DAS Integrated Optical Module

Distributed fiber Acoustic Sensing（DAS），based on the principle of phase OTDR, using a single ordinary optical fiber as a transmission, the Rayleigh scattered light inside the fiber to detect, obtain phase and frequency information, to achieve the detection of sound, vibration and other signals, widely used in oil, gas pipelines, perimeter security, high-speed rail transit and other fields.

For the field of distributed fiber optic acoustic sensing, FIBERWDM has launched DAS integrated module, which integrates self-developed ultra-narrow linewidth laser, linewidth <3KHz, 80M_AOM, pulse amplifier, Raman amplifier, balanced photodetector. The module is highly integrated, with small size and high reliability.

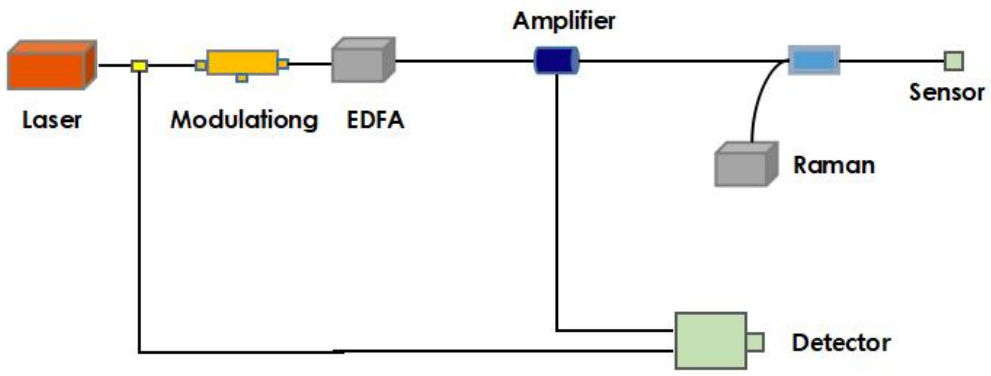
Features

- Highly Integrated
  (UNL, AOM, EDFA, BPD，RAMAN)
- Working Temperature: -10~50℃
- High Reliability and Stability
- Flexible Control Mode
- Single / Dual Channel

Applications

- Oil and Gas Pipelines
- Perimeter Security
- High-speed Rail Transit
- Power Cables

Optical Path

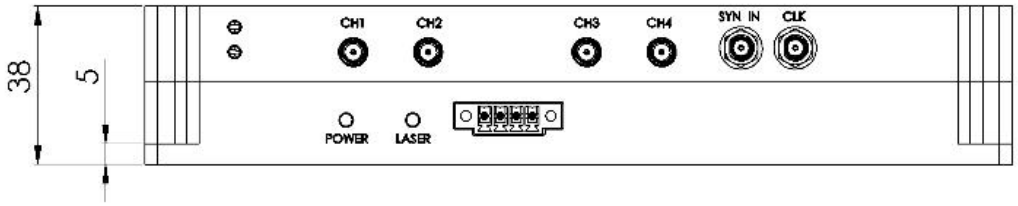


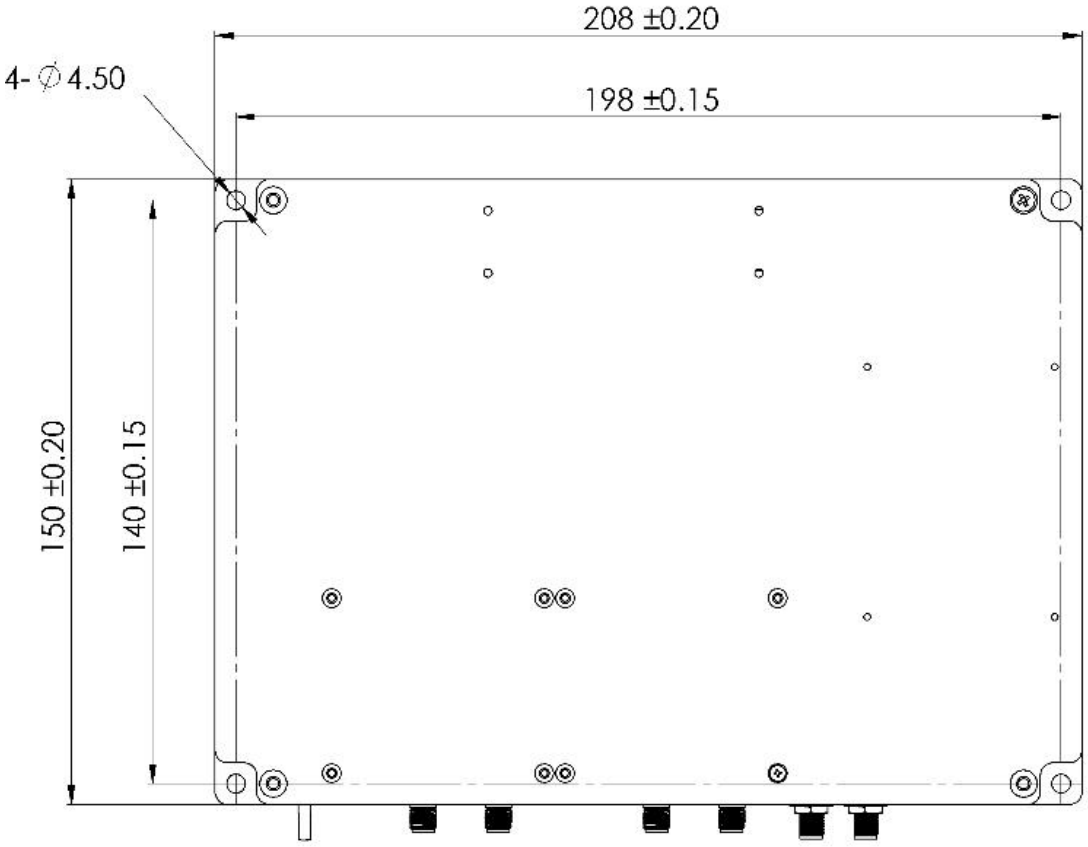
Product Model: FW-RA-DASXXX				
Parameters	**Min**	**Typ.**	**Max**	**Unit**
Sensing Distance	-	60	60	Km
Center Wavelength	-	1550.12	-	nm
Linewidth	-	-	3	Khz
Pulse Width	60	100	-	ns
Repetition Rate	-	2	20	KHz
Raman Optical Power			26	dBm
Peak Pulse Optical Power	-	23	30	dBm
Input Impedance	-	50	-	Ohm
Shift Frequency	-	80	-	MHz
Wavelength	800~1700			nm
Gain	60K			V/A
Coupling Mode	AC			
Bandwidth	100			MHz
Modulation Mode	External			
Note:1)Single and Dual channel can be selectable; XXX: 399-Single Channel, 398-Dual Channel 2)The signal-to-noise ratio at the tail is 4dB				

Parameters		**Indicator**	**Remark**
Electrical	Power Supply	DC +12V/GND	
	Power Consumption	<36W	Full-temperature
Mechanical	Dimensions	208*150*38mm	
	Pigtail Type	SMF	
Communication	Connector	4PIN	
	Level	RS232	
	Interface	Read and Set Parameter	

Parameter	**Min**	**Max**	**Unit**
Working Temperature	-10	+50	℃
Storage Temperature	-40	+85	℃
Related Humidity	5	95	%

Mechanical Dimension





For ordering information and custom solutions, please contact us:
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