

System Diagram

Situation Awareness

Panamorph 4K

MIPIcamera

Product Features and Technical Specifications:

- Active array size: **4096 x 3072**
- Maximim image transfer rate:
 - 8 MP – 30 fps**
 - 4K2K – 30 fps**
 - 1080p – 90 fps**
 - 720p – 120 fps**
- Programable control for **Frame rate**
- Support for **10-bit RGB RAW output format**
- 2x binning support**
- Image quality controls:
 - Defect pixel correction**
 - Automatic black level calibration**
 - Lens shading correction**
- Build-in temperature sensor:
 - Operating: -30°C to +85°C**
 - Stable image: 0°C to +30°C**
- Pixel size: **1.25 μm x 1.25 μm**
- Optical (lens) size: **of 1/2.8"**
- Lens chef ray angle: **34.5° non-liniar**
- Image area: **5107.10 μm x 3835.30 μm**



**IONODES
OV12A10 KIT
(ION-IPRD-3-0272)**

**100 MM FLAT CABLE
(ION-ACC-1-0031)
or equivalent**



**IONODES
MIPI RE-TIMER
ADAPTOR BOARD
(ION-IPRD-1-0283)**

**MIPI CSI-2
input**

ATOMAS-IoT-DUAL
Qualcomm SoC with embedded Wi-Fi
BT / Cellular / GNSS



OV12A10
Super wide Field of View
at 187 degrees
4K resolution
Stabilized

H.265
HEVC
 High Efficiency Video Coding

H.264
MPEG-4/AVC

ATOMAS-IOT-DUAL Module

Options:



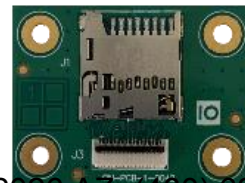
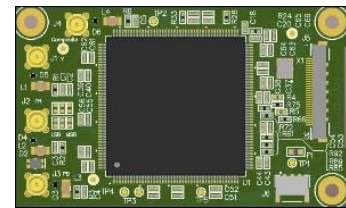
- GNSS Receiver (GPS, Beidou, GLONASS) with uFL antenna connector
- Wi-Fi/BT (2.4/5GHz, 802.11a/b/g/n/ac, BT4.2LE) with uFL antenna connector
- 4G LTE (Worldwide bands) with uFL antenna connectors
- CAN BUS optional

ATOMAS-IOT-DUAL Adapter Cards (BT11.20)

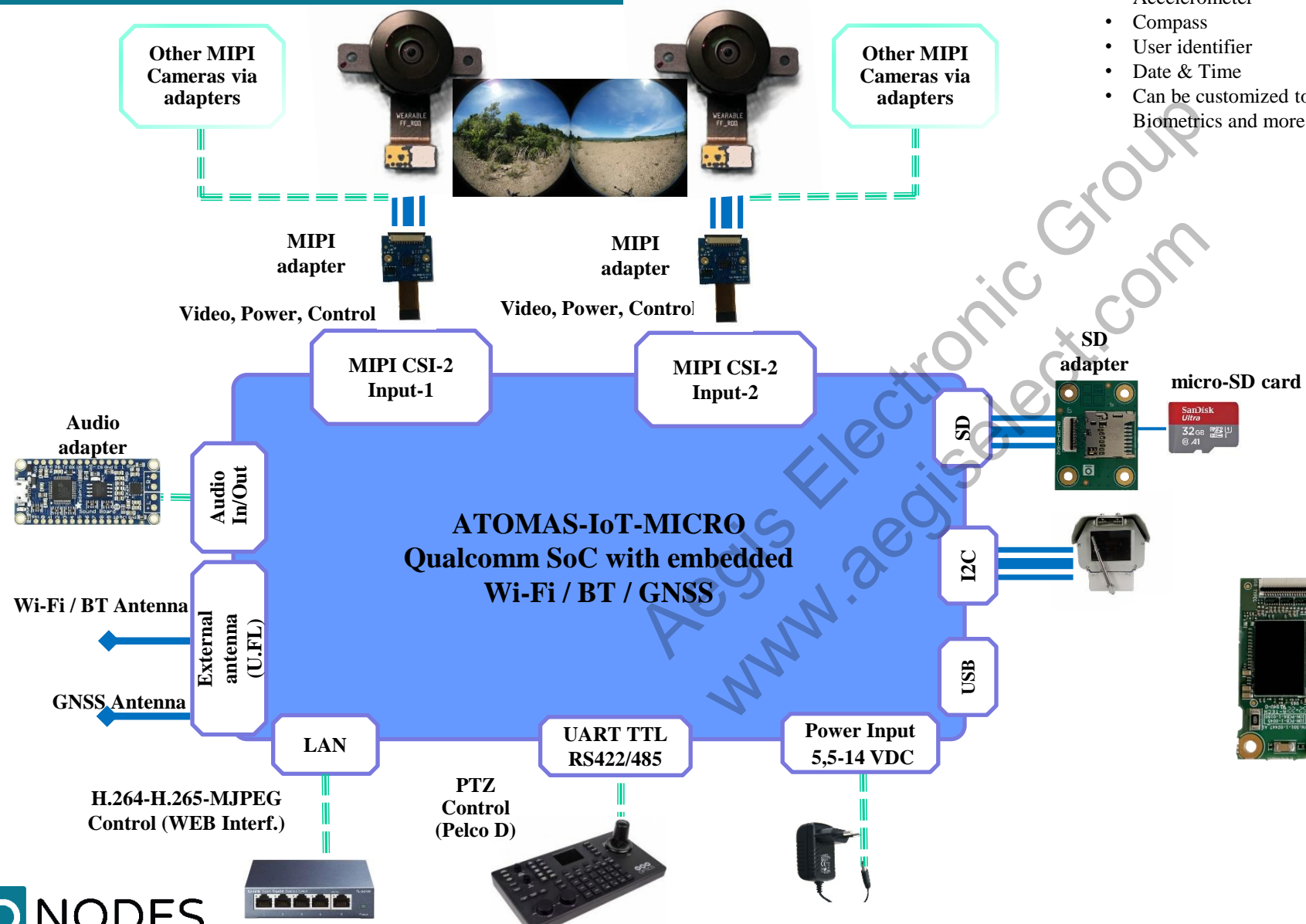
Options:



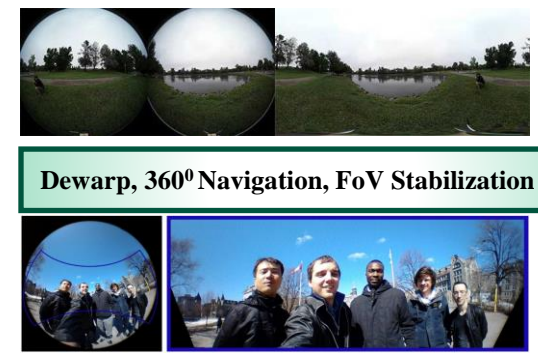
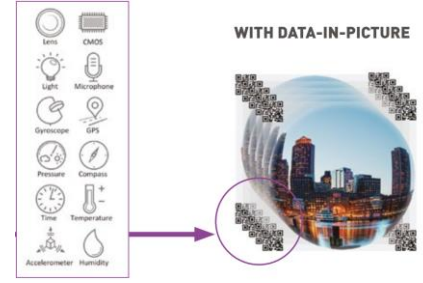
- Micro SD / SIM combo external adapter card (**Mass production**)
- FLIR Boson 320 / 640 (Thermal) adapter card 60 HZ (**Mass production**)
- DRS Tenum 640 (Thermal) adapter card (**Mass Production**)
- Quad SD (four (4) composite video inputs) adapter card (**June 2024**)
- HD Component video adapter card (**Mass Production**)
- Analog SD Composite (including Flir Tau 2) (**Mass Production**)
- HD-SDI Adapter card (**Q3 2024**)
- MIPI Retimer for 12 inches length (**Mass Production**)



System Diagram Atomas IOT Micro



- Integrated markings:
- GPS
 - Gyroscope
 - Accelerometer
 - Compass
 - User identifier
 - Date & Time
 - Can be customized to include Biometrics and more.



Dewarp, 360° Navigation, FoV Stabilization



L: 55 mm
W: 38 mm
H: 7-10 mm

**H.265
HEVC**
High Efficiency Video Coding

**H.264
MPEG-4/AVC**



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Atomas IOT Micro

OV12A10 KIT

Coming Soon Summer 2024
HDMI to MIPI adapter board for
Sony 4K Cameras
Including the new ILX-LR1 for
drones



FCB-ER8300
FCB-ES8230
FCB-ER8550
FCB-ER8530

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Or equivalent

100mm/3.97"

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MIPI CSI-2
Input-1

MIPI CSI-2
Input-2

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