

STMP Family Comparison Table

Freescal's ARM9-based STMP product line enables consumers to enjoy a true multimedia experience. Coupled with customizable software, the analog intensive, mixed-signal ICs are an ideal solution for portable electronics such as portable media

players and personal navigation devices. The STMP product line is a portfolio of system-level solutions that enable customers to rapidly introduce and offer electronic products that are small, lightweight, power-efficient, reliable and cost-effective.

| | STMP3710 | STMP3731 | STMP3750 | STMP3738 | STMP3770 |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| CPU | ARM926EJ-S | ARM926EJ-S | ARM926EJ-S | ARM926EJ-S | ARM926EJ-S |
| Speed (CPU/System) | 360/180 | 360/180 | 360/180 | 360/180 | 360/180 |
| I-Cache/D-Cache | 16 KB/16 KB | 16 KB/16 KB | 16 KB/16 KB | 16 KB/16 KB | 16 KB/16 KB |
| Floating Point | - | - | - | - | - |
| Direct Memory Access (DMA) | 16 | 16 | 16 | 16 | 16 |
| Smart Speed™ Switch | - | - | - | - | - |
| Embedded SRAM | 256 KB | 256 KB | 256 KB | 256 KB | 512 KB |
| Double Date Rate Memory (mDDR) | Yes | Yes | Yes | Yes | Yes |
| Flash Boot | NAND or NOR(SPI) | NAND or NOR | NAND or NOR | NAND or NOR | NAND or NOR(SPI) |
| Multiplier-Accumulator (MAC), Discrete Cosine Transformation/ Inverse Discrete Cosine Transformation (DCT/IDCT) Hardware Accelerator | - | - | - | - | - |
| Video Acceleration | - | - | - | - | - |
| Image Pre- and Post-Processor | Scale/CSC/Rotate | Scale/CSC/Rotate | Scale/CSC/Rotate | Scale/CSC/Rotate | Scale/CSC/Rotate |
| 2-D/3-D Graphics | - | - | - | - | - |
| Security | Hardware Accelerator | Hardware accelerator | Hardware accelerator | Hardware accelerator | Hardware accelerator |
| Liquid Crystal Display Controller (LCDC) | 8-bit QVGA | 8/16-bit QVGA | 8/16-bit QVGA | 8/16-bit QVGA | 8-bit QVGA |
| Universal Asynchronous Receiver/Transmitter (UART) | 2 | 2 | 2 | 2 | 2 |
| IrDA | - | IR, VFIR | IR, VFIR | IR, VFIR | - |
| Serial Peripheral Interface (SPI) | Up to 2 | Up to 2 | Up to 2 | Up to 2 | Up to 2 |
| Synchronous Serial Interface/Inter-Integrated Circuit Sound (SSI/I ² S) | - | Up to 2 | Up to 2 | Up to 2 | - |
| Inter-Integrated Circuit (I ² C) | 1 | 1 | 1 | 1 | 1 |
| Wi-Fi Support | - | - | Yes | Yes | - |
| Universal Serial Bus (USB) | FS/HS Device | FS/HS Device | FS/HS Host/Device | FS/HS Device | FS/HS Device |
| Multimedia Card/Secure Digital (MMC/SD) Controller | Up to 2 | Up to 2 | Up to 2 | Up to 2 | Up to 2 |
| PCMCIA/Compact Flash | - | Yes | Yes | Yes | - |
| Memory Stick Controller | Yes | Yes | Yes | Yes | Yes |
| ECC8 | Yes | Yes | Yes | Yes | Yes |
| NAND | Yes | Yes | Yes | Yes | Yes |
| Timer | 4 | 4 | 4 | 4 | 4 |
| Watchdog Timer | Yes | Yes | Yes | Yes | Yes |
| Real-Time Clock | 1 | 1 | 1 | 1 | 1 |
| Pulse Width Modulation (PWM) | x5 | x5 | x5 | x5 | x5 |
| Package | 100-pin QFP 100-pin BGA | 128-pin QFP 169-pin BGA | 128-pin QFP 169-pin BGA | 128-pin QFP 169-pin BGA | 100-pin QFP 100-pin BGA |
| Process Technology | 90 nm | 90 nm | 90 nm | 90 nm | 90 nm |

Please note:

The product data sheet is your best source for the most current and detailed technical data on the STMP processor you prefer.

To download the product's data sheet, visit our Web site at freescal.com/stmp.