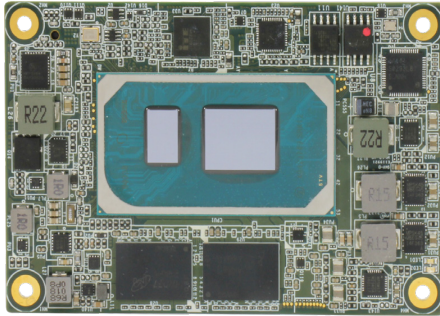


NanoCOM-TGU

COM Express Compact Type 10 with 11th Generation Intel® Core™ Processor Family (formerly Tiger Lake UP3)

COM Express CPU Modules



Features

- 11th Generation Intel® Core™ Processor Family (formerly Tiger Lake UP3)
- Onboard LPDDR4x Memory up to 16 GB
- 2.5 Gigabit Ethernet x 1
- eDP x 1 , DDI x 1
- High Definition Audio Interface
- SATA3.0 x 2 , onboard PCIe SSD x 1
- USB 2.0 x 8, USB 3.2 Gen2 x 2
- PCI-Express [x1] x 4
- COM Express Type 10, Mini Size, 84 mm x 55 mm



Specifications

System	
Form Factor	COM Express Mini size, 84mm x 55mm
CPU	11th Generation Intel® Core™ Processor Family (formerly Tiger Lake UP3)
CPU Frequency	Up to i7-1185G7E (1.8 GHz)
Chipset	11th Generation Intel® Core™ SoC
Memory Type	Onboard LPDDR4x 4266 memory (in-band ECC supported by SoC)
Max. Memory Capacity	Up to 16 GB
BIOS	AMI UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	Standard: +12V
Power Supply Type	AT/ATX
Power Consumption (Typical)	12W @2.75A , full loading (stable) with i7-1185GRE
Dimension (L x W)	3.31" x 2.17" (84 mm x 55 mm)
Operating Temperature	32°F~ 140°F (0°C ~ 60°C) Option : -40°F ~ 185°F (-40°C ~ 85°C) Optional
Storage Temperature	0% ~ 90% relative humidity, non-condensing (40°C at 90% Humidity RH, non-condensing with onboard NVMe)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	741,857
Certification	CE/FCC
Display	
VGA/LCD Controller	Intel® UHD Graphics for 11th Gen Intel® Processors
Video Output	eDP x 1, DDI x 1
LVDS Interface	—
I/O	
Ethernet	Intel® I225-LM Gigabit Ethernet x 1
Audio	High Definition Audio Interface x 1
USB port	USB3.2 Gen 2 x 2 USB2.0 x 8
Serial Port	2-Wire UART (Tx/Rx) x 2
HDD Interface	SATA 3.0 x 2
Onboard Storage	Onboard PCIe NVMe SSD x1, up to 256GB
Expansion Slot	PCIe [x1] x 4, I2C x 1, LPC x 1, SMBUS x 1
GPIO	8-bit
TPM	fTPM

Packing List

- NanoCOM-TGU

Optional Accessories

- **NanoCOM-TGU-FAN01**
CPU cooler.84*55*18 mm.Black.NanoCOM-TGU
- **NanoCOM-TGU-HSP01**
Heat Spreader.84x55x11mm.Black.for NanoCOM-TGU
- **ECB-920A-A11-0001**
COMe Type 6/10.Carrier Board.ATX.2.5GbE.8USB, 2COM.4SATA.PCIe.AT/ATX.Rev. A.1.1

CPU Support Chart

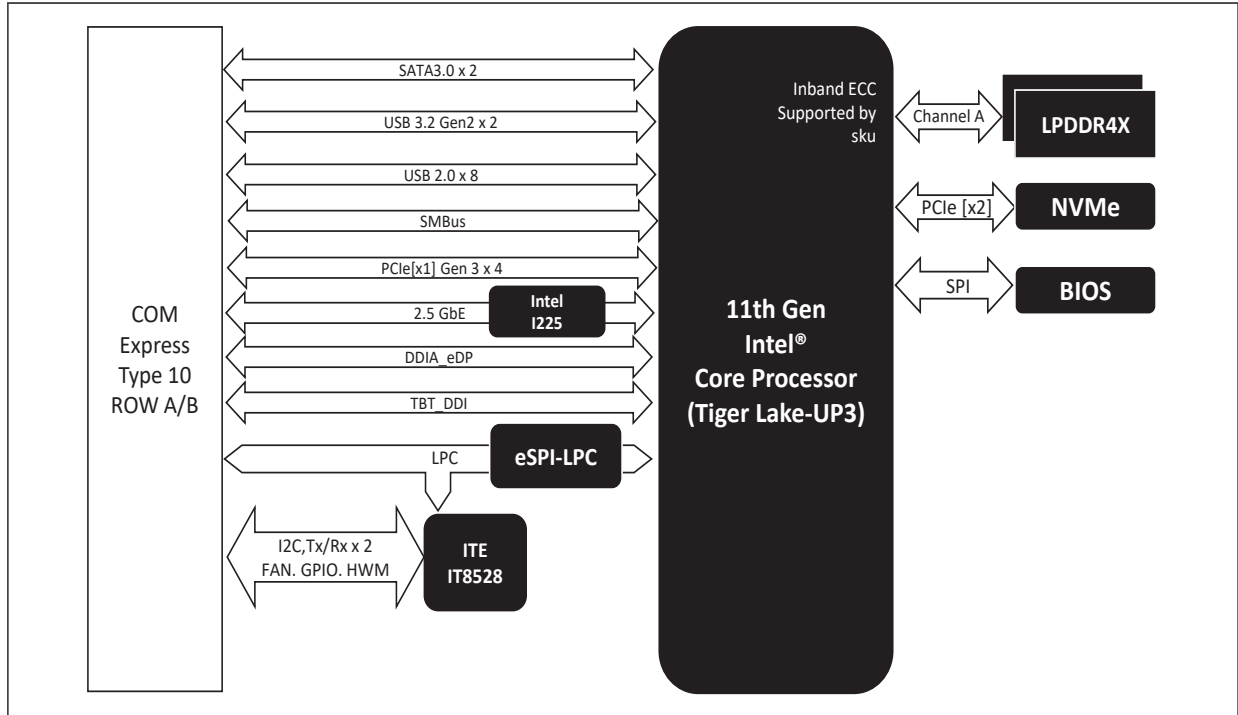
CPU	Core / Thread	Base Frequency / Turbo	TDP	In-band ECC	Operating Temp.
i7-1185G7E	4/8	1.8 GHz / 4.4 GHz	15W (Up to 28W)	No	Commercial Temp.
i5-1145G7E	4/8	1.5 GHz / 4.1 GHz		No	Commercial Temp.
i3-1115G4E	2/4	2.2 GHz / 3.9 GHz		No	Commercial Temp.
i7-1185GRE	4/8	1.8 GHz / 4.4 GHz		Yes	Embedded/Industrial Extended Temp.
i5-1145GRE	4/8	1.5 GHz / 4.1 GHz	15W	Yes	Embedded/Industrial Extended Temp.
i3-1115GRE	2/4	2.2 GHz / 3.9 GHz		Yes	Embedded/Industrial Extended Temp.
Celeron 6305E	2/2	1.8 GHz / ---	15W	No	Commercial Temp.

NanoCOM-TGU

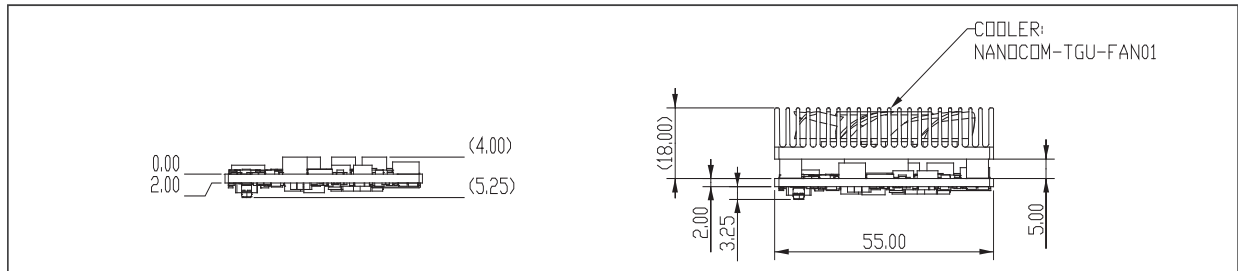
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COM Express CPU Modules

Block Diagram Unit: mm



Dimension Unit: mm



Ordering Information

Part Number	COM Express Type	CPU	Memory	Display	LVDS	Storage	LAN	USB	UART	Expansion	Power	Temperature	Other
NANOCOM-TGU-A10-0001	Type 10 (COM.0 Rev. 3.0)	i7-1187G7E	Onboard LPDDR4x 16GB	DDI x1, eDP x 1	—	SATA 3 x 2, Onboard PCIe NVMe 64GB x 1	I225LM x 1	USB 3.2 Gen 2 x 2, USB 2.0 x 8	2 Wire (Tx/Rx) x2	PCIe [x1] x 4, I2C x 1, LPC x 1, SMBUS x 1	+12 V	0°C ~ 60°C	—
NANOCOM-TGU-A10-0002	Type 10 (COM.0 Rev. 3.0)	i5-1145G7E	Onboard LPDDR4x 16GB	DDI x1, eDP x 1	—	SATA 3 x 2, Onboard PCIe NVMe 64GB x 1	I225LM x 1	USB 3.2 Gen 2 x 2, USB 2.0 x 8	2 Wire (Tx/Rx) x2	PCIe [x1] x 4, I2C x 1, LPC x 1, SMBUS x 1	+12 V	0°C ~ 60°C	—
NANOCOM-TGU-A10-0003	Type 10 (COM.0 Rev. 3.0)	i3-1115G4E	Onboard LPDDR4x 8GB	DDI x1, eDP x 1	—	SATA 3 x 2, Onboard PCIe NVMe 64GB x 1	I225LM x 1	USB 3.2 Gen 2 x 2, USB 2.0 x 8	2 Wire (Tx/Rx) x2	PCIe [x1] x 4, I2C x 1, LPC x 1, SMBUS x 1	+12 V	0°C ~ 60°C	—
NANOCOM-TGU-A10-0005	Type 10 (COM.0 Rev. 3.0)	i7-1185G7E	Onboard LPDDR4x 16GB	DDI x1, eDP x 1	—	SATA 3 x 2, Onboard PCIe NVMe 64GB x 1	I225LM x 1	USB 3.2 Gen 2 x 2, USB 2.0 x 8"	2 Wire (Tx/Rx) x2	PCIe [x1] x 4, I2C x 1, LPC x 1, SMBUS x 1	+12 V	-0°C ~ 60°C	—

Temperature *: For SATA only, no include onboard PCIe NVMe. Please contact technical team if any question.

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