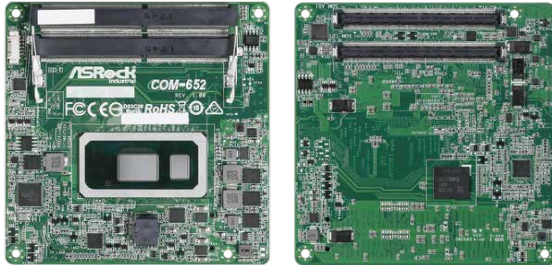




# COM-652

## COM Express Motherboard

### KEY FEATURES



- Intel® 8th Gen (Whiskey Lake-U) Core™ Processors
- 2 x 260-pin SO-DIMM up to 32GB DDR4 2400 MHz (16GB per DIMM)
- 8 x PCIe x1 (Gen3), 4 x USB 3.2 Gen1, 8 x USB 2.0, 3 x SATA3
- 1 x Intel Gigabit LAN
- Supports Triple Display, 2x DDI, 1 x VGA, 1 x LVDS or eDP (optional)
- TPM 2.0 onboard IC (optional)
- Supports Intel® vPro, AMT (For i7/i5 SKU), RAID 0/1
- ATX: 12V±5%/5Vsb±5%
- AT: 12V±5%

### SPECIFICATIONS

#### Form Factor

|            |  |
|------------|--|
| Dimensions | COM Express Type6<br>(3.74-in x 3.74-in x 0.52-in, 9.5 cm x 9.5 cm x 1.3 cm) |
|------------|--|

#### Processor System

|         |   |
|---------|---|
| CPU     | COM Express Compact Size Type 6 Module with Intel® 8th Gen (Whiskey Lake-U) Core™ Processors<br>-COM-652P (i7-8665UE, QC, 1.7GHz, 15 W)<br>-COM-652M (i5-8365UE, QC, 1.6GHz, 15 W)<br>-COM-652V (i3-8145UE, DC, 2.2GHz, 15 W) |
| Chipset | SoC   |
| Socket  | BGA1528   |
| BIOS    | AMI SPI 128 Mbit  |

#### Memory

|            |                            |
|------------|----------------------------|
| Technology | Dual Channel DDR4 2400 MHz |
| Capacity   | 32 GB (16 GB per DIMM)     |
| Socket     | 2 x 260-pin SO-DIMM        |

#### Graphics

|              |  |
|--------------|--|
| Controller   | Intel® Gen9 Graphics DX 11/12                                |
| HDMI         | HDMI 1.4b<br>Max resolution up to 4096x2160p 24Hz            |
| DisplayPort  | DisplayPort 1.2, DP++<br>Max resolution up to 4096x2160@60Hz |
| VGA          | Max resolution up to 1920x1200@60Hz                          |
| LVDS         | Dual channel 24 bit up to 1920x1200@60Hz                     |
| eDP          | eDP 1.4<br>Max resolution up to 3840 x 2160@60Hz(optional)   |
| MultiDisplay | Triple Display   |

#### Expansion

|      |                    |
|------|--------------------|
| PCIe | 8 x PCIe x1 (Gen3) |
|------|--------------------|

#### Ethernet

|                   |   |
|-------------------|---|
| Controller/ Speed | COM-652P/COM-652M:<br>1 x Intel® I219LM with 10/100/1000 Mbps, supports AMT/vPro<br>COM-652V:<br>1 x Intel® I219V with 10/100/1000 Mbps |
|-------------------|---|

#### I/O

|             |  |
|-------------|--|
| HDMI        | DDI1 support HDMI/DP or VGA (optional) |
| DisplayPort | DDI2 support HDMI/DP                   |
| USB         | 4 x USB 3.1 Gen1, 8 x USB 2.0          |
| VGA         | 1                                      |
| LVDS        | 1 (optional)                           |
| eDP         | 1 (optional)                           |
| TPM         | TPM 2.0 onboard IC (optional)          |
| GPIO        | 4 x GPI, 4 x GPO                       |
| Ethernet    | 1                                      |

#### Storage

|      |                      |
|------|----------------------|
| SATA | 3 x SATA3 (6Gb/s)    |
| RAID | Intel® SATA RAID 0/1 |
| eMMC | 32GB (Optional)      |

#### Watchdog Timer

|          |                                  |
|----------|----------------------------------|
| Output   | From Super I/O to drag RESETCON# |
| Interval | 256 Segments, 0, 1, 2, ...255sec |

#### Power Requirements

|           |   |
|-----------|---|
| Input PWR | ATX: 12V±5%/5Vsb±5%<br>AT: 12V±5%   |
| Power On  | AT/ATX Supported<br>- AT : Directly PWR on as power input ready<br>- ATX : Press button to PWR on after power input ready |

#### Environment

|                    |              |
|--------------------|--------------|
| Operating Temp     | 0°C - 60°C   |
| Storage Temp       | -40°C - 85°C |
| Operating Humidity | 5% - 90%     |
| Storage Humidity   | 5% - 90%     |

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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