

## R-SOA EVALUATION BOARD



### Description

The Kamelian R-SOA evaluation board is a complete solution for the evaluation of RSOA devices. The device accepts differential PECL data and provides control of the bias and modulation currents along with temperature adjustment.

### Applications

The high gain reflective semiconductor optical amplifier is primarily intended for use as a directly modulated 'colourless source' in WDM PON applications at up to 2.5Gbps.

### Features

The software interface included with the demonstration board allows control of the SOA whilst the evaluation board consists of two main parts:

- The parent LDR250 board – provides temperature control for the RSOA device through the interface software, the set point being limited between 10 °C and 40 °C.
- The daughter ETS3869 board – based around the Maxim MAX3869 development board and permits the application of modulation signals up to 2.5 GHz via an SMA connector on the unit. This is achieved by mechanically adjusting the bias and modulation currents of the driving signal.

## Specifications

ITEM	MIN SPEC	TYPICAL SPEC	MAX SPEC	UNIT	COMMENT
<b>Overall</b>					
Supply voltage (LDR)	4.5	5.0	5.5	V	
Supply current		0.7	3.5	A	Depends on TEC draw
Supply voltage (ETS)	3.1	3.3	5.5	V	
<b>RSOA drive Subsystem</b>					
DC drive current	0		100	mA	Set via resistive pot
Modulation current	0		60	mA	Set via resistive pot
<b>TEC Subsystem</b>					
Set-point	10	20	40	°C	User adjustable
Set-point resolution			0.1	°C	
Static accuracy			0.1	°C	
TEC Current			2.5	A	
<b>Serial I/O Subsystem</b>					
Protocol		USB			Mini USB Connector
Operating Temperature	0		35	°C	
Storage Temperature	-10		60	°C	

To run the control software you will need a PC-compatible computer with Windows 98SE/NT4/2000/XP and one free USB port.

## Ordering Information

**EVB** - **100** - **TO** - **U** - **NO** - **DL**

Max drive current (100mA is standard)

TO mount and Maxim modulation board

Interface (U = USB is standard)

Detector (NO for None is standard; PD for FC receptacle InGaAs on request)

Power (DL for 1.5m DC plug lead is standard; PU for 5V power supply unit on request)

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