# **LOGIC** PD°

# OMAP35x SOM-LV System on Module

Essential features for handheld and embedded networking applications with optional DSP functionality

The OMAP35x System on Module (SOM) is a compact, product-ready hardware and software solution that fast forwards embedded designs.

Based on the Texas Instruments (TI ) OMAP 3 processor family and designed in the SOM-LV Type III form factor, the OMAP35x SOM-LV offers essential features for handheld and embedded networking applications. The OMAP35x SOM-LV features the superset OMAP3530 processor, but also supports the OMAP3503 processor.

The OMAP35x SOM-LV is an off-theshelf solution that reduces development risks associated with the complex design and manufacturing details of the OMAP 3 processor. The standard SOM-LV form factor allows developers to reuse existing baseboard designs when upgrading to new OMAP processors, which extends roadmap possibilities for end-products.

The OMAP35x SOM-LV is ideal for applications in the medical, point-of-sale, industrial, and security markets.



OMAP35x SOM-LV

From patient monitoring and medical imaging, to card payment terminals and bar code readers, to CCTV cameras and intruder alarms, the OMAP35x SOM-LV allows for powerful versatility and long-life products. PRODUCT BRIEF Logic PD :: Texas Instruments www.logicpd.com/products

#### OMAP35x SOM-LV :: HIGHLIGHTS:

- +Product-ready System on Module with a TI OMAP 35x processor running up to 600 MHz
- +TMS320C64x DSP core running up to 430 MHz (OMAP3530 only)
- +Compact form factor—SOM-LV Type III (31.2 x 76.5 x 7.4 mm)
- + Microsoft Windows® Embedded CE 6.0 Board Support Package (BSP)
- +Open source Linux<sup>™</sup> BSP
- + Extended temp (-20°C to 70°C) Industrial temp (-40°C to 85°C)
- +Long product lifecycle
- +RoHS compliant

## OMAP35x SOM-LV Block Diagram



(Block diagram is not drawn to scale; for reference purposes only.)

### OMAP35x SOM-LV Ordering Information

Model Number <sup>1</sup>	mDDR (MB)	NAND Flash (MB)	NOR Flash (MB)	10/100 Ethernet	802.11b/g Ethernet	Bluetooth 2.0 + EDR	Temp. (°C)	DSP
SOMOMAP3503-12-1783GFIR <sup>2</sup>	256	512	16	Y	Ν	N	-40°–85°	Ν
SOMOMAP3530-12-1783IFXR	256	512	16	Y	Y	Y	-20°–70°	Y
SOMOMAP3530-12-1783JFIR	256	512	16	Y	N	Y	-40°–85°	Y

NOTES: 1. Custom configurations are available by special order. Please contact Logic PD Sales for details 2. Does not include touch controller.

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#### LOGIC PD WEBSITE :: DESIGN RESOURCES:

31.2 mm

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TOP VIEW :: ACTUAL SIZE

+ Logic PD Products : <u>www.logicpd.com/products</u> + Logic PD Technical Support : <u>support.logicpd.com</u> + Logic PD Sales : www.logicpd.com/contact/

### **Product Features**

#### Processor

- +TI OMAP 3 processor with ARM<sup>®</sup> Cortex<sup>™</sup>-A8 core running up to 600 MHz
- +TMS320C64x DSP core running up to 430 MHz (OMAP3530 only)

#### Memory

+ Mobile DDR / NAND flash (PoP technology) 256 MB / 512 MB

#### Display

76.5 mm

- + Programmable color LCD controller supports up to a 24 bpp TFT interface
- +Hardware supports XGA 1024x768 at 24-bit color

#### Touchscreen

+Integrated 4-wire touchscreen controller (TSC2004)

#### **Network Support**

- +10/100 Base-T Ethernet controller
- +802.11b/g wireless Ethernet
- +Bluetooth 2.0 + EDR

#### Audio

+I2S compliant audio codec (16-bit stereo DAC, 13-bit ADC)

#### PC Card Expansion

- +CompactFlash Type I card (memory-mode only)
- +MMC/SD card support

#### USB

- +One USB 2.0 high-speed host interface
- +One USB 2.0 high-speed On-the-Go interface

#### **Serial Ports**

+Three external UARTs

#### GPIO

+Programmable I/O depending on peripheral requirements

#### Software

- +LogicLoader<sup>™</sup> (bootloader/monitor)
- +Windows® Embedded CE 6.0 BSP
- +Open source Linux<sup>™</sup> BSP

#### Mechanical

- +SOM-LV Type III form factor
- +31.2 mm wide x 76.5 mm long x 7.4 mm high
- **RoHS** Compliant