

Product Bulletin

OMAP5910 Processor

Key Features

- Dual-core processor combines a DSP and ARM[™] 9 onto a single chip
- Fast development of applications through the proven design expertise of OMAP Technology Centers located worldwide
- Development tools, including Innovator[™], a ready-to-use development and demonstration platform

TI's OMAP5910 Processor Integrates a TMS320C55x[™] DSP and an ARM925 on a Single Chip

Sampling today, the OMAP5910 processor integrates a TMS320C55x[™] DSP core with a TI-enhanced ARM925 on a single chip for the optimal combination of high performance with low power consumption. This unique architecture offers an attractive solution to both DSP and ARM developers, providing the low power real-time signal processing capabilities of a DSP coupled with the command and control functionality of an ARM.

The OMAP5910 processor is optimal for designers working with devices that require embedded applications processing in a connected environment such as inter-

net appliances, web pads, telematics, medical devices and others. This technology, combined with TI's software development support, OMAP[™] Technology Centers, OMAP Developer Network, tools and software, enables designers to create applications with exceptional performance in record time.

The OMAP5910 enables embedded developers to program using familiar development environments by supporting leading operating systems such as Microsoft[®] Windows[™], CE.NET, Linux[™], and TI's DSP/BIOS[™] real-time scalable kernel.

This open development environment makes it possible for designers to deliver innovative products to the market faster while utilizing familiar tools, a standard Applica-

tion Programming Interface (API) and a seamless interface to the DSP through an optimized inter-processor communication mechanism. The built-in interprocessor communication mechanism eliminates the need for developers to program the RISC and DSP independently, resulting in reduced programming efforts.

Extensive Support Speeds Time-to-Market

For technical support, customers will have access to fee-based independent OMAP Technology Centers (OTCs) with on-staff consultants ready to focus on their particular design issues. The DSP Third-Party Network and OMAP Developer Network members offer application software and algorithms for the OMAP platform.

Key Features

Name	OMAP5910 (DSP)	OMAP5910 (RISC)
CPU	C55x [™] DSP	ARM9
Frequency (MHz)	150	150
RAM (Bytes)	160K (DSP)	192K (Shared)
Ext. Memory I/F (Shared)	ASYNCR, SDRAM	Shares ASYNCR, SDRAM with DSP
DMA	6-Channel (DSP)	9-Channel (Sys)
Timers	3 General Purpose, 1 WDT	3 General Purpose, 1 WDT, 1 32-kHz Timer
Serial Ports	2 McBSPs, 2 MCSIs, 3 UARTs (all shared)	1 McBSP, Host/Function USB 1.1 (3 Ports), I ² C, Microwire, HDQ, and shares all DSP Serial Ports
Parallel Ports		LCD, Camera Interface
MISC	3 Video Hardware Accelerators	DPLL, RTC, MMC/SD, Keyboard Interface
Boot Loader	Yes	
Core Supply (Volts)	1.6	1.6
I/O Supply (Volts)	1.8 V / 2.75 V / 3.3 V	1.8 V / 2.75 V / 3.3 V

Development Tools and Software

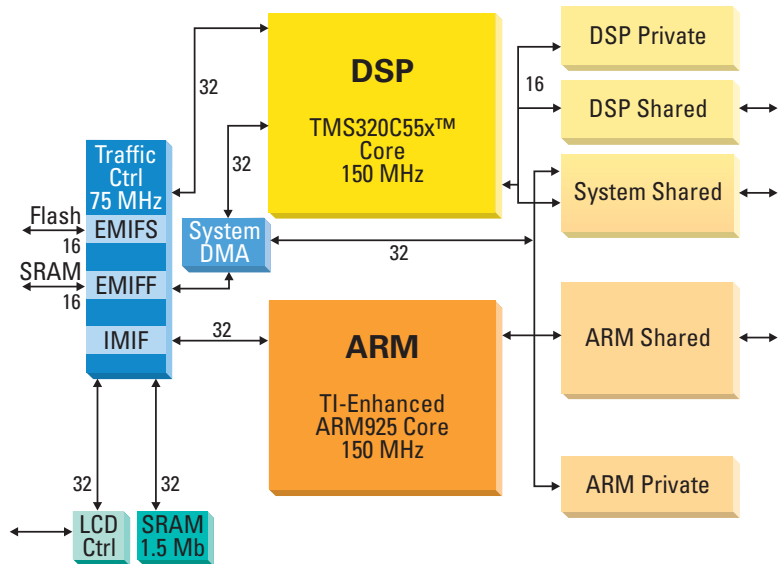
Innovator™ Development Kit

Customers can start designing today with the Innovator Development Kit for the OMAP Platform. The Innovator Board is a hand-held expandable, flexible development platform for OMAP™ processors and enables developers to create innovative applications for a variety of market segments.

Code Composer Studio™ IDE

Code Composer Studio (CCStudio) IDE for the OMAP platform integrates all host and target tools in a unified environment. This simplifies DSP configuration and optimization to take full advantage of the high-performance processing capabilities of the DSP core in the OMAP5910 device. CCStudio for OMAP processors addresses each phase of the code development cycle including design, code and build,

Block Diagram



debug, analysis and optimization.

Samples and Availability:

The OMAP5910 processor is sampling today with volume production scheduled second quarter 2003. Contact your local TI repre-

sentative for further information.

For more information, visit our web site at www.ti.com/omap5910 where you can download a comprehensive online literature kit or register for a free online training course.

TI Worldwide Technical Support

Internet

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support.ti.com/sc/knowledgebase

Product Information Centers

Americas

Phone +1(972) 644-5580
 Fax +1(972) 927-6377
 Internet/Email support.ti.com/sc/pic/americas.htm

Europe, Middle East, and Africa

Phone
 Belgium (English) +32 (0) 27 45 55 32
 Finland (English) +358 (0) 9 25173948
 France +33 (0) 1 30 70 11 64
 Germany +49 (0) 8161 80 33 11
 Israel (English) 1800 949 0107
 Italy 800 79 11 37
 Netherlands (English) +31 (0) 546 87 95 45
 Spain +34 902 35 40 28
 Sweden (English) +46 (0) 8587 555 22
 United Kingdom +44 (0) 1604 66 33 99
 Fax +(49) (0) 8161 80 2045
 Email epic@ti.com
 Internet support.ti.com/sc/pic/euro.htm

Japan

Fax International +81-3-3344-5317
 Domestic 0120-81-0036
 Internet/Email International support.ti.com/sc/pic/japan.htm
 Domestic www.tij.co.jp/pic

Asia

Phone
 International +886-2-23786800
 Domestic Toll-Free Number
 Australia 1-800-999-084
 China 108-00-886-0015
 Hong Kong 800-96-5941
 Indonesia 001-803-8861-1006
 Korea 080-551-2804
 Malaysia 1-800-80-3973
 New Zealand 0800-446-934
 Philippines 1-800-765-7404
 Singapore 800-886-1028
 Taiwan 0800-006800
 Thailand 001-800-886-0010
 Fax 886-2-2378-6808
 Email tiasia@ti.com
 Internet support.ti.com/sc/pic/asia.htm

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