MinnowBoard Turbot Dual Core Board

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Item #:	MBT-2210
Our Price:	**$139.95**
Include Free Calamari Lure:	ADD Calamari Lure
Case:	No Case
Power Supply:	No Power Supply
HDMI Cable:	No Cable
Quantity:	1

+ Add to Cart

Description Reviews

MINNOWBOARD TURBOT : DUAL CORE INTEL DEVELOPMENT BOARD

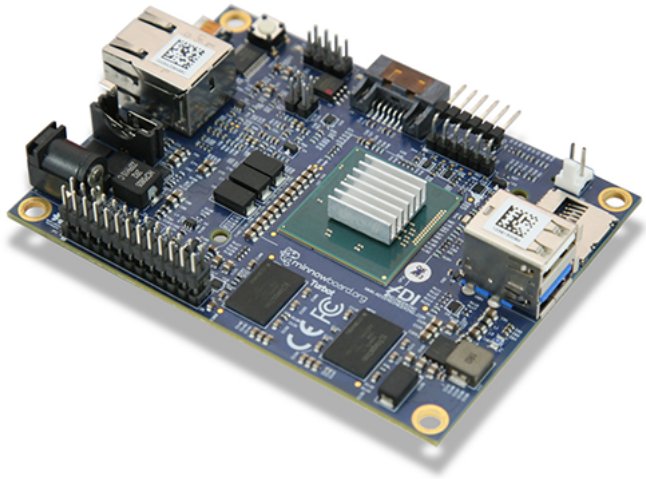
IN STOCK

Limited Time! Receive a free Calamari Lure with your purchase!

Open Hardware Embedded Platform

2GB Dual Core Intel Atom E3826 series SoC

The **Turbot 64-bit Intel® Atom™ E3826** is a compact, affordable, and powerful development board for both professionals and makers. The open hardware design allows for endless customization and integration potential. It is a platform with diverse strengths that will empower developers to innovate in the deeply embedded market.



DETAILS

- Intel Atom E3826 CPU (Bay Trail-I) dual core 1.46 GHz
- Integrated Intel HD Graphics with Open Source hardware-accelerated drivers for Linux OS
- Virtualization extensions (VT-x)
- AES instructions
- 2GB DDR3L 1067MT/s DRAM
- 8 MB SPI Flash (TianoCore UEFI/CoreBoot/SeaBIOS/etc.)

IMPROVEMENTS OVER MINNOWBOARD MAX

- 10% higher CPU code speed and 25% higher graphics speed than the E3825 SoC on the MinnowBoard MAX
- FCC, CE and IEC-60950 certified
- Improved HDMI Compatibility (learn more)
- Populated J2 - Fan Connector
- Populated the Real-time Clock coin-cell battery holder
- Populated J5 - Power Button
- Populated J6 - SATA activity LED
- Populated J7 - GPIO inputs (NVRAM Reset)
- I2S MCLK routed to LSE connector (audio interface)
- Level shifters for the LSE are now enabled by the reset signal.
- Added dedicated I2C shifter, fixed strapping issue (Learn more)
- Low-Speed Expansion connector can now supply power
- USB back powered issues are resolved (Learn more)
- D2 LED now under GPIO control

COASTLINE I/O

- USB client for communications:
  - 1x USB 3.0 host port
  - 1x USB 2.0 host port
- 1x Gigabit Ethernet port (RJ45)
- 1x SATA2 3Gb/sec port
- 1 x Serial debug header (FTDI cable available separately)
- Firmware flash port header

EXPANSION CONNECTIVITY

- 1x Micro SD slot
- 1x HDMI® port (microHDMI connector)
- LSE Low speed expansion port details (2x13 26-pin male 0.1" pin header):
  - SPI
  - I2C
  - I2S Audio
  - 2x UARTs (TTL-level)
  - 8x GPIO (2x supporting PWM)
  - +5V, GND
- HSE High speed expansion port details (60-pin high-density connector):
  - 1x PCIe Gen 2.0 Lane

- SATA-2, USB 2.0
- I2C
- GPIO
- JTAG
- +5V, GND

SOFTWARE COMPATIBILITY

Add your own operating system:

- Debian GNU/Linux
- Brillo
- Windows 8.1
- Windows 10
- Android 4.4
- Ubuntu
- Yocto Project Compatible
- 64-bit Intel firmware (Learn more)
- Coreboot and U-boot support available via the community
- plus much more. See the Wiki for additional information.
- ACPI 5.0 support

HARDWARE SPECS AND MATERIALS

- Open-source hardware under Creative Commons BY-SA 3.0
- The MinnowBoard Turbot is intended to comply with all requirements and guidelines set forth by the Open Source Hardware Association (http://www.oshwa.org/)
- Size: MinnowBoard Compatible 99 x 74 mm (2.9 x 3.9 inches)
- Certifications: FCC Class A, CE, IEC-60950, RoHS/WEEE
- Fanless Operating Temp in open air: 0-40°C with the factory heatsink.
- Storage: -20 to 85°C
- Battery: CR
- Power:
- 5 VDC input via 2.1 mm center pin positive power jack (5V, 2A DC Power Supply sold here)
- 5 VDC output via 2-pin header
- Some lures require a larger power supply. Check with the lure manufacturer for power requirements.

DOCUMENTATION

- Product Brief PDF
- Intel Drivers here [You really want to look here...lots of great information.]
- Minnowboard Wiki with known issues, board design files, etc.
- IRC Live Group Chat Info
- MinnowBoard Turbot FCC Report
- Read the FAQ
- Getting Started Getting Started

LURES

Expansion Boards / Daughter cards with additional functionality including:

- DESERT LURE - Prototype board using the Low Speed Expansion port
- GPS LURE - Turn your MinnowBoard into a Stratum-1 NTP clock
- SILVERJAW LURE - mPCIe and SATA expansion board using the High Speed Expansion port
- SPI HOOK - SPI flash programmer and RS232 port
- MORAY LURE - XBee 802.15.4 wireless access
- CALAMARI LURE -Demonstration Board, currently included for free with MinnowBoard Turbot Dual Core Board purchase
- Other Lures

OPTIONAL CASE

Can be laser etched. See more pictures here.

WARRANTY AND SUPPORT INFORMATION