



DTS Integrated Optical Module

1. Product Description

Beogold’s DTS optical module integrates our own proprietary Raman source, WDM and APD detector inside. The pulsed laser output can be controlled via the upper computer software. The module, underwent rigorous environmental testing to ensure long-term reliability and stability, can be integrated directly into DTS system, making design more convenient for our customers.

2. Features

- High integration (WMD, APD, Raman source)
- High peak, nanosecond pulsed laser output
- High stability and reliability
- Working temperature: -10°C~60°C



3. Applications

- DTS
- Laboratory & research
- Fiber optic sensing system

4. Optical Specifications

Overall Parameter					
Parameter	Min.	Typ.	Max.	Unit	Remarks
Sensing Range	-	-	10	km	
Preheat Time	-	-	2	min	
Raman Source					
Working Wavelength	-	1550.12	-	nm	
Output Peak Power	0.1	30	30	W	
Pulse Width	7	7	100	ns	
Repetition Frequency	0.01	10	100	kHz	
-3dB Spectral Width	-	-	0.3	nm	
Output Stability	-	-	1	%	
SMSR	50	-	-	dB	
Output Return Loss	45	-	-	dB	
APD					
Working Wavelength	1000	-	1660	nm	
Responsivity	0.8	-	1.25	A/W	
Avalanche Voltage	40	-	55	V	
Dark Current	-	5	10	nA	
Module Bandwidth	-	100	-	MHz	
Stokes Electrical Noise	-	20	-	mV	
Anti-Stokes Electrical Noise	-	50	-	mV	
Module Sensitivity	-	50	-	dBm	
Responsivity Variation	-	10%	-	-	Full temperature



5. Mechanical Structure

Dimensions (mm)	L	W	H	L (Mounting)	W (Mounting)
	200	150	50	189.8	143.6

6. Interface

Interface	Labeling	Specifications
Fiber	Output	1000+/-10mm MMF 62.5/125 1m 900um loose tube
Electrical	Sys In	SMA sync signal input
Electrical	1450	1450nm electrical signal output
Electrical	1660	1660nm electrical signal output

7. Ordering Information

