YBPhotonics

DTS-APD Avalanche Photodetector

Overview 1.

DTS-APD is a dual avalanche photodetector for distributed fiber optic temperature measurement. It is internally based on low noise amplifiers, boost circuits, and temperature compensation circuits, featuring high gain and fast response. The module is powered by a single power supply for easy integration, and the outputs use SMA connectors to reduce size and maximize frequency response, with a maximum bandwidth of 200MHz.

Features 2.

- Covering wavelength range 1000-1700nm
- DTS-specific, dual-channel
- M-factor temperature compensation
- Connects to singlemode (SM) or multimode (MM) fibers
- FC fiber input header
- Supports customization ۲

Applications 3.

- Distributed Fiber Optic Temperature Measurement System DTS
- OTDR •

~

4. Specifications	
Items	DTS-APD-150M
Materials	InGaAs
Wavelength	1000-1700nm
Input connector	Multimode fiber with FC/APC connectors
Responsivity @M=1	0.9A/W @1550nm
Bandwidth ^⁵	DC-150MHz
Rise time [♭]	2.5ns
Gain [®]	3.2×10 ⁷ V/W
Saturated Optical power	108nw
NEP	0.28pW/ √ Hz
Maximum output	4V
amplitude [®]	
Operating voltage	9-12V
Operating Current	<500mA
Output Impedance	50Ω
Output coupling mode	DC
Output connector	SMA female



YBPhotonics

www.ybphotonics.com

Operating temperature	-10~65°C
Storage temperature	-40~85°C

Remarks:

a For high resistance loads

b For 50 Ω loads

5. Mechanical dimensions







6. Response curve



Note: Response curves are typical values for reference only.

7. Shipping list

ltem	Name of material	num	unit	note
1	photodetector	1	pcs	
2	SMA to BNC RF Cable	2	pcs	