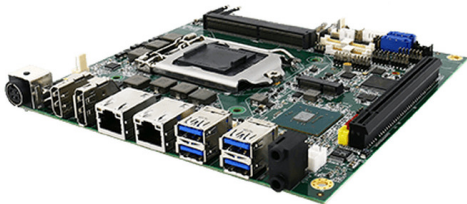




IF70 Intel(R) Core(TM) i7/i5/i3 Mini-ITX Embedded Board

Manufacturer part number: IF70 | Embedded Board



Explore Winmate IF70, an industrial embedded board featuring Intel(R) Core(TM) i7/i5/i3, 170x170 resolution for OEM equipment design and embedded control.

System Specification	
Processor	Intel Core i7-9700TE 1.8GHz (up to 3.8GHz) (Default), Intel Core i5-9500TE 2.2GHz (up to 3.6GHz) (Optional), Intel Core i3-9100TE 2.2GHz (up to 3.2GHz) (Optional)
Chipset	Intel(R) Q370
Memory	2 x non-ECC SO-DIMM RAM, up to 64GB (32GB per DIMM)
Storage	128GB SSD(Default), 256GB SSD (Optional), 512GB SSD (Optional), 1TB (Optional), 2TB, 2 x SATA III for 2.5" SSD/HDD support RAID 0,1 (Optional)
Ethernet controller	2 x Intel(R) Ethernet Controller
Security	TPM 2.0
Operating System	Windows 10 IoT Enterprise (64 bit) (Optional), Linux Ubuntu 20.04 (Optional)
WLAN	Support (Optional)
BT	Support (Optional)
IO Ports	
USB Port	4 x USB3.2 Gen1x1 (Type-A)
LAN	2 x Giga LAN RJ45 Connector
Video	1 x DP1.2 (Default), 1 x HDMI 1.4 (Optional)
Audio	Mic in, Line out
Expansion Port	1 x M.2 2280/2242 M-Key Slot (for NVME SSD or SATA III SSD), 1 x M.2 2230 E-Key Slot (for Wi-Fi module), 1 x PCIe 3.0 (x16) slot
Power Input	1 x 12V DC, Din4 pin 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 Gen1x1, 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 (Default), 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	10% to 95% RH, Non-Condensing
Operating Temperature	0 deg C to 60 deg C
Storage Temperature	-40 deg C to 70 deg C
Accessory	
Accessory	1 x Installation Guide
Optional Accessory	1 x SATA cable (94H007Z070K0) (Optional), 1 x SATA Power cable (94HE08Z150E0) (Optional), 2 x COM cable (94G309E100E1) (Optional), 1 x 2-Port USB 2.0 Type A cable (94E808E080K0) (Optional), 1 x 12V 120W Adapter (922D120W12V4) (Optional), 1 x Power cord (Varies by country) (Optional), 1 x CPU Heatspreader with Fan (98K000A000N4) (Optional), 1 x Membrane (98K000A000N1) (Optional), 2 x Speaker (612620000007) (Optional)
Power	
Power Rating	12V DC in