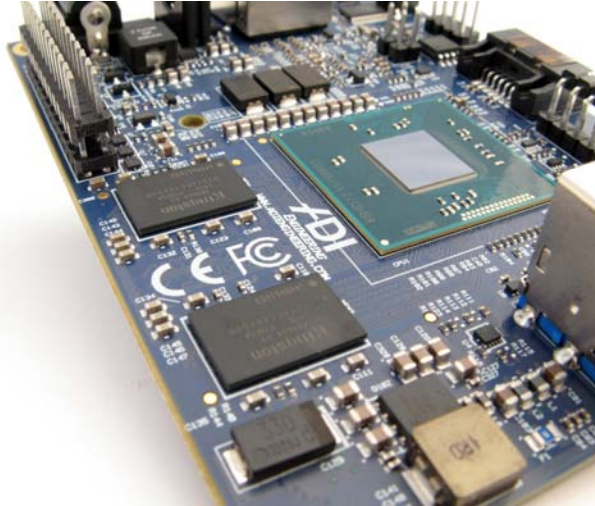


## What's New In MinnowBoard Turbot?



MinnowBoard Turbot is compatible with MinnowBoard MAX, meaning that it is the same form factor, has the same user connectors and connector locations, has the same mounting holes, and complies with the new MinnowBoard Compatibility Program. Turbot also offers the same HSE and LSE expansion connectors, and runs MinnowBoard MAX software.

What then is new in MinnowBoard Turbot? The following list summarizes the key changes from MinnowBoard MAX to MinnowBoard Turbot. Most of the changes enhance the ease of use, and many add back connectors omitted from MinnowBoard MAX or address errata reported in Bugzilla. Yet other changes make key design improvements, such as address HDMI compatibility issues, adding FCC and CE certification, and adding a new VDIMM regulator that operate across the full 5V +/-10% input voltage range.

The net result is a new design that is faster, achieves regulatory compliance, and has new ease of use and robustness features.

1. Populated J2 – Fan Connector
2. Populated the real-time clock coin cell battery holder
3. Populated J5 – Power Button
4. Populated J6 – SATA activity LED
5. Populated J7 – GPIO inputs (NVRAM Reset)
6. I2S MCLK routed to LSE connector (audio interface)
7. No longer pulls power from USB host ports
8. Outputs correct HDMI output levels
9. HDMI EMI filtering added
10. D2 LED now under GPIO control
11. LSE can now supply power

12. Added dedicated I2C level shifter
13. VDIMM regulator replaced with new design that operates over the entire input voltage range of 5V +/- 10%
14. HDMI CEC signal connected to CPU
15. Increased PCB layer count from 10 to 12 for EMI reduction
16. Used faster E3826 CPU (10% higher CPU core speed, 25% higher graphics speed)
17. FCC Part 15 Certified
18. CE Certified
19. IEC-60950 Safety Certified