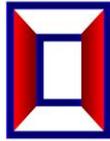


桂林恒创光电科技有限公司
HC Optical Science and Tech Co., Ltd.

Optical Fiber Temperature Measurement Demodulation Module Specification V1.0		Number	
		Date	January 9, 2024
Product name	Optical fiber temperature measurement demodulation module		
Brand	HC Optical Science and Tech Co., Ltd		
Model	HC-DTS-6		
Product parameters			
	Unit	Content	
Measure the distance	Km	$\leq 10/\text{channel}$	
Measurement channel	Road	1 ~ 8 (customizable)	
Measure the time	s	1s/km	
Alarm threshold	$^{\circ}\text{C}$	Users can make their own choices	
Size of equipment	mm	230 \times 230 \times 70	
Applicable ambient temperature	$^{\circ}\text{C}$	Temperature measurement host: -25 ~ + 55 Long-term temperature of optical cable: -20 ~ + 75 Short-term temperature of optical cable: -40 ~ + 150 (after 2 hours of installation, under stress-free conditions)	
Temperature measurement range	$^{\circ}\text{C}$	-200 ~ 300 (the measurement temperature range is determined by the structure of the optical cable)	
Temperature resolution	$^{\circ}\text{C}$	≤ 0.1	
Spatial resolution ^①	m	1	
Temperature accuracy ^②	$^{\circ}\text{C}$	$\leq \pm 1$	
Positioning accuracy	m	$\leq \pm 1$	
Sampling interval	m	0.4	
Power supply	V	DC12 (intrinsically safe power input)	
Power	W	≤ 10	
Operating System	/	RTOS embedded system	
Support agreement	/	Modbus TCP, private TCP/IP (customizable)	
Host interface	A	USB*1、RS232*1、RJ45*1、RS485*1	
Fiber type	/	MM: 62.5/125 μm 、50/125 μm	
Connector type	/	FC/APC	
Storage temperature	$^{\circ}\text{C}$	-40~+80	



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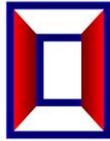
Operating humidity	/	(0-95%) R. H. Non-condensable
Host life	Year	10
Degree of protection	/	Host IP20, optical cable IP68
Weight of the main engine	Kg	≤2.5

Note ①: The spatial resolution of the host is 2.5KM at the typical temperature of 25 °C, measured by the method of 10% -90% of the rising edge of the temperature curve.

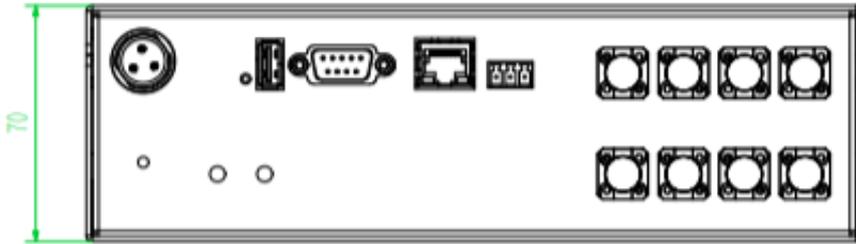
Note ②: When the host is at a typical temperature of 25 °C, the temperature range of the optical cable is 20 °C -100 °C.



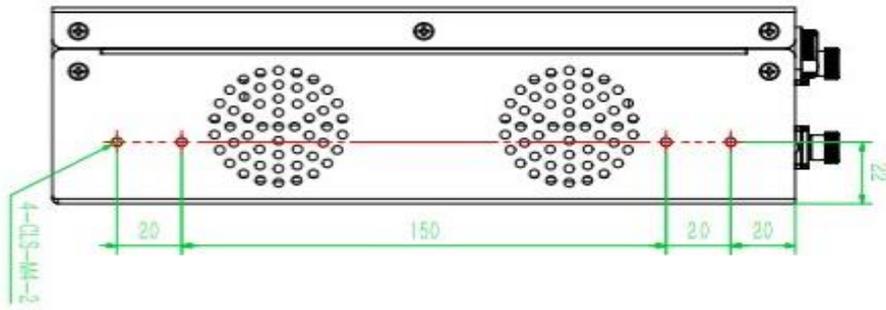
Product Structure Diagram of HC- DTS-6



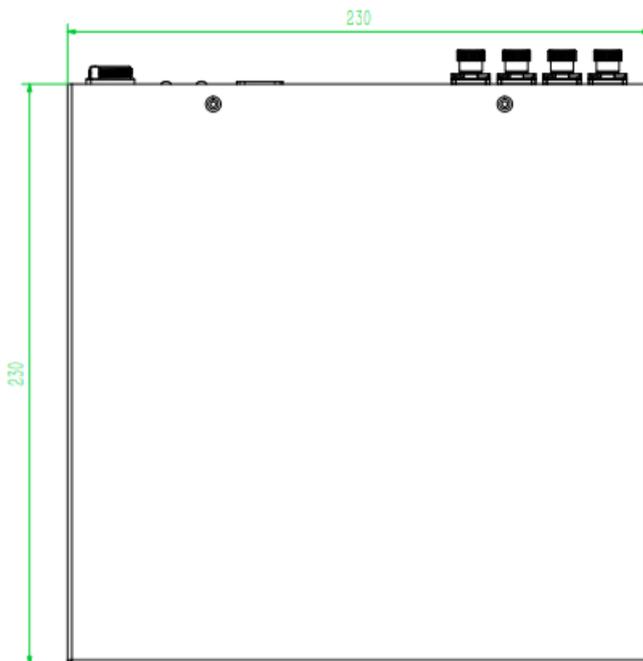
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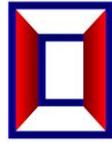
Front view



Side View



Aerial view



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