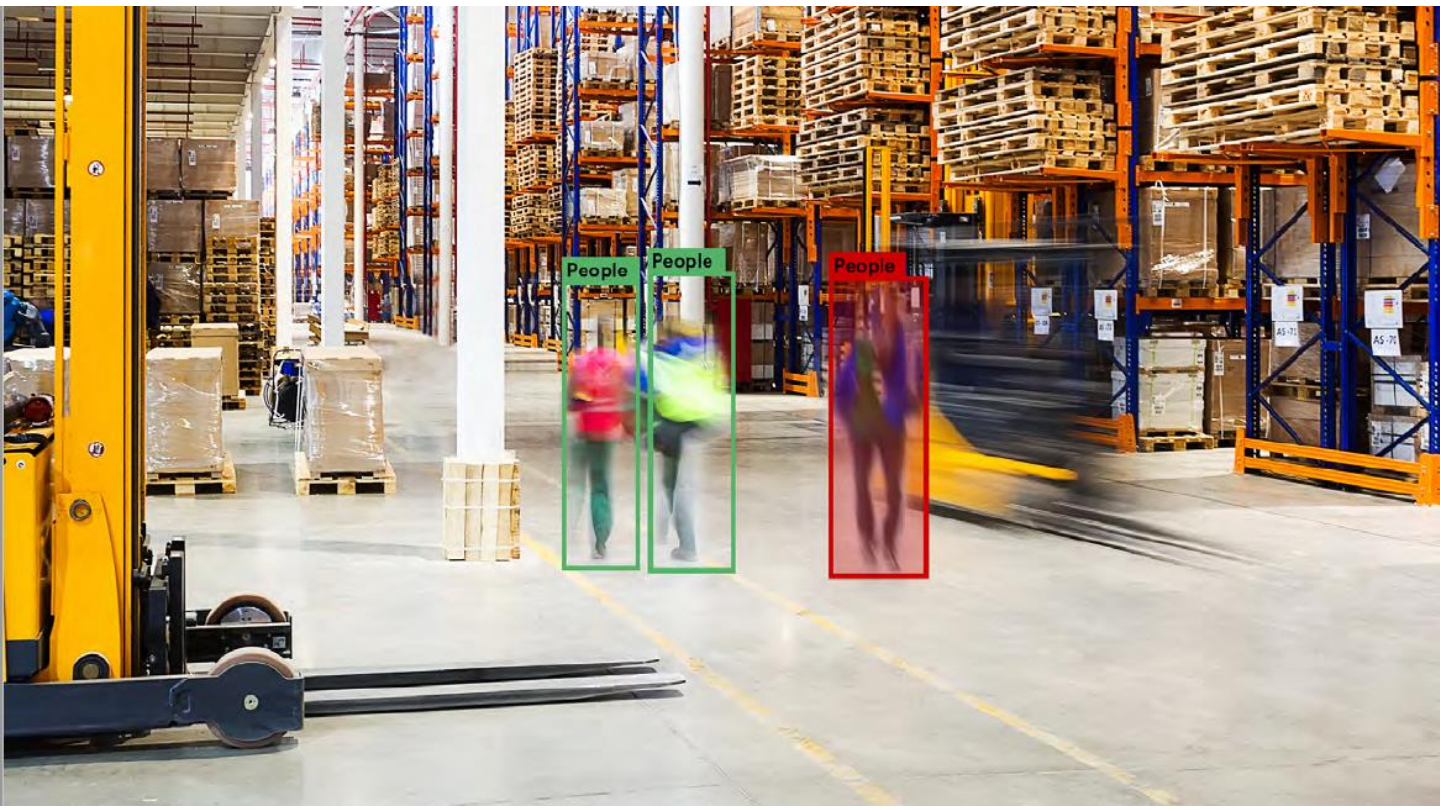
AVNET INTEGRATED

# AI Vision




Datasheet (08/2020)

## MRS ‘People Detection’

**190 mm x 240 mm x 145 mm**

**0°C to +50°C**

intel market ready

COM Express

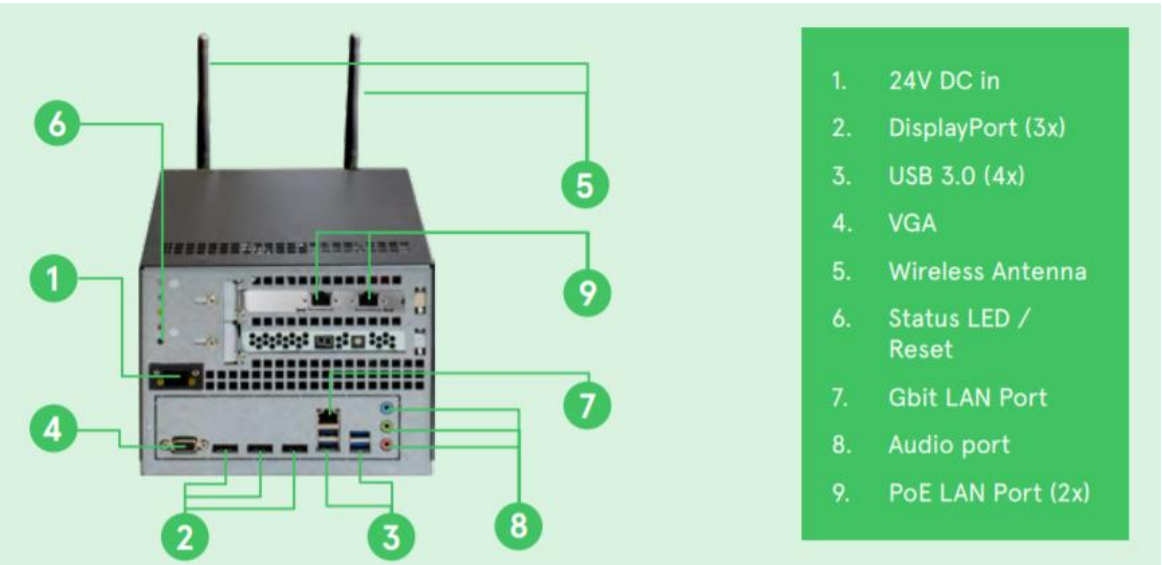
### Description

Avnet Integrated’s innovative intelligent vision technology platform is based on powerful embedded computing technologies and the use of artificial intelligence (AI). The market-ready solution is designed for deep learning supported video analytics tasks at the edge.

The ready-to-use system platform includes powerful hardware components and software with optimized AI. The AI functionality enables intelligent processing of large amounts of data and recognition of recurring patterns, as well as self-learning analysis and evaluation in order to generate reliable decision-making support.

The intelligent vision platform enables quick and easy evaluation and testing of various video analytics functions on the basis of preconfigured functional building blocks. This creates the prerequisite for reducing the development effort for a specific application. The customer can bring their AI-based, high-performance end product to market relatively quickly and at optimized cost.

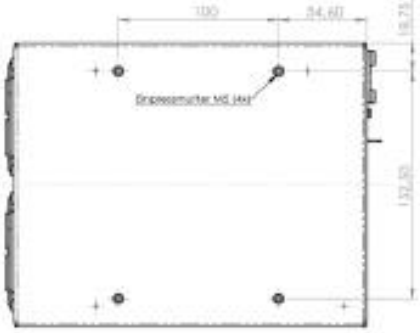
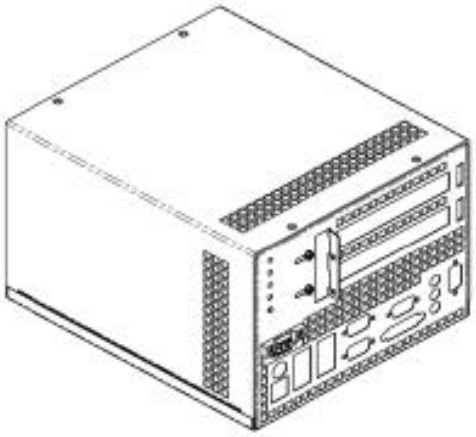
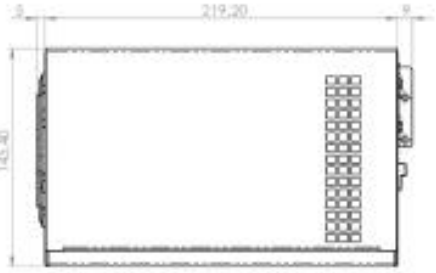
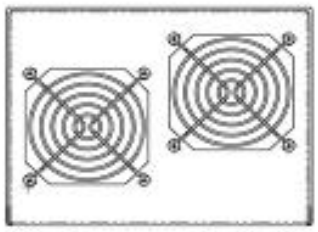
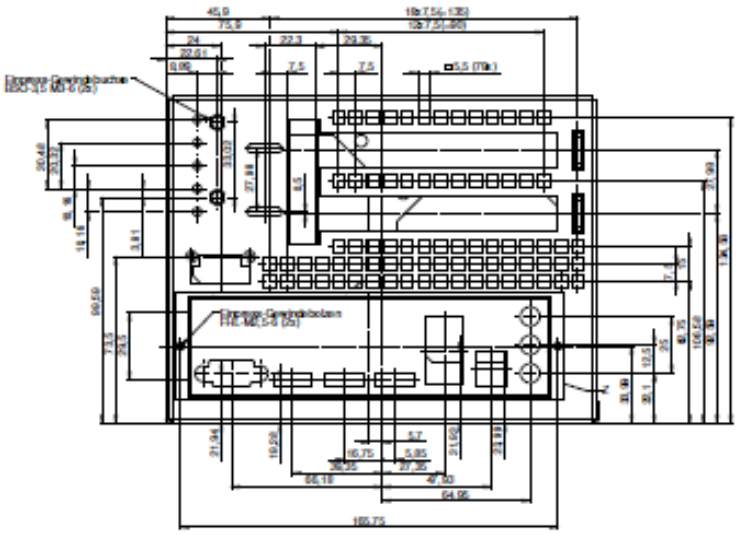
## Ports



## Technical Data – MRS ‘People Detection’

| Board | |
|---|---|
| **CPU** | • Intel® Core™ i7-9850HE (4.40 GHz, 6 cores 12 threats, 9M Cache) |
| **RAM** | • **2 x 16GB 64bit DDR4 SODIMM**<br>• 2x 260-pin SO-DIMM socket for up to 2x 16GB DDR4 SDRAM (DDR4-2666[1]); dual channel operation;<br>[1]Depending on SO-DIMM type |
| **Chipset** | • Intel® Platform Controller Hubs (PCH) QM370 or CM246 |
| **Connectivity** | • 802.11ac/abgn Dual-Band 2T2R Wi-Fi<br>• Bluetooth 5.0<br>• 2 x Gigabit LAN PoE+ RJ45 (10/100/1000Base-TX Ethernet) |
| **Video** | • **VPU: Mustang-V100-MX8 (Eight Intel® Movidius™ Myriad™ X)**<br>• Integrated Intel UHD graphics Gen. 9 |
| **Audio** | • HD audio codec (Realtek ALC888) routed to 3x audio jacks and SPDIF on 5-pin header |
| **Storage** | • **256 GB SATA SSD 6 Gb/s \| 2.5”/7mm cased**<br>• 4x SATA channels (up to 6Gb/s)<br>• Flash SD Card socket |
| **Serial** | • 2x high-speed serial ports from PCH |
| **USB** | • 4x USB 3.0 (USB 2.0 compliant),<br>• 4x USB 2.0 |
| **Display Interfaces** | • DisplayPort/Three DisplayPort connectors<br>• Embedded DisplayPort/One 40-pin eDP connector<br>• LVDS/One 30-pin Jili connector |
| **Bus Interfaces** | • One PCI Express x4 interface (on PCI Express x16 socket); also usable as PEG slot<br>• LPC bus on 10-pin header; usable for optional POST code display |

## Technical Data – MRS ‘People Detection’

| | |
|---|---|
| **Case** | • Solid high-quality industrial case |
| **PCI** | • 2 x PCI Express x16 expansion slot (low profile) |
| **Power Supply** | • Internal: 400W 16-32V Input DC-DC ATX<br>• External: 220W 24V AC-DC High Reliability Industrial Adaptor |
| **Ports** | • 4x USB 3.0 (USB 2.0 compliant)<br>• 3 x DisplayPort<br>• 1 x VGA<br>• 1 x RJ45 for LAN 10/100/1000 Mb/s<br>• 2 x Gigabit LAN PoE+ RJ45<br>• 4 x PCI Express interface (on PCI Express x16 socket)<br>• 3x audio jacks and SPDIF on 5-pin header |
| **IO** | • Isolated IO panel |
| **Operating Elements** | • 3 x Control LEDs<br>• Power/reset button<br>• beeper |
| **Selectable mounting** | • Optional: 4 x M4 hexagon socket screw &<br>• Support rails |
| **Cooler Fans** | • 2 x 80mm cooler fans (back) |
| **Dimensions** | • 190 mm x 240 mm x 145 mm (W/D/H) |
| **Environment** | • Operating temperatures: 0°C to +30°C |
| **Peripherals** | • 2 x 2 MP IR Fixed Cube Network Camera (H.265+, H.265, H.264+, H.264 , 1920 × 1080@30fps, POE)<br>• Wireless Touch Keyboard |
| **Operating Systems (installed)** | |
| | • Windows® 10 IoT Enterprise 2019 LTSC High End (ESD) |

## Drawing