm x 36 cm x 30.5 cm		
	$5^3/_4$ in. x $14^1/_4$ in. x 12 in.		
Weight	3.5 kg	7.7 lb.	
Temperature	operating	0 to 55°C	32 to 131°F
	storage	−40 to 70°C	−40 to 158°F
Relative humidity	≤90% non-condensing		

IQ-200 System Options

	IQ-203 Mainframe Unit		IQ-206 Expansion Unit
N6[1]	Additional memory: 32 MB (total of 64 MB)	E1[2]	PC-206 expansion card with $2^1/_2$ ft. cable (ISA)
N8[1]	Additional memory: 96 MB (total of 128 MB)	E2[2]	PC-206 expansion card with 5 ft. cable (ISA)
I1[1]	GPIB device card	E3[2]	PC-206 expansion card with $2^1/_2$ ft. cable (PCI)
I2[1]	GPIB controller card	E4[2]	PC-206 expansion card with 5 ft. cable (PCI)
K1	External keyboard (GP-215)		
RK	19-inch rack-mount kit		
RS[1]	Additional RS-232 port on request		
C1	Carrying case		
LV	LabVIEW drivers		
X2	Network adapter card (10 base-T ethernet standard)		

Notes
1. These options must be specified at ordering time.
2. Minimum CPU requirements: 486 DX with 16 MB, Windows 95 or 98

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