

N32H473xC/xE

N32H473														32 bit ARM Cortex-M4F														200MHz														DSP																																																																																																	
512KB														Flash														192KB SRAM(														32KB CCM SRAM) + 4KB Backup SRAM														4														12bit 4.7Msps																																																																					
ADC 8														12bit DAC														4														PGA 7														COMP														USB FS Device														U(S)ART														I2C														SPI														CAN-FD													
xSPI																												FEMC																												I2S																																																																																			
																												Cordic														FMAC																																										AES/TDES														SHA														SM3																											
SM4														MD5														TRNG																												CRC16/32																																																																																			

CPU

32	ARM Cortex-M4F	+ FPU		DSP	MPU
8KB	Cache	Flash		0	
200MHz	250DMIPS				
512KByte	Flash			1	10
160KB	SRAM				
32KB CCM SRAM		SRAM	CCM SRASM	ECC	
4KB Backup SRAM	ECC	Standby			
Run	45mA @200MHz	3.3V@25			
Stop0	SRAM	RTC Run			
Standby	6uA	Backup SRAM		RTC Run	IO
4MHz~48MHz					
32.768KHz					
	PLL				
2					
	RC 8MHz	-1.5%~+2%			
	RC 32KHz	+/-10%			
/	/				

1	USB FS Device		PHY											
6	SPI	2	I2S	/	SPI									
4	USART	/4	UART		7816	IrDA	LIN	USART3/UART5/UART8			TX/RX			
4	I2C		1 MHz											
2	CAN-FD													
4	12bit	4.7Msps	ADC	12bit	10bit	8bit	6bit				16bit	ADC	16	
3														
8	12	DAC												
	DAC1~4		DAC	1					1Msps		Buffer			
	Buffer													
	DAC5~8		DAC	1		15Msps			BUFFER					
4	PGA													
7	COMP													
1	xSPI	1/2/4/8					SRAM	PSRAM	Flash	XIP				
1	FEMC(Flexible External Memory Controller)					8/16				SRAM	PSRAM	NOR Flash		
NAND Flash														
Cordic														
FMAC FIR IIR														
2	DMA		8											
RTC														
3	16bit													
	4	4	PWM											
10	16	(GTIM1~10)												
	GTIM1~7		5.56ns		4									
	GTIM8~10		5ns		4									
			1											
2	32bit													
2	16bit	Stop0		Standby										
1x	24bit SysTick	1x	14bit	(WWDG)		1x	12bit	(IWDG)						

	N	32	H	4	73	C	E	U	7	
Company										
Abbreviation										
Nationtech										
MCU Bit Width										
32bit										
Types of Product										
High performance										
MCU Core										
4 = ARM Cortex-M4										
Product Series										
73 = Analog Enhanced Type										
Number of Pins										
K = 32 Pins										
C = 48 Pins										
R = 64 Pins										
M = 80 Pins										
V = 100 Pins										
Q = 128 Pins										
										Temperature Range
										7 : -40 ℃~105 ℃
										8 : -40 ℃~125 ℃
										Package Type
										L = LQFP
										U = UQFN
										Flash Size
										C = 256KB Flash
										E = 512KB Flash

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2-1 N32H473

		N32H473KCU7/8 N32H473KEU7/8		N32H473CCU7/8 N32H473CEU7/8		N32H473CCL7/8 N32H473CEL7/8		N32H473RCL7/8 N32H473REL7/8		N32H473MCL7/8 N32H473MEL7/8		N32H473VCL7/8 N32H473VEL7/8		N32H473QCL7/8 N32H473QEL7/8	
		1.7~3.6V/-40~105 125													
CPU		ARM Cortex-M4F @200MHz, 250DMIPS													
Flash KB		256	512	256	512	256	512	256	512	256	512	256	512	256	512
Total SRAM (KB)	General SRAM	112	160	112	160	112	160	112	160	112	160	112	160	112	160
	CCM SRAM	32 ⁽¹⁾													
	Backup SRAM	4													
	ATIM	3*16bit													
	GTIM	7*16bit 3*16bit ⁽²⁾													
	BTIM	2*32bit													
	LPTIM	2*16bit													
	SysTick timer	1													
	WWDG	1*14bit													
	IWDG	1*12bit													

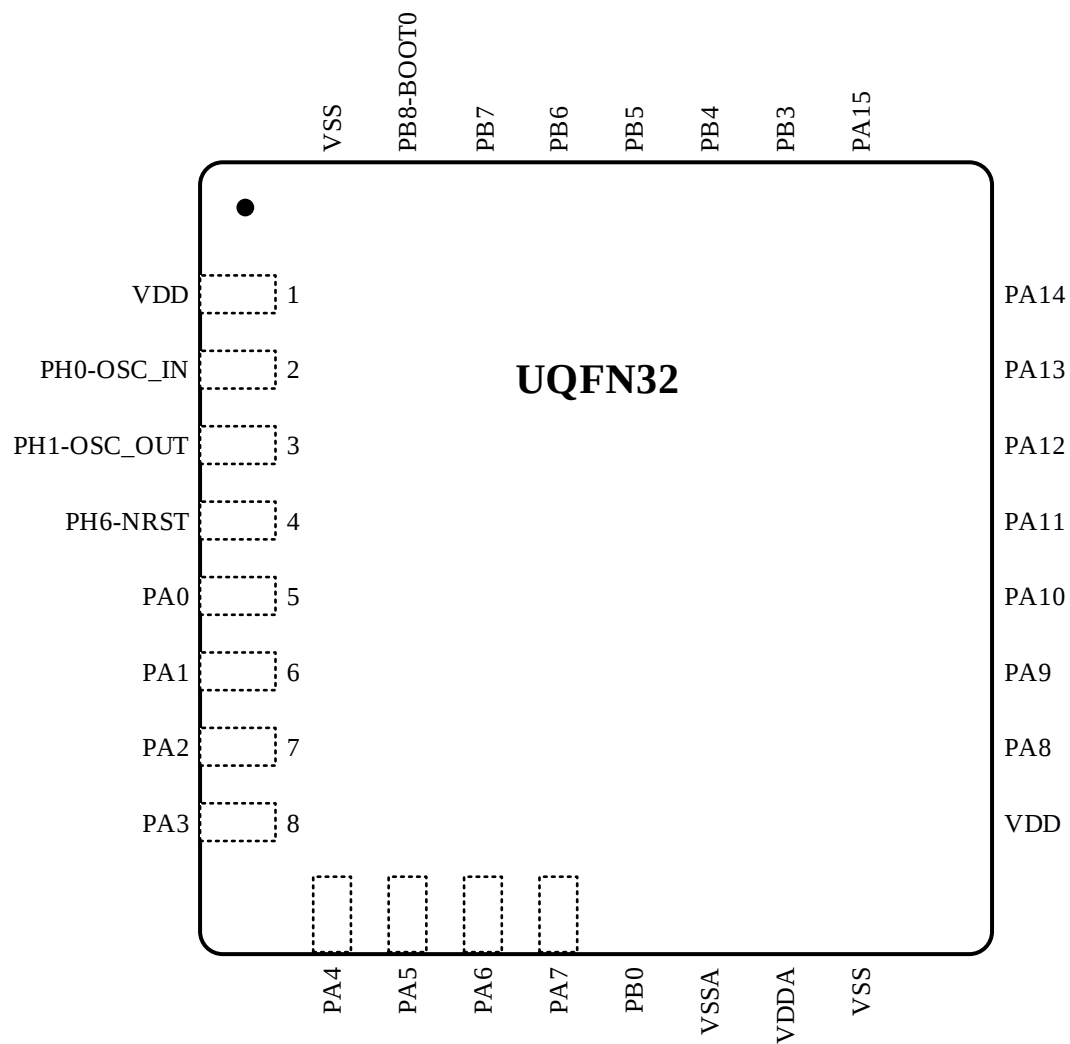
PGA	4	
COMP	7	
VREFBUF	No	Yes
	DES/3DES AES SHA1/SHA224/SHA256 SM3 SM4 MD5 CRC16/CRC32	
TRNG	Yes	
Cordic	Yes	

			RDP/WRP				
	UQFN32	UQFN48	LQFP48	LQFP64	LQFP80	LQFP100	

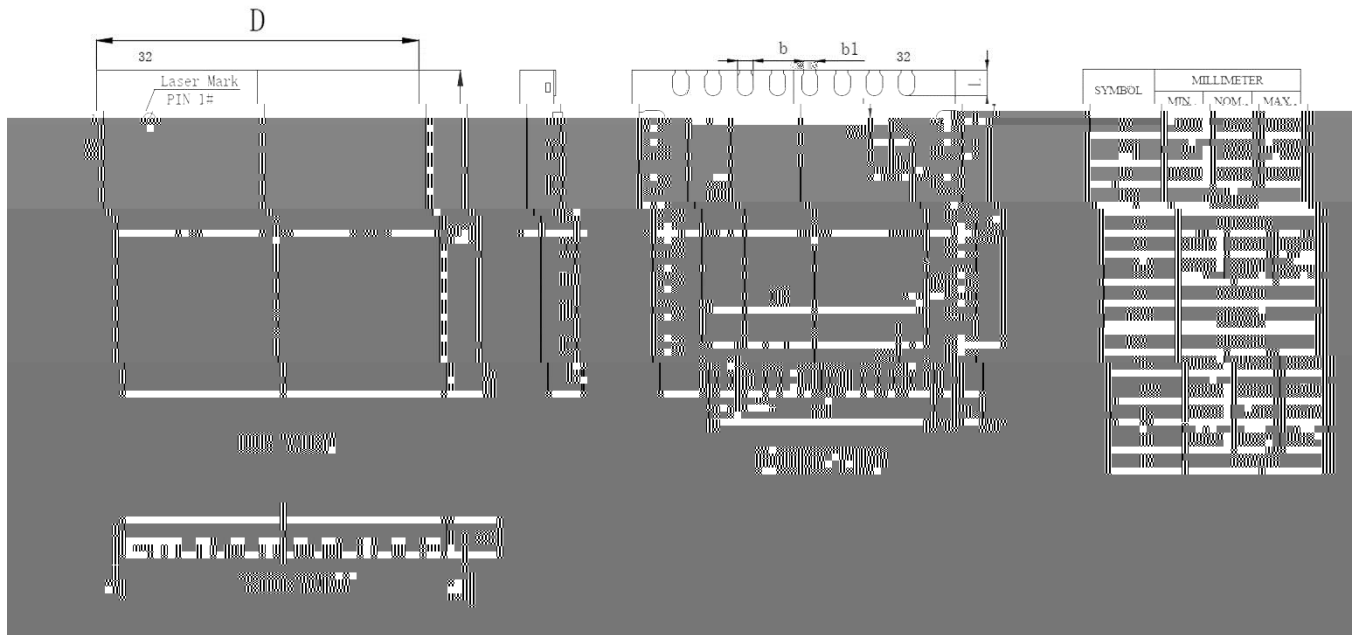
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3.1 UQFN32

3.1.1 UQFN32



3.1.2 UQFN32

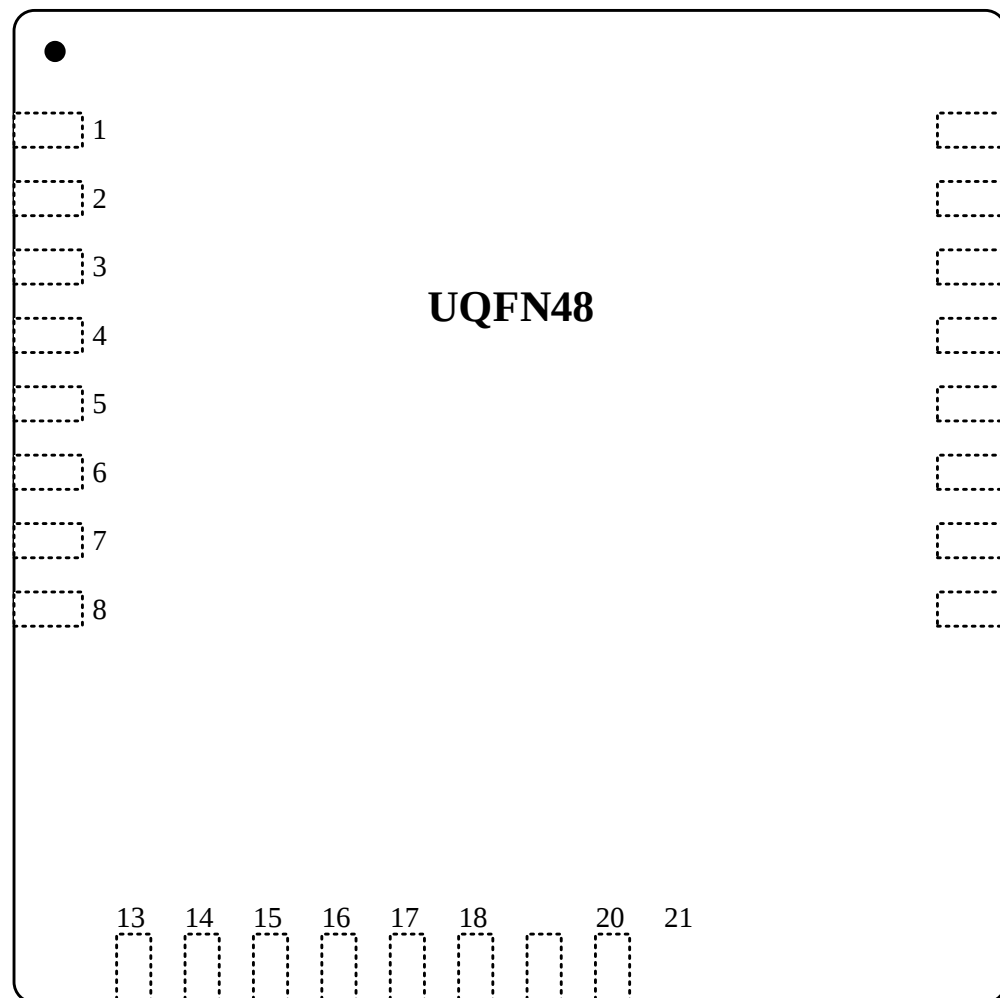


was converted from mm and rounded to 4 decimal digits	1. Values in inches
for (externally estimated ultra-thin film thickness) full coverage no lead	2. UFRAPPA standards
d 10 dots of (no lead) metal distribution (all same thickness) (1.0 mm)	3. Dimensions 10 mm

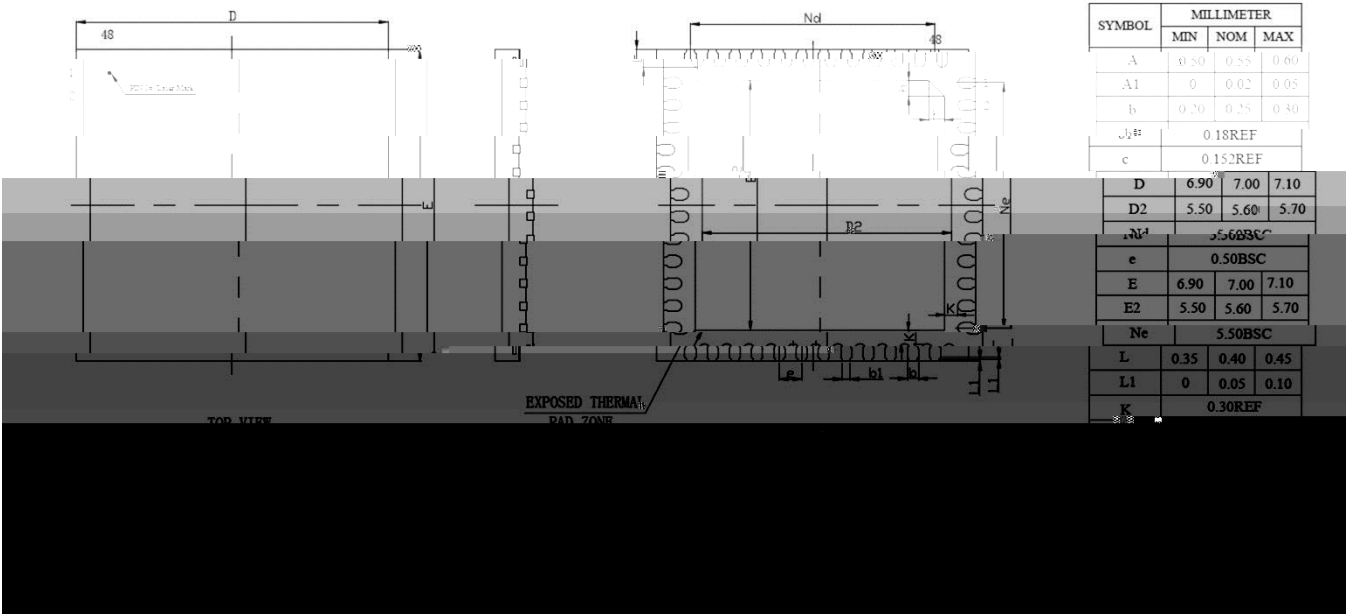
Architectural drawing of a building facade showing a grid of windows and doors. The drawing includes dimensions for the overall width (5.30), the width of the central section (3.80), and the width of the side sections (0.60). The drawing also shows a grid of windows and doors, with a central section containing a door and two windows, and side sections containing windows. The drawing is labeled with '5.30', '3.80', and '0.60'.

3.2 UQFN48

3.2.1 UQFN48

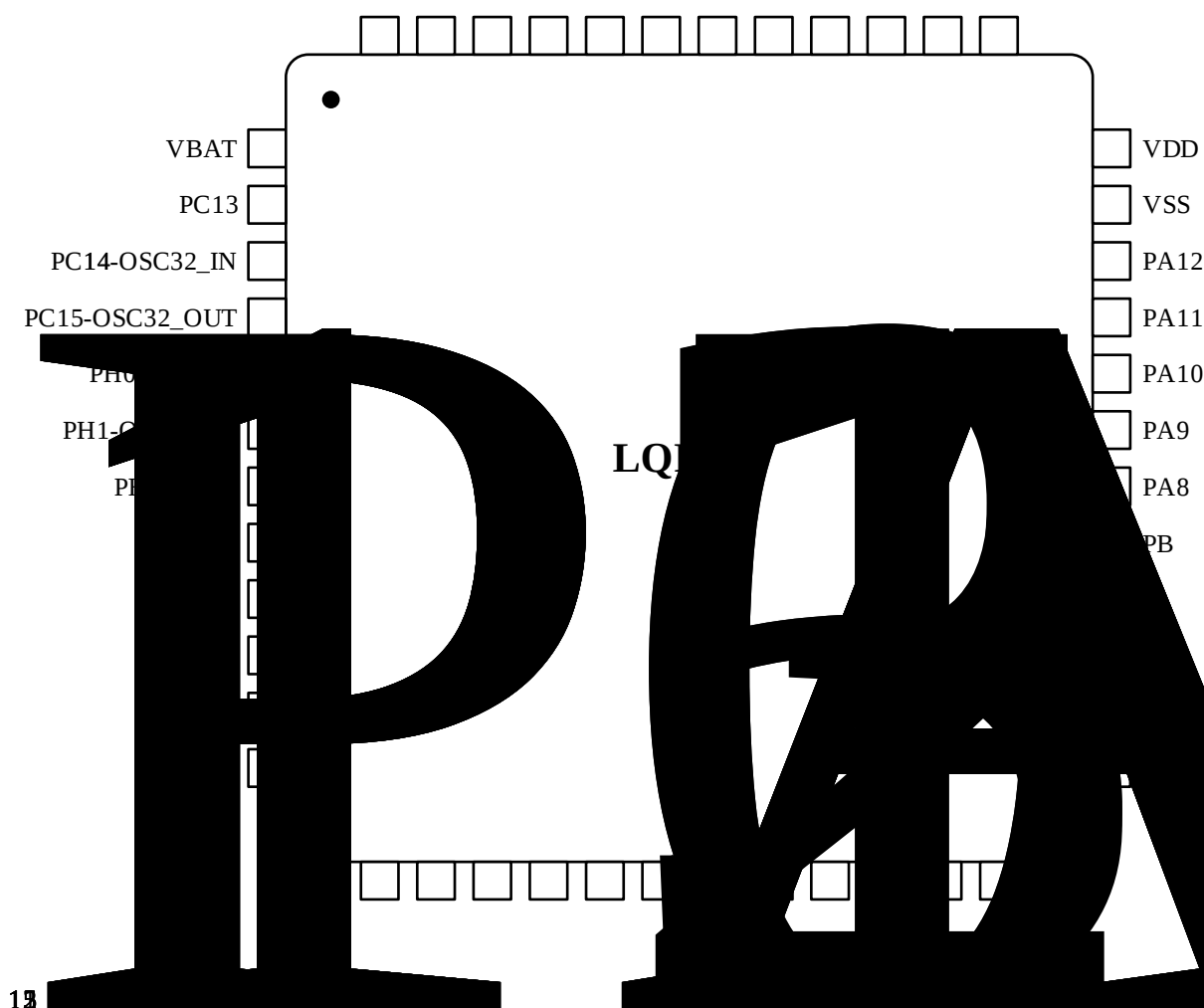


3.2.2UQFN48



3.3 LQFP48

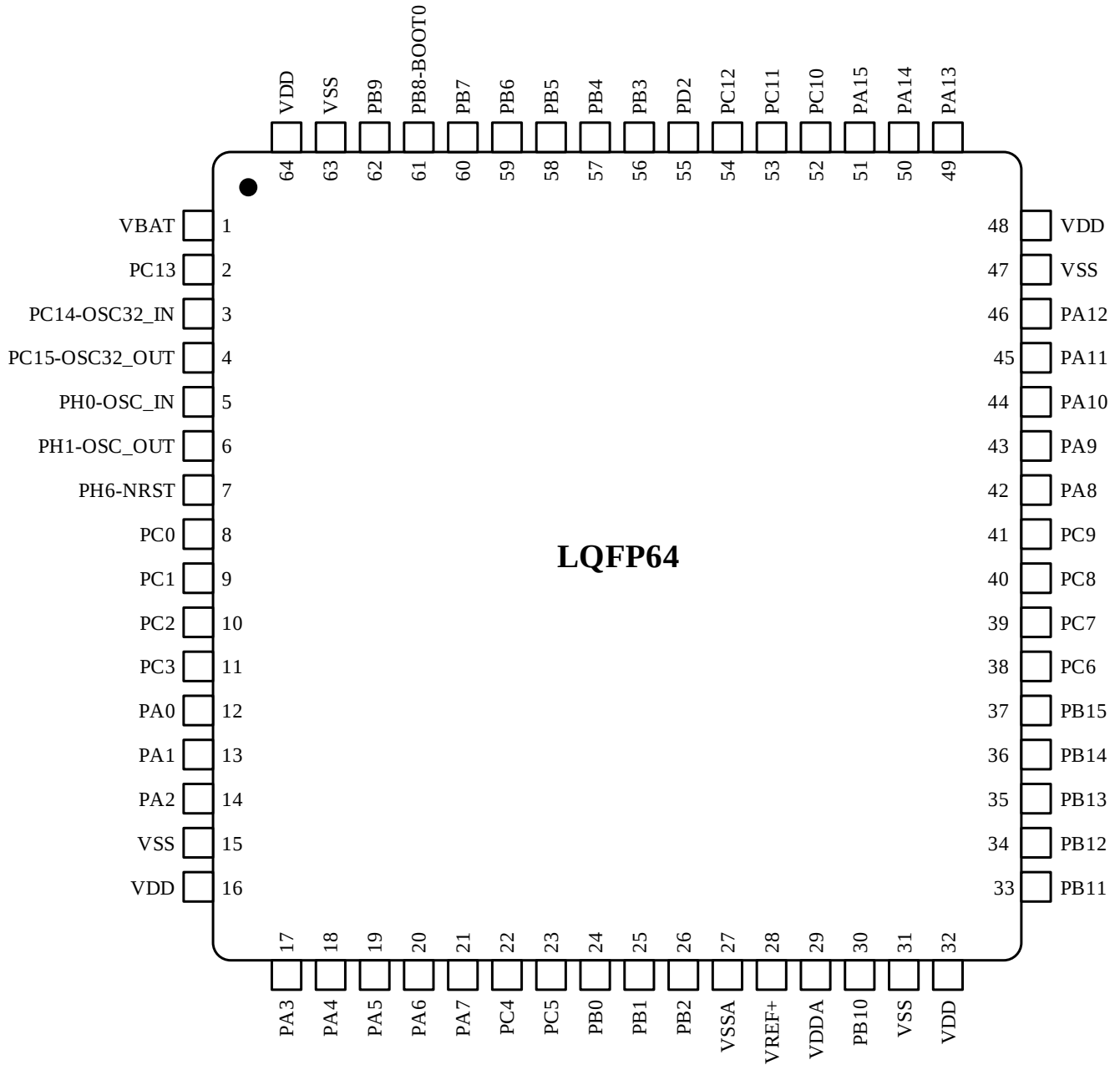
3.3.1 LQFP48



3.3.2LQFP48

3.4 LQFP64

3.4.1 LQFP64

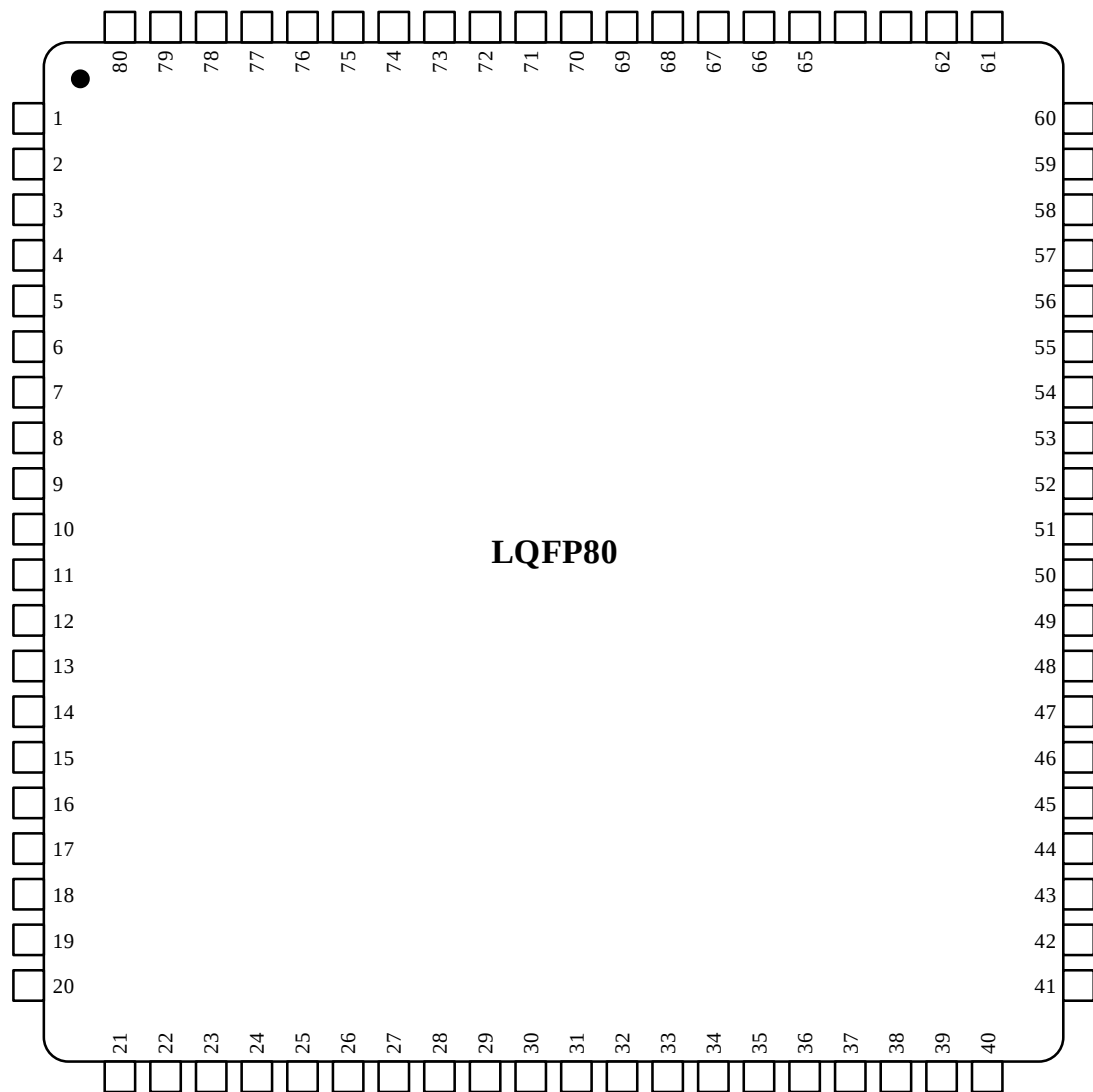


3.4.2LQFP64

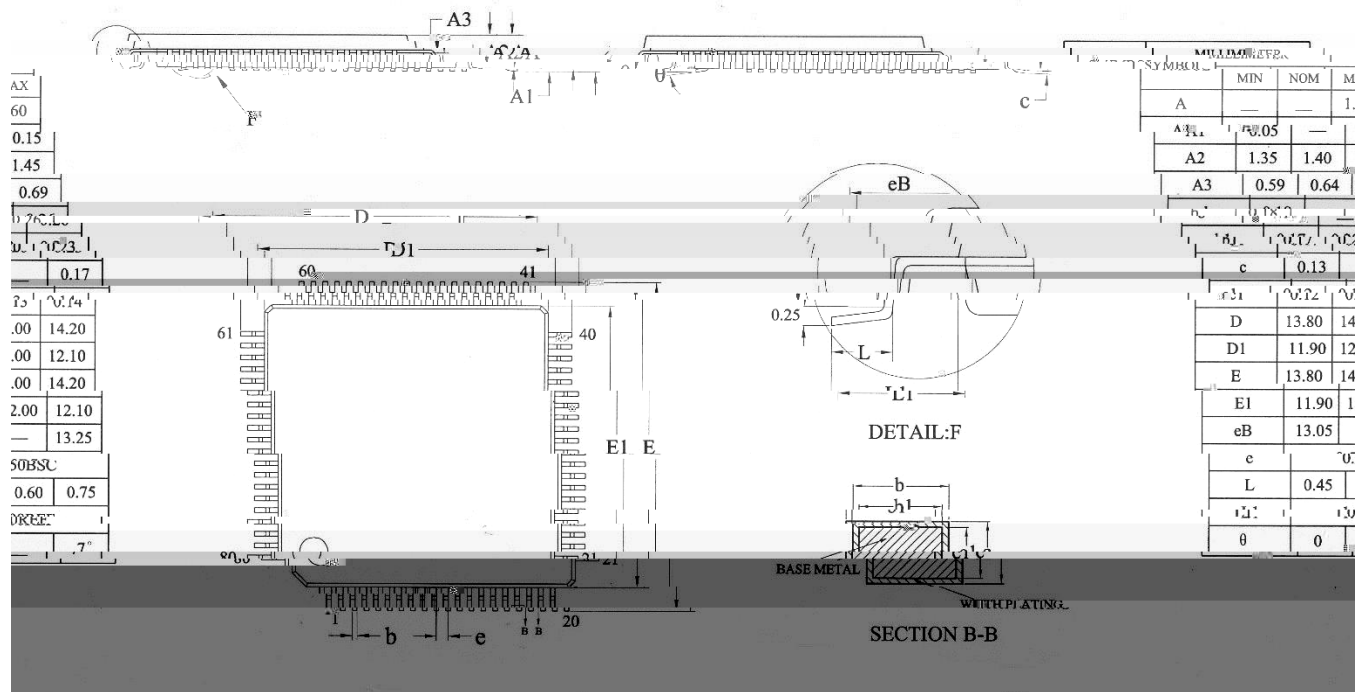


3.5 LQFP80

3.5.1 LQFP80

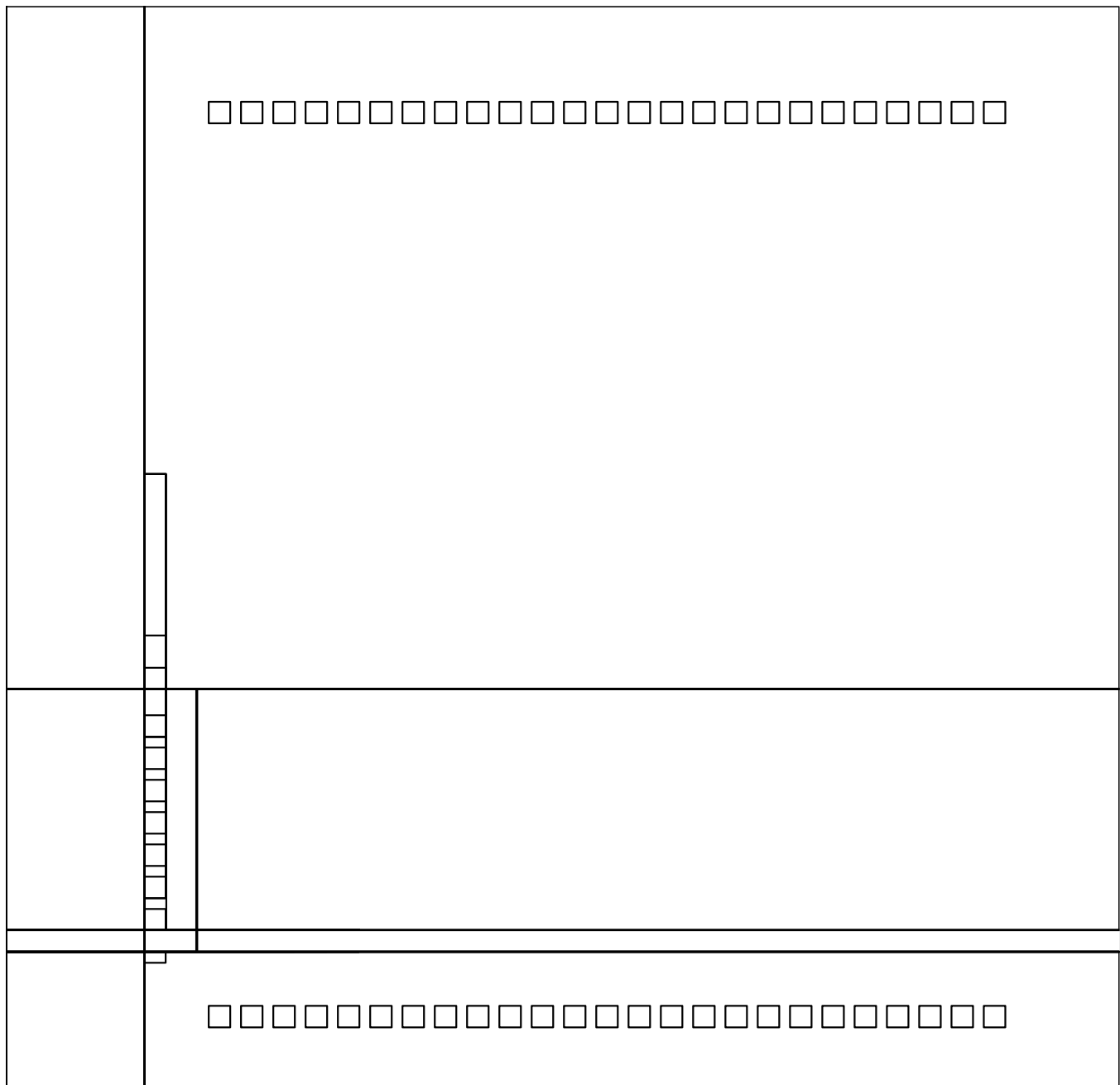


3.5.2LQFP80



3.6 LQFP100

3.6.1 LQFP100

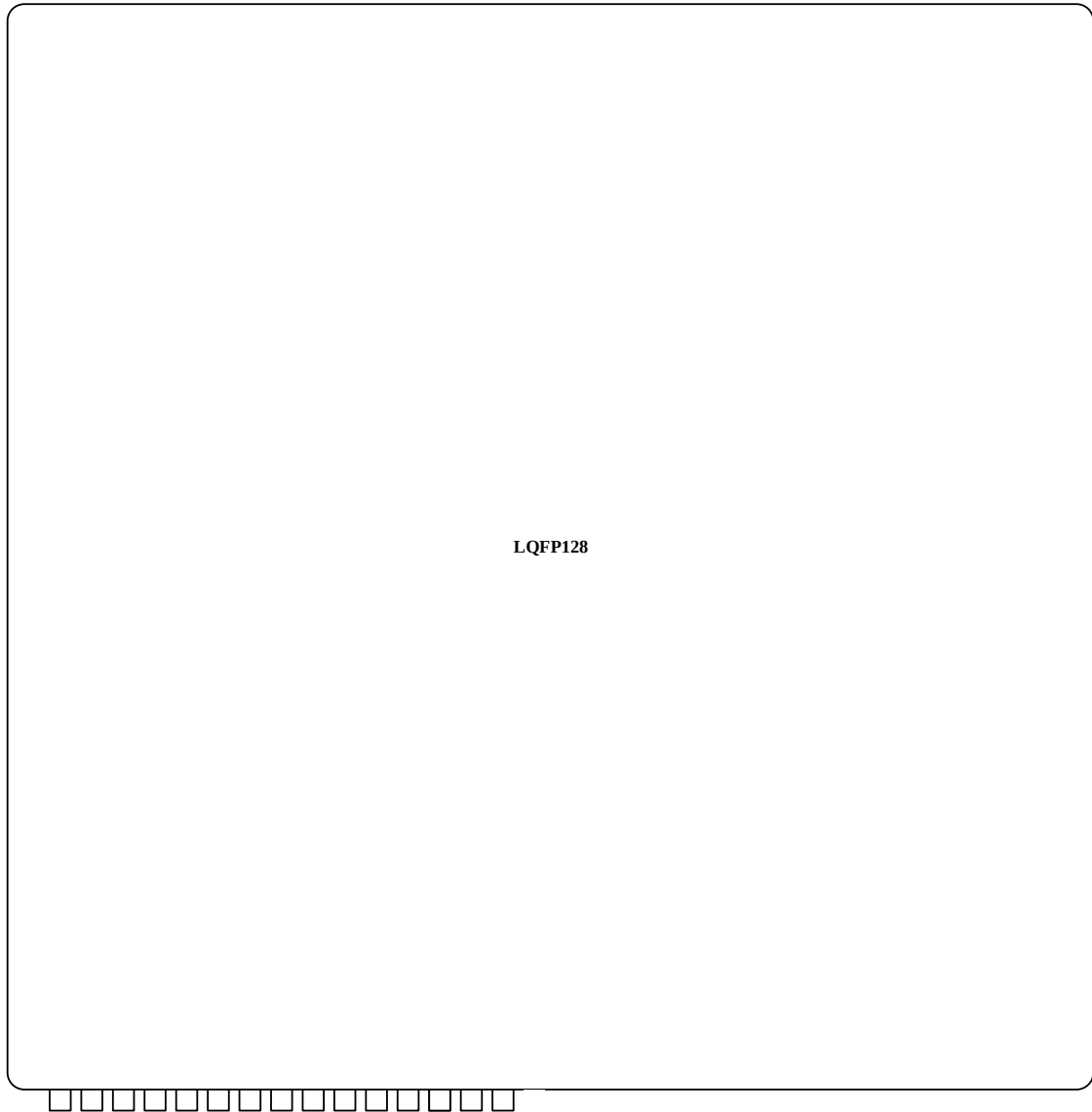


3.6.2LQFP100

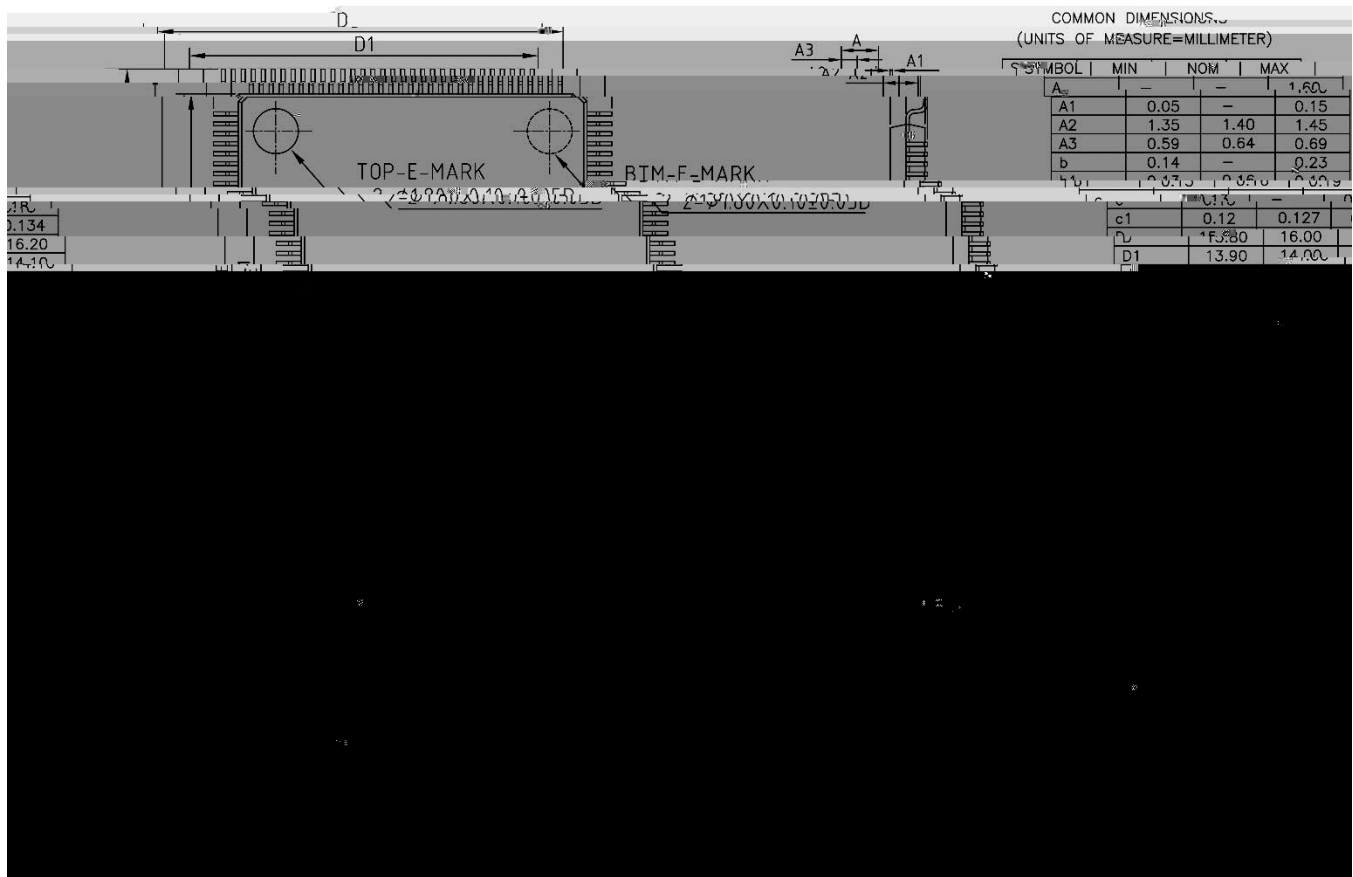


3.7 LQFP128

3.7.1 LQFP128



3.7.2LQFP128



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V0.9.3	2023.11.17	
V0.9.4	2024.4.8	1. GTIM1~7 2.

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