



HYPERSPECTRAL CAMERA - FS1X SERIES (LINE SCAN)

Hyperspectral Camera - FS1X Series (Line Scan), designed for advanced surface color and texture detection across various industries.

With a spectral range of 400-1000nm and up to 1200 spectral channels, it achieves a wavelength resolution better than 2.5nm. It features acquisition speeds of up to 128FPS across the whole spectrum and up to 3300Hz with band selection. The SW-NIR range covers 900-1700nm, offering up to 254 spectral channels and speeds up to 200FPS, ideal for composition and material identification, machine vision, and agricultural product quality assessment.

APPLICATIONS

Measurement principle

Hyperspectral Camera - FS1X Series (Line Scan)

Typical application

Hyperspectral Camera - FS1X Series (Line Scan)Hyperspectral Camera - FS1X Series (Line Scan)

FEATURES

Visible Spectrum/NIR:

Spectral range: 400-1000nm, wavelength resolution better than 2.5nm, with up to 1200 spectral channels.

Acquisition speed: up to 128FPS across the whole spectrum, up to 3300Hz after band selection (supports multi-region band selection). It is widely used for surface color and texture detection in printing, textiles, and other industrial products. The repeatability of color measurement at a single pixel is up to dE* AB <0.1.

SW-NIR:

Spectral range: 900-1700nm, wavelength resolution better than 8nm, with up to 254 spectral channels.

Acquisition speed: up to 200FPS across the whole spectrum. It is widely used in composition identification, material identification, machine vision, agricultural product quality, and other fields.

TECHNICAL SPECIFICATIONS

Model	FS-10	FS-12	FS-13	FS-15
Spectroscopic method	Grating			
Spectral region	400-700nm	400-1000nm		900-1700nm
Spectral band	600	1200		254
Spectral FWHM	2.5nm			8nm
Slit width	25um			
Transmission efficiency	>50%	≥ 60%		
Stray light	<0.5%			
Spatial pixel number	1920			320
Pixel size	5.86um			30um
Imaging speed	Full band 41Hz 390Hz can be achieved after ROI		Full band 128Hz 3300Hz can be achieved after RO	200Hz

Detector	CMOS		InGaAs
SNR(Peak)	500/1	600/1	
Camera output	USB3.0		Gigabit network
Camera interface	C-Mount		
Accessories	USB3.0 transmission line		Gigabit transmission network
ROI	Single area	Multiple area	Single area
Dimension (Length x width x height)	22.8cm x 7cm x 8.6cm		31.3cmx8.7cmx9.6cm
Weight	1250g		2630g
Power dissipation	5W		



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