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Raptor

5G Edge AI Camera with Nvidia Jetson Platforms

SPECIFICATION SHEET V1.1





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Key Features

- Powered with Jetson Orin Nano/NX
- 5G Module: Telit FN990.
- Dual camera
 - 5MP Global Shutter
 - 5MP Rolling Shutter
- M12 connector (RS232, Power)
- M12 connector (Gigabit Ethernet)
- IR and heater board
- Sensor Board with:
 - IMU
 - GPS
 - Temperature
 - Humidity

Technical Specifications

System/Physical Characteristic	
Mounting	- Wall and Pole mounting with banding option
Cooling	- Passive cooling for fanless configuration
IP rating	- IP 66
Processor	
SOM	- Jetson Orin Nano 8 GB
Storage	- 128GB SSD
Software	
OS	- Linux Ubuntu 22.04
BSP Version	- Jetpack 6.0 for Orin
DeepStream	- DeepStream 7.0 (Default version for JetPack 6.0)
Power	
Input	- 12V DC IN - Doesn't support POE
External I/O	
Serial Port	- 1x RS232 (M12 connector at edge IO)
SIM Slot	- 1x Nano SIM slot (Push-push type with Rubber)
Ethernet	- GBE 10/100/1000M (M12 connector at the edge IO)
SMA (Male)	- 3x SMA connectors for 5G antennas - 1x SMA connector for WiFi antennas - 1x SMA connector for GNSS feature
M12	Connection to the water-proof cable - 1x M12 connector (RS232, Power) - 1x M12 connector (Ethernet)
Network	
Ethernet	- 1x GBE LAN (10/100/1000M) - 1x Telit FN990 (5G Module)



Camera	
Image sensor	- 5MP Global Shutter - 5MP Rolling Shutter
Lens	
Focus Control	- Fixed
Iris Control	- Fixed
Infrared LED	
Peak Wavelength	- 850 nm

Optional Accessories

Working Environment	
Camera Arm	- To mount the camera for wall mounting
Pole Mount Plate	- For fixing on a pole, where arm can be attached to this plate
Meanwell Adaptor	- DC power supply for camera
Storage Box	- IP66 Rated to hold Meanwell Adaptor
Pole Mount Plate for Storage Box	- Mounting the above box on the pole

Environmental Requirements

Immunity/ Withstand to Climatic Variations

Conditions	
Humidity	- 5 ~ 95% RH (non-condensing)
Temperature	- Operating Temperature: -20°C ~ 60°C - Storage Temperature: -40°C ~ 85°

Certification

Testing	Regulation
CE	- EN55032, EN55035 (ESD: Contact 4KV, air 8KV, criteria A)
FCC	- FCC 47 CFR PART 15 SUBPART B, Class B

Sensor Specifications

Rolling Shutter

Sensor Specifications	
Sensor	- Sony CMOS IMX335
Shutter	- Rolling Shutter
Sensor Size	- 1/2.8"
Camera	
Resolution	- 2560x1920 @ 30fps (max)
ICR Support	- Auto/Day/Night
Optical Specification	
FOV	- 141.5°(D)x110°(H)x79°(V)
f-number	- 1.6

Global Shutter

Sensor Specifications	
Sensor	- ST Vx194x
Shutter	- Global Shutter
Sensor Size	- 1/2.5"
Resolution	- 2560x1920 @ 30fps (max)
Lens Specifications	
View Angle	- Wide: 142.2°(D) x 102.7°(H) x 76.4°(V) - Tele: 42.5°(D) x 33.6°(H) x 26.0°(V)
f-number	- F1.86 (W) ~ F3.32(T)