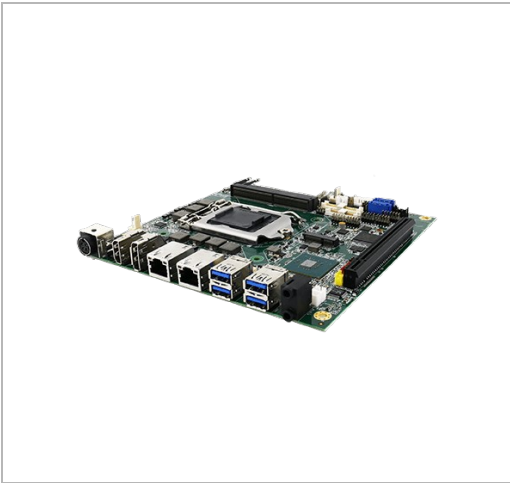


IF70

Intel® Core™ i7/i5/i3 Mini-ITX Embedded Board



KEY FEATURES

- Socket LGA1151 for Intel® Core™ i7 / i5 / i3 Processor
- Mini ITX Form Factor (170 x 170 mm)
- DDR4 2666 MHz SO-DIMM support up to 32 GB
- 12 V Single Voltage Power Input
- Multi display supports DP / HDMI (Optional) / LVDS / eDP panel interface
- Optional PCIE 3.0 x 16 slot



SPECIFICATIONS

System Specification

Processor	Intel® Core™ i7-9700TE (12M Cache, up to 3.80 GHz) Intel® Core™ i5-9500TE (9M Cache, up to 3.60 GHz) Intel® Core™ i3-9100TE (6M Cache, up to 3.20 GHz)	Chipset	Intel® Q370
Memory	1 x SO-DIMM, DDR4 2400 MHz, 4GB 8GB (Optional) 16GB (Optional) 32GB (Optional) 2 x SO-DIMM, up to 64GB (Optional)	Storage	1 x M.2 2242 B-key SSD 64GB M.2 2242 B-key SSD up to 512GB (Optional) M.2 2280 M-Key NVMe SSD, up to 4TB (Optional) 2 x SATA III support RAID 0,1 (Optional)
Ethernet controller	Intel® Ethernet Controller I211-AT + Intel® Ethernet Connection I219-LM	Security	TPM 2.0
Operating System	Windows 10 IoT Enterprise (Optional) Linux Ubuntu 18.04 (Optional)		

IO Ports

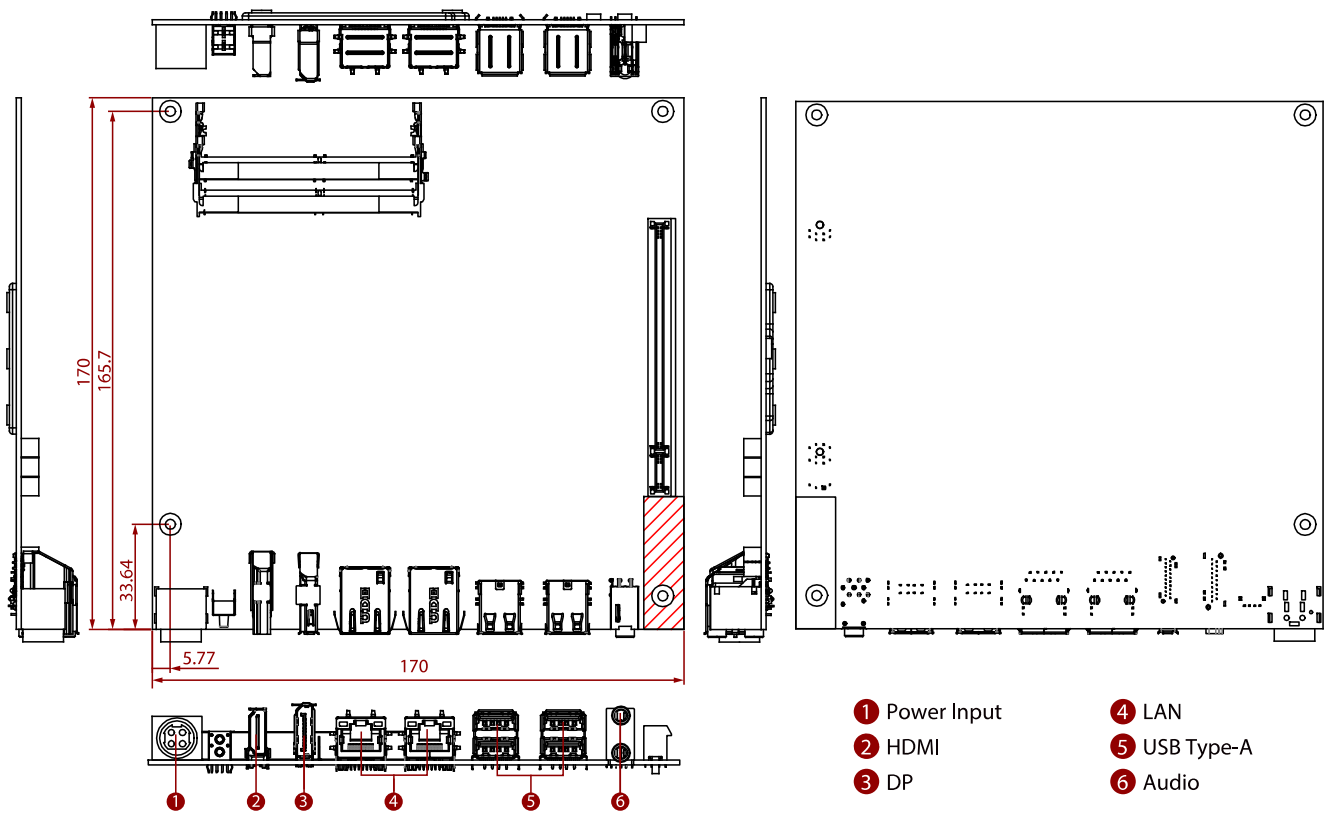
Power Input	1 x 12V DC, Din4 pin connector	USB Port	4 x USB3.2 Gen.1 (Type-A)
Video	1 x DP1.2 1 x HDMI 1.4 (Optional)	Audio	Mic in Line out
Expansion Port	1 x M.2 2242/2280 Key M slot for SATA/NVMe SSD 1 x M.2 2230 Key E slot for WiFi (Optional)	LAN	2 x Giga LAN RJ45 Connector

Internal IO Ports

Power input	1 x 4pin(2x2) for 12V DC in 1 x 6pin(1x6) for 12V DC in	Power output	2 x 2pin(1x2) red wafer for 5V DC out 1 x 2pin(1x2) yellow wafer for 12V DC out
USB	2 x 8pin(2x4) for 4 x USB 3.2 Gen.1 2 x 8pin(2x4) for 2 x USB2.0	Serial port	2 x 10pin(2x5) for RS232 2 x 10pin(2x5) for RS232/422/485
Display	1 x 40pin DF13 connector for LVDS 1 x 30pin DF13 connector for eDP (Optional)	Backlight	1 x 7pin(1x7) for panel backlight
SATA	2 x SATA III 1 x 8pin(2x4) for SATA power	DIDO	1 x 14pin(2x7) for Digital input/output
VR	1 x 3pin(1x3) for Digital panel backlight brightness control 1 x 3pin(1x3) VR/Software brightness switch jumper 1 x 3pin(1x3) PWM/DC brightness switch jumper 1 x 3pin(1x3) 3.3V/5V PWM Level switch jumper	Fan	1 x 3pin(1x3) for CPU Fan 1 x 3pin(1x3) for System Fan
OSD	1 x 10pin(2x5) for OSD control	Speaker	2 x 2pin(1x2) for Speaker

Backup battery	1 x RTC battery holder	BIOS debug	1 x 10pin(2x5) for LPC debug
Certification			
Certification	CE, FCC		
Mechanical			
Dimension	170 x 170 mm		
Environment			
Operating Humidity	60 °C @ 95% RH, (non-condensing)	Operating Temperature	0~60°C
Storage Temperature	-40~70°C		
Accessory			
Accessory	Manual & Driver CD		

DIMENSIONS UNIT:MM



NOTE

1. This is a simplified drawing and some components are not marked in detail.
2. Please contact our sales representative if you need further product information.
3. All specifications are subject to change without prior notice.
4. The product shown in this datasheet is a standard model. For diagrams that contain customized or optional I/O, please contact the Winmate Sales Team for more information.