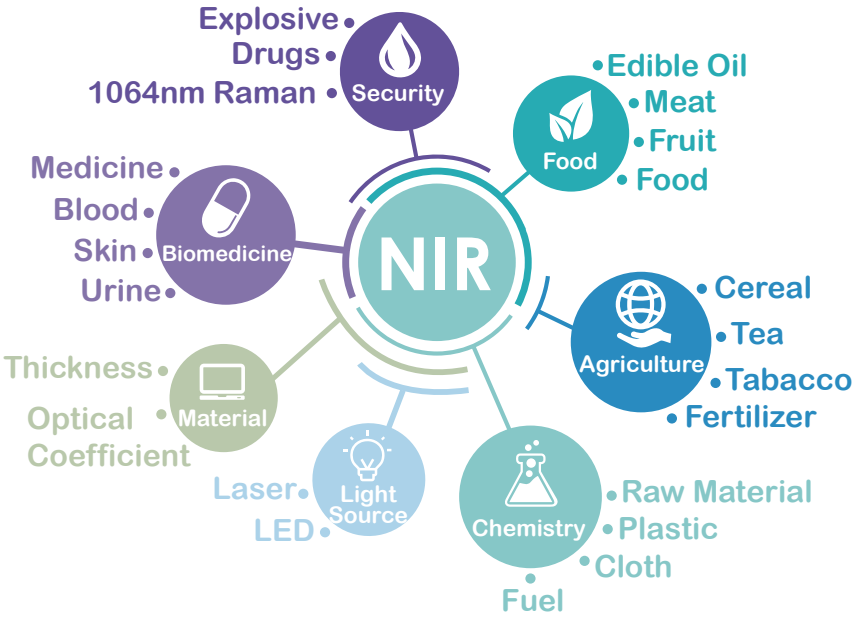
Brand New NIR Model-SideWinder™ Series

2nd Order Completely Eliminated
18 Times Sensitivity Enhancement



- Small and Convenient to Carry, Compact Size : 110 x 86 x 32 mm^3
- Specially Designed for Near Infrared Region Covering from 900~1700nm
- High SNR=6000, High Sensitivity and High Resolution
- High Gain Mode & Low Gain Mode for Options. Sensitivity of High Gain Mode is at Average 18 Times Higher than Low Gain Mode
- High Cost–Performance Ratio, the Best Choice for Film Thickness, Food, Pharma and Bio-chemistry Applications

APTechnologies
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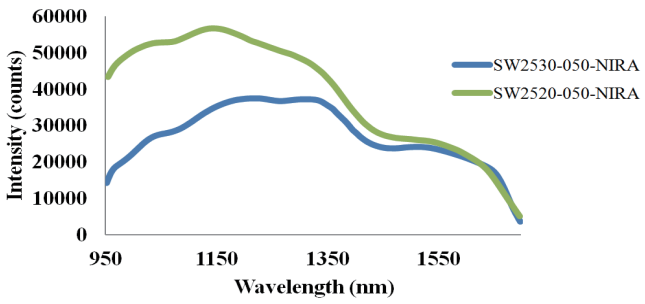
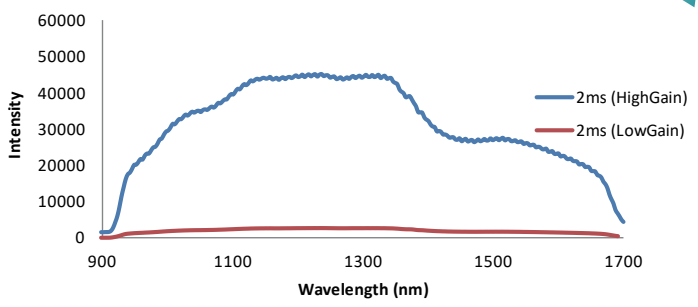
SW2530 vs SW2520(100ms)



High Gain vs Low Gain



Specifications

Model Name	Groove Density (g/mm)	Best Efficiency Wavelength	Band Width	Selectable Band	25um	50um	100um	150um	200um
SW2520	120	1000nm	800nm	900-1700nm	N/A	~15 Avg.:9	~21 Avg.: 17	~22	N/A
SW2560	236.8	1350nm	800nm	900-1700nm	NA	~7.2 Avg.: 4.3	~10 Avg.: 8.1	~13	~14
SW2540/70	236.8	1350nm	800nm	900-1700nm	~4.1 Avg.: 2.7	~5.2 Avg.: 4.3	~7	~13	~14

Specifications

Model Name	SW2520	SW2560	SW2540/70
InGaAs Sensor	128 pixels InGaAs CCD	256 pixels InGaAs CCD	512 pixels InGaAs CCD
Wavelength Range	900~1700nm		
Resolution (slit : 50um)	~15nm Avg.: 9	~7.2nm Avg.: 4.3	~5.2nm Avg.: 4.3
Wavelength Accuracy	<2nm (by 128-pixel sensor) <1nm (by 256、512pixel sensor)		
Shutter	Optional		
SNR	High Gain		Low Gain
	2000		4000
DarkNoise(Upper Limit)	13.5		
Dynamic Range	4100		6000
Integration time	50 μs ~ 15s		
On-Board Computation	V		
Continuous High-Speed Exposures	V		

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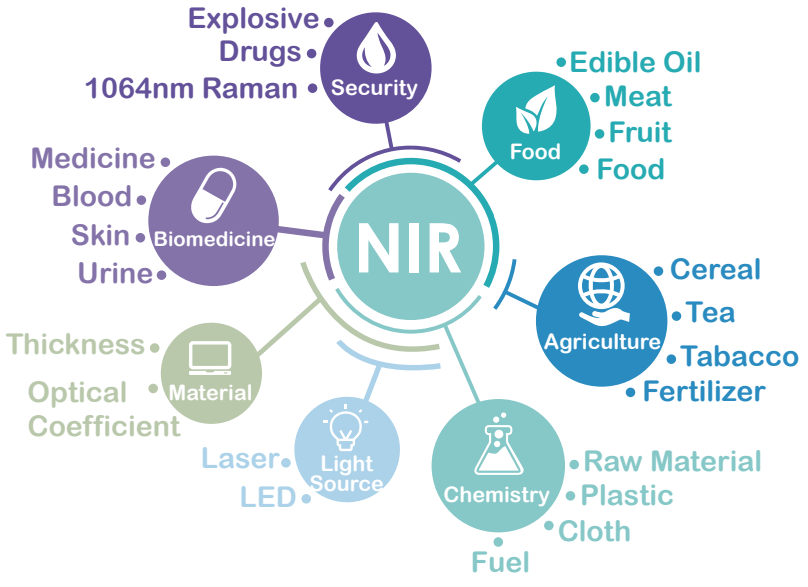
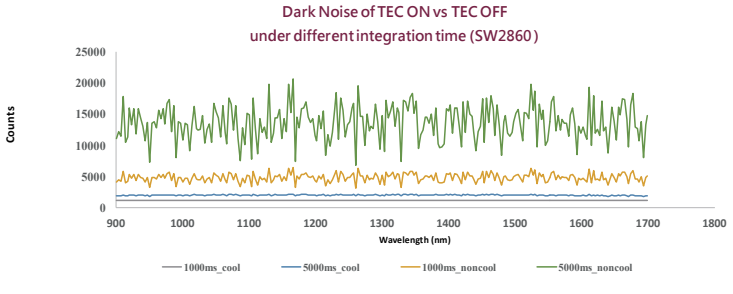
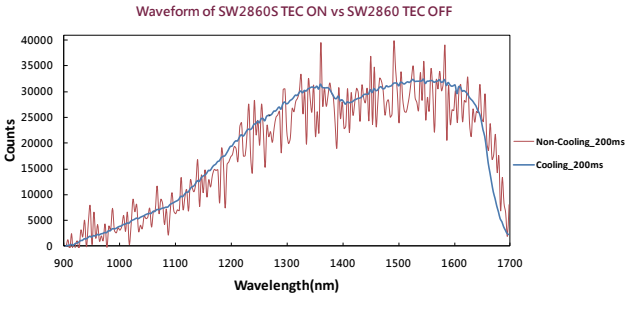
SideWinder™ Series with TE-cooler

Excellent Performance & Robust Design







- The Smallest NIR TECooling Spectrometer, the Volume is 130 x 96 x 55 mm^3
- SW2960、SW2970 : High-Level TECooling Spectrometer, The Wavelength Range is 900~2500nm
- High Sensitivity、High Dynamic Range、High SNR
- TEC One Stage (SW2860、SW2870)、TEC Two Stage(SW2960、SW2970)
- Competitive Price for High-End Market
- High Gain Mode & Low Gain Mode is Selectable. The Sensetivity of High Gain is 18 Times Higher than of Low Gain
- The Best Choise of 1064nm Raman, Film Thickness Measurement, Food Safety, Enviroment and Biochemical Detection

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Specification

Model	Groove Density (g/mm)	Best Efficiency Wavelength	Band Width	Selectable Band	25um	50um	100um	150um	200um
SW2860	236.8 400	1350nm 1200nm	800nm 340nm	900-1700nm 1090~1430nm	N/A ~3.1, Avg: 2.1	~7.2, Avg: 4.3 ~4, Avg: 2.3	~10 Avg: 8.1 ~5.5 Avg: 4.4	~13 ~5.8	~13.8 ~7.5
SW2960	120	1800nm	1600nm	900-2500nm	N/A	~15 Avg: 10	~21 Avg: 18	N/A	N/A

Specification

Model		SW2860	SW2870	SW2960	SW2970
Sensor Pixel		256 pixels	512 pixels	256 pixels	512 pixels
TE-Cooled		One Stage (Ambient temperature 25℃ can be reduced to 0℃)		Two Stage (Ambient temperature 25℃ can be reduced to -15℃)	
Wavelength Range		900-1700nm		900-2500nm	
Optical Resolution (The resolution of 1083.84nm, 1262.34nm & 1473.28nm with Xenon lamp.)	Slit : 50um	~7.2nm, Avg.:4.3nm	~5.2nm, Avg.: 4.3nm	~15 Avg: 10	~7nm, Avg.:4.5
	Slit : 100um	~10nm, Avg.: 8.1nm	~7nm	~21 Avg: 18	~15nm, Avg.:10
Integration Time	High Gain	100 µs ~ 24s		100us-20ms	
	Low Gain	100 µs ~ 24s		100us-200ms	
SNR	High Gain	na.(>2500)	na.(>1000)	1000	na. (>1000)
	Low Gain	na.(>5000)	na.(>2000)	2000	na. (>2000)
Dark Noise	High Gain	na.(<18)	na.(<18)	30	
	Low Gain	na.(<18)	na.(<18)	na. (<30)	
Dynamic Range	High Gain	na.(~5000)	na.(~5000)	na.(~3640)	
	Low Gain	na.(>5000)	na.(>5000)	na. (>3640)	
Shutter		Option (Build-in Shutter or External Shutter)			
Wavelength Accuracy		<1nm			
Opical Information		V			
On-Board Computation		V			
Continuous High-Speed Exposures		V			

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