

9th Annual Insight Awards Winners

Most Innovative Logic Process Technology



Intel 32nm "Clarkdale/Westmere" CPU

Other logic process nominees

- 40nm TSMC (AMD/ATI GPU from Radeon HD4770)
- 45nm Samsung process (Apple A4 & Samsung S5PC110)
- 45nm Freescale process (QorIQ Communications Processor)

Most Innovative DRAM



Winbond W971GG6JB-18 65nm Buried Wordline 1Gbit DDR2 SDRAM

Other DRAM nominees

- Micron 42nm 2Gb DDR3 SDRAM
- Samsung 48nm 1Gb DDR3
- Hynix 54nm 1Gb GDDR5 SGRAM
- Samsung 56nm 1Gb GDDR5

Most Innovative Memory Process Technology



Intel / Micron (IMFT) 25nm 64Gbit MLC NAND Flash

Other advanced memory process nominees

- Micron 42nm 2Gb DDR3 SDRAM
- Samsung 48nm 1Gb DDR3
- Hynix 32nm 32Gbit MLC NAND Flash

Most Innovative Non-Volatile Memory



SanDisk/Toshiba 32nm 32Gbit x3 (3 bit per cell) NAND

Other NVM nominees

- Intel/Micron (IMFT) 25nm 64Gbit MLC NAND Flash
- Hynix 32nm 32Gbit MLC NAND Flash
- IMFT 34nm 32Gb 3-bit-per-cell NAND Flash
- Samsung 35nm 32Gbit MLC NAND Flash
- SanDisk 43nm 64Gbit x4 NAND

2008 Insight Awards Winners

Most Innovative Process Technology



Micron (IMFT) MT29F32G08 34nm NAND Flash

Other nominees

- Altera Stratix IV GX FPGA 40nm
- Intel 45nm Atom Processor
- Micron (IMFT) MT29F32G08 34nm NAND Flash
- Quad-Core AMD Opteron™ 45nm Processor ("Shanghai")
- Samsung K9GAG08U0D 42nm16Gbit MLC NAND Flash
- Toshiba TC58NVG4D2ETA10 43nm 16Gb MLC NAND

Most Innovative Non-Volatile Memory



Toshiba TC58NVG4D2ETA10 43nm 16Gb MLC NAND

Other nominees

- Micron (IMFT) MT29F32G08 34nm NAND Flash
- Samsung K9GAG08U0D 42nm16Gbit MLC NAND Flash
- Toshiba TC58NVG4D2ETA10 43nm 16Gb MLC NAND

Most Innovative DRAM



Micron MT47H64M16HR 50nm 1Gbit DDR2 SDRAM

Other nominees

- Hynix 66nm 1G DDR3 DRAM
- Hynix H5PS1G83EFR 54nm 1Gb DDR2 SDRAM
- Micron MT47H64M16HR 50nm 1Gbit DDR2 SDRAM
- Samsung 58nm K4T1G164QE 1Gbit DDR2 SDRAM

Most Innovative Mobile Processor



Intel 45nm Atom Processor

Other nominees

- Intel 45nm Atom Processor
- Qualcomm QSD8650 Mobile Processor (Snapdragon Platform)
- Samsung S5L8900B01 Applications Processor
- Sandbridge SB3500 Flexible Baseband Processor
- Texas Instruments 65nm OMAP3530 Applications Processor

2007 Insight Awards Winners

Most Innovative Display Driver

TOSHIBA

Leading Innovation >>>

Toshiba T6K84 driver IC found in the Toshiba W52T CDMA cell phone / digital Camera

Other nominees

- Himax PA5303 TFT Driver
- NEC μ PD161953 OLED Source Driver
- NEC μ PD161989 TFT Source Driver
- Renesas BD663471 TFT Source Driver
- Renesas R61505 TFT Driver
- Sharp CGS Embedded Drivers
- Solomon Systech SSD1784 STN Driver
- Toshiba T6K84 262k Color Driver IC for 480x800 LTPS Display

Most Innovative Baseband AND/OR Applications Processor



Qualcomm MSM6260 Multimedia Platform

Other nominees

- Infineon E-GOLDvoice
- Qualcomm MSM6255a
- Qualcomm MSM6260
- Qualcomm MSM7500
- Texas Instruments ECosto OMAPv1035
- Texas Instruments OMAP 3410/3420/3430
- Texas Instruments 65nm Baseband Processor

Most Innovative RF IC



Marvell 88W8686 Mobile 802.11a/b/g

Other nominees

- Infineon E-GOLDvoice
- Marvell 88W8686 mobile 802.11a/b/g
- Broadcom 2085 mobile EDGE
- Broadcom 4325 FM/Bluetooth/802.11a/b/g

- Infineon PMB5701 SMARTi 3G
- Infineon PMB6272 SMARTi PM
- Infineon SMARTi PM+
- Infineon SMARTi UE
- Nordic nRF24L01
- Qualcomm Single Chip (QSC6010)
- Qualcomm RTR6285
- Texas Instruments Bluelink 7.0
- Texas Instruments Bluelink 6.0

Most Innovative DRAM



Micron 78nm 1Gb DDR3 SDRAM

Other nominees

- Samsung 80nm DDR2
- Hynix 80nm DDR2
- Hynix 60nm DDR2
- Samsung 80nm DDR3
- Samsung 70nm DDR2
- Elpida 70nm DDR2
- Micron 78nm DDR3
- Qimonda 75nm DDR2
- Qimonda 90nm DDR3
- Qimonda 75nm GDDR5

Most Innovative Non-Volatile Memory



Samsung 51nm 16Gb MLC NAND Flash

Press Release

Other nominees

- Hynix/STMicro 70nm 4Gb SLC NAND Flash
- Hynix/STMicro 70nm 8Gb MLC NAND Flash
- Hynix/STMicro 55nm 16Gb MLC NAND Flash
- IMFT 50nm 4Gb SLC NAND Flash
- IMFT 50nm 16Gb MLC NAND Flash
- Samsung 51nm 8Gb SLC NAND Flash
- Samsung 51nm 16Gb MLC NAND Flash
- Toshiba 56nm 16Gb MLC NAND Flash
- NOR
- Intel 65nm 1Gb StrataFlash NOR Flash
- Spansion 90nm 2Gb Quad Bit NOR Flash
- Spansion 65nm MirrorBit
- STMicroelectronics 65nm 1Gb NOR Flash

2006 Insight Awards Winners

Most Innovative RF IC



TI BRF6300 Bluetooth v2.0 + Enhanced Data Rate Single Chip Solution

Other nominees

Bluetooth Stream

- Broadcom BCM2045
- Cambridge Silicon Radio BlueCore05
- RF Micro Devices SiW4000

Cellular RF

- Analog Devices Othello-G Radio for GSM/GPRS
- Silicon Labs Si4300
- STMicroelectronics STLC2411
- STMicroelectronics STM2500
- Texas Instruments Single Chip GSM Phones

DBVH

- Texas Instruments DTV 1000/1 "Hollywood"

WLAN Stream

- Airgo 802.11n AGN100RF & AGN100BBP/MAC
- Atheros 802.11a/b/g AR5006X
- Marvell AT8W Series

ZigBee Stream

- Chipcon (Texas Instruments) CC2430
- Chipcon (Texas Instruments) CC2500
- Ember EM250
- Freescale MC13192

Most Innovative Non-Volatile Memory



Toshiba 70nm 8Gb MLC NAND Flash

Press Release

Other nominees

- Hynix 70nm NAND Flash
- Infineon 90nm NAND Flash
- Intel 90nm 512Mb StrataFlash
- Samsung 65nm 4Gb NAND Flash
- Samsung 4Gbit MLC NAND Flash
- Spansion 90nm 1Gb ORNAND
- Spansion 90nm 512Mb MirrorBit NOR Flash
- Toshiba 70nm 4Gb MLC NAND Flash

Most Innovative DRAM Memory



Micron 95nm 6F² Mobile SDRAM

Press Release

Other nominees

- Embedded Memory in Xbox 360
- Infineon 90nm DRAM
- Samsung 110nm 6F² SDRAM
- Samsung 70nm 512Mbit DDR2 SDRAM

Most Innovative Image Sensor



Cypress IM103 1/3" VGA-Format CMOS Image Sensor

Press Release

Other nominees

- Kodak 3 Megapixel
- Micron 2 Megapixel
- OmniVision 5.18 Megapixel
- Samsung 2 Megapixel

Most Innovative Baseband and/or Applications Processor



Texas Instruments "LoCosto" RF and Baseband Single Chip Solution

Press Release

Other nominees

- Infineon PMB7870
- Intel "Hermon"
- Qualcomm MSM6250a
- Qualcomm MSM6275
- Qualcomm MSM6800
- Qualcomm 7200/7500/7600
- Texas Instruments OMAP V1030
- Texas Instruments OMAP V2230
- Texas Instruments OMAP VOX

Most Innovative Process Technology



AMD 65nm SOI Athlon 64 X2 Processor

Press Release

Other nominees

- AMD 65nm High Power SOI
- IBM 65nm High Power
- Intel 65nm High Power
- Intel 65nm Low Power
- MEI 65nm High Power
- NEC 90nm e-DRAM
- Philips 90nm RFCMOS
- Sony/Toshiba/IBM Cell Processor
- Texas Instruments 65nm High Power
- Texas Instruments 90nm RFCMOS
- TSMC 65nm High Power

2005 Insight Awards Winners

Most Innovative Non-Volatile Memory

TOSHIBA

Leading Innovation >>>

[Toshiba 4Gb MLC 90nm NAND Flash](#)

[Press Release](#)

Other nominees

- Infineon 512Mb NAND
- Intel 90nm StrataFlash NOR Flash
- Intel W18 90nm Wireless Flash Memory
- M-Systems 8 Mb Disk on Chip
- Renesas 4Gb MLC AND Flash
- Samsung 512Mb 90nm OneNAND Flash
- Spansion 256Mb 110 nm MirrorBit Flash
- Spansion 512Mb 110 nm MirrorBit Flash

Most Innovative DRAM



[Samsung 90nm 512Mb DDR2 \("C" Rev\) SDRAM](#)

[Press Release](#)

Other nominees

- Elpida Mobile 512Mb DRAM
- Infineon Mobile 512Mb DRAM
- Micron 1Gb DDR2 in 90nm with 6F2
- Samsung 90nm 512Mb DDR ("C" Rev DRAM)
- Samsung 90nm 256Mb GDDR2 SDRAM

Best MP3 Player



Other nominees

- Apple iPod mini 4GB
- Apple iPod 20GB
- Apple iPod Shuffle 1GB
- Creative ZEN Micro 5GB
- Creative Muvo Micro 1GB
- iRiver H320 20GB
- iRiver IFP-999 1GB
- Rio Carbon 5GB
- Rio Forge 512MB

Most Innovative Image Sensor



Micron MT9D011 CMOS Image Sensor

Other nominees

- Kodak KAC-3100
- MagnaChip 7161
- MagnaChip 7171
- Maicovicon MN39920
- Micron MT9T001
- Omnivision OV2610
- Samsung S5K4AAFX
- Samsung S5K500FX
- Sony M009ALZ

Best Handset



Other nominees

- Motorola MPx
- Nokia 6230
- Nokia 9500
- RIM Blackberry 7290
- Samsung D500 5 megapixel
- Samsung SCH-S250
- Samsung SGH-P777

Most Innovative Process Technology



Samsung 73nm NAND Flash

Other nominees

- Altera Stratix II (TSMC 90nm)
- AMD Athlon 64
- IBM 65nm Logic Technology
- Intel 65nm Logic Technology
- Intel W18 90nm Wireless Flash Memory
- Matrix Semiconductor 32Mb 3D OTP Memory
- Sony/Toshiba CMOS5 Process
- Texas Instruments 90nm for Wireless
- Texas Instruments C021 65nm process
- UMC 90nm

Most Innovative System On Chip



Texas Instruments OMAP2420 Applications Processor

Press Release

Other nominees

- Freescale MC9S12NE64 16-bit Micro
- IBM/Sony/Toshiba Sony Playstation 3 processor ("Cell")
- Intel "Hermon"
- Qualcomm MSM6275, 6225, 6255
- Qualcomm MSM6500
- Qualcomm MSM7200, 7500, 7600
- Sigmatel D-Major STMP3520B
- Silicon Labs C8051F06X Mixed Signal ISP Flash MCU Family (*EE Time ACE Award Winner*)
- Texas Instruments OMAP 1710
- Texas Instruments MSC1201 (24 bit)

2004 Insight Awards Winners

Most Innovative Non-Volatile Memory



Samsung 8G NAND Flash (K9W8G08U1M-YCB0)

[Press Release](#)

Most Innovative DRAM



Micron 256M SDRAM With 6F2 CELL

[Press Release](#)

Most Advanced Process



IBM G5 PowerPC 970FX Processor

[Press Release](#)

Best System-on-Chip (SOC)



Texas Instruments OMAP1612 Processor

[Press Release](#)

Most Innovative CMOS Image Sensor



Canon 10D EOS Image Sensor

[Press Release](#)