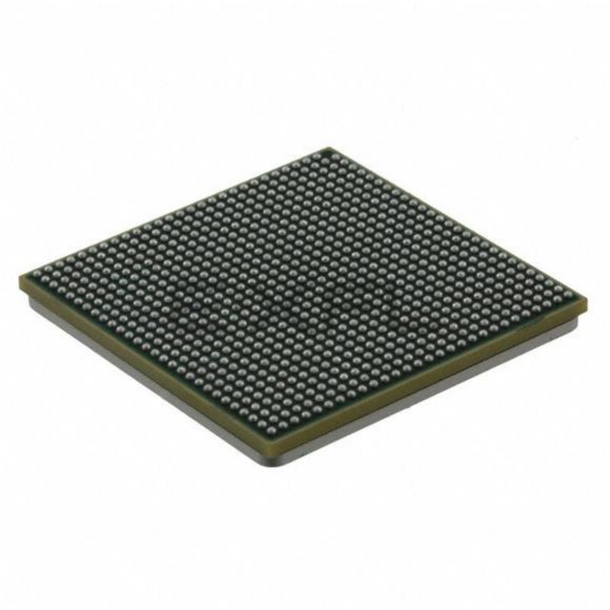

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Understanding Embedded - Microprocessors

Embedded microprocessors are specialized computing chips designed to perform specific tasks within an embedded system. Unlike general-purpose microprocessors found in personal computers, embedded microprocessors are tailored for dedicated functions within larger systems, offering optimized performance, efficiency, and reliability. These microprocessors are integral to the operation of countless electronic devices, providing the computational power necessary for controlling processes, handling data, and managing communications.

Applications of Embedded - Microprocessors

Embedded microprocessors are utilized across a broad spectrum of applications, making them indispensable in

Details	
Product Status	Obsolete
Core Processor	PowerPC e600
Number of Cores/Bus Width	1 Core, 32-Bit
Speed	1.066GHz
Co-Processors/DSP	-
RAM Controllers	DDR, DDR2
Graphics Acceleration	No
Display & Interface Controllers	DIU, LCD
Ethernet	-
SATA	-
USB	-
Voltage - I/O	1.8V, 2.5V, 3.3V
Operating Temperature	0°C ~ 105°C (TA)
Security Features	-
Package / Case	783-BBGA, FCBGA
Supplier Device Package	783-FCPBGA (29x29)
Purchase URL	https://www.e-xfl.com/product-detail/nxp-semiconductors/kmc8610vt1066jb

Table 1. Signal Reference by Functional Block (continued)

Name[1]	Package Pin Number	Pin Type	Power Supply	Notes
LAD[0:31]	AA21, AA22, AA23, Y21, Y22, Y23, Y24, W23, W24, W25, V28, V27, V25, V23, V21, W22, U28, U26, U24, U22, U23, U20, U21, W20, V20, T24, T25, T27, T26, T21, T22, T23	I/O	BV_{DD}	20
LDP[0:3]/LA[6:9]	N28, M28, L28, P25	I/O	BV_{DD}	
LA10/SSI1_TXD	P19	O	BV_{DD}	20, 23
LA11/SSI1_TFS	M27	O	BV_{DD}	23
LA12/SSI1_TCK	U18	O	BV_{DD}	23
LA13/SSI1_RCK	P28	O	BV_{DD}	23
LA14/SSI1_RFS	R18	O	BV_{DD}	23
LA15/SSI1_RXD	R19	O	BV_{DD}	23
LA16/SSI2_TXD	R20	O	BV_{DD}	23
LA17/SSI2_TFS	M18	O	BV_{DD}	23
LA18/SSI2_TCK	N18	O	BV_{DD}	23
LA19/SSI2_RCK	N27	O	BV_{DD}	23
LA20/SSI2_RFS	P20	O	BV_{DD}	23
LA21/SSI2_RXD	P21	O	BV_{DD}	23
LA[22:31]	M19, M21, M22, M23, N23, N24, M26, N20, N21, N22	O	BV_{DD}	20
$\overline{\text{LCS}}$[0:4]	R24, R22, P23, P24, P27	O	BV_{DD}	21
$\overline{\text{LCS5}}$/$\overline{\text{DMA2\_DREQ0}}$	R23	O	BV_{DD}	21, 22, 23
$\overline{\text{LCS6}}$/$\overline{\text{DMA2\_DACK0}}$	N26	O	BV_{DD}	21, 23
$\overline{\text{LCS7}}$/$\overline{\text{DMA2\_DDONE0}}$	R26	O	BV_{DD}	21, 23
$\overline{\text{LWE0}}$/$\overline{\text{LFWE}}$/$\overline{\text{LBS0}}$	T19	O	BV_{DD}	20
$\overline{\text{LWE1}}$/$\overline{\text{LBS1}}$	T20	O	BV_{DD}	20
$\overline{\text{LWE2}}$/$\overline{\text{LBS2}}$	W19	O	BV_{DD}	20
$\overline{\text{LWE3}}$/$\overline{\text{LBS3}}$	T18	O	BV_{DD}	20
LBCTL	T28	O	BV_{DD}	20
LALE	R28	O	BV_{DD}	20
LGPL0/LFCLE	L19	O	BV_{DD}	20
LGPL1/LFALE	L20	O	BV_{DD}	20
LGPL2/$\overline{\text{LOE}}$/$\overline{\text{LFRE}}$	L21	O	BV_{DD}	20
LGPL3/$\overline{\text{LFWP}}$	L22	O	BV_{DD}	20
$\overline{\text{LGTA}}$/LFR$\overline{\text{B}}$/LGPL4/LUPWAIT/LPBSE	L23	I/O	BV_{DD}	24