



# 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

<b>CPU</b>	Intel® Processor N150 /N97
<b>Chipset</b>	SoC
<b>Total Cores</b>	4 Cores / 4 Cores
<b>Total Threads</b>	4 /4
<b>TDP</b>	6 W / 12 W

### Network

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

### System

<b>System Memory</b>	8 GB /16 GB, 1 x SO-DIMM DDR5-4800 MHz
<b>Storage</b>	1 x M-Key M.2 (2280) PCIe3.0 X4 for SSD Optional: 32GB / 64 GB, Onboard eMMC
<b>TPM</b>	Optional: TPM2.0
<b>Watchdog Timer</b>	Yes
<b>Auto Power On</b>	Yes
<b>RTC</b>	Set up independently every day, a week as a cycle
<b>Power Requirement</b>	DC-IN, 19 V/2.37 A
<b>Dimensions</b>	189.6mm x 148.3mm x 32mm (7.46" x 5.83" x 1.26")
<b>Construction</b>	Metal, Black
<b>Operating System</b>	Windows 11 (64bit) /Linux Ubuntu (64bit)
<b>Operating Temperature</b>	0°C ~45°C (32°F~113°F) @0.7m/s Air Flow
<b>Humidity</b>	95% @ 45°C (non-condensing)
<b>Certifications</b>	CE, FCC Class B, UKCA

### Display

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

### I/O interface

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

## Dimensions and Drawing



## Order information

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

## Optional items

<b>VESA Mounting</b>	VESA Mounting Kit (JC283)
<b>Wi-Fi/BT module</b>	
<b>Mobile network module</b>	Quectel® EC25 4G,
<b>Operating system License</b>	Windows 11 (64bit)



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