COMPLEX MODULATION ANALYZER

IQScope-30G

The IQScope-30G works with readily available sampling oscilloscopes, providing an affordable solution to complex modulation analysis. It takes advantage of the large bandwidth and 15 bit resolution of sampling oscilloscopes to enable accurate measurements of higher-order complex modulation formats.

Key Features

- Complementary product to the higher speed IQScope already on the market
- 30 GHz bandwidth
- Flexible bandwidth necessary for 100 Gbit/s system
- Introductory price offered until September
- Economical
- Cost effective

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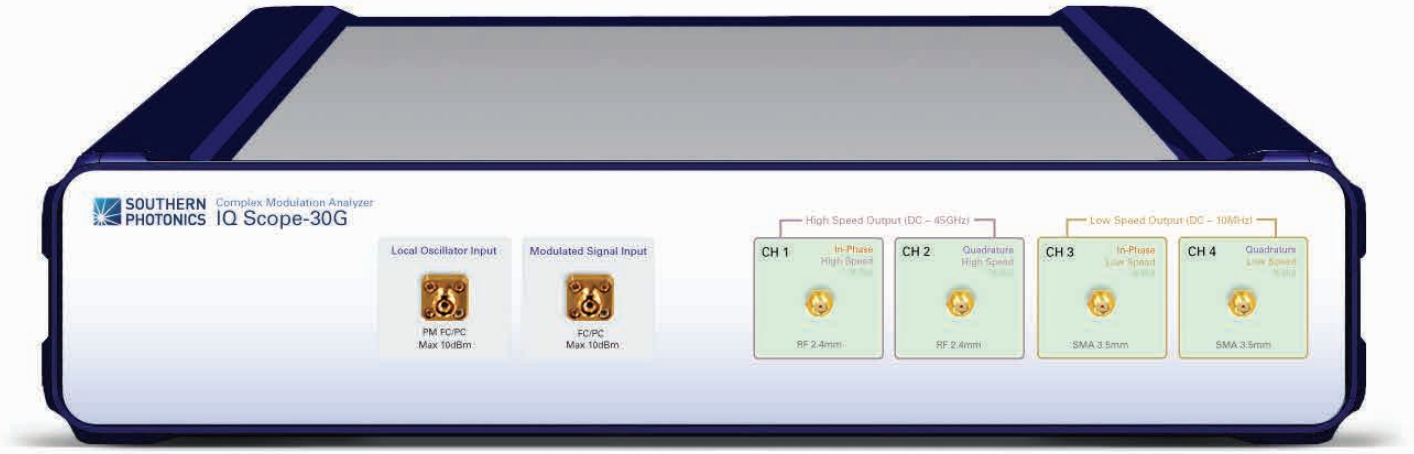
Coherent Solutions

IQScope-30G

Product Front Controls



Package Contents

IQScope-30G unit

Software and driver CD

User manual

Mains power cable

USB cable

Laser Safety Information

This instrument contains Class 1M laser.
Invisible laser radiation.
Do not view directly with optical instruments.

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Supported Modulation Formats

BPSK, DPSK, QPSK, DQPSK, 16QAM, 64QAM and more

Applications

Modulator testing, R&D testing of transmitters, chirp testing and more

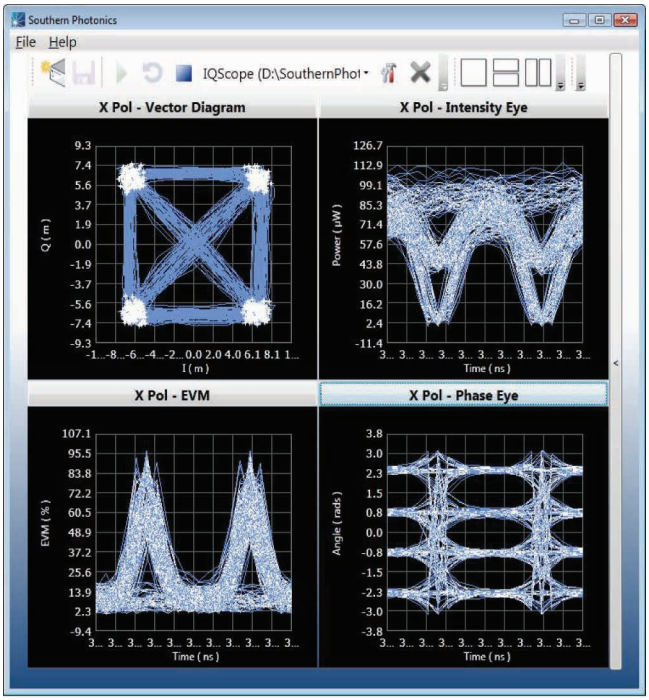
Visualizations

Constellation diagrams, vector diagrams, I&Q eye diagrams, Intensity versus time, phase versus time, I&Q versus time and more

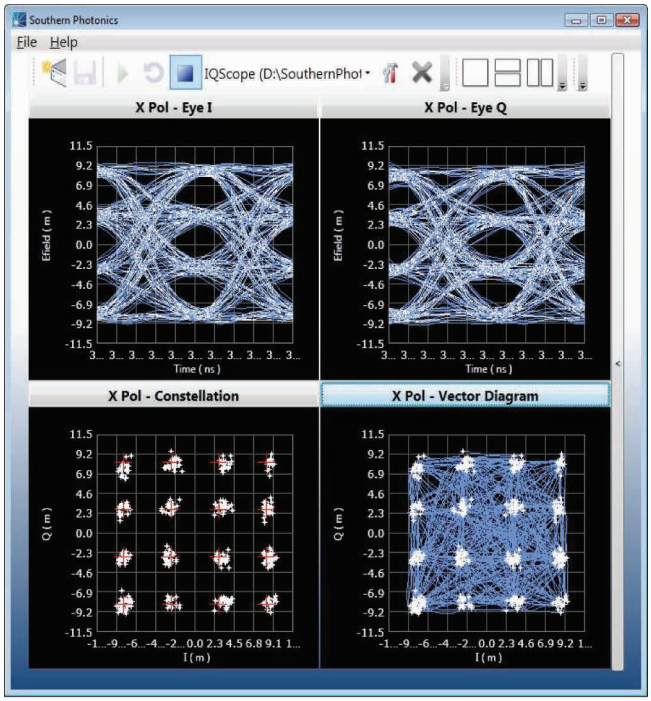
Measurement Capabilities

Error Vector Magnitude, phase error, IQ phase error, IQ gain imbalance, IQ skew, Signal-to-noise ratio and more

Software User Interface



Various visualizations of a 56 Gbps QPSK signal



Various visualizations of a 40 Gbps 16-QAM signal

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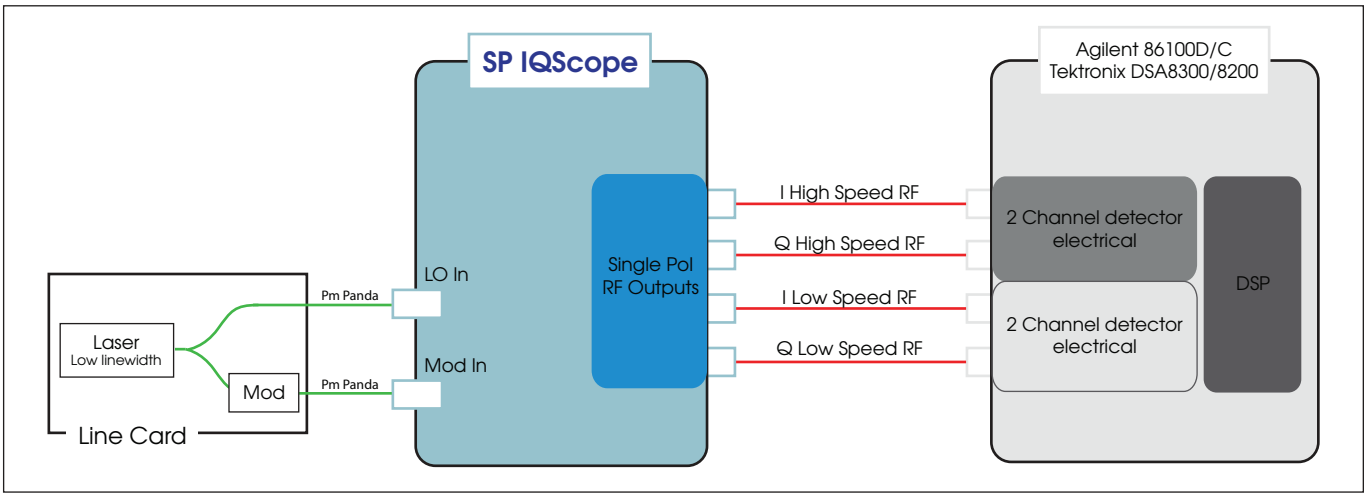
IQScope-30G

Usage Example Schematics



Bit Rate Examples

Maximum detectable baud rate	Up to 40 Gbaud/s
Maximum detectable bit rate for 16 QAM	Up to 160 Gbit/s

Specifications

RF bandwidth	30 GHz
Optical input polarization	Single polarization only
Built-in local oscillator	No
Digital demodulation uncertainty*	
Amplitude (EVM) error	< 2.4% RMS
Phase error	< 0.0175 rads
External local oscillator input	
Connector type	Polarization maintaining FC/UPC
Optical input wavelength range	1527.60 nm to 1565.50 nm
External local oscillator input power range	0 dBm to +14 dBm
Maximum input peak power (damage level)	+20 dBm
Local oscillator linewidth requirement	< 300 kHz
Optical DUT input	
Optical input wavelength range	1527.60 nm to 1565.50 nm
Optimum input power	-5 to +5 dBm**
Maximum input power	+14 dBm

RF output

Connector type - high speed channels	RF 2.4mm
Connector type - low speed channels	SMA 3.5mm
RF bandwidth	30 GHz

* Electrical version with Tektronix DSA8300.
** With LO input power of 3dBm. For lower LO input powers, higher DUT input power is required. For carrier suppression <25dB.
All specifications are subject to change without notice. Please contact Southern Photonics for the latest information.

Ordering Information

IQScope - 30G - upgrade options

XX: 30 GHz single polarization optical modulation analyzer
DP: Dual polarization capability
LO: Built-in local oscillator