



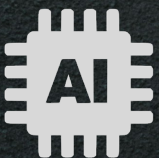
RHYTHM 3



- 3-Axis payload, 3- Optical sensors inspection camera
- High-Precision 6-Axis MEMS MotionTracking® IMU
- 4K 30 zooming EO camera
- 640*512 30HZ 19mm Radiometric EI camera



- Support 1.2 KM target range finder
- Support target location process



- Onboard Nvidia Xavier NX edge computer
- Compatible with customization of AI neural network model

Payload	RHYTHM 3(R3)
Use cases	Inspection, Surveillance, Rescue
General	
Weight	800g
Size	150*112*153mm
IP rating	IP44
Power input	24V, 10W to 24W
Operating Temperature	-10°C to 50°C
Gimbal control range	Pitch: -90° to +20° Pan: 360° limitless
Mount type	P- Mount
Min control accuracy	1 degress
Angel control accuracy	±0.01°
Downlink stream	RTSP: http://192.168.2.119:8554/eo(ir)
File servicer	Support
Geo-tag	Support
Target location processing	Support
Protocol	MAVLINK 2.0
Edge computing performance	
SOM	Nvidia Xavier NX 16G
AI performance	21 TOPS (INT8)
GPU	384-core NVIDIA Volta™ GPU with 48 Tensor Cores
GPU Max Freq	1100 MHz
CPU	6-core NVIDIA Carmel ARM®v8.2 64-bit CPU 6MB L2 + 4MB L3
CPU Max Freq	2-core @ 1900MHz 4/6-core @ 1400Mhz
Memory	8 GB 128-bit LPDDR4x @ 1600 MHz 51.2GB/s
Storage	16 GB eMMC 5.1

EO camera	
Sensor	4K Exmor R CMOS Sensor SONY 1/2.5 CMOS 8.51 MP Recommended illumination : 100 to 100000 lux
Lens	Lens:f = 4.4 mm (Wide), 88.4 mm (Tele) A: F2.0 to F3.8 Zooming focal length: 80 mm (Wide end), 800 mm (Tele end) f = 4.4 mm (Wide), 88.4 mm (Tele) Approx. 70.2 degrees (Wide end, Image stabilizer Off) Approx. 4.1 degrees (Tele end, Image stabilizer Off)
Zooming	30 optical zooming , 90 Hybrid zooming without quality lose
Focus	MF/AF-C/AF-S Full Auto, Shutter Priority, Iris Priority (26 steps), Manual, Bright, Exposure Compensation, Slow AE, Back Light Compensation, Slow Shutter - Auto/ Manual,Max/Min shutter limit
EV compensation	Auto/ Manual -10.5 to +10.5 dB (1.5 dB steps)
Noise reduction	6 steps (3DNR , 2DNR 3DNR separate mode)
Spot AE	Point support
Electronic shutter speed	1 to 1/10000 sec.
ISO	Auto/Manual/Max gain limit/High Sensitivity (0 to 48dB, 16 steps)
Video resolution	3840×2160@30fps
Video format	mp4
Image quality	3840×2160
Image format	Jpeg
Storage temperature/ Humidity	-20 to 60 °C/20 to 95 %
Operating temperature/ Humidity	-5° to 60°/20% to 80%
EI camera	
Type	Uncooled VOx Microbolometer(VOx)
Lens	Focal length: 9.1 mm(equivalent:40mm) FOV 48°×38°, 1.31mrad , DFOV : 61°, F1.0
Video resolution	640*512 @ 30 Hz
Video format	mp4
Image quality	640*512
Image format	R-JPEG

Specification

Pixel pitch	12 μm
Spectral Band	8-14 μm
NETD	≤50mK@25°C
Temperature Measurement Method	Spot /Area Measurement
Palette	White hot/Fulgurite/Iron Red/Hot Iron/Medical/Arctic/Rainbow 1/Rainbow 2/Tint/Black Hot
Temperature Measurement Range	High Gain :-40°C to 150°C Low Gain: -40°C to 550°C
Temperature Measurement Accuracy	±3°C or ±3%@ working temperature -20°C~60°C
Operating Temperature	-40°C~+80°C(-20°C~60°C Radiometric)
Vibration resistance	6.06g* All direction
Punch protection	80g* 4ms * 3A*6D Post-peak sawtooth wave
Range finder	
Wave	905nm (Class 1)
Measure range	5-1200 m(> D=12 m, 20%reflection rate)
Measure accuracy	6-60m ±1m, 70-100m±1.5m , 110-400m±2m, >400m ±0.4% m
Laser angle	4~10 mrad
Measure HZ	≤ 1
Laser output size	6 mm
Reception size	17 mm

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