DM3730 / AM3703 Torpedo™ + Wireless SOM
System on Module

WiLink™ 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™ and Linux™ 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) DaVinci™ DM3730 processor or Sitara™ AM3703 processor and WiLink™ 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.

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.
DM3730 / AM3703 Torpedo™ + Wireless SOM Block Diagram

Product Features

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

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

GPIO
+ 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™ BSP
+ Linux™ BSP
+ LogicLoader™ (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

Downloaded from Arrow.com.

DM3730 / AM3703 Torpedo + Wireless SOM Ordering Information

<table>
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<tr>
<th>Model Number</th>
<th>Speed (MHz)</th>
<th>SDRAM (MB)</th>
<th>NAND Flash (MB)</th>
<th>Temp. (°C)</th>
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<td>256</td>
<td>512</td>
<td>-40°–85°²</td>
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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™ DM3730 Torpedo Development Kit Ordering Information

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Logic PD®

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