

## DTS integrated optical module with acquisition card



### ● Product Description

The DTS integrated optical module integrates the Raman light source, APD detector, and acquisition card independently developed by WDM and Idealphotonics with corresponding intellectual property rights. The module has high integration and small size. All modules have undergone rigorous environmental testing to ensure the long-term reliability and stability of the DTS integrated optical module, which can be directly integrated into the



DTS overall equipment for use, making it convenient for customers to design and apply DTS equipment.

## ● Product features

High integration (Raman light source, WDM, APD, acquisition card)、 High peak, nanosecond pulse laser output、 TCP/IP control、 High stability and reliability、 Working environment temperature: -10~55°C

## ● Part Number

MP-DAQ-DTS-MM62.5-FA-5-2-0.1

## ● Application area

DTS fiber temperature measurement、 Laser distance measurement、 Light source for laboratory research、 Fiber optic sensing system

## ● Core parameters

Measurement distance	Temperature accuracy
25Km	±2 °C

## ● General Parameters

### Parameter

Single-mode DTS parameters	Min.	Typical	Max.	Unit	Notes
Measurement distance	-	25	25	Km	
Temperature accuracy	-	±3	-	°C	25Km@3min
Temperature resolution	-	0.1	-	°C	
Sampling resolution	-	0.4	-	m	
Spatial resolution	-	5	-	m	
Positioning accuracy	-	5	-	m	
Measurement time	-	3	5	Min	
Measurement range	-20	-	120	°C	Commonly used optical fibers

Multimode DTS parameters	Min.	Typical	Max.	Unit	Notes
Measurement distance	-	-	10	Km	
Temperature accuracy	-	±2	-	°C	10Km@6s
Temperature	-	0.1	-	°C	



<b>resolution</b>					
<b>Sampling resolution</b>	-	<b>0.4</b>	-	<b>m</b>	
<b>Spatial resolution</b>	-	<b>2</b>	-	<b>m</b>	
<b>Positioning accuracy</b>	-	<b>2</b>	-	<b>m</b>	
<b>Measurement time</b>	-	<b>1</b>	-	<b>s</b>	
<b>Measurement range</b>	<b>-20</b>	-	<b>120</b>	<b>°C</b>	<b>Commonly used optical fibers</b>

## Mechanical structure

Structure type	parameter	specification	Unit	note
<b>Module</b>	<b>Struction size</b>	<b>250x150x35</b>	<b>mm</b>	
	<b>Connector type</b>	<b>FC/APC</b>		<b>default</b>
	<b>Output pigtail type</b>	<b>SM fiber 900um tube</b>		
	<b>Pigtail length</b>	<b>1000±10mm</b>		

## Electrical properties:

parameter	Min.	Typical	Max.	Unit
<b>Service voltage</b>	<b>+9</b>	<b>+12</b>	<b>+28</b>	<b>V</b>
<b>Startup power consumption</b>	-	<b>15</b>	<b>20</b>	<b>W</b>



Full temperature power consumption	-	20	25	W
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## Work Environment

parameter	Min.	Typical	Max.	Unit	note
Operating temperature range	-10	+25	+55	°C	
Storage temperature range	-40	-	+70	°C	
Relative humidity	5	-	90	%	

## Ordering Information

**Model:** MP-DAQ-DTS-MM62.5-FA-5-2-0.1

**Name:** DTS integrated optical module with acquisition card Measuring distance:

10Km

**Temperature accuracy:**  $\pm 2$  °C

**Temperature resolution:** 0.1°C

**Sampling resolution:** 0.4m

**Spatial resolution:** 2m

**Positioning accuracy:** 2m

**Measurement time:** 1s

**Measurement range:** -20-120°C