

MC-3201 Series

Compact computers with 11th Gen Intel® Core™ processor, designed for IIoT, AI, and marine applications, -20 to 55°C operating temperature



Features and Benefits

- 11th Gen Intel® Core™ processor (Tiger Lake U)
- 2 built-in DDR4 memory slots; total capacity up to 32 GB
- Variety of interfaces: 2 serial ports, 4 Giga LAN ports, 2 USB 3.1 (type A) ports, and 4 USB 2.0 (type A) ports
- Built-in TPM 2.0 module
- Complies with DNV, IEC-60945, and IACS E10 standards

Certifications



Introduction

The MC-3201 Series computers are built around a 11th Gen Intel® Celeron® or Intel® Core™ i3, i5, or i7 processor and come with 2 DisplayPort interfaces, 2 USB 3.1 ports, 4 GbE ports, and 2 3-in-1 RS-232/422/485 serial ports. The computers are also equipped with a 2.5-inch SSD/HDD slot and a built-in TPM 2.0 module.

Compliance with the DNV, IEC-60945, and IACS E10 standards ensures the MC-3201 delivers stable and reliable system operations for marine and IIoT applications. These certifications are issued to indicate the suitability of product for use in marine applications.

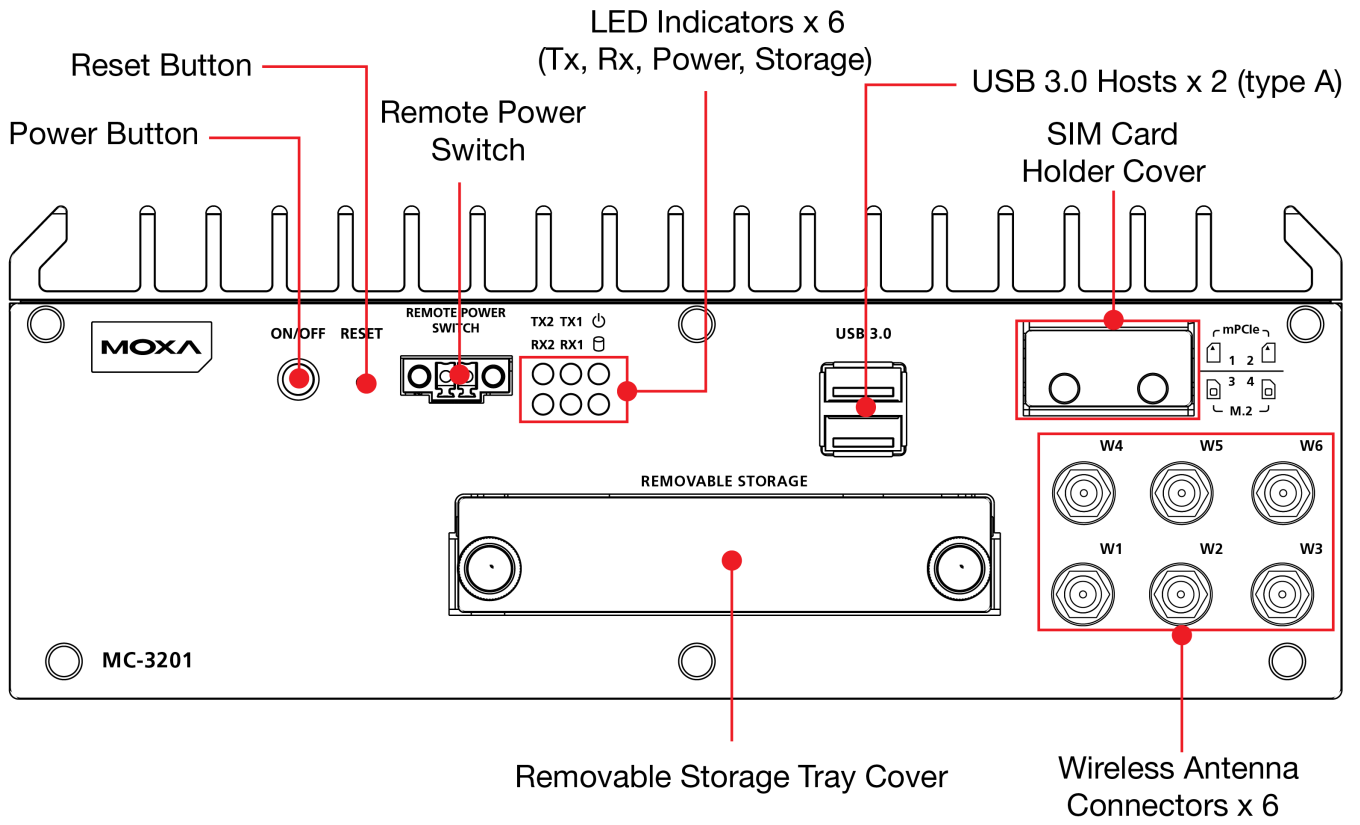
Proactive Monitoring Function

Moxa Proactive Monitoring is a small-footprint, resource-friendly, easy-to-use utility available with some Moxa computers to track a number of system parameters. You can view the current values for key parts by simply clicking on the icons corresponding to the parameters in a Windows-based user interface. User-defined key part indicators (KPIs) are used to monitor the computer's key parts. Visible and/or audio alerts are triggered automatically via relays and SNMP traps when these KPIs exceed their preset threshold values, making it extremely convenient for operators to avoid system downtime by setting up predictive maintenance tasks well in advance.

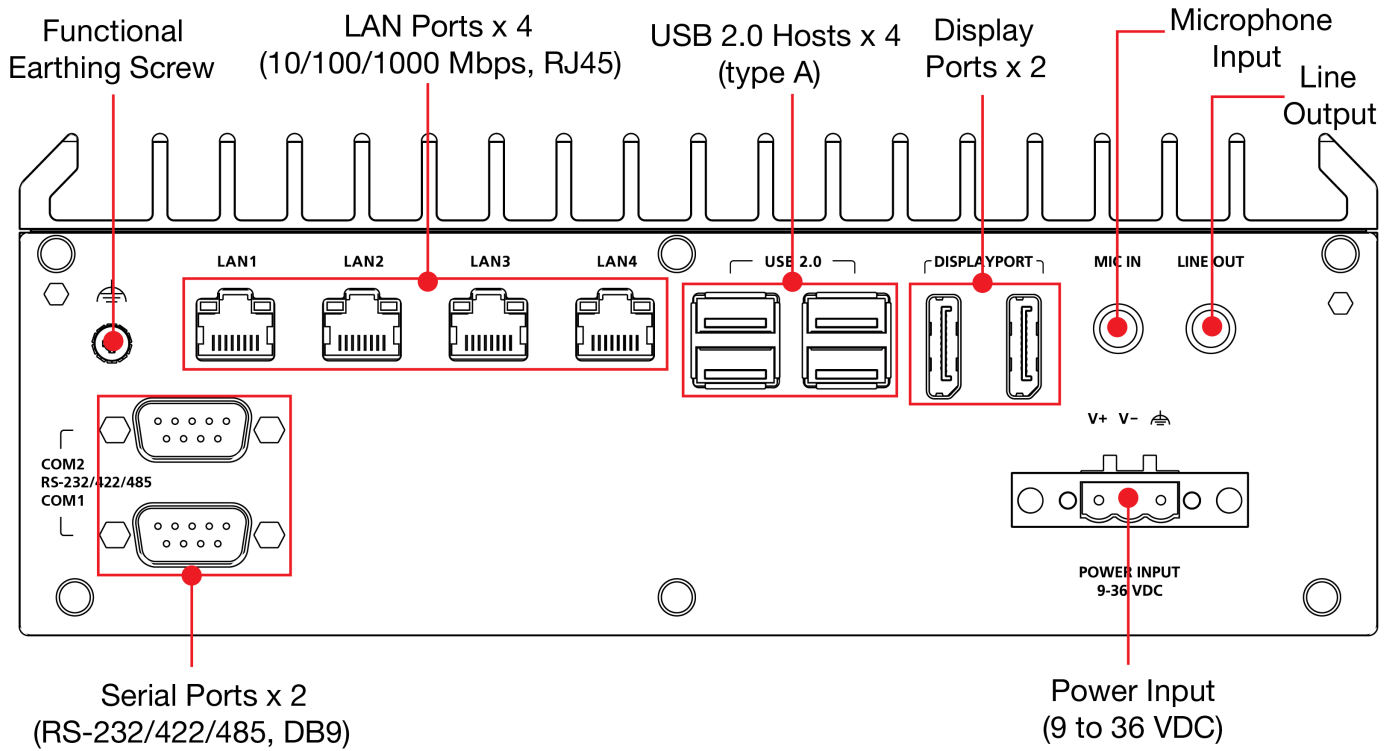
The Proactive Monitoring tool is currently available with DA-720 Series, DA-820C Series, MC-1200 Series, MC-3201 Series, and MC-7400 Series.

Appearance

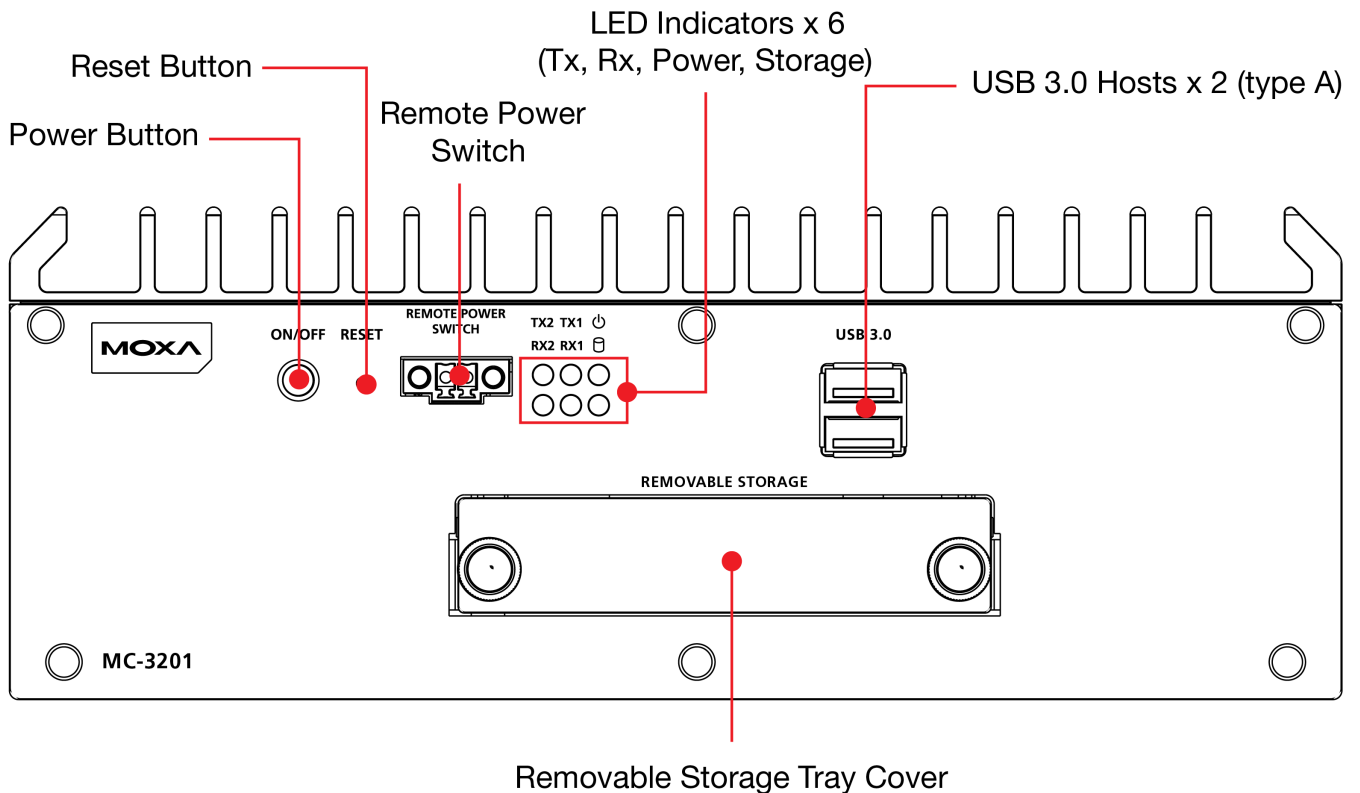
Front Panel (S-S models)



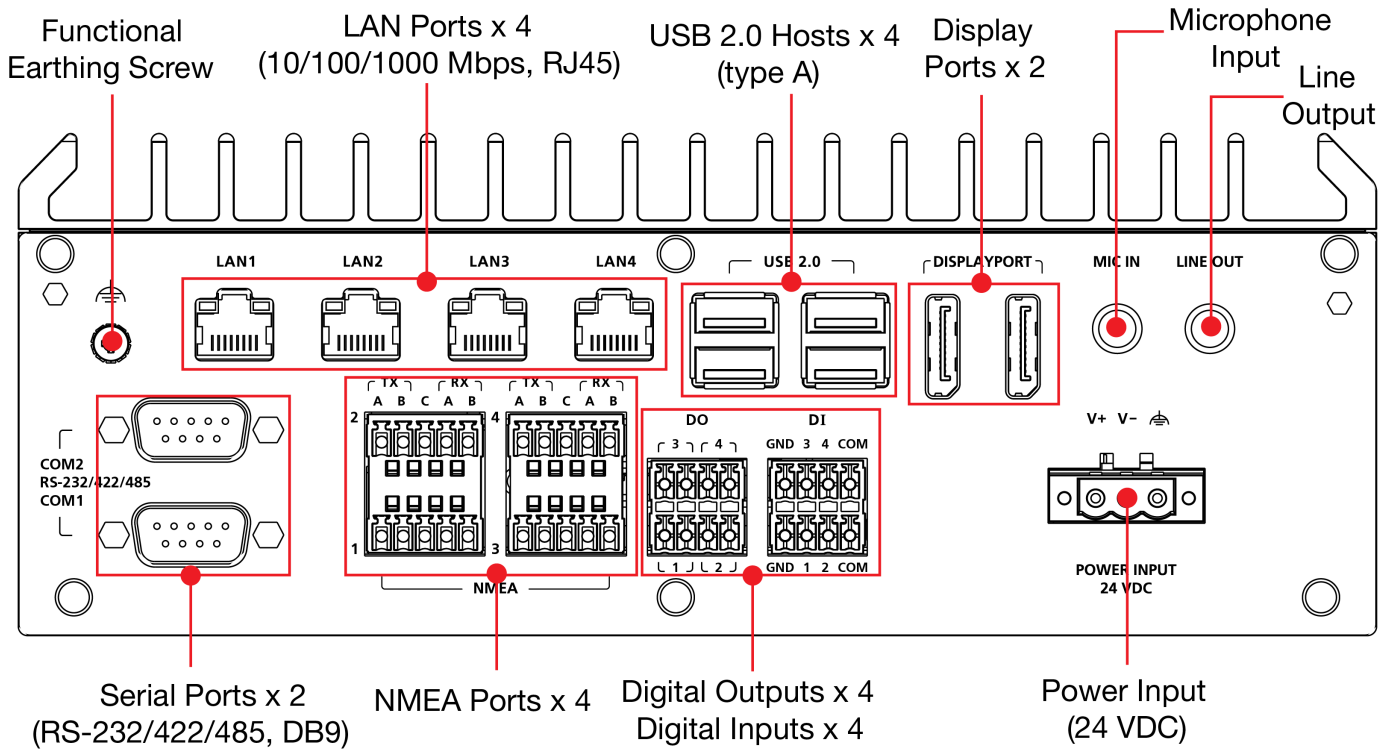
Rear Panel (S-S models)



Front Panel (M-S models)



Rear Panel (M-S models)



Specifications

Computer

CPU	MC-3201-TGL7-M-S/S-S models: Intel® Core™ i7-1185G7E processor (12M Cache, up to 1.8 GHz) MC-3201-TGL5-M-S/S-S models: Intel® Core™ i5-1145G7E processor (8M Cache, up to 1.5 GHz) MC-3201-TGL3-M-S/S-S models: Intel® Core™ i3-1115G4E processor (6M Cache, up to 2.2 GHz) MC-3201-TGL1-M-S/S-S models: Intel® Celeron® 6305E processor (4M Cache, up to 1.8 GHz)
Graphics Controller	Intel® Iris® Xe Graphics
System Memory Pre-installed	8 GB DDR4
System Memory Slot	SODIMM DDR4 2133 slots x 2, up to 32 GB max.
Supported OS	Windows 10 IoT Enterprise LTSC 2021 Driver support: Linux Debian 11 (kernel 5.10), 64-bit
Storage Slot	2.5-inch HDD/SSD slots x 1

Computer Interface

Ethernet Ports	Auto-sensing 10/100/1000 Mbps ports (RJ45 connector) x 4
Serial Ports	RS-232/422/485 ports x 2, software selectable (DB9 male)
Digital Input	M-S models: DIs x 4
Digital Output	M-S models: DOs x 4

USB 3.0	USB 3.0 hosts x 2, type-A connectors
USB 2.0	USB 2.0 hosts x 4, type-A connectors
Video Output	DisplayPort x 2 up to 3840 x 2160 resolution at 60 Hz
Audio Input/Output	Line in x 1, Line out x 1, 3.5 mm phone jack
Buttons	Reset button Power button
TPM	TPM v2.0

Ethernet Interface

Magnetic Isolation Protection	1.5 kV (built-in)
10/100/1000BaseT(X) Ports (RJ45 connector)	4

Serial Interface

Baudrate	50 bps to 115.2 kbps
Connector	DB9 male
Data Bits	5, 6, 7, 8
Flow Control	RTS/CTS, XON/XOFF
Parity	None, Even, Odd, Space, Mark
Stop Bits	1, 1.5, 2
ESD Protection	4 kV contact, 8 kV air

Serial Signals

RS-485-4w	Tx+, Tx-, Rx+, Rx-, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-485-2w	Data+, Data-, GND

LED Indicators

System	Power x 1 Storage x 1
Serial	2 per port (Tx, Rx)
LAN	2 per port (10/100/1000 Mbps)

Physical Characteristics

Dimensions	220 x 80 x 170 mm (8.66 x 3.15 x 6.69 in)
Weight	3,000 g (6.61 lb)
Housing	Metal
Installation	Wall mounting

Power Parameters

Input Voltage	M-S models: 24 VDC S-S models: 9 to 36 VDC
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Environmental Limits

Operating Temperature	-20 to 55°C (-4 to 131°F)
Storage Temperature	-30 to 60°C (-22 to 140°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

EMC	EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 0.5 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 0.5 kV, Signal: 1 kV IEC 61000-4-6 CS: 3 V IEC 61000-4-8 PFMF: 1 A/m at 50 to 60 Hz
Safety	UL 62368-1 EN 62368-1 IEC 62368-1 IEC 60950-1
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-64
Maritime	MC-3201-TGL3/5/7-M-S: DNV, IEC 60945, IACS E10 Other M-S Models: IEC 60945, IACS E10
Green Product	RoHS, CRoHS, WEEE

MTBF

Time	323,270 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

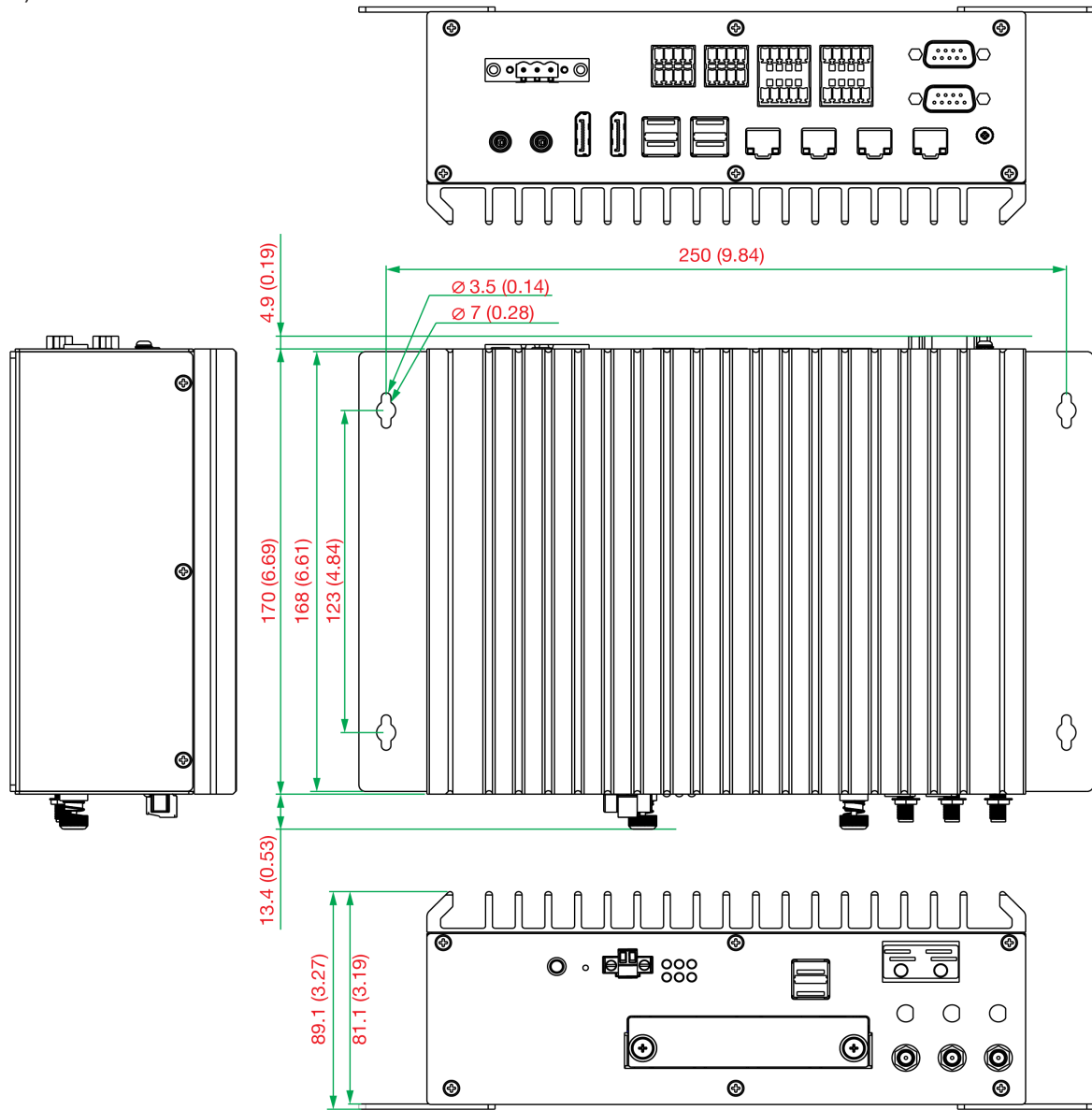
Warranty Period	3 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x MC-3201 Series computer
Installation Kit	1 x wall-mounting kit
Cable	1 x Power-jack-to-terminal-block cable
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	CPU	RAM	Storage Slots	LAN/Serial Ports	USB 3.0/2.0 Ports	Video Outputs
MC-3201-TGL7-S-S	Intel® Core™ i7-1185G7E	8 GB	1 x 2.5" SSD	4/2	2/4	2 x DisplayPort
MC-3201-TGL5-S-S	Intel® Core™ i5-1145G7E	8 GB	1 x 2.5" SSD	4/2	2/4	2 x DisplayPort
MC-3201-TGL3-S-S	Intel® Core™ i3-1115G4E	8 GB	1 x 2.5" SSD	4/2	2/4	2 x DisplayPort
MC-3201-TGL1-S-S	Intel® Celeron® 6305E	8 GB	1 x 2.5" SSD	4/2	2/4	2 x DisplayPort
MC-3201-TGL7-M-S	Intel® Core™ i7-1185G7E	8 GB	1 x 2.5" SSD	4/2	2/4	2 x DisplayPort
MC-3201-TGL5-M-S	Intel® Core™ i5-1145G7E	8 GB	1 x 2.5" SSD	4/2	2/4	2 x DisplayPort

Model Name	CPU	RAM	Storage Slots	LAN/Serial Ports	USB 3.0/2.0 Ports	Video Ouputs
MC-3201-TGL3-M-S	Intel® Core™ i3-1115G4E	8 GB	1 x 2.5" SSD	4/2	2/4	2 x DisplayPort
MC-3201-TGL1-M-S	Intel® Celeron® 6305E	8 GB	1 x 2.5" SSD	4/2	2/4	2 x DisplayPort

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