



COM-653

COM Express Motherboard

KEY FEATURES

- Intel® 8th Generation Intel® Core™ Processor
- 2 x 260-pin SO-DIMM up to 32GB DDR4 2666 MHz (16GB per DIMM)
- 4 x USB 3.1 Gen1, 8 x USB 2.0, 4 x SATA3
- 1 x Intel 1 Gigabit LAN
- Supports triple display, 3 x DDI, 1 x eDP or LVDS
- TPM 2.0 onboard IC
- ATX: 12V±5%/5Vsb±5%
AT: 12V±5%



SPECIFICATIONS

Form Factor

Dimensions	COM Express Basic(4.92-in x 3.74-in)
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Processor System

CPU	Intel® 8 th Generation Intel® Core™ Processor COM-653P (i7-8850H, 6C, 2.6G, 45W) COM-653M (i5-8400H, QC, 2.5G, 45W) COM-653V (i3-8100H, QC, 3G, 45W)
Chipset	Intel® QM370
Socket	N/A
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® UHD Graphics 630
HDMI	HDMI 1.4b Max resolution up to 4096 x 2160@ 24Hz
DisplayPort	DisplayPort 1.2, DP++ Max resolution up to 4096 x 2304@60Hz
VGA	Max resolution up to 1920 x 1200@60Hz
LVDS	Dual channel 24 bit up to 1920 x 1200@60Hz
eDP	eDP 1.4 Max resolution up to 3840 x 2160@60Hz
DVI	Max resolution up to 4096 x 2304@60Hz
MultiDisplay	Triple Display

Expansion

PCIe	1 x PCIe x16 (Gen3) 1 x PCIe x8 (Gen3)
PCI	N/A
mini-PCIe	N/A
M.2	N/A

Ethernet

Controller/ Speed	1 x Intel® I219LM with 10/100/1000 Mbps, supports AMT/vPro or 1 x Intel® I219V with 10/100/1000/Mbps(COM-653V)
Connector	N/A

I/O

HDMI	3 DDI ports support DVI/HDMI/DP
DisplayPort	3 DDI ports support DVI/HDMI/DP
DVI	3 DDI ports support DVI/HDMI/DP
VGA	1 (optional)
LVDS	1 (shared with eDP)
eDP	1 (shared with LVDS)
GPIO	4 x GPI, 4 x GPO
Ethernet	1 x 1 Gigabit LAN
USB	4 x USB 3.1 (Gen1), 8 x USB2.0
Audio	N/A
Serial Port	Two UART Ports (SoC)
PS2	N/A

Storage

M.2	N/A
mSATA	N/A
SATA	4 x SATA3 (6Gb/s)
eMMC	N/A

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% AT: 12V±5%
Power On	AT/ATX Supported - AT : Directly PWR on as power input ready - 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%