


# Specifications

Model	RU-10-L UAV Hyperspectral Imaging System	
Hyperspectral Camera	Spectral Range	400-1000nm
	Spectral Resolution	Better than 2.8nm
	Sampling Interval	2nm
	F-number	F/2.4
	Detector	CMOS
	Detector Interface	USB3.0
	Detector Power Supply	External Power Supply (12-24 VDC), 3W
	Detector Target Size	1/1.2", 11.3mm x 7.1mm
	Detector Native Resolution	1920 x 1200
	Detector Native Pixel Size	5.86 $\mu\text{m}$ x 5.86 $\mu\text{m}$
	Effective Pixel Bit Depth	12bits
	Slit Width	25 $\mu\text{m}$
	Recommended Pixel Binning	4x4
	Spatial Dimension Effective Pixels	480 (4X)
	Number of Spectral Bands	300 (4X)
	Field of View (FOV)	15.6 °@f=35mm
	Instantaneous Field of View (IFOV)	0.71mrad@f=35mm
	Maximum Frame Rate	120fps
	Hyperspectral Lens	Standard 16mm
HD Camera	HD Camera	15MP
Self-stabilizing Gimbal	Self-stabilizing Gimbal	2-axis High-stability Gimbal
POS System	GPS Positioning Accuracy	10cm
Acquisition Control System	Onboard Control and Acquisition System	CPU: I7, RAM: 16GB, HDD: 1TB
	Remote Intelligent Control	Remote Intelligent Control via UAV Remote Controller
	Real-time Monitoring	Real-time Display of Spectral and Image Data
Overall Parameters	Operating Current	Peak Current: 3A
	Input Voltage	13.6V
	Weight	< 2.7kg (Main Unit, Lens, and Gimbal)
	Operating Temperature	0-40°C, 20% ~ 80% RH Non-condensing

# Specifications

Function Category	Parameter	RU-30-L (Specifications)
Hyperspectral Camera 	Spectral Range	900-1700nm
	Spectral Resolution	Better than 6nm
	Sampling Interval	1.7nm
	F-Number	F/2.0
	Detector	InGaAs (TE Cooled)
	Detector Interface	USB 3.0
	Detector Power Supply	12V DC, <2.1W
	Detector Target Size	6.4mm x 5.12mm
	Detector Original Resolution	1280 x 1024
	Detector Original Pixel Size	5μm x 5μm
	Effective Pixel Bit Depth	12bit
	Slit Width	20μm
	Recommended Pixel Binning	2x2
	Effective Pixels (Spatial Dimension)	640
	Number of Spectral Bands	400
	Field of View (FOV)	22.6°@f=16mm
	Instantaneous Field of View (IFOV)	0.625mrad@f=16mm
	Maximum Frame Rate	125fps
	Hyperspectral Dedicated Lens	Standard 16mm
	HD Camera	HD Camera
Self-Stabilizing Gimbal	Self-Stabilizing Gimbal	2-Axis High-Stability Gimbal
POS System	GPS Positioning Accuracy	10cm
Acquisition Control System	Onboard Control & Acquisition System	CPU: I7, RAM: 16GB, HDD: 1TB
	Remote Intelligent Control	Remote Intelligent Control via UAV Remote Controller
	Real-time Monitoring	Real-time Display of Spectral-Imaging Data
Complete System	Operating Current	Peak Current: 3A
	Input Voltage	24V
	Dimension	285x180x179mm ( Gimbal included)
	Weight	≤2.7kg (Main Unit, Lens & Gimbal)
	Operating Temperature	0-40°C, 20% ~ 80% RH (No Condensation)

# Specifications

Model	RU-70-U Full Spectrum Hyperspectral Camera		
Module	Parameter	VNIR	SWIR
Main Unit	Spectral Method	Transmission Grating	Transmission Grating
	Spectral Range	400-1000 nm	1000-2500 nm
	Combined Spectral Range	400-2500 nm	
	Spectral Channels	300	≥400
	Combined Spectral Channels	≥640	
	Spectral Resolution	Better than 2.8 nm	Better than 10 nm
	F-number	F/2.6	F/2.0
	Detector	CMOS	HgCdTe (Stirling Cooled)
	Detector Interface	USB 3.0	Gigabit Ethernet
	Detector Sensor Size	11.3 mm x 7.1 mm	9.6 mm x 7.68 mm
	Detector Native Pixel Size	5.86 μm x 5.86 μm	15 μm x 15 μm
	Effective Pixel Depth	12 bit	14 bit
	Effective Slit Length	11.3 mm	9.6 mm
	Slit Width	25 μm	25 μm
	Recommended Pixel Binning	1x1	1x1
	Effective Spatial Pixels	1920	640
	Combined Spatial Pixels	640	
	Field of View (FOV)	21°@f=25 mm	21°@f=25 mm
	Combined Field of View (FOV)	21°@f=25 mm	
	Instantaneous FOV (IFOV)	1 mrad@f=25 mm	1 mrad@f=25 mm
	Combined Instantaneous FOV (IFOV)	1 mrad@f=25 mm	
	Frame Rate (Max)	128 fps	100 fps
	Detector Power Supply	12VDC, 4.3W	24VDC, 30W
Operating Temperature	0-40°C		
Storage Temperature	0-50°C		