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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	Active
Core Processor	ARM® Cortex®-M4/M0
Core Size	32-Bit Dual-Core
Speed	100MHz, 150MHz
Connectivity	I²C, LINbus, QSPI, SPI, UART/USART, USB
Peripherals	Brown-out Detect/Reset, Cap Sense, DMA, I²S, POR, PWM, WDT
Number of I/O	62
Program Memory Size	1MB (1M x 8)
Program Memory Type	FLASH
EEPROM Size	32K x 8
RAM Size	288K x 8
Voltage - Supply (Vcc/Vdd)	1.7V ~ 3.6V
Data Converters	A/D 8x12b SAR; D/A 1x12b
Oscillator Type	Internal
Operating Temperature	-40°C ~ 85°C (TA)
Mounting Type	Surface Mount
Package / Case	80-XFBGA, WLCSP
Supplier Device Package	80-WLCSP (3.68x3.19)
Purchase URL	https://www.e-xfl.com/product-detail/infineon-technologies/cy8c6247fdi-d32t

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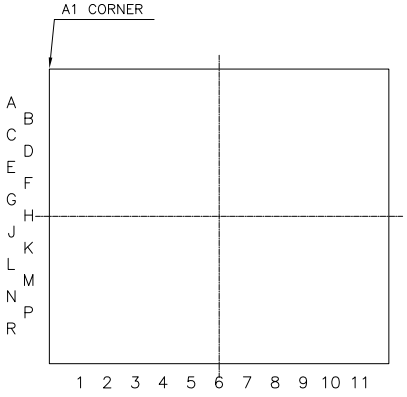
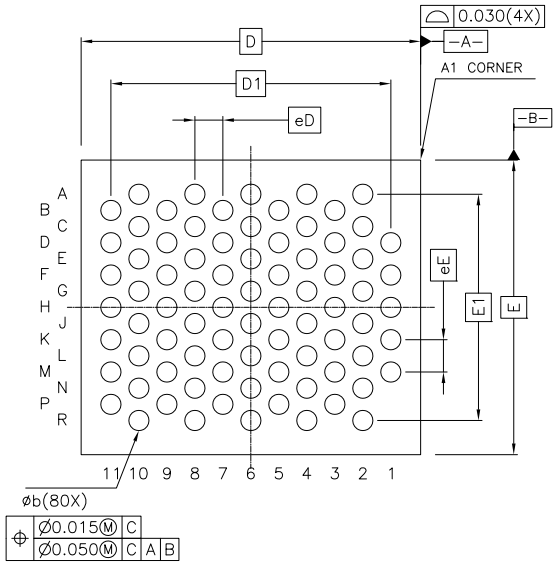
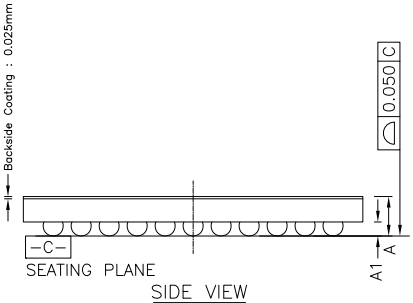


TOP VIEW



BOTTOM VIEW



SIDE VIEW

SYMBOL	DIMENSIONS		
	MIN.	NOM.	MAX.
A	0.387	0.427	0.467
A1	0.122	——	0.182
D	3.676 BSC		
E	3.190 BSC		
D1	3.031 BSC		
E1	2.450 BSC		
n	80		
Øb	0.188	0.218	0.248
eD	0.303 BSC		
eE	0.350 BSC		

NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS.

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'RFXPHQW &RQYHQWLRQV

8QLWV RI 0HDVXUH

7DEOH 8QLWV RI 0HDVXUH

6\PER	8QLW RI 0HDVXUH
f &	GHJUHHV &HOVLXV
G%	GHFLEHO
I)	IHPWR IDUDG
+]	KHUW]
.%	E\WHV
NESV	NLORELWV SHU VHFRQG
NKU	NLORKRXU
N+]	NLORKHUW]
N	NLOR RKP
NVSV	NLORVDPSOHV SHU VHFRQG
/6%	OHDVW VLJQLILFDQW ELW
0ESV	PHJDELWV SHU VHFRQG
0+]	PHJDKHUW]
0:	PHJD RKP
0VSV	PHJDVDPSOHV SHU VHFRQG
—$	PLFURDPSHUH
—)	PLFURIDUDG

7DEOH 8QLWV (continued) RI 0HDVXUH

6\PER	8QLW RI 0HDVXUH
—+	PLFURKHQU\
—V	PLFURVHFRQG
—9	PLFURYROW
—:	PLFURZDWW
P$	PLOOLDPSHUH
PV	PLOOLVHFRQG
P9	PLOOLYROW
Q$	QDQRDPSHUH
QV	QDQRVHFRQG
Q9	QDQRYROW
:	RKP
S)	SLFRIDUDG
SSP	SDUWV SHU PLOOLRQ
SV	SLFRVHFRQG
	V V H F
VSV	VDPSOHV SHU VHFRQG
VTUW+]	VTXDUH URRW RI KHUW]
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