Atmospheric Coherent Detection LiDAR Pulsed Light Source

Atmospheric monitoring is of great significance in aerospace safety, environmental field, meteorology and weather forecasting. Based on the Doppler shift principle, FIBERWDM has launched an integrated module to improve the convenience and reliability of system construction.

The 300uJ Atmospheric Coherent Detection LIDAR light source is based on MOPA structure design, integrating self-developed ultra-narrow linewidth laser, the linewidth can be as narrow as kHz, the built-in AOM with the unique circuit design effectively suppresses the pulse signal distortion, optimizes the multi-stage amplification optical path, effectively suppresses the excited Brillouin scattering, and realizes 300uJ high pulse energy output.

Features

- High Pulse Energy: 300uJ
- Pulse Width:100~800ns(Tunable)
- Pulse Parameters Built-in, One-touch Startup
- High Integration, Small Size, Lightweight

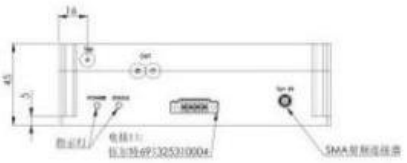
Applications

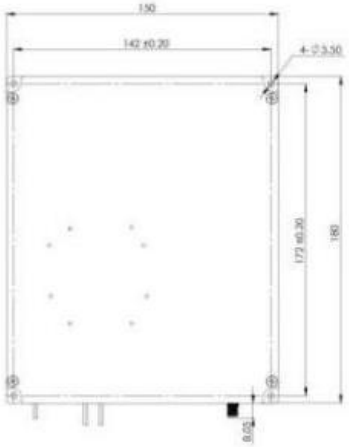
- Doppler Wind Measurement
- Meteorological Monitoring
- Air Pollutant Monitoring
- Airport Wind Farm Monitoring

Model: FW-LiDAR-PS-EXX-TY				
Power Level		**E01**	**E10**	**E30**
\	Working Mode	Pulse		
	Polarization State	Fully PM		
	Working Wavelength(nm)	1550±2(ITU)		
	Linewidth(KHz)	＜200	＜5	
Output	Shift Frequency(MHz)	-160	80	
	Pulse Off Ratio(dB)	≥100		
	Repetition(KHz)	Internal and external synchronization		
	Default Pulse Width(ns)	250	200	600
	Max. Single Pulse Energy(uJ)	**≥10**	**≥100**	**≥300**
	Peak Optical Power(W)	≥50	≥500	
	Average Optical Power(W)	≥0.1@20KHz	≥1@10KHz	≥3@10KH
	Circulator	√		
	1*4 Optical Switch	√	×	
	Polarization Extinction Ratio(dB)	≥18		
	Output Fiber Type	PM1550	PLMA-GDF-25/300	
Intrinsic Light	Intrinsic Spectral Output	0.9～1.5	≥1.5	
	Working Temperature(℃)	T2:-40~60	T1:-10~60 ； T2:-40~60	
	Storage Temperature(℃)	-40~85		
	Power Supply(V)	24	18~24	
	External Synchronization	5.5V≥High level > 3V , Low level < 0.4V , Pulse width(Electrical signal) > 100ns; Matching Impedance 50Ω or high-impedance, SMA Interface		
	Dimensions(mm)	180*150*45	200*200*50	
	Power Consumption(W)	≤25	≤65	≤100
	Weight(kg)		≤1.2	≤2.2

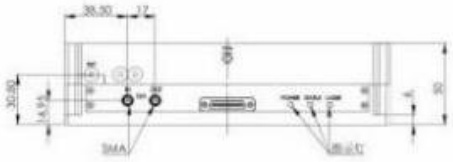
Model: FW-LiDAR-PS-EXX-TY;
EXX: Single pulse energy, for example: E01: Single pulse energy output 10uJ;
TY: Working temperature, for example: T1:-10~60℃; T2: -40~60℃

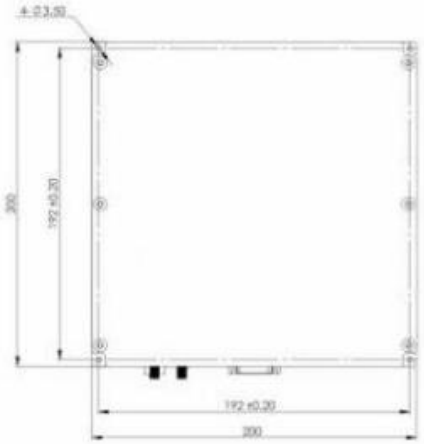
Dimension：180*150*45mm





Dimension：200*200*50mm





For ordering information and custom solutions, please contact us:
sales@fiberwdm.com