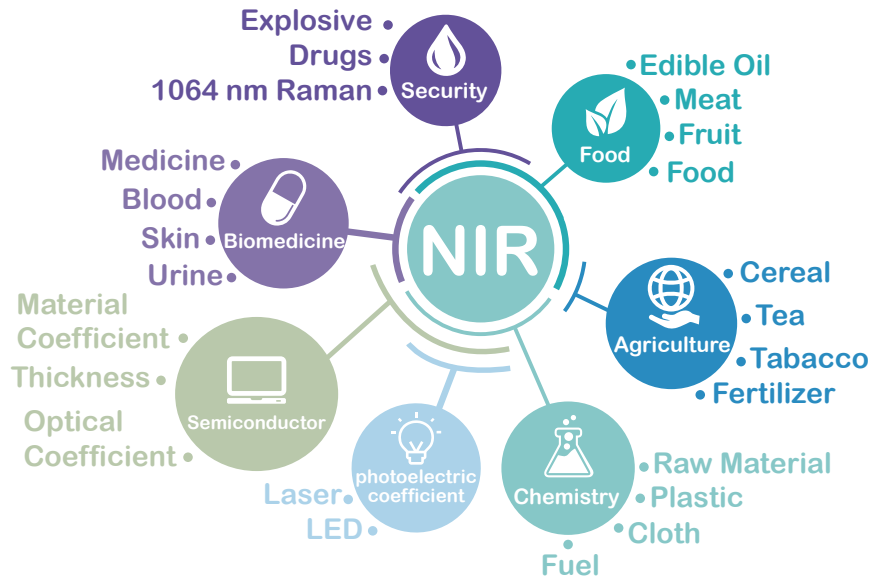
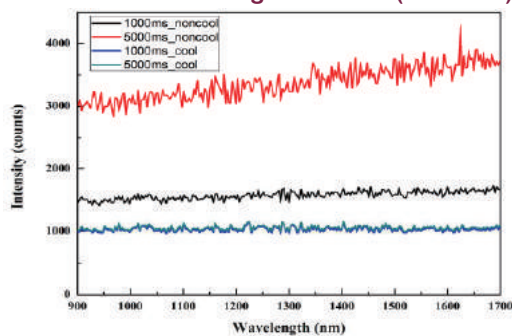


SideWinder™ Series with TE-cooler

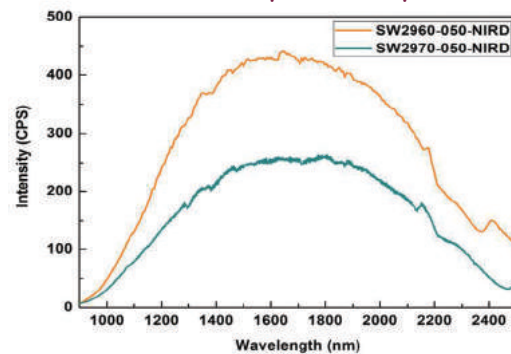
Excellent Performance & Robust Design



Dark Noise of TEC ON vs TEC OFF under different integration time (SW2860)



SW 9 Series Spectral Respond



- The smallest NIR TEC spectrometer - Dimensions: 130 x 96 x 58.3 mm³.
- New product release : SW2930 (910-2200 nm).
- SW2960, SW2970 : High-performance 900-2500 nm TEC spectrometer.
- High sensitivity, dynamic range, and SNR.
- Single-stage TEC (SW2860 and SW2870).
- Two-stage TEC (SW2930, SW2960 and SW2970).
- Competitive price for high-end market.
- High- & Low-gain modes. High-gain mode = 10 x sensitivity of Low-gain.
- Ideal for 1064 nm Raman, film thickness measurement, food safety, environmental and biochemical detection.

Specification

Model	Groove Density (g/mm)	Best Efficiency Wavelength	Band Width	Selectable Band	25 μm	50 μm	100 μm	150 μm	200 μm
SW2860	236.8	1350 nm	800 nm	900-1700 nm	-	6 nm	9 nm	11 nm	15 nm
	400	1200 nm	340 nm	1090-1450 nm	2 nm	3 nm	5 nm	6 nm	7 nm
SW2870	236.8	1350 nm	800 nm	900-1700 nm	4 nm	5 nm	7 nm	10 nm	14 nm
SW2930	150	1250 nm	1290 nm	910-2200 nm	-	7 nm	12 nm	-	-
SW2960	120	1800 nm	1600 nm	900-2500 nm	-	12 nm	18 nm	-	30 nm
SW2970	120	1800 nm	1600 nm	900-2500 nm	-	9 nm	15 nm	-	28 nm
	400	1600 nm	350 nm	1600-1950 nm	1.5 nm	2 nm	4 nm	6 nm	7 nm

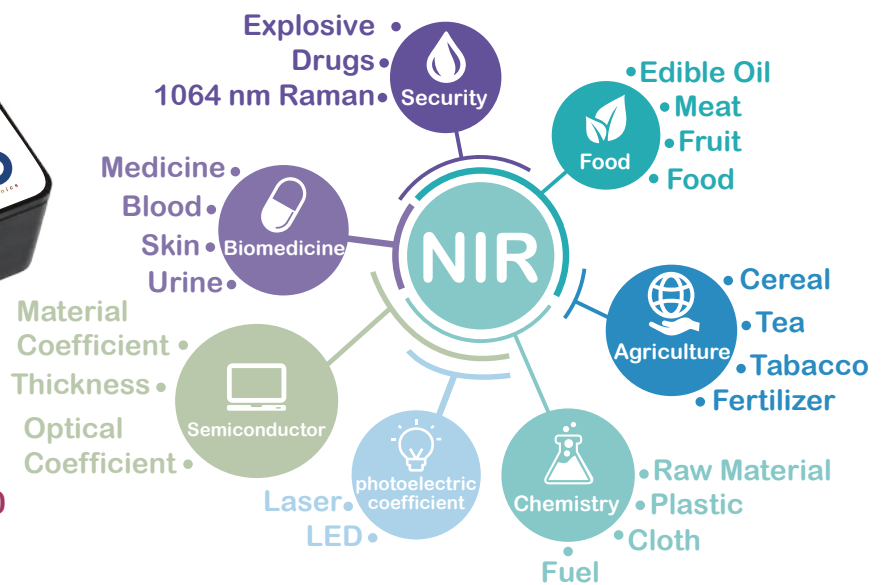
(*Typical value, Small deviations are possible.)

Specification

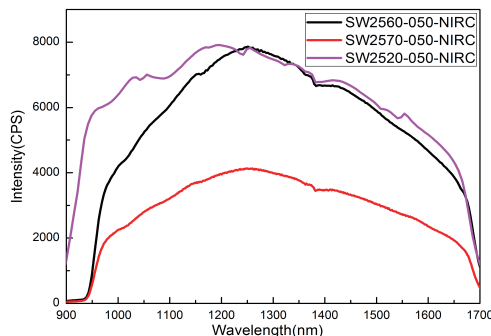
Model		SW2860	SW2870	SW2930	SW2960	SW2970
Sensor		256-pixel	512-pixel	256-pixel	256-pixel	512-pixel
TE-Cooled		One Stage (Ambient temperature 25°C can be reduced to 0°C)		Two Stage (Ambient temperature 25°C can be reduced to -20°C)		
Wavelength Range		900-1700 nm		910-2200 nm	900-2500 nm	
Optical Resolution <small>(*Typical value, Small deviations are possible.)</small>	Slit : 50 μm	6 nm	5 nm	7 nm	12 nm	9 nm
	Slit : 100 μm	9 nm	7 nm	12 nm	18 nm	15 nm
Integration Time	High Gain	100 μs - 24 s		100 μs - 24 s	100 μs - 20 ms	
	Low Gain	100 μs - 24 s		100 μs - 24 s	100 μs - 200 ms	
SNR	High Gain	3300	2800	3000		
	Low Gain	5500	3500	6000		
Dark Noise	High Gain	14	14	15		
	Low Gain	10	10	10		
Dynamic Range	High Gain	6800	7000	5900		
	Low Gain	9500	9300	9300		
Shutter		Recommended option: Built-in shutter				
Wavelength Accuracy		<1 nm				
On-Board Computation		V				
Continuous High-Speed Exposures		V				

SideWinder™ Series

2nd Order Completely Eliminated
18 Times(SW2520) or 10 time (SW2560/2570) Sensitivity
Enhancement

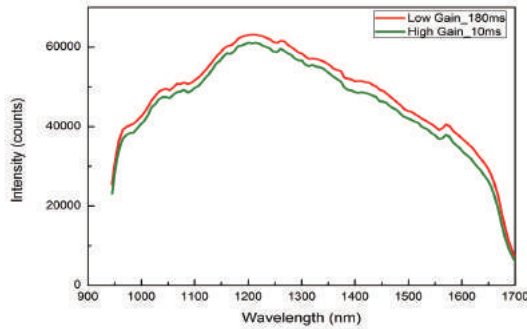


SW2520 & SW2560 & SW2570
Spectral response

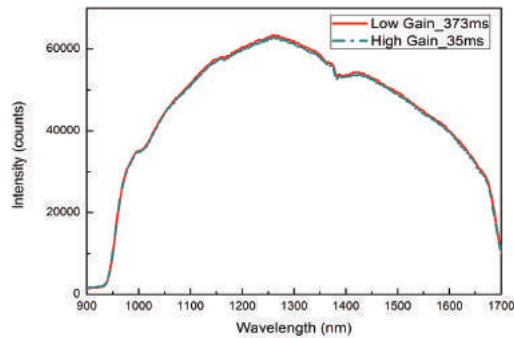


- Compact and portable - Dimensions: 110 x 86 x 32 mm³.
- Wavelength Range: 900-1700 nm.
- High SNR (6000), high sensitivity and resolution.
- High- & Low-gain modes. High-gain sensitivity ~10-18 times low-gain.
- High performance:cost ratio.
- Ideal for film thickness, food, pharma and bio-chemistry applications.

High Gain vs Low Gain (SW2520)



High Gain vs Low Gain (SW2560/2570)



Specifications

Model Name	Groove Density (g/mm)	Best Efficiency Wavelength	Band Width	Selectable Band	25 μm	50 μm	100 μm	150 μm	200 μm
SW2520	120	1000 nm	800 nm	900-1700 nm	-	11 nm	17 nm	19 nm	24 nm
SW2560	236.8	1350 nm	800 nm	900-1700 nm	-	6 nm	9 nm	11 nm	15 nm
SW2570	236.8	1350 nm	800 nm	900-1700 nm	4 nm	5 nm	7 nm	10 nm	14 nm

(*Typical value, Small deviations are possible.)

Specifications

Model Name		SW2520	SW2560	SW2570
InGaAs Sensor		128-pixel	256-pixel	512-pixel
Wavelength Range		900-1700 nm		
Resolution (slit : 50 μm)		11 nm	6 nm	4 nm
(*Typical value, Small deviations are possible.) (*Resolution of 1083.84 nm, 1262.34 nm & 1473.28 nm with Xenon lamp.)				
Wavelength Accuracy		<2 nm (128-pixel sensor) <1 nm (256, 512-pixel sensors)		
SNR (Single acquisition)	High Gain	2000	2800	2600
	Low Gain	4000	5400	4300
DarkNoise (Upper Limit)	High Gain	13.5	14	
	Low Gain		10	
Dynamic Range (Single acquisition)		6750	6000	6000
		na	9300	9300
Shortest Integration time		100 μs		
On-Board Computation		✓		
Continuous High-Speed Exposures		✓		