

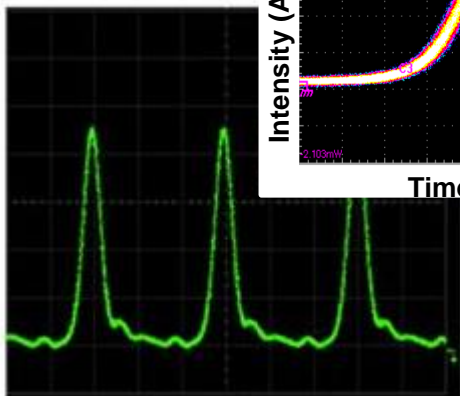
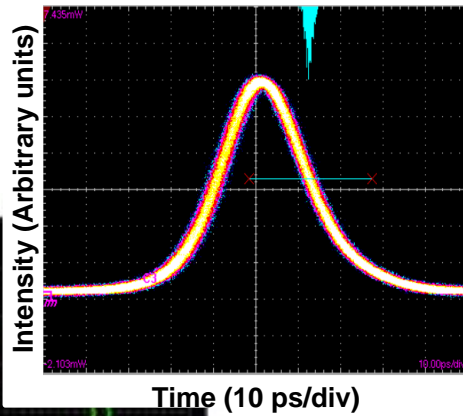


## Picosecond Optical Pulse Generator

Pilot Photonics' Picosecond Optical Pulse Generator is based on our patented gain switching technology and offers excellent stability, tuneable repetition rate and near transform limited, low jitter, picosecond pulses. A wide range of central wavelengths are available.

### Features

- Stable and robust pulse source.
- Low Jitter (<1ps).
- Near Transform Limited pulses.
- Tuneable Repetition rate
- Polarization maintaining fibre coupled output.
- Simple, push-button operation.



Time (33 ps/div)

### Typical Specifications

Wavelength	1310, 1530-1610nm others on request
Wavelength tuning	+/- 1nm
Repetition Rate	5-15 GHz/others on request
Pulse Width	20ps
Jitter	<1ps (RMS)
Pulse Energy	1 pJ
Average power	5dBm
Peak power	65 mW

### Applications

- Test and Measurement
- Spectroscopy
- Seed pulse generation
- Medical Imaging
- Fluorescence Spectroscopy
- Pump-probe experiments
- Optical time domain reflectometry
- Return to Zero Transmission Systems
- Optical Time Division Multiplexing Systems



Specification	Min.	Typ.	Max.	Unit	Notes
<b>Optical Characteristics</b>					
Centre Wavelength	1530	1550	1610	nm	Other wavelengths 500-1100 nm and 1200-2000 nm available on request.
Centre wavelength tuning range	- 1	-	+ 1	nm	On request, wavelength can be tuned within the specified range around the selected centre wavelength.
Repetition Rate	5	10	15	GHz	The free spectral range can be tuned over a range by an external voltage.
Pulse Width			20	ps	FWHM
Pulse Jitter			1	ps	
Average Output Power	1	-	10	mW	Repetition rate dependant
Pulse Peak Power	30	-	65	mW	Repetition rate dependant
Pulse Energy		1		pJ	
Relative Intensity Noise	-140	-125	-110	dBc/Hz	Uniform distribution over frequency span, without mode partition noise.
Laser Optical Linewidth		300	500	kHz	
<b>Physical Specifications</b>					
Dimensions		190x110x31		mm	
Power Consumption			10	W	
AC Voltage	100		240	V	
DC Supply Voltage	10	12	13		AC-DC power supply is provided.
DC Supply Noise (1 kHz – 200 kHz)		20	60	mVpp	
Operating Temperature	+5		+35	°C	
Storage Temperature	-20		+70	°C	
Humidity, non-condensing			90	%RH	
RF Input Connector		SMA			Female.
Optical Output		FC/APC PM			
<b>Other Specifications</b>					
Turn on time			7	s	From the moment of DC power application.
Cold start settling time (system warm-up)	20	30	90	min	
Rise time of optical signal	30	50	100	ms	
Fall time of optical signal	1		3	µs	