

Product Bulletin

TMS320C67x™ Floating-Point DSP Generation

Key Benefits

- **Excellent price/performance value** – TI offers a broad range of performance options at attractive price points
- **Fast time-to-market** – TMS320C67x DSP FastRTS Library helps speed development cycles
- **Code compatibility** – provides scalability and protects customer’s code investment

Texas Instruments (TI) offers a broad range of TMS320C67x™ floating-point DSPs to enable applications in areas such as:

- **Industrial automation:** the C67x™ DSP generation offers 1000 Million Floating-point Operations per Second (MFLOPS) with a roadmap for 1350+ MFLOPS, enabling faster real-time data acquisition and pattern matching for applications such as visual inspection.
- **Audio:** enables efficient processing of both proprietary and industry-standard algorithms for data encoding/decoding.

- Two Multi-channel Audio Serial Ports (McASPs) capable of up to 16 stereo channels of Inter-IC Sound (IIS) at four different clock rates.
- Two Inter-IC Control (IIC) ports.
- 256 KBytes of Level 2 (L2) memory, giving the C6713 DSP the capability to maintain more code/data on-chip, allowing quicker execution.

Additional Performance Given to TMS320C67x Generation

In addition to offering the C6713 DSP, TI will increase the performance of the industry-leading TMS320C6711 and TMS320C6712 DSPs to 1200 MFLOPS (200 MHz) and 900 MFLOPS (150 MHz), respectively. By migrating these DSPs to the 0.13-micron process technology, TI has created faster and more power-efficient DSPs. In

TMS320C6713 DSP—Sampling Today

TI is expanding its portfolio of code-compatible, high-performance, floating-point DSPs with the introduction of the TMS320C6713 DSP. Enabled by TI’s industry-leading 0.13-micron copper process technology, this latest member of the C67x floating-point DSP generation will be capable of performing at 1350 MFLOPS at 225 MHz.

Developers will be able to leverage the C6713 DSP rich peripheral set to differentiate applications:

TMS320C67x DSP Roadmap

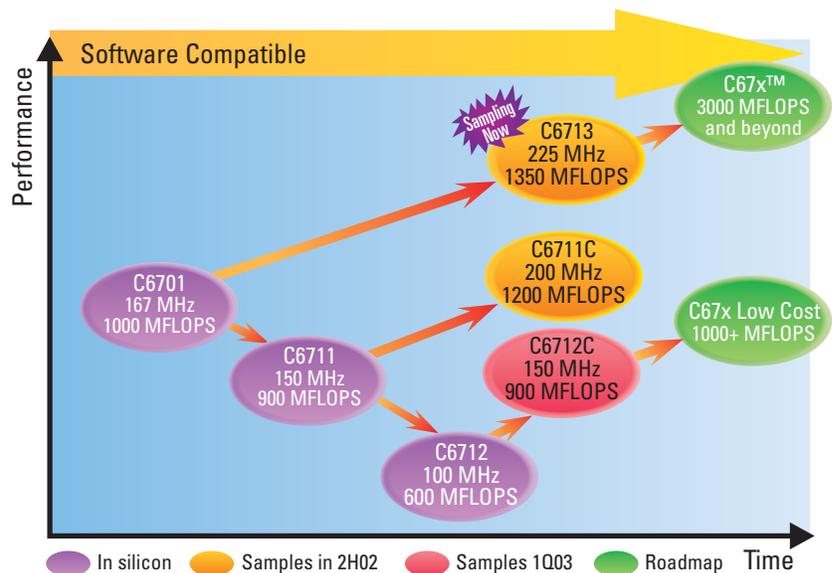


Figure 1: The C67x generation offers proven device architectures, enabling full-featured designs.

addition, this will allow these DSPs to provide a cost savings of 30% over current versions.

Development Tools Aid Faster Time-to-Market

TI's C67x™ DSP Fast Run-Time Support Library (FastRTS) and chip support libraries allow designers to develop applications quickly and easily. The foundation software is free and can be downloaded from www.dspvillage.ti.com/c67lib1. The C67x DSP generation is supported by TI's eXpressDSP™ Software and Development Tools, including Code Composer Studio™ v2 Development Tools and the DSP/BIOS™ real-time kernel.

Pricing and Availability

TI offers a DSP Starter Kit (DSK) priced at U.S. \$295 to begin

TMS320C67x DSP Product Spectrum

	Software Compatible					
	C6701	C6711	C6711C	C6712	C6712C	C6713
Performance	1000 MFLOPS	900 MFLOPS	1200 MFLOPS	600 MFLOPS	900 MFLOPS	1350 MFLOPS
Memory (Bytes)	128K	72K L1/L2	72K L1/L2	72K L1/L2	72K L1/L2	256K L1/L2
Key Feature	Flat Memory	HPI	Perf. Upgrade	Low Cost	Perf. Upgrade	Fit.-Pt. Perf./McASP
BGA Package	35 mm/352	27 mm/256	27 mm/272	27 mm/256	27 mm/272	27 mm/272
Internal Power (Typ)	1.4 W @ 167 MHz	1.1 W @ 150 MHz	0.8 W @ 200 MHz	0.7 W @ 100 MHz	0.5 W @ 150 MHz	1.2 W @ 225 MHz
10 KU Price (Estimated)	\$111.00	\$28.50	\$18.65	\$17.00	\$13.50	\$26.85
Samples	Now	Now	Nov 02	Now	Jan 03	Now
Production	Now	Now	1Q03	Now	2Q03	1Q03

Figure 2: The C67x DSP generation offers engineers the flexibility to configure its peripherals to fit the needs of their applications at an affordable cost.

development today. Also available are one-day workshops in North America and Europe, please visit: www.dspvillage.ti.com/c6711training1 for times and locations.

Many of the C67x DSPs are in production today (reference Figure 2). For further detail, please contact your local TI field sales office or visit: www.dspvillage.ti.com/c6713dsp2.

TI Worldwide Technical Support

Internet

TI Semiconductor Product Information Center Home Page
support.ti.com

TI Semiconductor KnowledgeBase Home Page
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

Important Notice: The products and services of Texas Instruments Incorporated and its subsidiaries described herein are sold subject to TI's standard terms and conditions of sale. Customers are advised to obtain the most current and complete information about TI products and services before placing orders. TI assumes no liability for applications assistance, customer's applications or product designs, software performance, or infringement of patents. The publication of information regarding any other company's products or services does not constitute TI's approval, warranty or endorsement thereof.

Real World Signal Processing, the black/red banner, eXpressDSP, Code Composer Studio, DSP/BIOS, TMS320C67x and C67x are trademarks of Texas Instruments.

B070802



IMPORTANT NOTICE

Texas Instruments Incorporated and its subsidiaries (TI) reserve the right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any product or service without notice. Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All products are sold subject to TI's terms and conditions of sale supplied at the time of order acknowledgment.

TI warrants performance of its hardware products to the specifications applicable at the time of sale in accordance with TI's standard warranty. Testing and other quality control techniques are used to the extent TI deems necessary to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

TI assumes no liability for applications assistance or customer product design. Customers are responsible for their products and applications using TI components. To minimize the risks associated with customer products and applications, customers should provide adequate design and operating safeguards.

TI does not warrant or represent that any license, either express or implied, is granted under any TI patent right, copyright, mask work right, or other TI intellectual property right relating to any combination, machine, or process in which TI products or services are used. Information published by TI regarding third-party products or services does not constitute a license from TI to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from TI under the patents or other intellectual property of TI.

Reproduction of information in TI data books or data sheets is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. Reproduction of this information with alteration is an unfair and deceptive business practice. TI is not responsible or liable for such altered documentation.

Resale of TI products or services with statements different from or beyond the parameters stated by TI for that product or service voids all express and any implied warranties for the associated TI product or service and is an unfair and deceptive business practice. TI is not responsible or liable for any such statements.

Mailing Address:

Texas Instruments
Post Office Box 655303
Dallas, Texas 75265