

OMAP35x Torpedo™ SOM

Ideal for applications requiring low-power, high-performance and DSP functionality within space constraints

The Torpedo System on Module (SOM) is an ultra-compact form factor based on the Texas Instruments OMAP 3 processor family.

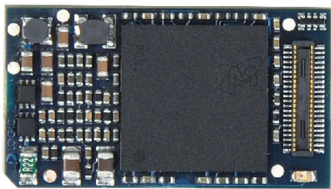
The OMAP35x Torpedo SOM provides a dime-sized module solution for applications that require low-power and high-performance within tight space constraints. By using the 0.4 mm BGA pitch OMAP processor that leverages Package-on-Package (PoP) technology, the OMAP35x Torpedo SOM requires 45% less surface area and 12% less volume when compared to the equivalent OMAP 0.65 mm BGA package and external memory solution.

A discrete design using the 0.4 mm BGA package requires advanced PCB technologies that result in higher board costs and PoP technology requires specialized manufacturing assembly processes. The OMAP35x Torpedo SOM solves these development complexities; as a result, customers can design lower cost baseboards and utilize common manufacturing procedures while still benefiting from the small package and PoP technology of the OMAP35x processor.

OMAP35X TORPEDO SOM

HIGHLIGHTS

- Product-ready System on Module with a TI OMAP35x processor running up to 600 MHz
- TMS320C64x DSP core running up to 430 MHz
- Ultra-compact form factor (15 x 27 x 3.8 mm)
- Microsoft Windows® Embedded CE 6.0 Board Support Package (BSP)
- Open source Linux™ BSP
- Industrial temp (-40 °C to 85 °C)
- Long product lifecycle
- RoHS compliant

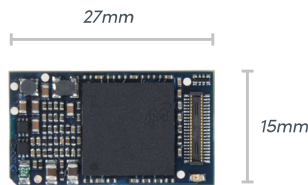
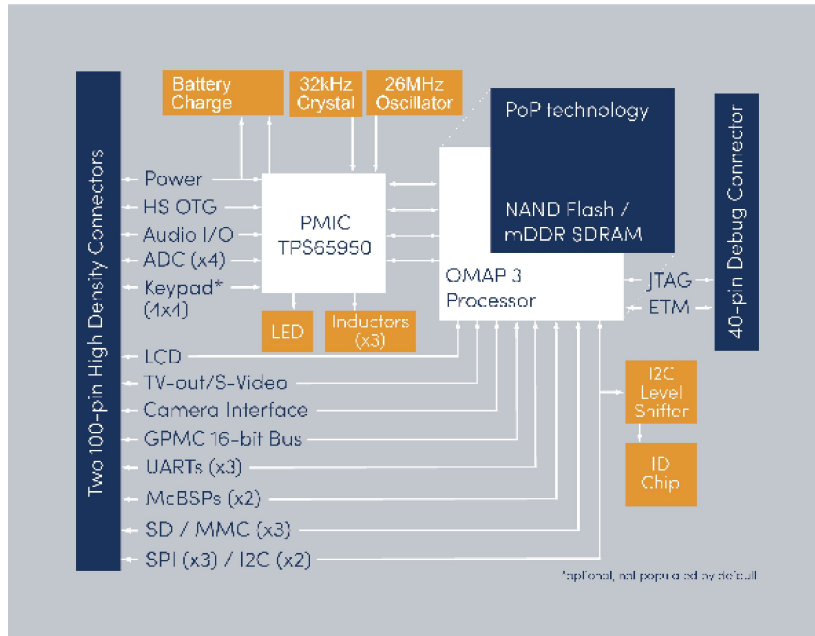


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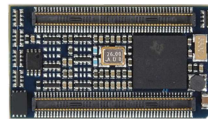
**Enlarged to show detail*

The ultra-compact OMAP35x Torpedo SOM is an ideal off-the-shelf solution for applications in markets where space is a premium. From point-of-care medical devices to bar code readers, handheld radios to mobile Internet devices, netbooks to CCTV cameras, the OMAP35x Torpedo SOM allows for powerful versatility, compact designs, and long-life products.

OMAP35x Torpedo™ SOM Block Diagram



Top View ▶ Actual Size



Bottom View ▶ Actual Size

OMAP35x Torpedo SOM Ordering Information

MODEL NUMBER	SPEED (MHZ)	SDRAM (MB)	NAND FLASH (MB)	TEMP. (°C)
SOMOMAP3530-21-1780AGIR	600	256	512	-40°-85°

NOTES:

1. Custom configurations are available by special order. Please contact Beacon EmbeddedWorks Sales for details.

PRODUCT FEATURES

Processor

- TI OMAP35x processor running up to 600 MHz
- TMS320C64x DSP core running up to 430 MHz

Memory

- Mobile DDR / NAND flash (PoP technology) 256 MB / 512 MB (standard SOM)

Connectivity

- Two 100-pin board-to-board connectors
- Parallel LCD interface
- USB high-speed On-the-Go interface
- Multiple SD/MMC card support
- UARTs, SPI, I2C, McBSPs
- Parallel camera interface
- Programmable GPIO
- TV-out / S-Video interface
- 40-pin debug connector on top side of SOM
- Optional 4x4 keypad interface (requires trade-offs with other features)
- Audio
- Analog-to-digital converters
- General purpose memory controller (GPMC) interface
- JTAG & ETM support

Mechanical

- 15 mm wide x 27 mm long x 3.8 mm high

RoHS Compliant