



Feature

- Onboard 11th Gen. Intel Core Series Processor (Formerly Tiger Lake-UP3)
- Onboard LPDDR4x 3733 MT/s up to 16GB (ECC supported by sku)
- HDMI 1.4b x 1. eDP x 1
- 2.5 GbE RJ45 x 1 , 1 GbE RJ45 x 1
- USB 3.2 Gen2 x 2 , USB 2.0 x 4
- M.2 M key 2280 (PCIe[x2] x 1 , PCIe[x4] Gen3 x 1 (by FPC)
- SATA 3 x 1
- DC Jack. 12V in

Specification

SYSTEM	
FORM FACTOR	84mm x 55mm, Single board computer
CPU	Onboard 11th Gen. Intel® Core™ i7/i5/i3/Celeron Processor (Code Name : Tiger Lake-UP3)
CPU TDP	15W, TDP-up to 28W: i7-1185G7E / i5-1145G7E / i3-1115G4E
CHIPSET	Integrated with Intel® Core™ i7/i5/i3/Celeron SoC
MEMORY TYPE	Onboard LPDDR4x, 3733MT/s, up to 16GB (In-band ECC Supported by sku)
BIOS	AMI BIOS, UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	fTPM
RTC BATTERY	Lithium Battery 3V/240mAh
DIMENSION (L X W)	3.31" x 2.17" (84 mm x 55 mm)
POWER	
POWER REQUIREMENT	Normal: +12V
POWER SUPPLY TYPE	AT/ATX
CONNECTOR	DC Jack Connector
DISPLAY	
GRAPHIC CONTROLLER	Intel® UHD Graphics for 11th Gen Intel® Processors
DISPLAY INTERFACE	HDMI 1.4b x 1 (up to Resolution 1920 x 1080) , eDP x 1
MULTIPLE DISPLAY	Up to Dual Displays

EXTERNAL I/O	
ETHERNET	Intel® i219LM, 10/100/1000Base,RJ-45 x1 , Intel® i225LM, 10/100/2500Base,RJ-45 x1
USB	Rear I/O : USB3.2 Gen2 Type A x 2
VIDEO	HDMI 1.4b x 1
INTERNAL I/O	
USB	USB2.0 x 4 (Pin Header)
SERIAL PORT	RS 232/422/285 x 2 (Pin Header)
VIDEO	eDP x 1
SATA	SATA 3 x 1 , +5V SATA Power Connector x 1
DIO/GPIO	8-Bit
SMBUS/I2C	SMBus/I2C x1
FAN	Smart Fan x1
FRONT PANEL	SATA LED, PWR LED, Power Button, Buzzer, Reset
EXPANSION	
M.2	M.2 2280 M key (PCIe[x2]) x 1 , PCIe[x4] Gen3 (via FPC) x 1
ENVIRONMENT & CERTIFICATION	
OPERATING TEMPERATURE	32°F ~ 140°F (0°C ~ 60°C)
STORAGE TEMPERATURE	-40°F ~ 176°F (-40°C ~ 80°C)
OPERATING HUMIDITY	0% ~ 90% relative humidity, non-condensing
EMC	CE/FCC Class A

Packing List

- denext-TGU8 MB x 1

Ordering Information

- **denext-TGU8-A02-TBD**
denext.i7-1185G7E.LPDDR4X 16G.2LAN.SATA.
6USB.HDMI.eDP.PCIe.12V.A02

Optional Accessories

- **denext-FAN01**
CPU Cooler of de next-TGU8 & de next-V2K8
- **PER-T641**
Adaptor Card for 8bit DIO Port & 2USB2.0
- **PER-T642**
Adaptor Card for M.2 B key 2242 & M.2 E key 2230
- **PER-T643**
Adaptor Card for M.2 B key 3052 & M.2 B key 2242

Block Diagram

