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## SOI 高速光开关阵列

### SOI High Speed Optical Switch Array

SOI 芯片式高速光开关阵列，该产品基于硅基载流子色散效应实现纳秒级高速响应的光路切换，实现了多通道光开关阵列的单元化集成，芯片与多通道光纤和外围驱动电路一体化光电封装，热电混调，数字化驱动，偏振相关性小，插入损耗低。

Chip-based multi-channel optical switch array is a product based on SOI platform, which could realize high-speed dynamic switching of optical signal with a response time on the order of nano-second. This product achieved the integration of an array of optical switches on a single SOI chip, and electro-optically co-packaged with fiber array and circuit board. It is thermally biased and digitally driven and has tiny polarization-sensitivity and low insertion loss.

#### 【特性 Features】

- 多通道  
Multi-channels
- 高集成度芯片化  
Chip based
- 高速响应  
High speed response

#### 【应用 Applications】

- 光纤传感  
Optical fiber sensor
- 光纤通信  
Optical fiber communications
- 光网络监控与保护  
Fiber network monitoring and protection



#### 【性能指标 Specifications】

参数指标 Parameters	单位 Unit	最小值 Min.	典型值 Typ.	最大值 Max.	备注 Notes
波长范围 Wavelength range	nm	1530—1570 nm or 1270nm—1330 nm			
消光比 Extinction ratio	dB	19	20	22	
插入损耗 Insertion loss	dB	1.6	1.8	2.0	
回波损耗 Return loss	dB	40	50		
偏振相关损耗 PDL	dB		0.3	0.5	
驱动电压 Drive voltage	V	0.9	1	1.2	@300ns
驱动电流 Drive current	mA	6	7	9	@300ns
芯片级响应时间 Response Time	ns	30		300	
热调功耗 Thermal tuning power consumption	mW	30		50	
通道数 Number of channels		8—16 或可定制 8—16 or Can be customized			