



Middle Range Embedded Computer



F109D

TWIN LAKE BOOK-SIZE EMBEDDED COMPUTER



Intel® Twin N-series processors



1 x DP (Max. 4096x 2160 @60 Hz)
2 x HDMI (Max. 4096 x 2160 @60 Hz)



Support Wi-Fi/BT module
Support 3G/4G module



Fanless design

CPU

CPU	Intel® Processor N150 /N97
Turbo Frequency	3.60 GHz / 3.60 GHz
Chipset	SoC
Processing Units	4 Cores / 4 Cores
TDP	6 W / 12 W

Network

Network Controller	2 x Realtek RTL 8111H Gigabit Ethernet
Ethernet Interface	2 x 1 GbE RJ45
Wi-Fi/BT	1 x E-Key M.2 (2230) for Wi-Fi/BT Support Wi-Fi 5, Wi-Fi 6
Mobile Network	1 x B-Key M.2 (3042) for 3G/4G 1 x SIM Slot

System

System Memory	8 GB /16 GB, 1 x SO-DIMM DDR5-4800 MHz
Storage	1 x M-Key M.2 (2280) PCIe3.0 X4 for SSD Optional: 32GB / 64 GB, Onboard eMMC
TPM	Optional: TPM2.0
Watchdog Timer	Yes
Auto Power On	Yes
RTC	Set up independently every day, a week as a cycle
Power Requirement	DC-IN, 19 V/2.37 A
Dimensions	189.6mm x 148.3mm x 31.7mm (7.46" x 5.83" x 1.25")
Construction	Metal, Black
Operating System	Windows 11 (64bit) /Linux Ubuntu (64bit)
Operating Temperature	0°C ~45°C (32°F~113°F) @0.7m/s Air Flow
Humidity	95% @ 45°C (non-condensing)
Certifications	CE, FCC Class B, UKCA

Display

GPU	Intel® Graphics (N150) Intel® UHD Graphics (N97)
Graphic Engine	DirectX 12.1, OpenGL 4.6, OpenCL 3.0,
Display Interface	1 x DP (Max.4096 x 2160 @60Hz) 2 x HDMI (Max.4096 x 2160 @60Hz)

I/O interface

USB	2 x USB3.2 Gen2, 4 x USB2.0
Serial Port	2 x RS232
Audio	1 x MIC-IN, 1 x AUDIO-OUT
Button	1 x Power on, 1 x CLR-CMOS
Antenna	2 x Connector for Wi-Fi/BT

Dimensions and Drawing



Order information

F109D-N15050N0G-GIA	CPU: Intel® Processor N150
F109D-N9750N0G-GIA	CPU: Intel® Processor N97
Packing List	2 x Wi-Fi Antenna, 1 x AC Power Cable, 1 x AC Power Adapter
Package	Carton, PLE

Optional items

VESA Mounting	VESA Mounting Kit (JC283)
Wi-Fi/BT module	Wi-Fi 5 (802.11ac): Intel® Wireless-AC 9260, Intel® Wireless-AC 9560 Wi-Fi 6 (802.11ax): Intel® Wi-Fi 6 AX200, Intel® Wi-Fi 6 AX201, Wi-Fi 6E (802.11ax): Intel® Wi-Fi 6E AX210
Mobile network module	Quectel® EC25 4G,
Operating system License	Windows 11 (64bit)

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