



## Embedded OTDR using SFP Modules – an FPGA Solution



### **Introduction**

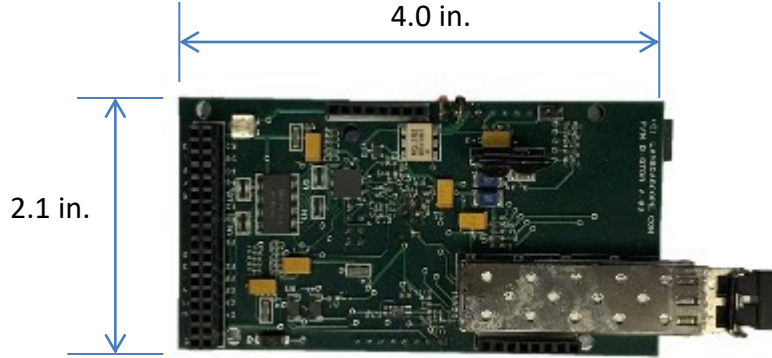
The rapid expansion of PON-system and ROAMD deployments throughout the optical networks has brought into focus the need for real time remote physical-layer performance monitoring and fault-isolation capabilities. At LAMBDA SCOPE, we have developed a versatile embedded OTDR FPGA using a standard SFP module. Unlike traditional bench top or handheld OTDRs, the OTDR FPGA can be integrated and embedded into existing network architecture. The SFP modules are regular data transceivers at its native data rates and can be exchanged with any third party products and at any wavelength of your choice. Simple modification to the host board may be necessary in order to integrate OTDR function. It can be used to verify the optical network connectivity as a highly differentiated service feature to an existing telecommunication system.

The mechanical dimension of the FPGA is very compact. One of the key features is that it allows inter-changeable SFP modules with any third party SFPs. We offer customized GUI for the display of the measurement data.

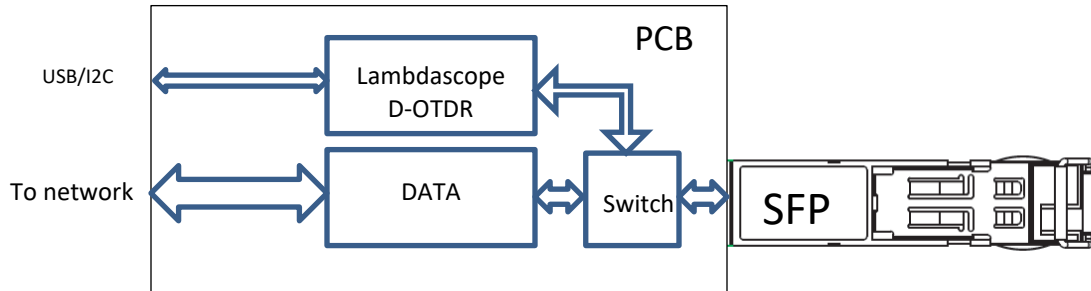
### **Key Features**

- Measure the most significant event of OTDR functions
- Compatible with pluggable SFP module
- Can work on any third party SFP at any wavelength
- ROHS compliant

**FPGA Mechanical Dimensions: in inch**



**Application Example:**



**Ordering Information**

The part numbering scheme for LAMBDA SCOPE products is as follows.

**OTDR-SFP-xxxx (where xxxx is wavelength in nm)**

**OTDR-SFP-EVAL (for evaluation board and Data Reader software)**

LAMBDA SCOPE.com (email: info@lambdascope.com)  
2731 Junction Ave. MS#641781, San Jose, CA 95134

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