IDQ

SWISS QUANTUM

Redefining Measurement

ID300 Short-Pulse Laser Source

Sub-Nanosecond Pulsed Laser Source

ID Quantique's ID300 Short-Pulse Laser Source has been designed to meet the specific requirements of researchers who need to generate short laser pulses at a wavelength of 1550 nm.

The laser source, based on a distributed-feedback (DFB) laser diode, is triggered externally via a trigger input to produce sub-nanosecond laser pulses with a repetition rate ranging from 0 to 500 MHz.

The ID300 laser source is ideally suited to work in combination with IDQ's Single-Photon Detection and Counting Modules (ID210, ID220, ID230 or ID280 series). The laser source can be directly triggered by the ID210's internal clock. Used in combination with a variable optical attenuator, this short-pulse laser source makes an ideal cost-effective single-photon source.

Key Features

- Sub-nanosecond laser pulses, pulse width 300 ps
- Repetition rate from 0 to 500 MHz
- Wavelength: 1550 nm
- Distributed-feedback (DFB)
- External trigger
- Compact and reliable stand-alone unit
- FC/PC connector

Applications

- Quantum optics
- Fibre optics characterization
- Spectroscopy
- Optical measurements
- Single-photon detector characterization
- Nanophotonics
- Optical Time Domain Reflectometer (OTDR)

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SHORT-PULSE LASER SOURCE

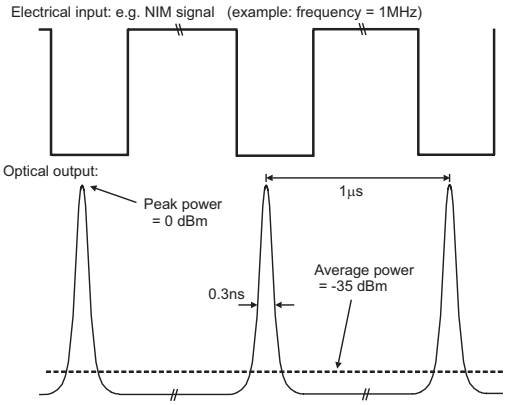
Specifications (T=25 °C)

Parameter	Min	Typical	Max	Units
Wavelength	1520	1550	1580	nm
Spectral width (FWHM) - DFB laser type		0.6	1.5	nm
Frequency range	0		500	MHz
Pulse duration		0.3*	0.5	ns
Peak power	0.7	1		mW
Output power at 1 MHz	-36	-35	-34	dBm
Trigger input**		NIM, ECL, PECL, LVPECL, TTL, TTL 50Ω		

* can be increased up to 2ns upon request

** choose one trigger input from this list. See ordering information below.

Operating Principle



General Information

Operating Temperature	+10°C to +30°C
Dimensions LxWxH	185 mm x 172 mm x 55 mm
Weight	915 g
Optical Connector	FC/PC
Electronic Connector	BNC
Fibre Type	SMF
Power Supply	100 - 240 VAC (autoselect)

Warning

CLASS 1 LASER PRODUCT

CLASSIFIED PER IEC 60825-1, Ed 1.2, 2001-08

Ordering Information and Sales Contact

Part number: ID300-1550-DFB-ZZZ

ZZZ: Select trigger input signal specifications. Choose between NIM, ECL, PECL, TTL, TTL 50 Ω, LVPECL.

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