# **LOGIC** PD°

# DM3730 / AM3703 Torpedo<sup>™</sup> + Wireless SOM System on Module

 $\mathsf{WiLink}^{\scriptscriptstyle \rm M}$  7.0 wireless solution on a single board that is less than one square inch

Combine a powerful applications processor with PC-like speeds and a wireless chipset with 802.11a/b/g/n, Bluetooth 4.0/BLE, and GPS support; toss in Android<sup>™</sup> and Linux<sup>™</sup> BSPs developed using processes compliant with the ISO 13485 medical system standard; and the outcome is an innovative off-the-shelf solution that reduces your development time and risk.

The award-winning Torpedo + Wireless System on Module (SOM) is an ultra-compact form factor built around the Texas Instruments (TI) DaVinciTM DM3730 processor or SitaraTM AM3703 parocessor and WiLinkTM 7.0 wireless solution. Confining these two systems to a single board isolates the complex design, manufacturing, and wireless certifications from the rest of your product.

The DM3730/AM3703 Torpedo + Wireless SOM occupies less than one square inch, but boasts PC-like speeds up to 1 GHz with long battery life. Partnered with such high performance is a startlingly low power consumption in suspend state. This balance of speed and power is accomplished through Logic PD's vast system design experience; understanding the most detailed workings of each component and their interaction with one another creates a product that operates at optimal efficiency.



## DM3730 / AM3703 Torpedo<sup>™</sup> + Wireless SOM

The WL1283 wireless chipset provides access to all the wireless protocols required in today's connected world. 802.11a/b/g/n, Bluetooth, and GPS signals are natively integrated with this SOM and with Logic PD BSPs.

By using the same connectors as Logic PD's existing OMAP35x and DM3730/AM3703 Torpedo SOMs, the DM3730/AM3703 Torpedo + Wireless SOM extends the roadmaps of existing products and provides an upgrade path from today's products to future technologies.

The ultra-compact DM3730/AM3703 Torpedo + Wireless SOM is an ideal off-the-shelf solution for applications in markets where wireless connectivity is required and space is a premium. From point-of-care medical products to handheld communication devices, the DM3730/ AM3703 Torpedo + Wireless SOM allows for the powerful versatility and compact designs needed in today's market-changing products.

### AWARDS WON IN 2012:

- +CONNECT Most Innovative Product
- +Design News Golden Mousetrap Award
- +*Embedded Computing Design* Top Embedded Innovation

# DM3730 / AM3703 TORPEDO + WIRELESS SOM :: HIGHLIGHTS:

- + Product-ready System on Module with a TI DM3730 or AM3703 ARM<sup>®</sup> Cortex<sup>™</sup>-A8 processor running up to 1 GHz
- + Android™ & Linux™ Board Support Packages (BSPs)
- +Wireless connectivity: 802.11a/b/g/n, Bluetooth 4.0/BLE, & GPS
- +FCC & IC modular certified
- + Industrial, commercial, & extended temp configurations
- +Ultra-compact form factor (15 x 33 x 3.8 mm installed)
- +Same connectors as DM3730 / AM3703 Torpedo SOM
- +Long product lifecycle

#### ZOOM<sup>™</sup> DM3730 TORPEDO DEVELOPMENT KIT :: FEATURES:

+Application baseboard

- +DM3730 Torpedo + Wireless SOM DM3730 Torpedo SOM
- +4.3" WQVGA LCD with 4-wire touchscreen
- +Wattson™ power measurement application
- +Necessary accessories to immediately get up and running

# DM3730 / AM3703 Torpedo<sup>™</sup> + Wireless SOM Block Diagram



33 mm

#### TOP VIEW :: ACTUAL SIZE



BOTTOM VIEW :: ACTUAL SIZE

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

# DM3730 / AM3703 Torpedo + Wireless SOM Ordering Information

| Model N | Number <sup>1</sup> | Speed (MHz) | SDRAM (MB) | NAND Flash (MB) | Temp. (°C)          |
|---------|---------------------|-------------|------------|-----------------|---------------------|
| SOMAM   | 3703-32-1780AKIR    | 800         | 256        | 512             | -40°–85°²           |
| SOMDM   | 3730-32-2780AKCR    | 1000        | 256        | 512             | 0°–70° <sup>3</sup> |

NOTES: 1. Custom configurations are available by special order. Please contact Logic PD Sales for details.

2. Junction temperature of the DM3730/AM3703 processor must stay below 105°C.

3. Junction temperature of the DM3730/AM3703 processor must stay below 90°C.

## Zoom<sup>™</sup> DM3730 Torpedo Development Kit Ordering Information

| Model Number          | SOM Configuration                              | Suggested Resale |
|-----------------------|--|------------------|
| SDK-DM3730-30-256512R | SOMDM3730-32-2780AKCR<br>SOMDM3730-20-2780AGCR | \$997            |



6201 Bury Dr. | Eden Prairie, MN 55346 T:952.941.8071 F:952.941.8065 | www.logicpd.com

© 2018 Logic PD, Inc. All rights reserved. PN: 1020571 Rev O

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

+ 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 DaVinci<sup>™</sup> DM3730 or Sitara<sup>™</sup> AM3703 ARM<sup>®</sup> Cortex<sup>™</sup>-A8 core running up to 1 GHz
- +TMS320C64x DSP core running up to 800 MHz (DM3730 only)
- +POWER SGX<sup>™</sup> graphics accelerator (DM3730 only)

#### Memory

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

#### Wireless Connectivity

+WL1283 wireless module featuring 802.11a/b/g/n, Bluetooth 4.0/BLE, & GPS

#### Display

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

#### Camera

+Parallel camera interface

#### Audio

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

#### User Interface

+Optional 4x4 keypad interface

PC Card Expansion

+Multiple SD/MMC card support

#### USB

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

#### Serial I/O

+UARTs, SPI, I2C, McBSPs

#### GPIC

- +Programmable I/O depending on peripheral requirements
- +General purpose memory controller (GPMC) interface

#### Debug

- +40-pin debug connector on top side of SOM
- +JTAG & ETM support

#### Software

- +Android<sup>™</sup> BSP
- +Linux<sup>™</sup> BSP
- +LogicLoader<sup>™</sup> (bootloader/monitor)
- +Wattson™ power measurement application

#### Mechanical (Installed)

- +15 mm wide x 33 mm long x 3.8 mm high FCC & IC Modular Certified
- RoHS Compliant