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What is "Embedded - Microcontrollers"?

"Embedded - Microcontrollers" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

Applications of "Embedded - Microcontrollers"

Details	
Product Status	Obsolete
Core Processor	ARM7®
Core Size	32-Bit Single-Core
Speed	77.4MHz
Connectivity	EBI/EMI, Ethernet, I²C, SSP, UART/USART, USB
Peripherals	Brown-out Detect/Reset, DMA, I²S, LCD, POR, PWM, WDT
Number of I/O	88
Program Memory Size	-
Program Memory Type	ROMless
EEPROM Size	-
RAM Size	16K x 8
Voltage - Supply (Vcc/Vdd)	1.7V ~ 3.6V
Data Converters	A/D 10x10b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 85°C (TA)
Mounting Type	Surface Mount
Package / Case	208-LFBGA
Supplier Device Package	208-CABGA (14x14)
Purchase URL	https://www.e-xfl.com/product-detail/sharp-microelectronics/lh79524n0e100a0

Table 1. LH79524 Pin Descriptions (Cont'd)

CABGA PIN	SIGNAL NAME	TYPE	DESCRIPTION
P11	PN3/D25	I/O	General Purpose I/O Signals — Port N3; multiplexed with Data bit D25
J2	nRESETIN	I	Reset Input
H1	nRESETOUT	O	Reset Output
C16	XTALIN	I	Crystal Input
C15	XTALOUT	O	Crystal Output
D16	XTAL32IN	I	32.768 kHz Crystal Oscillator Input
D15	XTAL32OUT	O	32.768 kHz Crystal Oscillator Output
K1	CLKOUT	O	Clock Out (selectable from the internal bus clock or 32.768 kHz crystal)
D2	nTRST	I	JTAG Test Reset Input
P4	TMS	I	JTAG Test Mode Select Input
T3	TCK	I	JTAG Test Clock Input
T1	TDI	I	JTAG Test Serial Data Input
P3	TDO	O	JTAG Test Data Serial Output
T2	TEST1	I	Tie HIGH for Normal Operation; pull LOW to enable Embedded ICE Debugging
R3	TEST2	I	Tie HIGH for Normal Operation; pull HIGH to enable Embedded ICE Debugging
E3	LINREGEN	I	Linear Regulator Enable
D5, E4, E5, H13, N5	VDDC	Power	Core Power Supply
D10, F4, J13, N4	VSSC	Ground	Core GND
D7, D8, D9, F13, G4, G13, H4, J4, K4, K13, L4, N6, N8, N9, N10	VDD	Power	Input/Output Power Supply
E12, G8, G9, H7, H8, H9, H10, J7, J8, J9, J10, K8, K9, M5	VSS	Ground	Input/Output GND
D1	VDDA0	Power	Analog Power Supply for Analog-to-Digital Converter
F16	VDDA1	Power	Analog Power Supply for the USB PLL
E16	VDDA2	Power	Analog Power Supply for System PLL
J1	VSSA0	Ground	Analog GND for Analog-to-Digital Converter
F15	VSSA1	Ground	Analog GND for the USB PLL
E15	VSSA2	Ground	Analog GND for System PLL

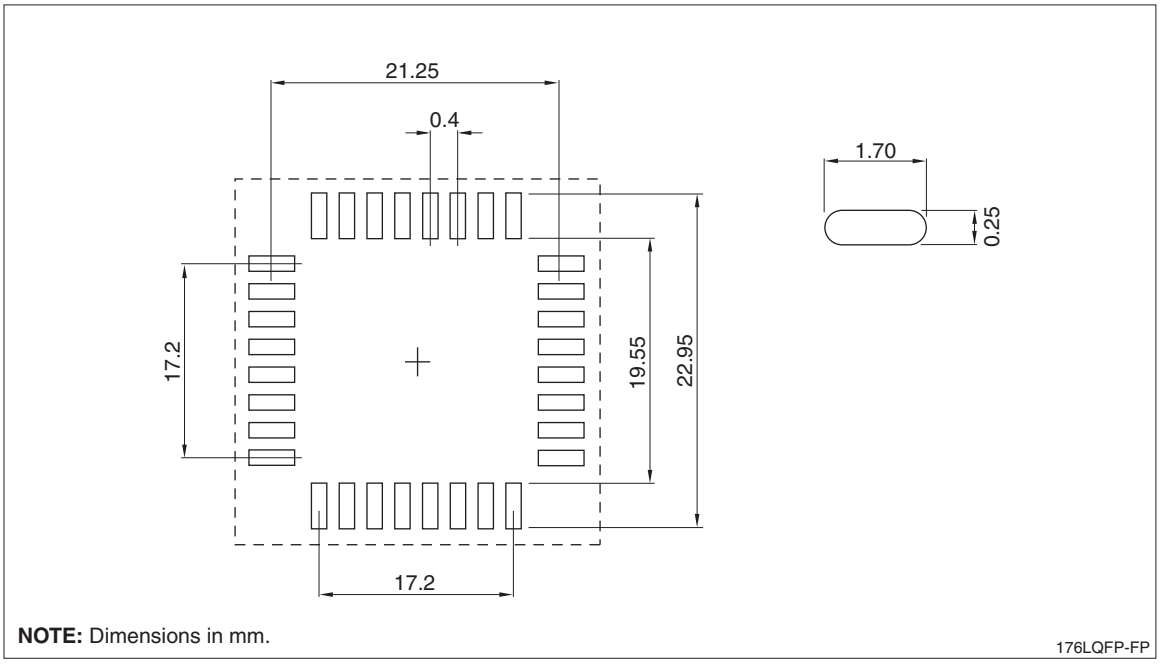

Figure 41. LH79525: 176-pin LQFP PCB Footprint

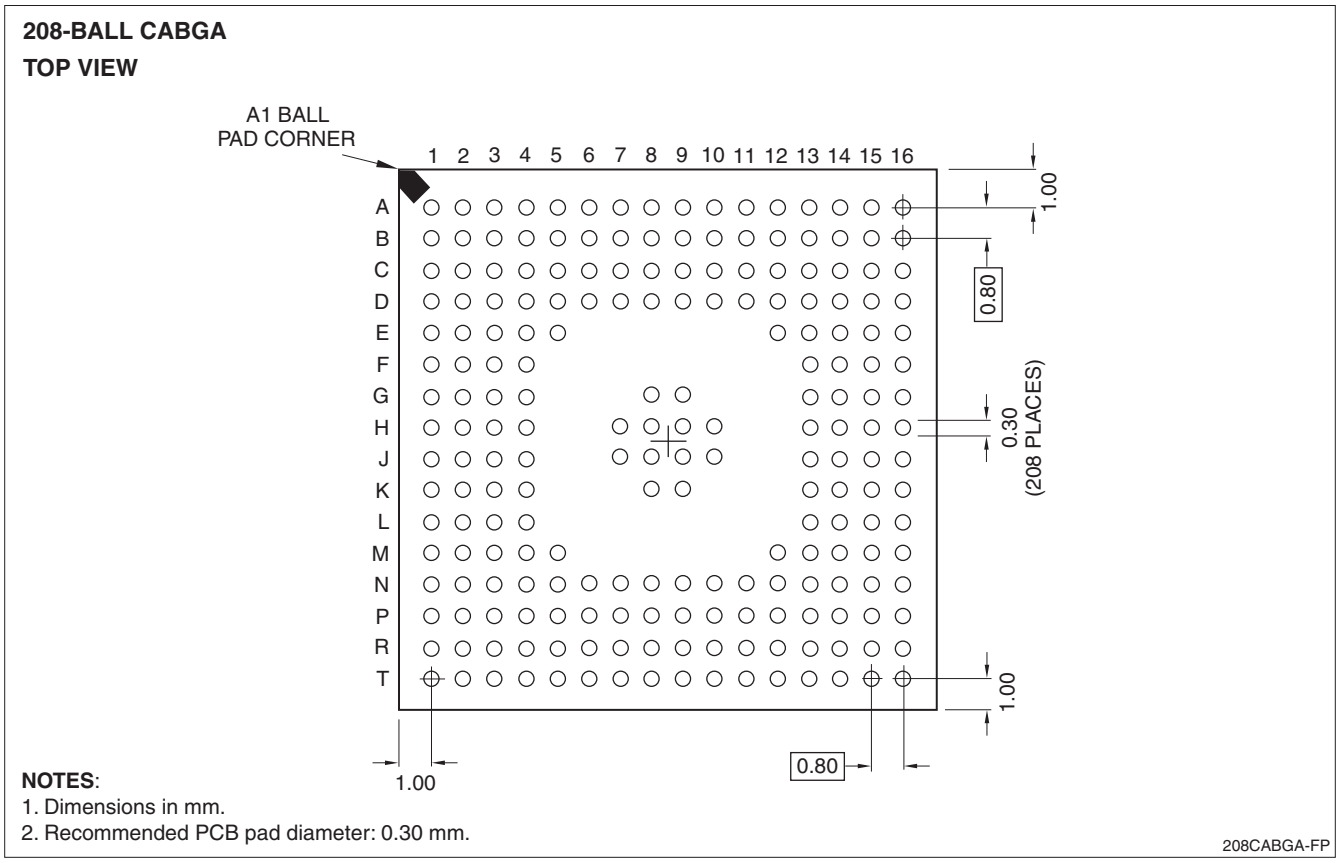

Figure 42. LH79524: 208-ball CABGA PCB Footprint