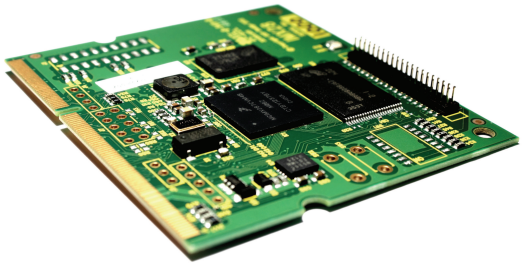
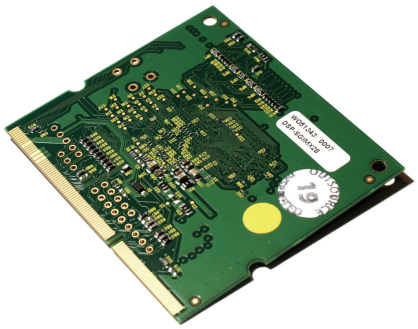
SG-iMX28

Freescale iMX28 SODIMM Solution





The SG-iMX28 is part of the freedom range of industrial processor boards, and is designed as a super component for industrial and consumer applications to help the developer get to market fast. The FreedomSG range offersa robust flexible solution to your developments. The range extends from this iMX28-based module through to the top-end high performance iMX6 Quad Core based module.

The FreedomSG range allows developers to select the processor board that is right for their application, if the developer needs more, or less processing power you simply select another module from the FreedomSG range and connect to the fully compatible carrier board.

Flexibility

The SG-iMX28 uses ARM 9 technology based on the Freescale iMX28 multimedia applications processor running at up to 450MHz. The module provides a fantastic range of features which are accessible via industry standard connectors on a carrier board. The low power and robust design make the SG-iMX28 the ideal solution for cost sensitive applications.

To maintain the low cost and flexibility the SG-IMX28 uses a SODIMM module form-factor with securing holes for additional security. This form factor is the same throughout the range providing a platform suitable for the harshest industrial application.

The SG-iMX28 is optimised for high performance and low power. The low power characteristics of the module, with a power consumption of less that 2W make this board the ideal choice for battery or solar powered systems. The board offers extensive power management capabilities designed to optimise performance.

Scaleability

The feature rich module provides: touchscreen display interface, USB, CAN, Ethernet, Serial I/O, I²C and is suitable of a wide range of applications such as: HMI, handheld scanners, medical devices, industrial controls & drives, smart energy meters, the list goes on….

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Features

Processor	Freescale iMX28 ARM9 multimedia applications processor running at 450MHz
Memory	128MB of DDR2 RAM fitted as standard
Storage	1GB of NAND Flash fitted as standard MicroSD socket for additional storage capacity
Display	18-bit parallel digital display interface supporting a range of TFT LCDs, including backlight control signals
USB	1x USB 2.0 Host Port 1x USB 2.0 On-The-Go Port (Client or Host)
Serial	2x 4-wire COM port for Application use 1x 2-wire COM port for Debug use
Ethernet	2x 10/100 Base-T Ethernet
Audio	AC'97 on the Extended Carrier Board provides: 1x microphone input 1x stereo lineout 1x stereo linein 1x headphone out
Watchdog	Hardware watchdog timer
Expansion	2x CAN bus (2nd bus reduces one COM port from 4- to 2-wire) 1x SPI 1x I2C 10x GPIO on Extended Carrier Board 1x I2S
Real Time Clock	Battery backed Real Time Clock
Mechanical	67.6mm x 60mm form factor
Power	Single 5V supply
Environmental	0 to +70° C operating temperature range Extended range available for volume orders

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