

Transmeta[™] for Smart Displays



Data Sheet

The portable Smart Display is the next evolution in personal mobile computing. Built with integrated wireless connectivity and a touch sensitive screen for use with a stylus, Smart Displays are small portable devices that attach remotely to extend the full capabilities of existing computers and Internet connectivity.

Transmeta[™], the leader in efficient computing, has partnered with Microsoft[®] to combine the power of Windows[®] XP Professional with the high-performance and low power features of the Transmeta Crusoe and Crusoe SE processors to extend the access of information, applications, services, and multimedia content available on home computers to any room in the house. With a Smart Display, family members can now remotely access slideshows, music, video, email, instant messaging, recipes, online auctions, presentations, and any other information stored on a home computer, and easily share them with family members and friends within the comfortable environments of your home.

Highly portable Smart Display devices demand high performance hardware, quiet fanless components, and a long battery life. The inherently energy efficient design of Transmeta's Crusoe/Crusoe SE TM5500/ TM5800 processors offer the low power, high-performance features manufacturers require to build these lightweight, cool, cutting edge Smart Panels.

Transmeta Crusoe/Crusoe SE TM5500/TM5800 Processors

Quiet, Cool Computing

The Crusoe/Crusoe SE TM5500/TM5800 processors are software-based processors that contain fewer power hungry transistors than conventional processors, thus requiring less electricity to run. This equates to a longer battery life and cooler operation without the need for noisy fans.

Transmeta LongRun[®] Power Management

Power Management has reached a new plateau with Transmeta's LongRun Power Management technology. Crusoe processor frequency and voltage is continuously scaled, upwards of 200 times per second, based on the performance needs of the operating system and the applications that are being run. This ensures the processor delivers high performance when necessary and conserves power when demand is low, further reducing power drain. Best of all, Transmeta's LongRun technology is completely transparent to the end-user.

Full Software Compatibility

Transmeta Crusoe/Crusoe SE TM5500/TM5800 processors provide full x86-compatible software execution and are fully compliant with Microsoft WHQL and Logo certification. Further, systems based on Transmeta's solution are capable of executing all standard x86-compatible operating systems. With Transmeta's Code Morphing software, instructions are translated once, and are saved in cache for re-use. Because most of the functions are implemented in software, less logic transistors are required, resulting in lower power consumption.



MMX Capabilities

MultiMedia Extensions, known as MMX, extend the x86 instruction set with 57 new instructions that enhance the performance of audio, video, and graphics operations. These instructions were developed with the requirements of multimedia code and can be used for any media transfer that requires large amounts of throughput.

Multimedia Support

Transmeta Crusoe/Crusoe SE TM5500/TM5800 processors offer real-time multimedia playback with full DVD quality. Transmeta eliminats dedicated external hardware and replaces it with optimized software based MPEG-2 (DVD), MPEG-4, WMV 8, and WMV 9 decoding.

Integrated Northbridge Controller

The DRAM memory controller and PCI Input/ Output busses that connect data channels between the processor and other system components have been integrated into the same piece of silicon as the processor. With the Crusoe processor, the integrated Northbridge core logic feature facilitates compact system design while further reducing electrical power requirements to the system.





For more information, visit www.transmeta.com



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