

N32H474xC/xE

N32H474				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				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~32MHz					
— 32.768KHz					
—	PLL				
— 2					
—	RC 8MHz	-1.5%~+2%			
—	RC 32KHz	+/-10%			
—	/	/			
—					
—					

— 1	USB FS Device			PHY									
— 6	SPI	2	I2S	/			SPI						
— 4	USART		4UART		7816		IrDA	LIN	USART3/UART5/UART8		TX	RX	
— 4	I2C		1 MHz										
— 3	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	VREFBUF2.048V/2.5V/2.9V											
— 1													
— 1	xSPI	1/2/4/8						SRAM	PSRAM	Flash	XIP		
— 1	FEMC(Flexible ExternTJml Memory Controller)						8/16		SRAM		PSRAM	NOR Flash	
	NAND Flash												

		FMAC	FIR	IIR
2	DMA			8
RTC				

— 1	16	(SHRTIM1)	6	16bit	2
		125ps	12	PWM	6
— 3	16bit			5ns	6
	4	4	PWM		
— 10	16	(GTIM1~10)			
	GTIM1~7	5.56ns	4		PWM
	GTIM8~10	5ns	4		PWM
		1			

- 2 32bit
- 2 16bit Stop0 Standby
- 1x 24bit SysTick 1x 14bit (WWDG) 1x 12bit (IWDG)

- SWD/JTAG
- USB UART Bootloader

- Flash SMPU
- WRP RDP L0/L1/L2
- AES/TDES SHA SM3 SM4 MD5
- TRNG CRC16/32
-
-

96 UID 128 UCID

- 1.8V~3.6V
- -40 105 /125
- ESD ±4KV HBM , ±1KV CDM
- EFT VDD +/-4KV A I/O +/-2KV A

- UQFN48(7mm x 7mm)
- LQFP48(7mm x 7mm)
- LQFP64(10mm x 10mm)
- LQFP80(12mm x 12mm)
- LQFP100(14mm x 14mm)
- LQFP128(14mm x 14mm)

N32H474xC	N32H474CCU7 N32H474CCL7, N32H474RCL7, N32H474MCL7, N32H474VCL7, N32H474QCL7 N32H474CCU8 N32H474CCL8, N32H474RCL8, N32H474MCL8, N32H474VCL8, N32H474QCL8
N32H474xE	N32H474CEU7 N32H474CEL7, N32H474REL7, N32H474MEL7, N32H474VEL7, N32H474QEL7 N32H474CEU8 N32H474CEL8, N32H474REL8, N32H474MEL8, N32H474VEL8, N32H474QEL8

1

—

2

2-1 N32G474

	N32H474CCU7/8 N32H474CEU7/8	N32H474CCL7/8 N32H474CEL7/8	N32H474RCL7/8 N32H474REL7/8	N32H474MCL7/8 N32H474MEL7/8	N32H474VCL7/8 N32H474VEL7/8	N32H474QCL7/8 N32H474QEL7/8
--	--------------------------------	--------------------------------	--------------------------------	--------------------------------	--------------------------------	--------------------------------

1.8~3.6V/-40~105 /125

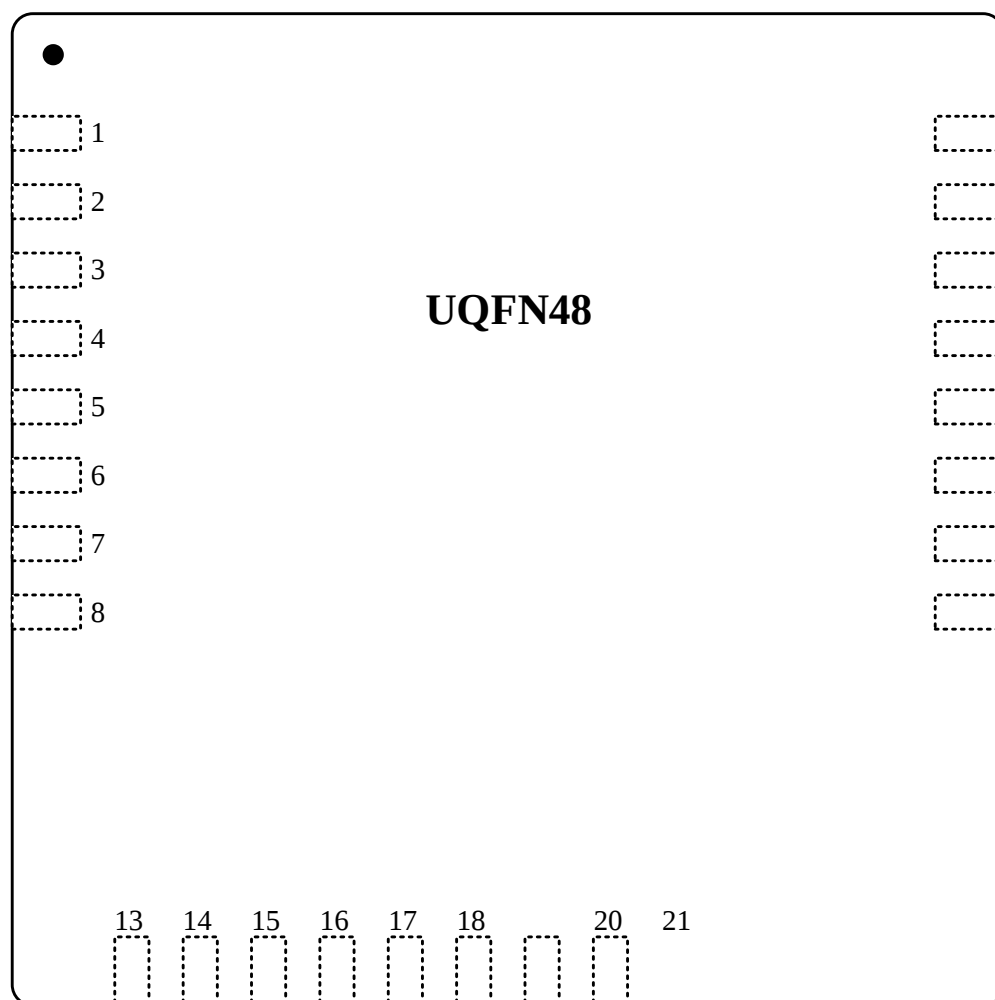
GPIO WKUP Pins	42 3	38 3	52 4	66 4	86 5	107 5
DMA Number of channels	2 16Channel					
12bit ADC Number of channels	4 21Channel	4 20Channel	4 26Channel	4 38Channel	4 45Channel	4 51Channel
12bit DAC Number of channels	8 8 (4 External/Internal + 4 Internal)					
PGA	4					
COMP	7					
VREFBUF	Yes					
	DES/3DES AES SHA1/SHA224/SHA256 SM3 SM4 MD5 CRC16/CRC32					
TRNG	Yes					
Cordic	Yes					
FMAC	Yes					
	RDP/WRP					
	UQFN48	LQFP48	LQFP64	LQFP80	LQFP100	LQFP128

1. CCM SRAM SRAM CCM SRAM
2. UQFN48 LQFP48 SHRTIM A~D 4
3. XSPI 8
4. FMEC

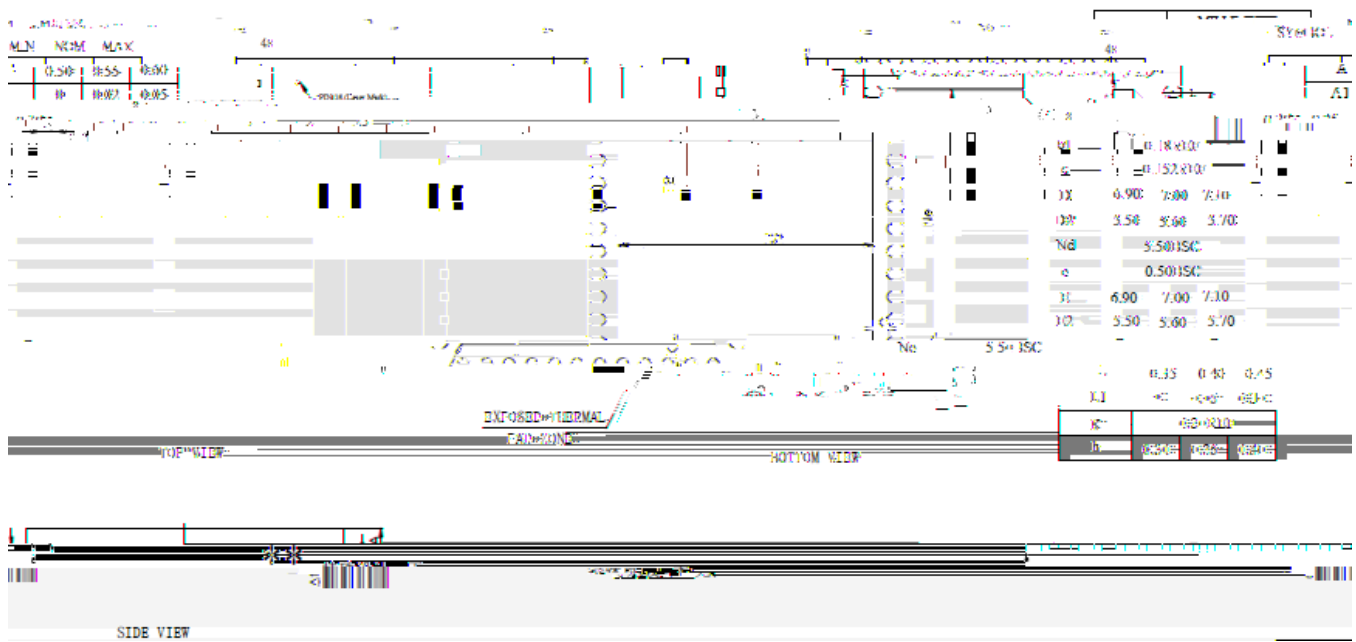
3

3.1 UQFN48

3.1.1 UQFN48

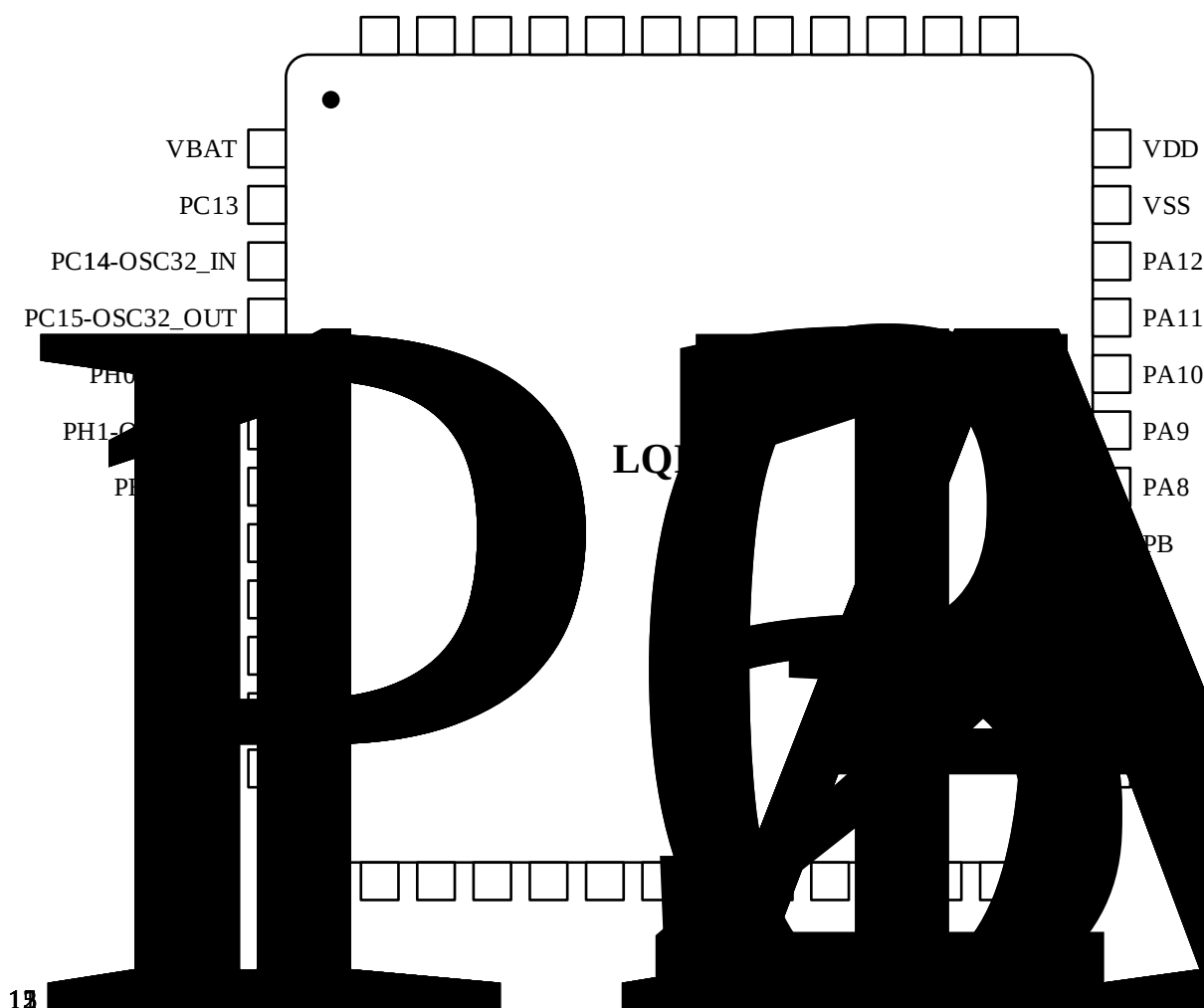


3.1.2 UQFN48

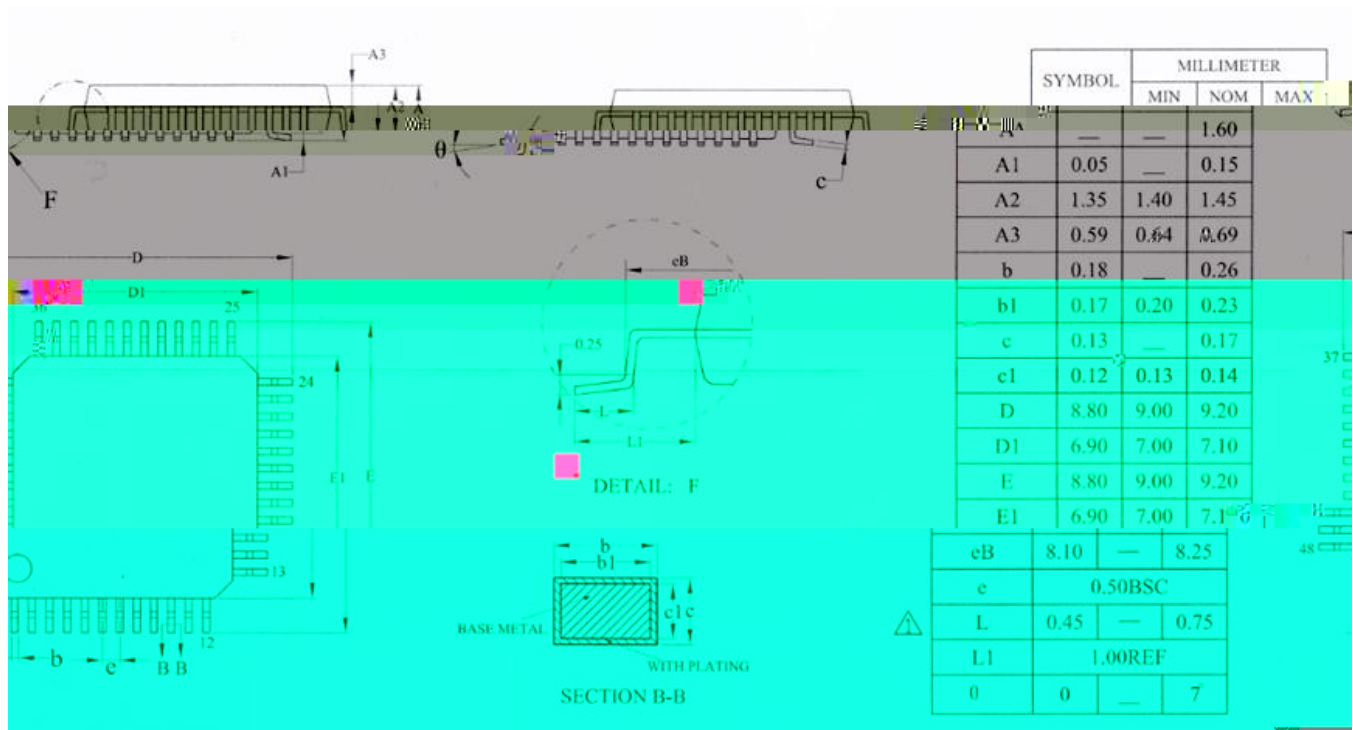


3.2 LQFP48

3.2.1 LQFP48

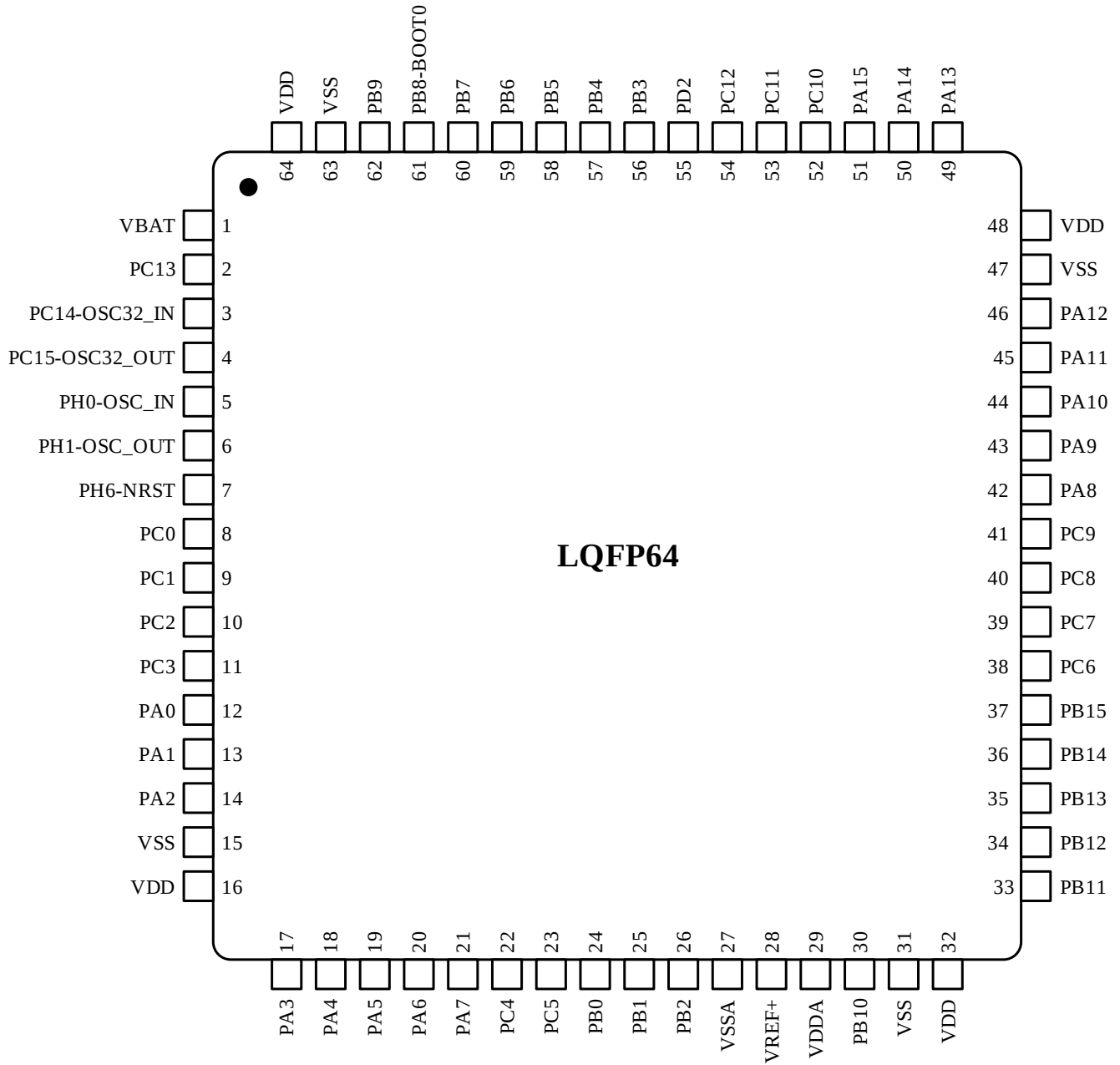


3.2.2 LQFP48

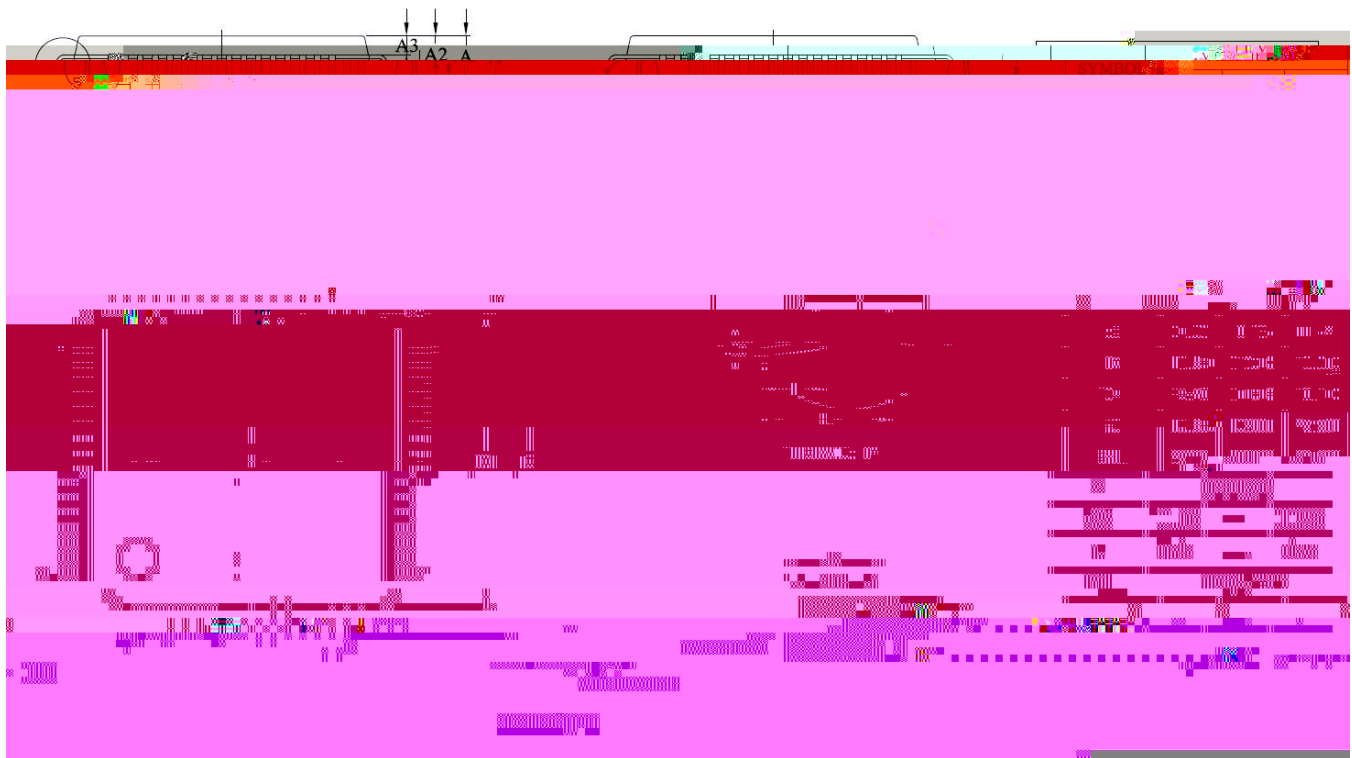


3.3 LQFP64

3.3.1 LQFP64

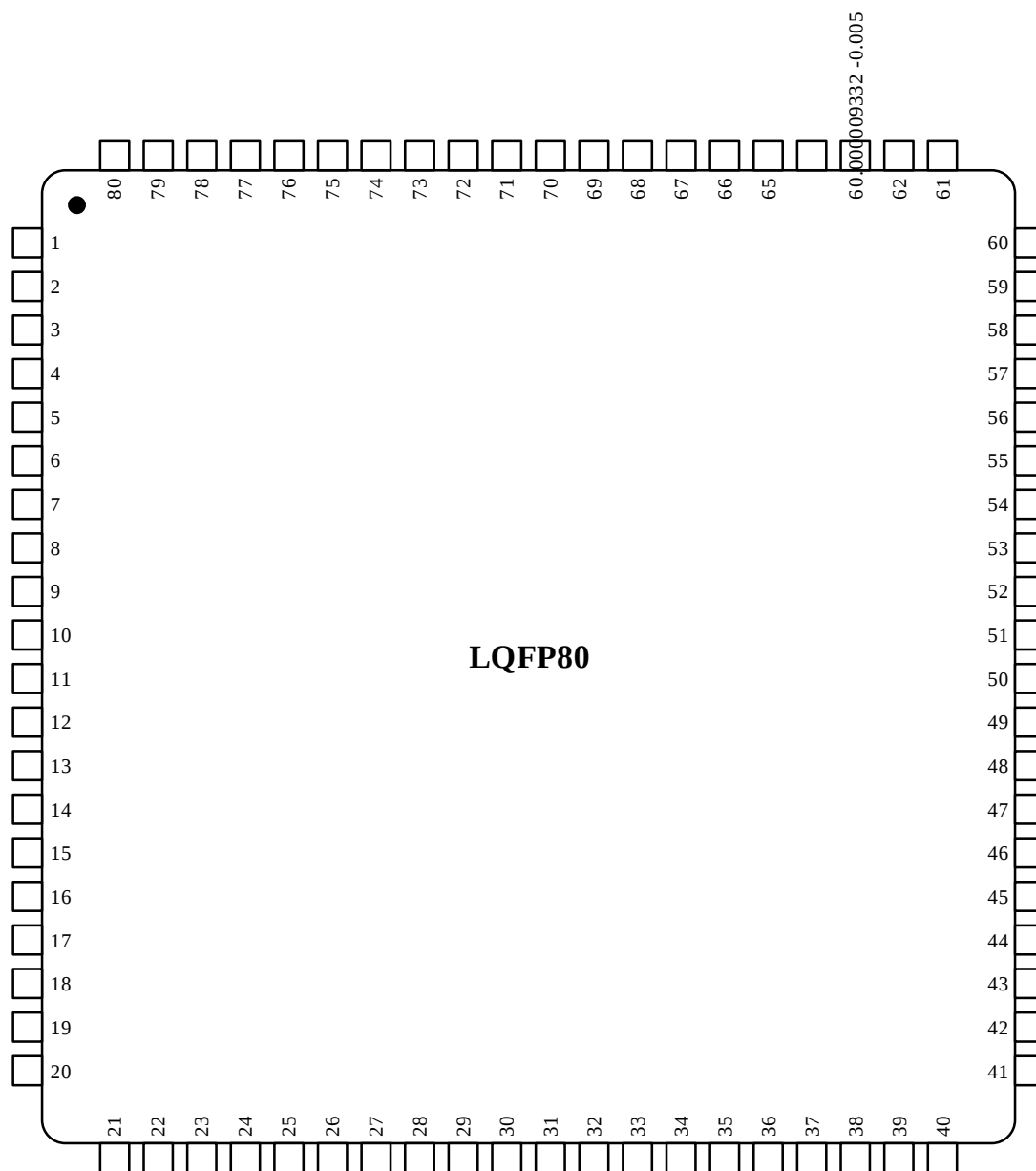


3.3.2 LQFP64



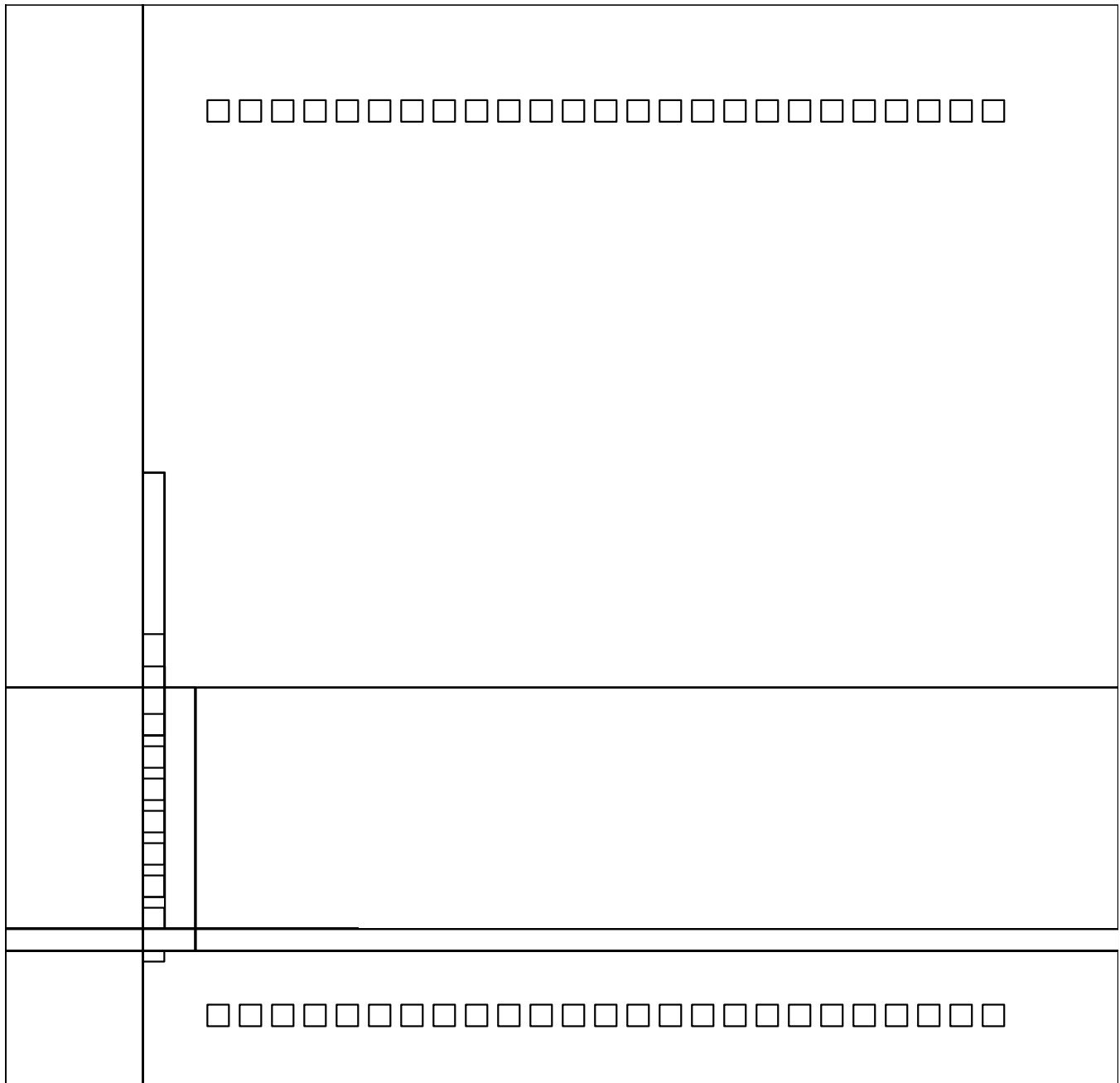
3.4 LQFP80

3.4.1 LQFP80

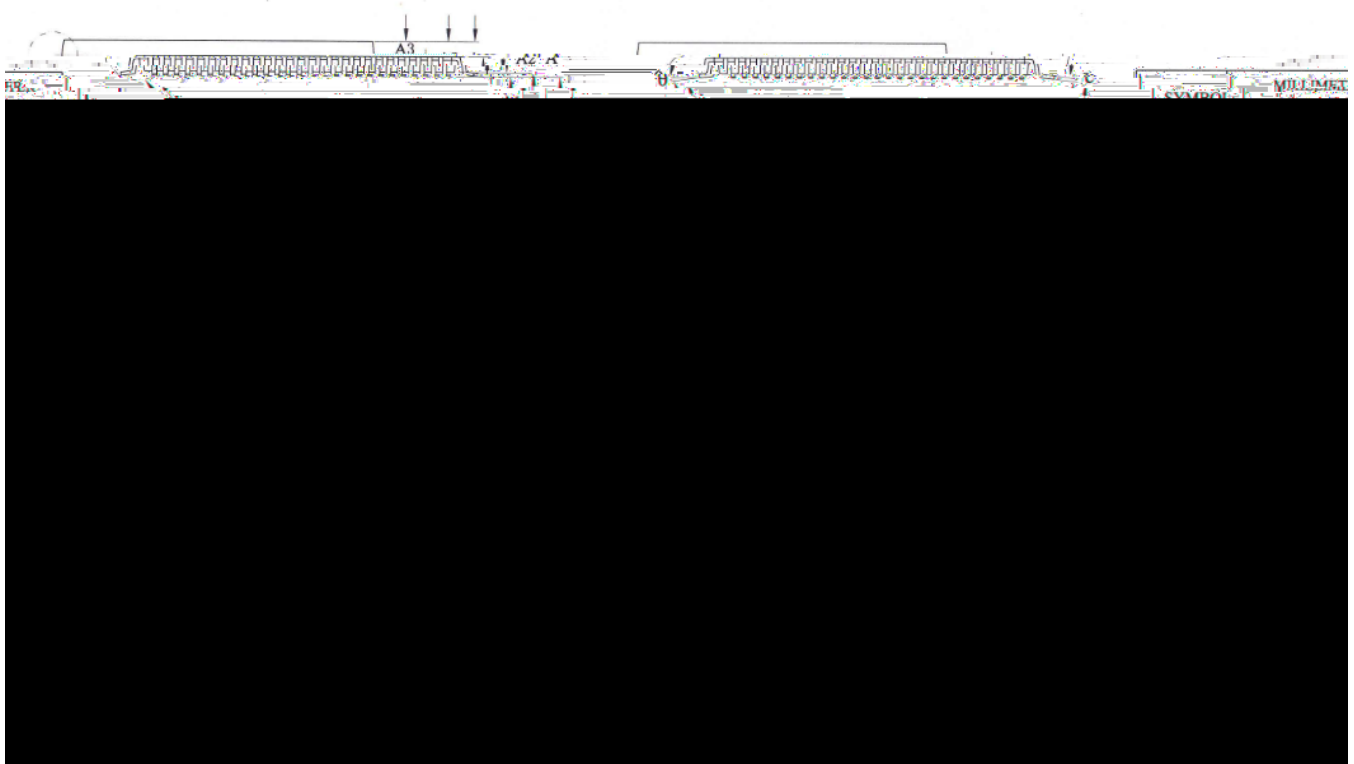


3.5 LQFP100

3.5.1 LQFP100

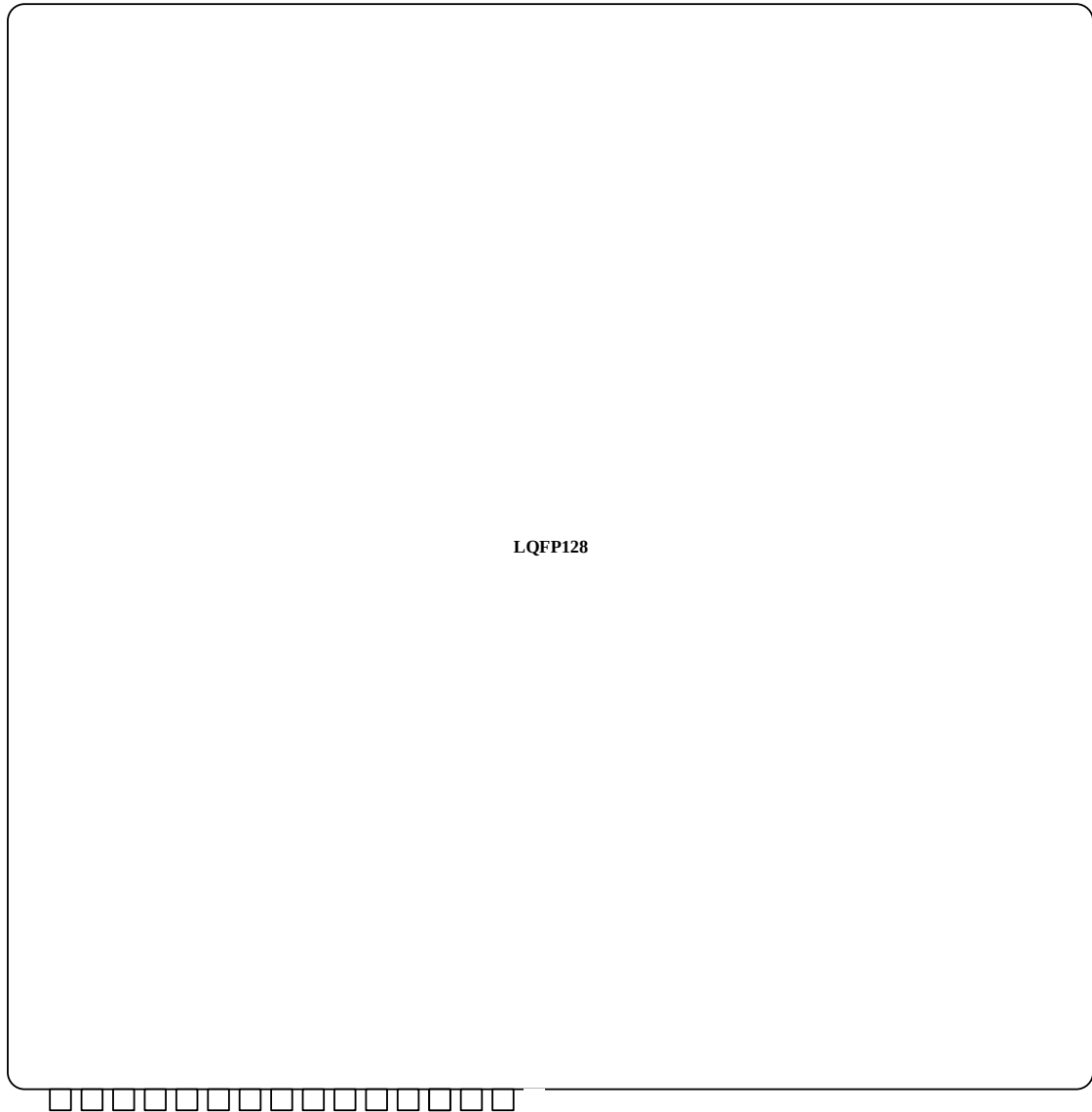


3.5.2 LQFP100

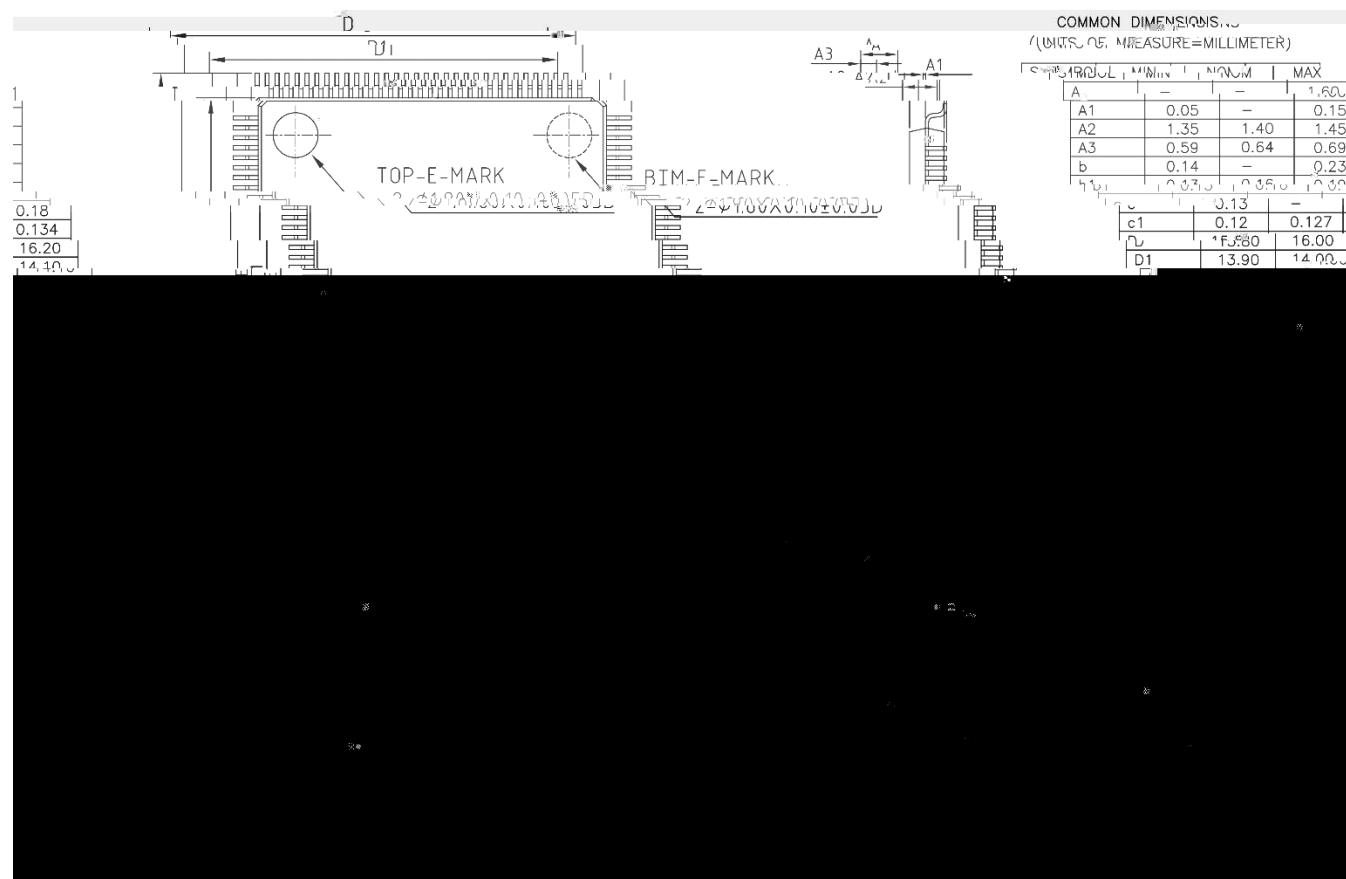


3.6 LQFP128

3.6.1 LQFP128



3.6.2 LQFP128



4

V0.9.2	2023.12.20	
V0.9.3	2024.4.8	1. GTIM1~7 2.

5

“ ”

“ ”

“ ”