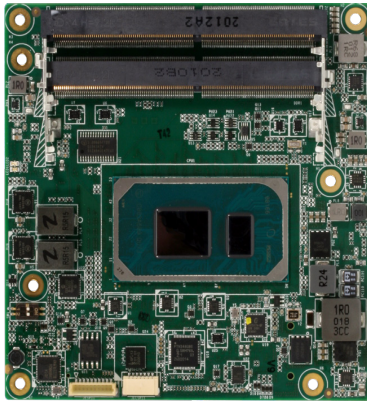


# COM-TGUC6

COM Express Type 6 Compact Size with 11th Gen Intel® Core™/Celeron® Processor 6000 Series Processors

COM Express CPU Modules



## Features

- DDR4 3200MHz SODIMM x 2, up to 64GB (ECC by SKU)
- VGA x 1, LVDS x 1, DDI x 3
- USB 2.0 x 8, USB 3.2 Gen2 x 4
- PCIe [x1] x 5, PCIe [x4] x1
- Intel® I225-LM 2.5GbE x 1
- COM Express Type 6, 3.74" x 3.74" (95mm x 95mm)



## Specifications

| System                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Form Factor                 | COM Express Compact Size, Type 6                                                                                                                                                                                                                                                                                                                                                                                                                          |
| CPU                         | 11th Generation Intel® Core™ Processors:<br>Intel® Core™ i7-1185G7E (4C/8T, 1.8 GHz, 15W)<br>Intel® Core™ i7-1185GRE (4C/8T, 1.80 GHz, 15W)<br>Intel® Core™ i5-1145G7E (4C/8T, 1.5 GHz, 15W)<br>Intel® Core™ i5-1145GRE (4C/8T, 1.50 GHz, 15W)<br>Intel® Core™ i3-1115G4E (2C/4T, 2.20 GHz, 15W)<br>Intel® Core™ i3-1115GRE (2C/4T, 2.20 GHz, 15W)<br><br>Intel® Celeron® Processor 6000 Series:<br>Intel® Celeron® 6305E Processor (2C/2T 1.80 GHz, 15W) |
| Chipset                     | Integrated with Intel® SoC                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Memory                      | DDR4 3200MHz SODIMM x 2, up to 64GB (In-Band ECC by SKU)                                                                                                                                                                                                                                                                                                                                                                                                  |
| Onboard Storage             | —                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| BIOS                        | AMI UEFI                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Wake on LAN                 | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Watchdog Timer              | 255 Levels                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Dimension                   | 3.74" x 3.74" (95mm x 95mm)                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Security                    | TPM 2.0 (Optional)                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Power                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Power Requirement           | +12V and +5VSB for ATX, +12V for AT                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Power Type                  | AT/ATX                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Power Consumption (Typical) | Intel® Core™ i7-1185GRE, 3.5A @+12V                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Display                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Graphics Controller         | Intel® Iris® Xe Graphics<br>Intel® UHD Graphics                                                                                                                                                                                                                                                                                                                                                                                                           |
| Video Output                | 4 Simultaneous Displays:<br>DDI x 3, up to 3840 x 2160<br>18/24-bit Single/Dual-Channel LVDS/eDP x 1, up to 3840 x 2160/1920 x 1080<br>VGA x 1, up to 1920 x 1080                                                                                                                                                                                                                                                                                         |
| I/O                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Ethernet                    | Intel® I225-LM 2.5GbE x 1                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Audio                       | High Definition Audio Interface                                                                                                                                                                                                                                                                                                                                                                                                                           |
| USB Port                    | USB 2.0 x 8, USB 3.2 Gen 2 x 4                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Serial Port                 | 2-Wire UART x 2 (Tx/Rx)                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| HDD Interface               | SATA III x 2                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Expansion             | PEG 4.0 [x4] x 1<br>PCIe 3.0 [x1] x 5<br>LPC x 1        |
|-----------------------|---------------------------------------------------------|
| GPIO                  | 8-bit                                                   |
| SMBus/I2C             | I2C x 1, SMBus x 1                                      |
| Environment           |                                                         |
| Operating Temperature | 32°F ~ 140°F (0°C ~ 60°C)                               |
| Storage Temperature   | -40°F ~ 185°F (-40°C ~ 85°C)                            |
| Operating Humidity    | 0% ~ 90% relative humidity, non-condensing              |
| EMC                   | CE/FCC Class A                                          |
| OS Support            | Windows® 10 (64-bit)<br>Linux Ubuntu 20.04.2/Kernel 5.8 |
| Weight                | 0.44 lb. (0.20Kg)                                       |

## Packing List

- COM-TGUC6

## Optional Accessories

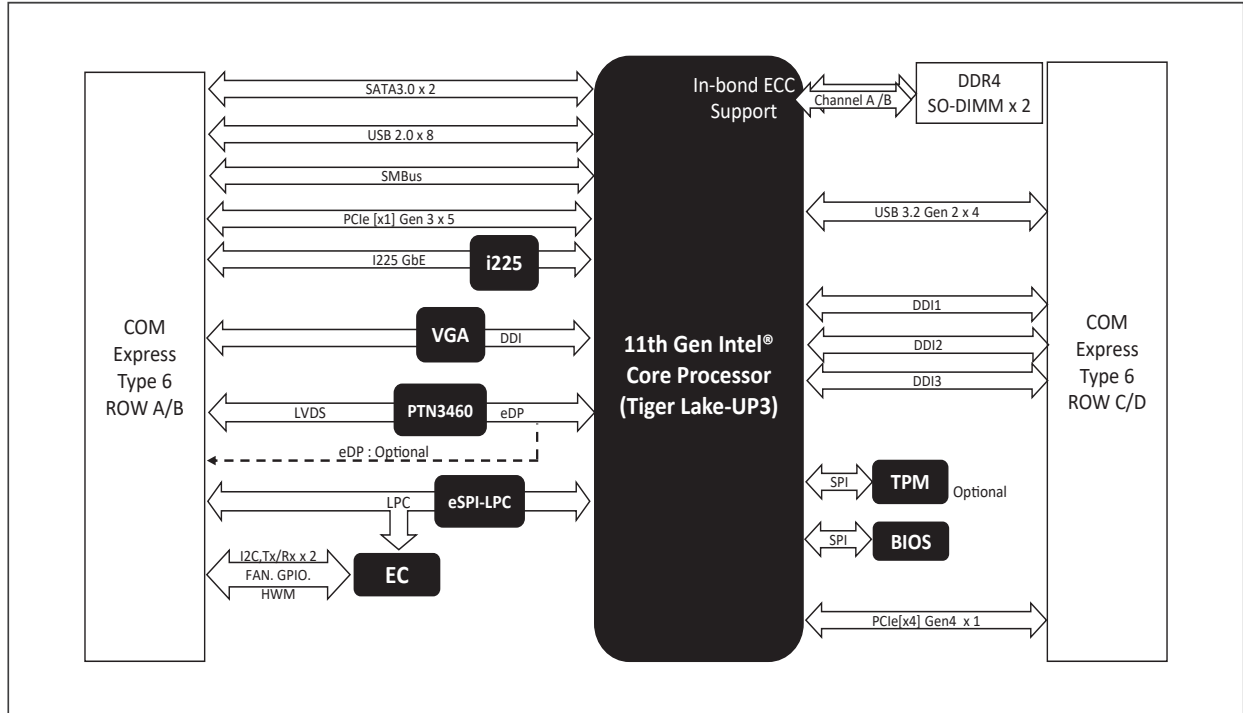
| Part Number       | Description                                                                   |
|-------------------|-------------------------------------------------------------------------------|
| ECB-920A-A11-0001 | COMe Type 6/10 Carrier Board.ATX.2.5GbE.8USB.2COM.4SATA.PCIE.AT/ATX. Rev.A1.1 |
| COM-TGUC6-FAN01   | Cooler.95mm x 95mm x 24mm.4pin                                                |
| COM-TGUC6-HSP01   | Heat Spreader.95mm x 95mm x 11mm.Black                                        |
| COM-FAN02         | coole.95mm x 95mm x 26.5mm.3pin.w/HSP                                         |

# COM-TGUC6

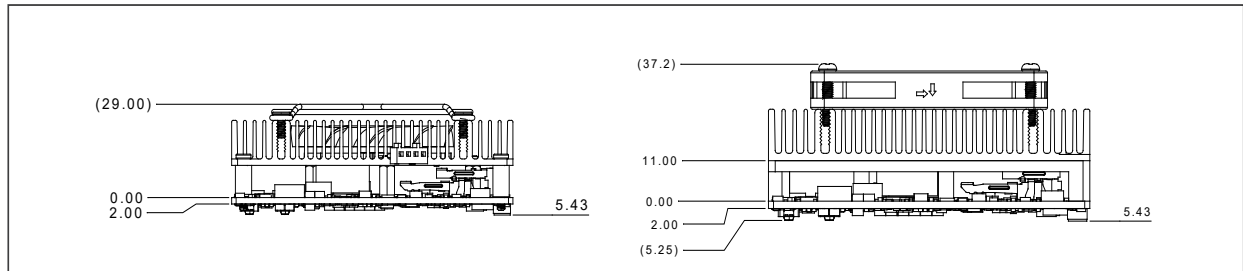
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COM Express CPU Modules

## Block Diagram Unit: mm



## Dimension Unit: mm



## Ordering Information

| Part Number        | COM Express Type | CPU                             | Memory          | ECC support | Display                    | Storage      | LAN                | USB                              | UART                    | Expansion                      | Power | Temperature | Others                           |
|--------------------|------------------|---------------------------------|-----------------|-------------|----------------------------|--------------|--------------------|----------------------------------|-------------------------|--------------------------------|-------|-------------|----------------------------------|
| COM-TGUC6-A10-0001 | Type 6           | Intel® Core™ i7-1185G7E         | DDR4 SODIMM x 2 | —           | VGA x 1, LVDS x 1, DDI x 3 | SATA III x 2 | Intel® I225-LM x 1 | USB 3.2 Gen 2 x 4<br>USB 2.0 x 8 | 2-Wire UART x 2 (Tx/Rx) | PCIe [x1] x 5<br>PCIe [x4] x 1 | 12V   | 0°C ~ 60°C  | LPC, GPIO 8-bit, I2C, SMBus, SPI |
| COM-TGUC6-A10-0002 | Type 6           | Intel® Core™ i5-1145G7E         | DDR4 SODIMM x 2 | —           | VGA x 1, LVDS x 1, DDI x 3 | SATA III x 2 | Intel® I225-LM x 1 | USB 3.2 Gen 2 x 4<br>USB 2.0 x 8 | 2-Wire UART x 2 (Tx/Rx) | PCIe [x1] x 5<br>PCIe [x4] x 1 | 12V   | 0°C ~ 60°C  | LPC, GPIO 8-bit, I2C, SMBus, SPI |
| COM-TGUC6-A10-0003 | Type 6           | Intel® Core™ i3-1115G4E         | DDR4 SODIMM x 2 | —           | VGA x 1, LVDS x 1, DDI x 3 | SATA III x 2 | Intel® I225-LM x 1 | USB 3.2 Gen 2 x 4<br>USB 2.0 x 8 | 2-Wire UART x 2 (Tx/Rx) | PCIe [x1] x 5<br>PCIe [x4] x 1 | 12V   | 0°C ~ 60°C  | LPC, GPIO 8-bit, I2C, SMBus, SPI |
| COM-TGUC6-A10-0004 | Type 6           | Intel® Celeron® 6305E Processor | DDR4 SODIMM x 2 | —           | VGA x 1, LVDS x 1, DDI x 3 | SATA III x 2 | Intel® I225-LM x 1 | USB 3.2 Gen 2 x 4<br>USB 2.0 x 8 | 2-Wire UART x 2 (Tx/Rx) | PCIe [x1] x 5<br>PCIe [x4] x 1 | 12V   | 0°C ~ 60°C  | LPC, GPIO 8-bit, I2C, SMBus, SPI |
| COM-TGUC6-A10-0005 | Type 6           | Intel® Core™ i7-1185GRE         | DDR4 SODIMM x 2 | Yes         | VGA x 1, LVDS x 1, DDI x 3 | SATA III x 2 | Intel® I225-LM x 1 | USB 3.2 Gen 2 x 4<br>USB 2.0 x 8 | 2-Wire UART x 2 (Tx/Rx) | PCIe [x1] x 5<br>PCIe [x4] x 1 | 12V   | 0°C ~ 60°C  | LPC, GPIO 8-bit, I2C, SMBus, SPI |
| COM-TGUC6-A10-0006 | Type 6           | Intel® Core™ i5-1145GRE         | DDR4 SODIMM x 2 | Yes         | VGA x 1, LVDS x 1, DDI x 3 | SATA III x 2 | Intel® I225-LM x 1 | USB 3.2 Gen 2 x 4<br>USB 2.0 x 8 | 2-Wire UART x 2 (Tx/Rx) | PCIe [x1] x 5<br>PCIe [x4] x 1 | 12V   | 0°C ~ 60°C  | LPC, GPIO 8-bit, I2C, SMBus, SPI |
| COM-TGUC6-A10-0007 | Type 6           | Intel® Core™ i3-1115GRE         | DDR4 SODIMM x 2 | Yes         | VGA x 1, LVDS x 1, DDI x 3 | SATA III x 2 | Intel® I225-LM x 1 | USB 3.2 Gen 2 x 4<br>USB 2.0 x 8 | 2-Wire UART x 2 (Tx/Rx) | PCIe [x1] x 5<br>PCIe [x4] x 1 | 12V   | 0°C ~ 60°C  | LPC, GPIO 8-bit, I2C, SMBus, SPI |

## Assured Systems

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