



# DVS Integrated Optical Module

## 1. Product Description

Beogold’s DVS integrated optical module highly integrates inside our own proprietary ultra-narrow linewidth laser, pulsed EDFA, Raman amplifier, AOM and other optical components in single compact package.

Combined EDFA and Raman amplification increases the sensing range of the DVS system and improves its signal to noise ratio. The module is specifically designed for DVS sensors and perimeter security systems.

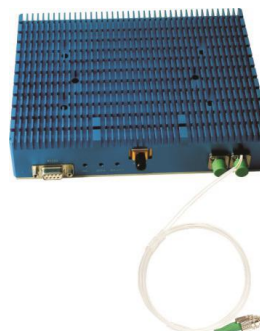
## 2. Features

High integration (UNL, EDFA, Raman, AOM)

High reliability

Compact package (190mmx150mmx40mm)

Flexible control mode



## 3. Applications

Distributed fiber optic sensing

Non-linear research

OTDR

## 4. Optical Specifications

Overall Parameter	Minimum	Typical	Maximum	Unit	
Sensing Range		40		km	
Pulse Width	20	100		ns	
Warm-up Time		<15		Min	
Power Supply		5		V	
Power Consumption		15	30	W	
Working Current*		3	6	A	
Working Temperature	-10	25	55	°C	
Communication Mode		RS232			
<b>Narrow linewidth Laser</b>					
Center Wavelength		1550.12		nm	
Output Power		13	15	dBm	
Linewidth		2.5	3	KHz	
RIN			-100	dB/Hz	
Wavelength Stability	25°C	-0.5	-	0.5	pm
	-10-50°C	-10		10	pm
Power Stability		1%			
SMSR	55			dB	
<b>Pulsed EDFA</b>					
Working Wavelength		1550.12		nm	
Input Peak Power		10		dBm	
Input Average Power	-35	-30		dBm	
Output Peak Power		23	43	dBm	

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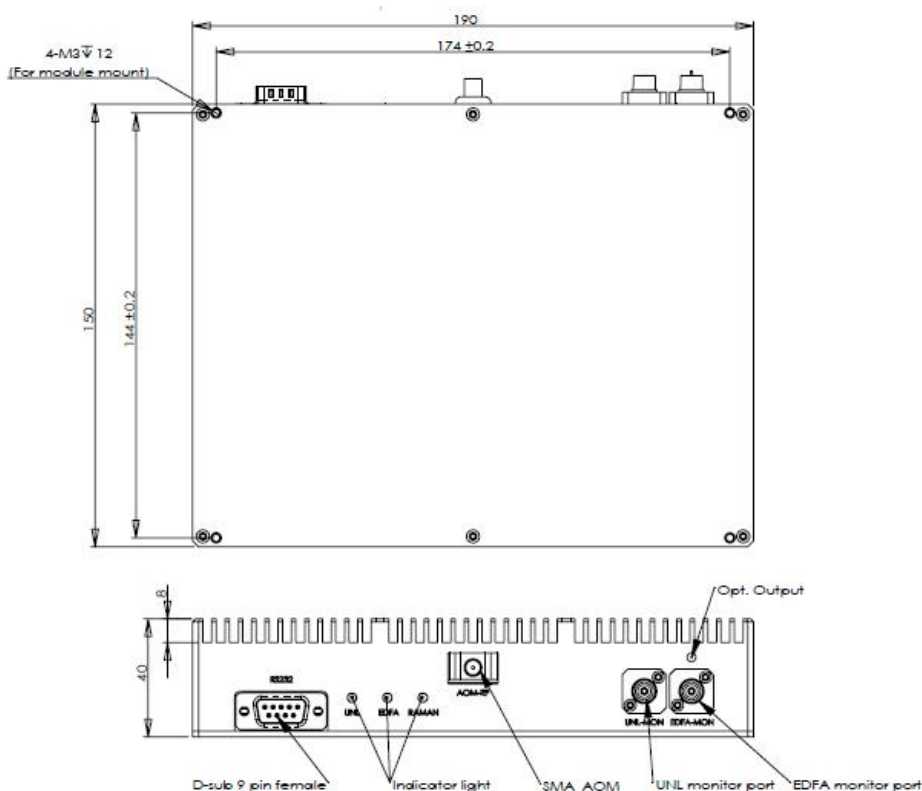
Address: 11F INNOVATION BUILDING, NO.1300 JIMEI AVENUE, JIMEI DISTRICT, XIAMEN, FUJIAN, CHINA



Output Average Power			0	dBm
Pulse Width	20	100		ns
Repetition Frequency		2		KHz
Noise Figure		5.5		dB
Polarization Dispersion Gain			0.5	dB
Polarization Mode Dispersion			0.5	ps
<b>Raman Amplifier</b>				
Working Wavelength		1450		nm
Output Power Range		25	27	dBm
<b>AOM</b>				
Working Wavelength Range	1530	1550	1560	nm
Average Optical Power			1	W
Maximum Pulse Optical Power		1		kW
Insertion Loss		5	6	dB
Polarization Dispersion Gain		0.2	0.5	dB
Extinction Rate	50			dB
Rise / Fall Time	ns		10	ns
Frequency		200		MHz
SWR			1.5:1	
Input Impedance		50		Ohm
RF Power		2.5		W
Frequency Shift		200		MHz

### 5. Mechanical Structure

Structure Type	Parameter	Specification	Unit	Remarks
Module	Dimensions	190x150x40	mm	
	Power Interface	DC+5V/GND		Typical
	Pigtail Fiber	SM		Can be customized
	Communication Interface	RS232		Can be customized



### 6. Communication Type

Structure Type	Parameter	Specifications
Module	Communication Interface	DB9
	Communication Protocol	RS232
	Communication User Interface	Read and set output power

### 7. Ordering Information

