

龙芯中科

LOONGSON

龙芯 3A5000/3B5000 处理器

数据手册

V1.7

2025 06

自主决定命运, 创新成就未来



阅读指南

3A5000/3B5000

3A5000/3B5000

录

	.....	III
	.....	IV
1.	.....	1
1.1.	.....	1
2.	.....	3
2.1.	.....	3
2.2.	HYPERTRANSPORT	4
2.3.	DDR4 SDRAM	8
2.4.	.....	9
2.5.	I/O	10
2.6.	.....	11
2.7.	JTAG	12
2.8.	.....	12
2.9.	.....	12
2.10.	.....	14
2.11.	GPIO	14
3.	HYPERTRANSPORT	16
3.1.	HYPERTRANSPORT	16
3.2.	.....	16
3.3.	HT	16
4.	.....	20
4.1.	.....	20
4.2.	.....	20
4.3.	.....	21
5.	.....	23
6.	.....	24
6.1.	.....	24
6.2.	HYPERTRANSPORT	24
6.3.	DDR4	24

8.1.	.....	28
8.2.	.....	28
9.	.....	30
9.1.	.....	30
9.2.	FCBGA	57
10.	.....	65
10.1.	.....	65
10.2.	SPI	65
10.3.	I2C/UART/GPI O	65
10.4.	DDR	65
10.5.	HYPERTRANSPORT	65
10.6.	HTX_CLKP/N	66
10.7.	JTAG TESTCLK	66
10.8.	.....	66
10.9.	SE	66
11.	.....	67
12.	.....	72
12.1.	LS3A5000/LS3B5000	72
12.2.	LS3A5000M	74
13.	.....	76
13.1.	.....	76
13.2.	LS3A5000/LS3B5000	76
13.3.	LS3A5000M	77
	.....	78

图目录

2.1	3A5000/3B5000			.....	4
3.1	3A5000	HT		.....	17
3.2	3B5000	HT	1	.....	17
3.3	3B5000	HT	2	.....	17
3.4	3B5000	HT		.....	18
3.5	3B5000	HT		.....	18
3.6	3B5000	HT		.....	19
8.1				.....	29
12.1	3A5000/3B5000			.....	72
12.2	3A5000/3B5000			.....	72
12.3	3A5000/3B5000			.....	73
12.4	3A5000M			.....	74
12.5	3A5000M			.....	74
12.6	3A5000M			.....	75

1. 概述

	3A5000/3B5000		3A4000/3B4000	
3A4000	I/O		3v3	2. 5GHz
■	4 64		LA464	
■			160GFLOPS@2. 5GHz	
■	16NB		Cache	
■			I/O DMA	Cache
■	2 72	ECC	DDR4	DDR4- 3200
■	2 16	HyperTransport		HT
	3. 2GHz			
■	16	HT	8	HT
■	2	I2C	1	UART
			1	SPI
			16	GPIO
■				
	3A5000/3B5000			
3A5000/3B5000			1. 2	3A5000/3B5000
3A5000			HT1	I/O
3A5000			HT0/HT1	3B5000

1. 1. 芯片分级

3A5000/3B5000

1. 1

1. 1

	VDDN/VDDP				
LS3A5000-HV	1. 25V/1. 05V	± 25mV	<35W	0 - 70	2. 5GHz
LS3A5000-LL	1. 15V/0. 95V	± 25mV	<30W	0 - 70	2. 3GHz
LS3B5000	1. 15V/0. 95V	± 25mV	<25W	0 - 70	2. 3GHz
LS3A5000M	1. 05V/0. 95V	± 25mV	<18W	0 - 70	2. 0GHz
LS3A5000-i HV	1. 10V/0. 95V	± 25mV	<22W	- 40 - 85	2. 0GHz@1. 10V 1. 5GHz@0. 9V
	0. 90V/0. 95V	± 25mV	<12W	- 40 - 85	

LS3A5000-i	0.90V/0.95V	± 25mV	<12W	- 40 - 85	1.5GHz
------------	-------------	--------	------	-----------	--------

* VDDN

* VDDN SPEC CPU 2006 RATE

3A5000

2. 接口描述

2.1. 接口描述

3A5000/3B5000

1211

-HyperTransport
-DDR4 SDRAM
-
- I/O
-



2.1 3A5000/3B5000

2.2 HyperTransport 总线接口信号

3A5000/3B5000	HyperTransport	HT0	HT1
16	HyperTransport		8

HTx_Lo HTx_Hi

HyperTransport

- 16
- 16
- 2
- 2
- 2
- 2
- 2
- 4 16 / 8
- 4 8

3A5000/3B5000

HyperTransport

50KChm

16

HTx_Hi_Hostmode

HTx_Hi_PowerOK

HTx_Hi_Resetn

HTx_Hi_Ldt_Stopn HTx_Hi_Ldt_reqn

2 1 HT

HTO

/

HTO_8x2	I	1 0	HTO HTO	HTO_Lo 16	HTO_Hi	VDDE_1V8
HTO_Lo_Hostmode	I	1	É	n		

HTO_HI_Resetn	I/O	HTO_8x2 HTO_8x2 HTO_HI HTO_HI_Hbstmode HTO_HI_Hbstmode	Resetn	VDDE_1V8	
HTO_HI_LDT_Stopn	I/O	HTO_8x2 HTO_8x2 HTO_HI HTO_HI_Hbstmode HTO_HI_Hbstmode	Ldt_Stopn	VDDE_1V8	
HTO_HI_LDT_reqn	I/O	HTO_8x2 HTO_8x2 HTO_HI	Ldt_Reqn	VDDE_1V8	
HTO_Tx_CADp[15:0]	O	HTO_8x2 HTO_8x2 [7:0] HTO_Lo [15:8] HTO_HI	HTO	HT_VDDE	
HTO_Tx_CADn[15:0]	O	HTO_8x2 HTO_8x2 [7:0] HTO_Lo [15:8] HTO_HI	HTO	HT_VDDE	
HTO_Tx_CTLp[1:0]	O	HTO_8x2 HTO_8x2 [0] HTO_Lo [1] HTO_HI	HTO	HT_VDDE	
HTO_Tx_CTLn[1:0]	O	HTO_8x2 HTO_8x2 [0] HTO_Lo [1] HTO_HI	HTO	HT_VDDE	
HTO_Tx_CLKp[1:0]	O	HTO_8x2 HTO_8x2 [0] HTO_Lo [1] HTO_HI	HTO	HT_VDDE	
HTO_Tx_CLKn[1:0]	O	HTO_8x2 HTO_8x2 [0] HTO_Lo [1] HTO_HI	HTO	HT_VDDE	
HTO_Rx_CADp[15:0]	I	HTO_8x2 HTO_8x2 [7:0] HTO_Lo [15:8] HTO_HI	HTO	HT_VDDE	
HTO_Rx_CADn[15:0]	I	HTO_8x2 HTO_8x2 [7:0] HTO_Lo [15:8] HTO_HI	HTO	HT_VDDE	
HTO_Rx_CTLp[1:0]	I	HTO_8x2 HTO_8x2 [0] HTO_Lo [1] HTO_HI	HTO	HT_VDDE	
HTO_Rx_CTLn[1:0]	I	HTO_8x2 HTO_8x2 [0] HTO_Lo [1] HTO_HI	HTO	HT_VDDE	
HTO_Rx_CLKp[1:0]	I	HTO_8x2 HTO_8x2 [0] HTO_Lo [1] HTO_HI	HTO	HT_VDDE	
HTO_Rx_CLKn[1:0]	I	HTO_8x2 HTO_8x2 [0] HTO_Lo [1] HTO_HI	HTO	HT_VDDE	

		HT1				
		/				
HT1_8x2	I	1 0	HT1 HT1	HTO_Lo 16	HTO_HI	VDDE_1V8
HT1_Lo_Hbstmode	I	1 0	HT1_Lo HT1_Lo			VDDE_1V8
HT1_HI_Hbstmode	I	1 0	HT1_HI HT1_HI			VDDE_1V8
HT1_Lo_PoverCK	I/O	HT1_8x2 HT1_8x2 HT1_Lo_Hbstmode HT1_Lo_Hbstmode	HT1 HT1_Lo	Power CK Power CK		VDDE_1V8
HT1_Lo_Resetn	I/O	HT1_8x2 HT1_8x2	HT1 HT1_Lo	Resetn		

HT1_Tx_CLKp[1:0]	0	HT1_8x2 HT1_8x2 [0] HT1_Lo [1] HT1_H	HT0	HT_VDDE	
HT1_Tx_CLKn[1:0]	0	HT1_8x2 HT1_8x2 [0] HT1_Lo [1] HT1_H	HT0	HT_VDDE	
HT1_Rx_CADp[15:0]	1	HT1_8x2 HT1_8x2 [7:0] HT1_Lo [15:8] HT1_H	HT1	HT_VDDE	
HT1_Rx_CADn[15:0]	1	HT1_8x2 HT1_8x2 [7:0] HT1_Lo [15:8] HT1_H	HT1	HT_VDDE	
HT1_Rx_CTLp[1:0]	1	HT1_8x2 HT1_8x2 [0] HT1_Lo [1] HT1_H	HT1	HT_VDDE	
HT1_Rx_CTLn[1:0]	1	HT1_8x2 HT1_8x2 [0] HT1_Lo [1] HT1_H	HT1	HT_VDDE	
HT1_Rx_CLKp[1:0]	1	HT1_8x2 HT1_8x2 [0] HT1_Lo [1] HT1_H	HT0	HT_VDDE	
HT1_Rx_CLKn[1:0]	1	HT1_8x2 HT1_8x2 [0] HT1_Lo [1] HT1_H	HT0	HT_VDDE	

2.3. DDR4 SDRAM 总线接口信号

3A5000/3B5000

DDR4 SDRAM

DDR4

- 72 ECC
- 9 ECC
- 9 ECC
- 18
- 2 bank
- 2 bank
- 8
- 4
- 4
- 3
- 4 ODT(On Die Termination)

■ 1

2.2 3A5000/3B5000

2.2 DDR4

	/		
M00/1_DQ[63: 0]	I/O		MEM_VDDE
M00/1_CB[7: 0]	I/O	ECC	MEM_VDDE
M00/1_DCSp[8: 0]	I/O	ECC	MEM_VDDE
M00/1_DCSn[17: 0]	I/O	ECC	MEM_VDDE
M00/1_DMn_DCSp*[17: 9]	O	DMB-0 ECC DCSp17-9	MEM_VDDE
M00/1_A[13: 0]	O		MEM_VDDE
M00/1_A17	O		MEM_VDDE
M00/1_BA[1: 0]	O	Bank	MEM_VDDE
M00/1_BG[1: 0]		Bank	MEM_VDDE
M00/1_VEn	O	A14	MEM_VDDE
M00/1_CASn	O	A15	MEM_VDDE
M00/1_RASn	O	A16	MEM_VDDE
M00/1_CS[7: 0]	O		MEM_VDDE
M00/1_CKE[3: 0]	O		MEM_VDDE
M00/1_Ckp[3: 0]	O	{ 0, 1 } DIMM { 2, 3 } DIMM	MEM_VDDE
M00/1_CKn[3: 0]	O	{ 0, 1 } DIMM { 2, 3 } DIMM	MEM_VDDE
M00/1_ODT[3: 0]	O	ODT	MEM_VDDE
M00/1_Resetn	O		MEM_VDDE
M00/1_ACTn	O		MEM_VDDE
M00/1_PAR	O		MEM_VDDE
M00/1_ALERTn	I/O	CRC	MEM_VDDE
M00/1_Ci D2	O	CHIP ID bit 2 3DS	MEM_VDDE
M00/1_REXT	I	240 1%	MEM_VDDE

2.4 初始化信号

2.3

50KChm

2.3

	/		
SYSRESETn	I	SYSCLK SYSCLK	VDDE_1V8

CHI_P_CONFIG[5:0]	I	[5] DCDL [4] HT1-Io 8/16 [3] HT1-hi [2] NODE_ID[3] [1] HT Gen1 [0] SE	VDDE_1V8	6' b000010
NODE_ID[2:0]	I	0 3.3	VDDE_1V8	
IOCC_EN	I	1' b1 1' b0	VDDE_1V8	

- SYSRESETn 3A5000/3B5000
- SYSCLK SYSRESETn SYSRESETn
- SYSRESETn
- 64K SYSCLK

- CHI_P_CONFIG[5:0] 3A5000/3B5000

2.5. 低速 I/O 接口

3A5000/3B5000 I/O SPI UART I2C
 SPI SPI flash UART GPIO

SPI



4



SPI



SPI

UART



/



16



■ FIFO

■ NS16550A

I²C

SDA

SCL

400kbps

3A5000

I²C

I/O

Flash

17mA

35mA

2.4 SPI

/

@

2.9. 时钟信号

3A5000/3B5000	2. 10	SYCLK
HTO_CLKp/HTO_CLKn	HT1_CLKp/HT1_CLKn	
CLKSEL[9: 0]	3A5000/3B5000 Core DDR	SYCLK
CLKSEL[4]	HT	
HTO_CLKp/HTO_CLKn	HT1_CLKp/HT1_CLKn	HTO HT1
SYCLK	CLKSEL[9: 4]	CLKSEL
2. 11	2. 12	2. 13

2. 10

	/	(MHz)		
SYCLK	I	25/100	PLL	VDDE_1V8
HTO_CLKp/ HTO_CLKn	I	200	HTO	HT_VDDE
HT1_CLKp/ HT1_CLKn	I	200	HT1	HT_VDDE
CLKSEL[9: 0]	I	-	Core DDR HT	VDDE_1V8

2. 11 CORE

CLKSEL[1: 0]	2' b00: 1GHz 2' b01: 2GHz 2' b10: PLL 2' b11: SYCLK 100MHz/25MHz	4. 8 - 6. 4GHz	2' b10
---------------	---	----------------	--------

2. 12 MEM

CLKSEL[3: 2]	2' b00: 466MHz 2' b01: 600MHz 2' b10: PLL 2' b11: SYCLK 100MHz/25MHz	4. 8 - 6. 4GHz	2' b10
---------------	---	----------------	--------

2. 13 HT

CLKSEL[9]	1' b1 HT 1' b0 HT		1' b0
CLKSEL[8]	1' b1 HT PLL 1' b0 HT PLL	SYCLK	1' b1
CLKSEL[7: 6]	2' b00 PHY 2' b01 PHY 2' b10 2' b11 PHY	1. 6GHz 6. 4GHz 4. 8GHz	2' b01
CLKSEL[5]			1' b0
CLKSEL[4]	1- 25MHz 0-	100MHz	1' b0

3A5000/3B5000 AA AB CLKSEL[9:4] 6' b110001
 BI OS HT
 6' b010100 CLKSEL[3:2] 5' b10
 BI OS MEM CLKSEL[1:0] 5' b10 BI OS NODE
 CLKSEL[4]

2.10. 电源引脚

2.14

VDDN		VDDN
VDDP		VDDP
		VDDMC
		VDDMPHY
VDDE_1V8	I O	VDDE_1V8
	SE I O	
	VTSENSOR OTP	
MEM_VDDE	DDR I O	VDDE_DDR
MEM_VREF	DDR	VDDE_VREF
HT_VDDE	HT I O	VDDE_1V2T VDDE_1V2R
PLL_SYS_AVDD	SYS PLL	PLL_SYS_AVDD
PLL_SYS_DVDD	SYS PLL	PLL_SYS_DVDD
PLL_DDR_AVDD	DDR PLL	PLL_DDR_AVDD
PLL_DDR_DVDD	DDR PLL	PLL_DDR_DVDD
PLL_DDRPHY_VDD	DDRPHY PLL	PLL_DDRPHY_VDD
PLL_SE_VDD	SE PLL	PLL_SE_VDD
PLL_HTO/1_AVDD	HTO/1 PLL	PLL_HTO/1_AVDD
PLL_HTO/1_DVDD	HTO/1 PLL	PLL_HTO/1_DVDD

2.11. GPIO 信号

3A5000/3B5000 32 GPIO
 GPIO00 - GPIO15 GPIO
 I O GPIO16 - GPIO31 HT HT
 I O HTO/1_HI /Lo_Hostmode
 HT I O
 GPIO GPIO

	GPI O		
GPI O		17mA	35mA
		2.15	GPI O
GPI O			

31	HT1_HI_LDT_STOPn	GPI O31	Host mode 0	HT1_HI_LDT_STOPn	VDDE_1V8
----	------------------	---------	----------------	------------------	----------

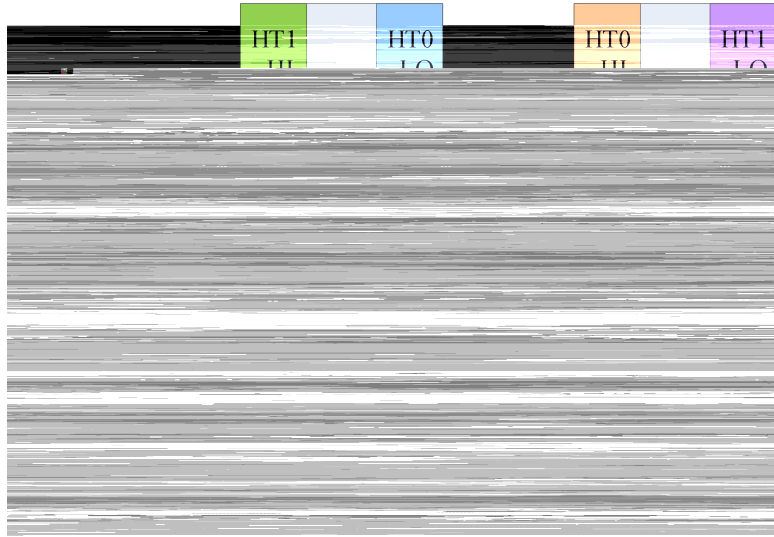
3. HyperTransport 总线

3A5000/3B5000	16	HyperTransport	16
	8	HyperTransport	
3A5000/3B5000		HyperTransport	I/O Cache
3B5000		HTO	Cache

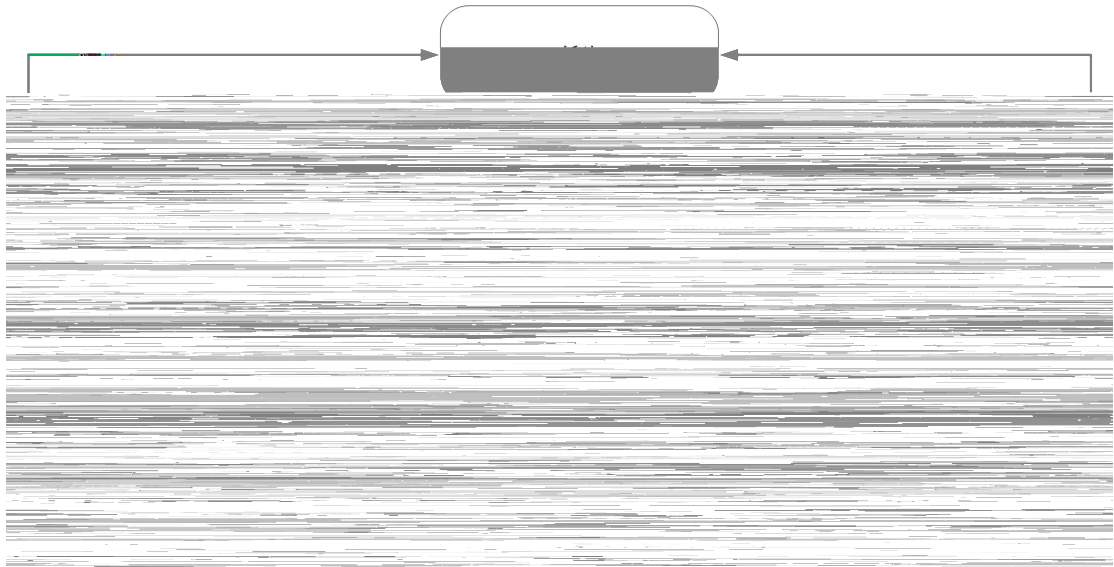
3.1. HyperTransport 接口特性

HyperTransport

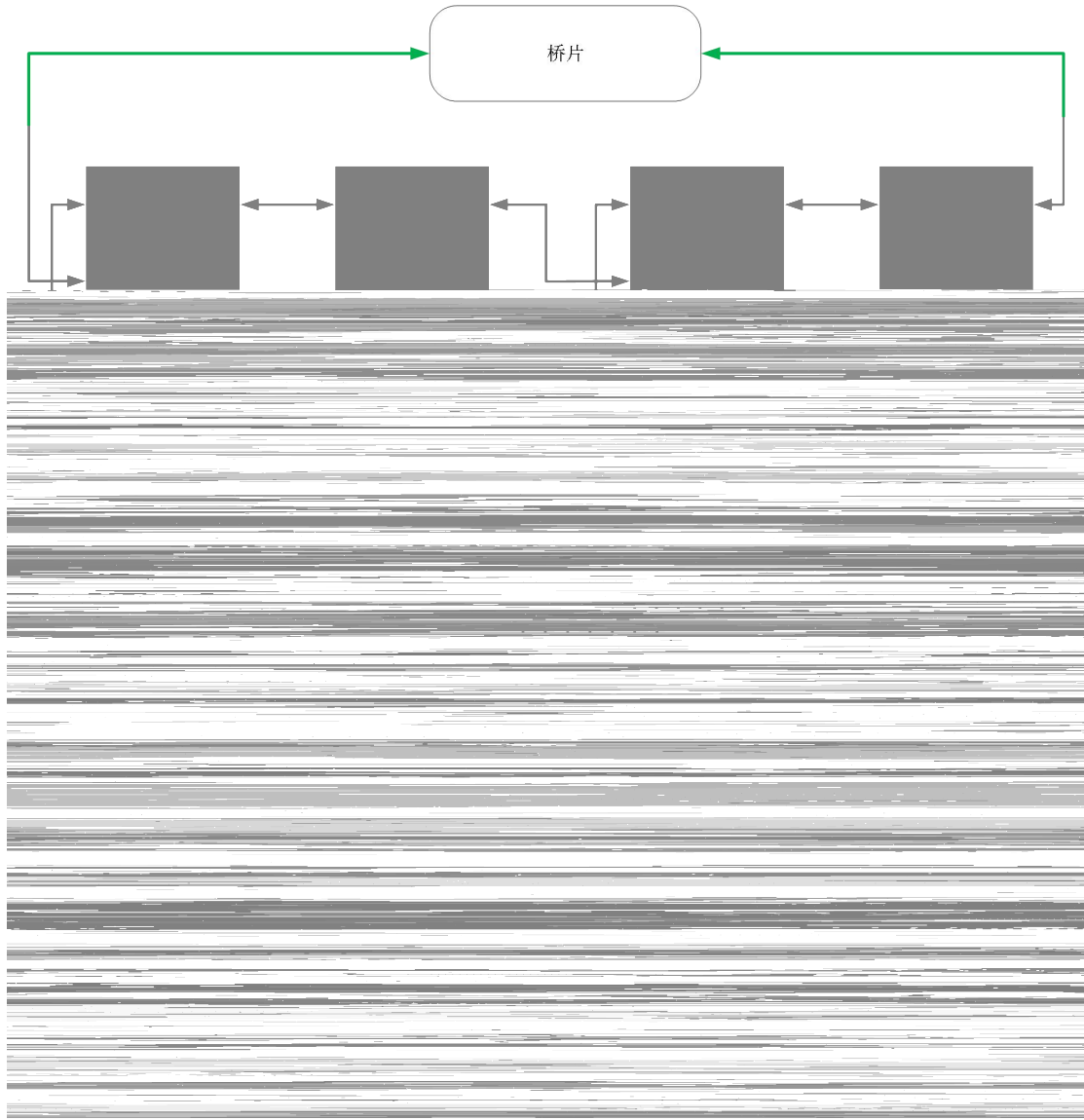
- HyperTransport 1.03/HyperTransport 3.0
- 200 - 3200MHz
- HT1.0 8
- HT3.0 8/16
- 16 8
- I/O Cache
- HT-0



3.4 3B5000 HT



3.5 3B5000 HT

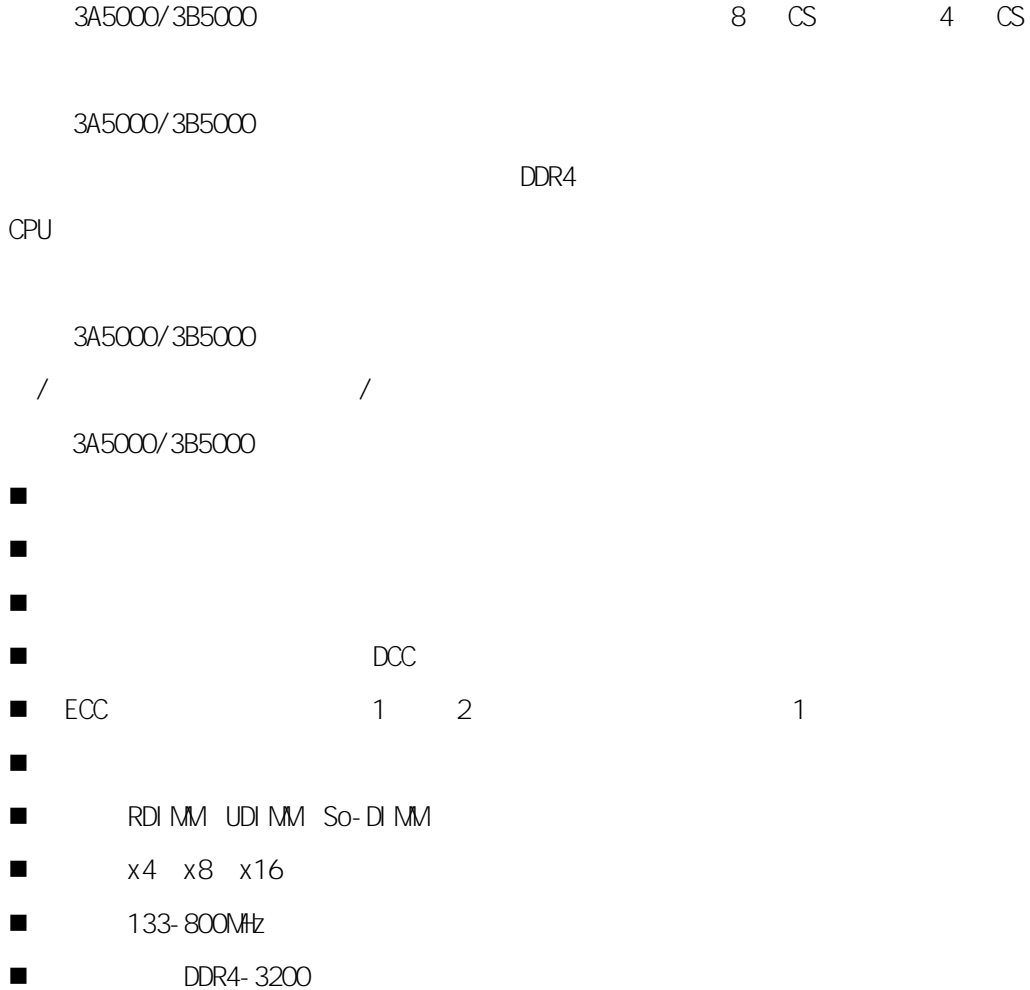


3.6 3B

4. 内存接口

3A5000/3B5000		DDR4 SDRAM
JESD79-4B	/	JESD79-4B

4.1. 内存控制器功能概述



4.2. 初始化操作

Ini t_start 0x010 0x2

Ini t_start

DRAM

(1) pm_clk_sel_ckca pm_clk_sel_ds

- (2) pm_phy_init_start 1 PHY
- (3) DLL pm_dll_init_done 1
- (4) pm_dll_lock_* pm_pll_lock_* 1
- (5) pm_clken_*
- (6) pm_init_start 1
- (7) pm_dram_init pm_cs_enable

4.3. 复位引脚的控制

STR pad_reset_po 0x808

DDR_RESETh

- (1) pad_reset_po[1:0] = 2'b00
DDR_RESETh

-
-
-
-

◀—内部复位—▶▶—软件使能—▶▶—DLL锁定—▶



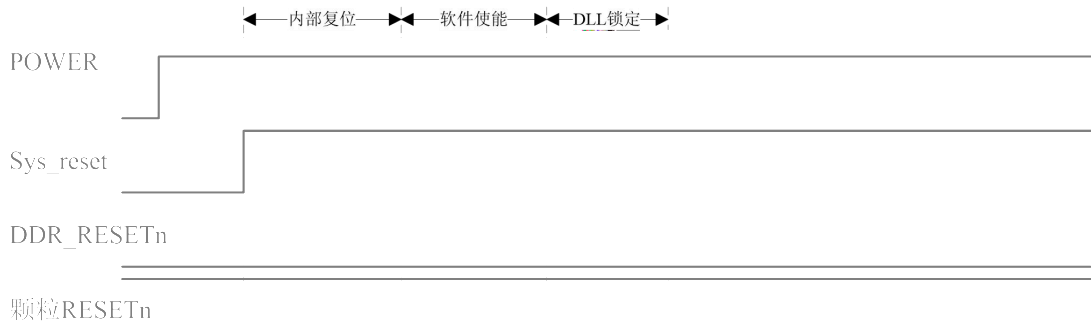
- (2) pad_reset_po[1:0] = 2'b10

DDR_RESETh

-
-
-
-
-

(3) `pad_reset_po[1:0] = 2' b01`

DDR_RESETEn



STR 2
STR 3

6. 电气特性

6.1 绝对最大额定值

6.1

		Mn.	Max.	Unit
VDDN		-0.3	1.35	V
VDDP		-0.3	1.35	V
VDDE_1V8	1.8V I/O	-0.3	1.9	V
MEM_VDDE	DDR I/O	-0.3	1.6	V
MEM_VREF	DDR	-0.3	0.8	V
HT_VDDE	HT I/O	-0.3	1.3	V
PLL_SYS_AVDD	SYS PLL	-0.3	1.4	V
PLL_SYS_DVDD	SYS PLL	-0.3	1.4	V
PLL_DDR_AVDD	DDR PLL	-0.3	1.4	V
PLL_DDR_DVDD	DDR PLL	-0.3	1.4	V
PLL_DDRPHY_VDD	DDRPHY PLL	-0.3	1.4	V
PLL_SE_VDD	SE PLL	-0.3	1.4	V
PLL_HTO/1_AVDD	HTO/1 PLL	-0.3	1.4	V
PLL_HTO/1_DVDD	HTO/1 PLL	-0.3	1.4	V
Tstg	Storage Temperature	-55	100	

ESD HBM1000V

6.2 HyperTransport 总线接口特性

HT HT1.0 HT3.0 200MHz - 3200MHz DC AC

HT1.0 200 - 800MHz 05HT1.03a1 E

HT3.0 1000 - 3200MHz HT3.0

6.3 DDR4 内存接口特性

DDR4 JESD7933939j H

9

100MHz 25MHz

CLKSEL[4]

6.2

	/	(MHz)		
SYSCLK	I	25/100	Core	PLL VDDE_1V8
HT0_CLKp/ HT0_CLKn	I	200	HT0	HT_VDDE
HT1_CLKp/ HT1_CLKn	I	200	HT1	HT_VDDE

6.4.1. 单端时钟输入要求

SYSCLK LVCOM Φ 1.8v

VDDE_1V8 1.8V					
V					
V _{ih}			1.25		V
V _{il}				0.4	V
C _{in}				2	pf
T _r			1	2.2	3.6 V/ns
T _f					
Duty Cycle				45% 55%	
Cycle-Cycle Clock jitter		multiple output frequencies switching		74	ps
RMS Phase jitter		RMS jitter		0.5	ps

6.4.2. 差分时钟输入要求

HTx_CLKp/HTx_CLKn CLKSEL HT PHY
LVDS 3A5000 SYSCLK HT PHY

V					
V _{ih}			454	247	mV
V _{il}			-247	-454	mV
C _{in}					
T _r				300	ps
T _f				300	ps
Duty Cycle				45% 55%	
Cycle-Cycle Clock jitter		multiple output frequencies switching		46	ps
RMS Phase jitter		RMS jitter	1.5	0.75	ps

6.5. 电源

6.5.1. 电源工作条件

6.3

					(85)
			0.90V		25A
			1.05V		35A
VDDN	Chip core voltage	0.8V	1.10V	1.30V	45A
			1.15V		45A
			1.25V		50A
VDDP	Chip SOC voltage	0.8V	0.95V	1.10V	10A
			1.05V		
VDDE_1V8	IO voltage	1.7V	1.8V	1.9V	1A
VDDE_DDR_0/1	DDR4 ch0/1 IO voltage	1.14V	1.2V	1.26V	1A
VDDE_VREF_0/1	DDR4 ch0/1 reference voltage		-		-
HT_VDDE	HT IO voltage	1.1V	1.2V	1.3V	1A

PLL_SE_VDD	SE PLL	PLL_SE_VDD
PLL_HTO/1_AVDD	HTO/1 PLL	PLL_HTO/1_AVDD
PLL_HTO/1_DVDD	HTO/1 PLL	PLL_HTO/1_DVDD

3A5000/3B5000 VDDN
 VDDP PLL_*_AVDD/PLL_*_DVDD/PLL_*_VDD HT_VDDE VDDE_DDR
 VDDE_1V8
 3A5000/3B5000
 ± 25mV

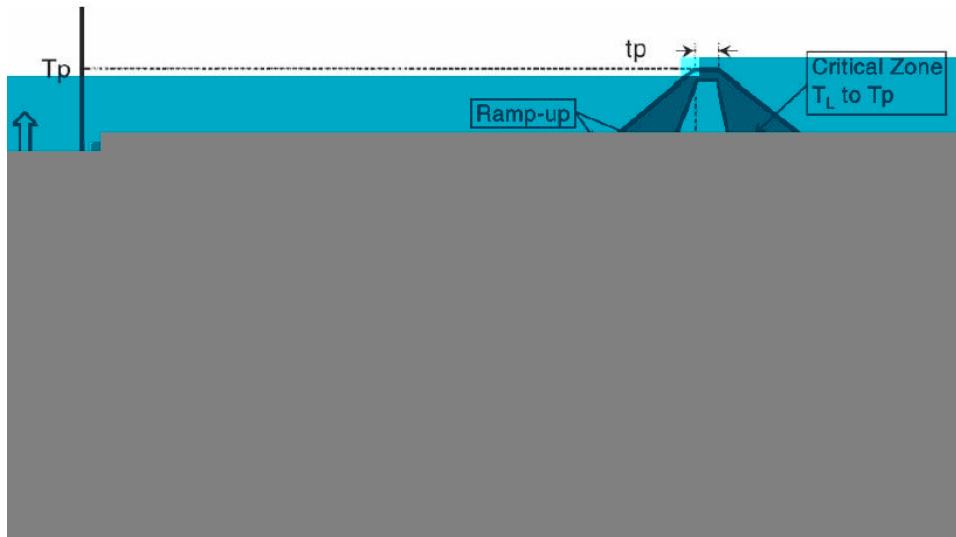
1.1

7. 频率和功耗特性

TDP

8.3

Profile Feature		Pb-Free Assembly
Average ramp-up rate (T _{max} to T _p)		3° C/second max.
Preheat	Temperature Min (T _{min})	150 ° C
	Temperature Max (T _{max})	200 ° C
	Time (T _{min} to T _{max}) (t _s)	60-180 seconds
Time maintained above	Temperature (T _L)	217 ° C
	Time (t _L)	60-150 seconds
Peak Temperature (T _p)		245° C
Time within 5° C of actual Peak Temperature (t _p) ²		20-40 seconds
Ramp-down Rate		6 ° C/second max.
Time 25° C to Peak Temperature		8 minutes max.



8.1

9. 引脚排列和封装

9.1. 按引脚排列的封装引脚

9.1

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	V27	NC	8000.00	1000.00
n	U27	NC	8000.00	2000.00
n	V26	NC	7000.00	1000.00
n	U26	NC	7000.00	2000.00
n	V11	NC	-8000.00	1000.00
n	U11	NC	-8000.00	2000.00
n	V12	NC	-7000.00	1000.00
n	U12	NC	-7000.00	2000.00
n	Y27	NC	8000.00	-1000.00
n	AA27	NC	8000.00	-2000.00
n	Y26	NC	7000.00	-1000.00
n	AA26	NC	7000.00	-2000.00
n	Y11	NC	-8000.00	-1000.00
n	AA11	NC	-8000.00	-2000.00
n	Y12	NC	-7000.00	-1000.00
n	AA12	NC	-7000.00	-2000.00
n	N06	CHI_P_CONF1 G0	-13000.00	6000.00
n	N03	CHI_P_CONF1 G1	-16000.00	6000.00
n	N01	CHI_P_CONF1 G2	-18000.00	6000.00
n	N02	CHI_P_CONF1 G3	-17000.00	6000.00
n	P07	CHI_P_CONF1 G4	-12000.00	5000.00
n	P05	CHI_P_CONF1 G5	-14000.00	5000.00
n	P06	CLKSELO0	-13000.00	5000.00
n	P03	CLKSELO1	-16000.00	5000.00
n	P01	CLKSELO2	-18000.00	5000.00
n	P02	CLKSELO3	-17000.00	5000.00
n	R06	CLKSELO4	-13000.00	4000.00
n	R04	CLKSELO5	-15000.00	4000.00
n	R05	CLKSELO6	-14000.00	4000.00
n	R03	CLKSELO7	-16000.00	4000.00
n	R01	CLKSELO8	-18000.00	4000.00
n	R02	CLKSELO9	-17000.00	4000.00
n	V05	DOTESTN	-14000.00	0.00
n	T04	GPI_000	-15000.00	3000.00
n	T02	GPI_001	-17000.00	3000.00
n	T03	GPI_002	-16000.00	3000.00
n	T01	GPI_003	-18000.00	3000.00
n	U06	GPI_004	-13000.00	2000.00
n	U07	GPI_005	-12000.00	2000.00

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	U05	GPI_006	-14000.00	2000.00
n	U02	GPI_007	-17000.00	2000.00
n	U03	GPI_008	-16000.00	2000.00
n	U01	GPI_009	-18000.00	2000.00
n	V06	GPI_010	-13000.00	1000.00
n	V07	GPI_011	-12000.00	1000.00
n	V04	GPI_012	-15000.00	1000.00
n	V02	GPI_013	-17000.00	1000.00
n	V03	GPI_014	-16000.00	1000.00
n	V01	GPI_015	-18000.00	1000.00
n	J36	HTO_8X2	17000.00	10000.00
n	J35	HTO_HI_HOSTMODE	16000.00	10000.00
n	J37	HTO_HI_LDT_RECN	18000.00	10000.00
n	K31	HTO_HI_LDT_STOPN	12000.00	9000.00
n	K30	HTO_HI_POWEROK	11000.00	9000.00
n	J34	HTO_HI_RSTN	15000.00	10000.00
n	M81	HTO_LO_HOSTMODE	12000.00	7000.00
n	L36	HTO_LO_LDT_RECN	17000.00	8000.00
n	L34	HTO_LO_LDT_STOPN	15000.00	8000.00
n	L35	HTO_LO_POWEROK	16000.00	8000.00
n	M80	HTO_LO_RSTN	11000.00	7000.00
n	D19	HTO_RX_CADN00	0.00	15000.00
n	B20	HTO_RX_CADN01	1000.00	17000.00
n	G20	HTO_RX_CADN02	1000.00	12000.00
n	A21	HTO_RX_CADN03	2000.00	18000.00
n	B22	HTO_RX_CADN04	3000.00	17000.00
n	B23	HTO_RX_CADN05	4000.00	17000.00
n	A24	HTO_RX_CADN06	5000.00	18000.00
n	G22	HTO_RX_CADN07	3000.00	12000.00
n	B24	HTO_RX_CADN08	5000.00	17000.00
n	B27	HTO_RX_CADN09	8000.00	17000.00
n	D23	HTO_RX_CADN10	4000.00	15000.00
n	E25	HTO_RX_CADN11	6000.00	14000.00
n	F24	HTO_RX_CADN12	5000.00	13000.00
n	H23	HTO_RX_CADN13	4000.00	11000.00
n	G26	HTO_RX_CADN14	7000.00	12000.00
n	G27	HTO_RX_CADN15	8000.00	12000.00
n	E19	HTO_RX_CADP00	0.00	14000.00
n	C20	HTO_RX_CADP01	1000.00	16000.00
n	F20	HTO_RX_CADP02	1000.00	13000.00
n	A20	HTO_RX_CADP03	1000.00	18000.00
n	A22	HTO_RX_CADP04	3000.00	18000.00
n	A23	HTO_RX_CADP05	4000.00	18000.00
n	A25	HTO_RX_CADP06	6000.00	18000.00
n	F22	HTO_RX_CADP07	3000.00	13000.00
n	C24	HTO_RX_CADP08	5000.00	16000.00

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	A27	HTO_RX_CADP09	8000.00	18000.00
n	D22	HTO_RX_CADP10	3000.00	15000.00
n	D25	HTO_RX_CADP11	6000.00	15000.00
n	G24	HTO_RX_CADP12	5000.00	12000.00
n	G23	HTO_RX_CADP13	4000.00	12000.00
n	F26	HTO_RX_CADP14	7000.00	13000.00
n	F27	HTO_RX_CADP15	8000.00	13000.00
n	E21	HTO_RX_CLKN0	2000.00	14000.00
n	D26	HTO_RX_CLKN1	7000.00	15000.00
n	D21	HTO_RX_CLKP0	2000.00	15000.00
n	D27	HTO_RX_CLKP1	8000.00	15000.00
n	B26	HTO_RX_CTLN0	7000.00	17000.00
n	B28	HTO_RX_CTLN1	9000.00	17000.00
n	A26	HTO_RX_CTLP0	7000.00	18000.00
n	C28	HTO_RX_CTLP1	9000.00	16000.00
n	G37	HTO_TX_CADN00	18000.00	12000.00
n	F36	HTO_TX_CADN01	17000.00	13000.00
n	E36	HTO_TX_CADN02	17000.00	14000.00
n	C36	HTO_TX_CADN03	17000.00	16000.00
n	F34	HTO_TX_CADN04	15000.00	13000.00
n	D34	HTO_TX_CADN05	15000.00	15000.00
n	A35	HTO_TX_CADN06	16000.00	18000.00
n	F32	HTO_TX_CADN07	13000.00	13000.00
n	D33	HTO_TX_CADN08	14000.00	15000.00
n	B32	HTO_TX_CADN09	13000.00	17000.00
n	E31	HTO_TX_CADN10	12000.00	14000.00
n	A32	HTO_TX_CADN11	13000.00	18000.00
n	D31	HTO_TX_CADN12	12000.00	15000.00
n	E29	HTO_TX_CADN13	10000.00	14000.00
n	B31	HTO_TX_CADN14	12000.00	17000.00
n	F28	HTO_TX_CADN15	9000.00	13000.00
n	G36	HTO_TX_CADP00	17000.00	12000.00
n	F37	HTO_TX_CADP01	18000.00	13000.00
n	E37	HTO_TX_CADP02	18000.00	14000.00
n	C37	HTO_TX_CADP03	18000.00	16000.00
n	G34	HTO_TX_CADP04	15000.00	12000.00
n	D35	HTO_TX_CADP05	16000.00	15000.00
n	B35	HTO_TX_CADP06	16000.00	17000.00
n	G32	HTO_TX_CADP07	13000.00	12000.00
n	E33	HTO_TX_CADP08	14000.00	14000.00
n	C32	HTO_TX_CADP09	13000.00	16000.00
n	F31	HTO_TX_CADP10	12000.00	13000.00
n	A33	HTO_TX_CADP11	14000.00	18000.00
n	D30	HTO_TX_CADP12	11000.00	15000.00
n	D29	HTO_TX_CADP13	10000.00	15000.00
n	A31	HTO_TX_CADP14	12000.00	18000.00

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	G28	HTO_TX_CADP15	9000.00	12000.00
n	D36	HTO_TX_CLKN0	17000.00	15000.00
n	G30	HTO_TX_CLKN1	11000.00	12000.00
n	D37	HTO_TX_CLKP0	18000.00	15000.00
n	F30	HTO_TX_CLKP1	11000.00	13000.00
n	A34	HTO_TX_CTLN0	15000.00	18000.00
n	A30	HTO_TX_CTLN1	11000.00	18000.00
n	B34	HTO_TX_CTLP0	15000.00	17000.00
n	B30	HTO_TX_CTLP1	11000.00	17000.00
n	A29	HTOCLKN	10000.00	18000.00
n	A28	HTOCLKP	9000.00	18000.00
n	H37	HT1_8X2	18000.00	11000.00
n	K35	HT1_HI_HOSTMODE	16000.00	9000.00
n	K33	HT1_HI_LDT_RECN	14000.00	9000.00
n	K34	HT1_HI_LDT_STOPN	15000.00	9000.00
n	K36	HT1_HI_POWEROK	17000.00	9000.00
n	K32	HT1_HI_RSTN	13000.00	9000.00
n	H35	HT1_LO_HOSTMODE	16000.00	11000.00
n	H33	HT1_LO_LDT_RECN	14000.00	11000.00
n	H34	HT1_LO_LDT_STOPN	15000.00	11000.00
n	H36	HT1_LO_POWEROK	17000.00	11000.00
n	H32	HT1_LO_RSTN	13000.00	11000.00
n	A19	HT1_RX_CADN00	0.00	18000.00
n	B18	HT1_RX_CADN01	-1000.00	17000.00
n	G18	HT1_RX_CADN02	-1000.00	12000.00
n	A17	HT1_RX_CADN03	-2000.00	18000.00
n	B16	HT1_RX_CADN04	-3000.00	17000.00
n	B15	HT1_RX_CADN05	-4000.00	17000.00
n	A14	HT1_RX_CADN06	-5000.00	18000.00
n	G16	HT1_RX_CADN07	-3000.00	12000.00
n	B14	HT1_RX_CADN08	-5000.00	17000.00
n	B11	HT1_RX_CADN09	-8000.00	17000.00
n	D15	HT1_RX_CADN10	-4000.00	15000.00
n	E13	HT1_RX_CADN11	-6000.00	14000.00
n	F14	HT1_RX_CADN12	-5000.00	13000.00
n	H15	HT1_RX_CADN13	-4000.00	11000.00
n	G12	HT1_RX_CADN14	-7000.00	12000.00
n	G11	HT1_RX_CADN15	-8000.00	12000.00
n	B19	HT1_RX_CADP00	0.00	17000.00
n	C18	HT1_RX_CADP01	-1000.00	16000.00
n	F18	HT1_RX_CADP02	-1000.00	13000.00
n	A18	HT1_RX_CADP03	-1000.00	18000.00
n	A16	HT1_RX_CADP04	-3000.00	18000.00
n	A15	HT1_RX_CADP05	-4000.00	18000.00
n	A13	HT1_RX_CADP06	-6000.00	18000.00
n	F16	HT1_RX_CADP07	-3000.00	13000.00

Net/Pwr	Pl n Number	Net Name	X Coord	Y Coord
n	C14	HT1_RX_CADP08	- 5000. 00	16000. 00
n	A11	HT1_RX_CADP09	- 8000. 00	18000. 00
n	D16	HT1_RX_CADP10	- 3000. 00	15000. 00
n	D13	HT1_RX_CADP11	- 6000. 00	15000. 00
n	G14	HT1_RX_CADP12	- 5000. 00	12000. 00
n	G15	HT1_RX_CADP13	- 4000. 00	12000. 00
n	F12	HT1_RX_CADP14	- 7000. 00	13000. 00
n	F11	HT1_RX_CADP15	- 8000. 00	13000. 00
n	E17	HT1_RX_CLKN0	- 2000. 00	14000. 00
n	D12	HT1_RX_CLKN1	- 7000. 00	15000. 00
n	D17	HT1_RX_CLKP0	- 2000. 00	15000. 00
n	D11	HT1_RX_CLKP1	- 8000. 00	15000. 00
n	B12	HT1_RX_CTLN0	- 7000. 00	17000. 00
n	B10	HT1_RX_CTLN1	- 9000. 00	17000. 00
n	A12	HT1_RX_CTLP0	- 7000. 00	18000. 00
n	C10	HT1_RX_CTLP1	- 9000. 00	16000. 00
n	G01	HT1_TX_CADN00	- 18000. 00	12000. 00
n	F02	HT1_TX_CADN01	- 17000. 00	13000. 00
n	E02	HT1_TX_CADN02	- 17000. 00	14000. 00
n	C02	HT1_TX_CADN03	- 17000. 00	16000. 00
n	F04	HT1_TX_CADN04	- 15000. 00	13000. 00
n	D04	HT1_TX_CADN05	- 15000. 00	15000. 00
n	A03	HT1_TX_CADN06	- 16000. 00	18000. 00
n	F06	HT1_TX_CADN07	- 13000. 00	13000. 00
n	D05	HT1_TX_CADN08	- 14000. 00	15000. 00
n	B06	HT1_TX_CADN09	- 13000. 00	17000. 00
n	E07	HT1_TX_CADN10	- 12000. 00	14000. 00
n	A06	HT1_TX_CADN11	- 13000. 00	18000. 00
n	D07	HT1_TX_CADN12	- 12000. 00	15000. 00
n	E09	HT1_TX_CADN13	- 10000. 00	14000. 00
n	B07	HT1_TX_CADN14	- 12000. 00	17000. 00
n	F10	HT1_TX_CADN15	- 9000. 00	13000. 00
n	G02	HT1_TX_CADP00	- 17000. 00	12000. 00
n	F01	HT1_TX_CADP01	- 18000. 00	13000. 00
n	E01	HT1_TX_CADP02	- 18000. 00	14000. 00
n	C01	HT1_TX_CADP03	- 18000. 00	16000. 00
n	G04	HT1_TX_CADP04	- 15000. 00	12000. 00
n	D03	HT1_TX_CADP05	- 16000. 00	15000. 00
n	B03	HT1_TX_CADP06	- 16000. 00	17000. 00
n	G06	HT1_TX_CADP07	- 13000. 00	12000. 00
n	E05	HT1_TX_CADP08	- 14000. 00	14000. 00
n	C06	HT1_TX_CADP09	- 13000. 00	16000. 00
n	F07	HT1_TX_CADP10	- 12000. 00	13000. 00
n	A05	HT1_TX_CADP11	- 14000. 00	18000. 00
n	D08	HT1_TX_CADP12	- 11000. 00	15000. 00
n	D09	HT1_TX_CADP13	- 10000. 00	15000. 00

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	A07	HT1_TX_CADP14	-12000.00	18000.00
n	G10	HT1_TX_CADP15	-9000.00	12000.00
n	D02	HT1_TX_CLKN0	-17000.00	15000.00
n	G08	HT1_TX_CLKN1	-11000.00	12000.00
n	D01	HT1_TX_CLKP0	-18000.00	15000.00
n	F08	HT1_TX_CLKP1	-11000.00	13000.00
n	A04	HT1_TX_CTLN0	-15000.00	18000.00
n	A08	HT1_TX_CTLN1	-11000.00	18000.00
n	B04	HT1_TX_CTLP0	-15000.00	17000.00
n	B08	HT1_TX_CTLP1	-11000.00	17000.00
n	A09	HT1CLKN	-10000.00	18000.00
n	A10	HT1CLKP	-9000.00	18000.00
n	K37	I2C0_SCL	18000.00	9000.00
n	L37	I2C0_SDA	18000.00	8000.00
n	Y02	I2C1_SCL	-17000.00	-1000.00
n	Y01	I2C1_SDA	-18000.00	-1000.00
n	M01	I3CC_EN	-18000.00	7000.00
n	AR23	M00_A00	4000.00	-16000.00
n	AP20	M00_A01	1000.00	-15000.00
n	AR20	M00_A02	1000.00	-16000.00
n	AU18	M00_A03	-1000.00	-18000.00
n	AT18	M00_A04	-1000.00	-17000.00
n	AR18	M00_A05	-1000.00	-16000.00
n	AU17	M00_A06	-2000.00	-18000.00
n	AR17	M00_A07	-2000.00	-16000.00
n	AT17	M00_A08	-2000.00	-17000.00
n	AT16	M00_A09	-3000.00	-17000.00
n	AR24	M00_A10	5000.00	-16000.00
n	AU16	M00_A11	-3000.00	-18000.00
n	AP18	M00_A12	-1000.00	-15000.00
n	AU27	M00_A13	8000.00	-18000.00
n	AP27	M00_A17	8000.00	-15000.00
n	AU14	M00_ACTN	-5000.00	-18000.00
n	AU15	M00_ALERTN	-4000.00	-18000.00
n	AU24	M00_BAO	5000.00	-18000.00
n	AT24	M00_BA1	5000.00	-17000.00
n	AP17	M00_BG0	-2000.00	-15000.00
n	AT15	M00_BG1	-4000.00	-17000.00
n	AU26	M00_CASN	7000.00	-18000.00
n	AP11	M00_CB0	-8000.00	-15000.00
n	AR11	M00_CB1	-8000.00	-16000.00
n	AU12	M00_CB2	-7000.00	-18000.00
n	AR14	M00_CB3	-5000.00	-16000.00
n	AT09	M00_CB4	-10000.00	-17000.00
n	AU09	M00_CB5	-10000.00	-18000.00
n	AP12	M00_CB6	-7000.00	-15000.00

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	AT12	M00_CB7	-7000.00	-17000.00
n	AU28	M00_CI D2	9000.00	-18000.00
n	AU13	M00_CKE0	-6000.00	-18000.00
n	AP15	M00_CKE1	-4000.00	-15000.00
n	AT14	M00_CKE2	-5000.00	-17000.00
n	AT13	M00_CKE3	-6000.00	-17000.00
n	AT20	M00_CKN0	1000.00	-17000.00
n	AT19	M00_CKN1	0.00	-17000.00
n	AT21	M00_CKN2	2000.00	-17000.00
n	AP21	M00_CKN3	2000.00	-15000.00
n	AU20	M00_CKP0	1000.00	-18000.00
n	AU19	M00_CKP1	0.00	-18000.00
n	AU21	M00_CKP2	2000.00	-18000.00
n	AR21	M00_CKP3	2000.00	-16000.00
n	AJ02	M00_DM0N_D0SP09	-17000.00	-10000.00
n	AN02	M00_DM1N_D0SP10	-17000.00	-14000.00
n	AR03	M00_DM2N_D0SP11	-16000.00	-16000.00
n	AU06	M00_DM3N_D0SP12	-13000.00	-18000.00
n	AU31	M00_DM4N_D0SP13	12000.00	-18000.00
n	AU35	M00_DM5N_D0SP14	16000.00	-18000.00
n	AN36	M00_DM6N_D0SP15	17000.00	-14000.00
n	AJ36	M00_DM7N_D0SP16	17000.00	-10000.00
n	AU10	M00_DM8N_D0SP17	-9000.00	-18000.00
n	AH01	M00_D000	-18000.00	-9000.00
n	AH04	M00_D001	-15000.00	-9000.00
n	AL02	M00_D002	-17000.00	-12000.00
n	AL01	M00_D003	-18000.00	-12000.00
n	AH03	M00_D004	-16000.00	-9000.00
n	AH02	M00_D005	-17000.00	-9000.00
n	AK01	M00_D006	-18000.00	-11000.00
n	AL03	M00_D007	-16000.00	-12000.00
n	AM01	M00_D008	-18000.00	-13000.00
n	AM03	M00_D009	-16000.00	-13000.00
n	AP02	M00_D010	-17000.00	-15000.00
n	AR01	M00_D011	-18000.00	-16000.00
n	AL04	M00_D012	-15000.00	-12000.00
n	AM02	M00_D013	-17000.00	-13000.00
n	AP01	M00_D014	-18000.00	-15000.00
n	AM04	M00_D015	-15000.00	-13000.00
n	AP04	M00_D016	-15000.00	-15000.00
n	AT02	M00_D017	-17000.00	-17000.00
n	AU04	M00_D018	-15000.00	-18000.00
n	AR05	M00_D019	-14000.00	-16000.00
n	AR02	M00_D020	-17000.00	-16000.00
n	AP03	M00_D021	-16000.00	-15000.00
n	AP05	M00_D022	-14000.00	-15000.00

Net/Pwr	Pl n Number	Net Name	X Coord	Y Coord
n	AT04	MC0_D023	-15000.00	-17000.00
n	AP07	MC0_D024	-12000.00	-15000.00
n	AR07	MC0_D025	-12000.00	-16000.00
n	AU08	MC0_D026	-11000.00	-18000.00
n	AR08	MC0_D027	-11000.00	-16000.00
n	AT05	MC0_D028	-14000.00	-17000.00
n	AU05	MC0_D029	-14000.00	-18000.00
n	AP09	MC0_D030	-10000.00	-15000.00
n	AT08	MC0_D031	-11000.00	-17000.00
n	AR30	MC0_D032	11000.00	-16000.00
n	AP30	MC0_D033	11000.00	-15000.00
n	AU33	MC0_D034	14000.00	-18000.00
n	AR33	MC0_D035	14000.00	-16000.00
n	AU30	MC0_D036	11000.00	-18000.00
n	AT30	MC0_D037	11000.00	-17000.00
n	AP32	MC0_D038	13000.00	-15000.00
n	AT33	MC0_D039	14000.00	-17000.00
n	AT34	MC0_D040	15000.00	-17000.00
n	AR34	MC0_D041	15000.00	-16000.00
n	AR35	MC0_D042	16000.00	-16000.00
n	AR37	MC0_D043	18000.00	-16000.00
n	AP33	MC0_D044	14000.00	-15000.00
n	AU34	MC0_D045	15000.00	-18000.00
n	AT36	MC0_D046	17000.00	-17000.00
n	AR36	MC0_D047	17000.00	-16000.00
n	AP37	MC0_D048	18000.00	-15000.00
n	AN34	MC0_D049	15000.00	-14000.00
n	AL36	MC0_D050	17000.00	-12000.00
n	AL37	MC0_D051	18000.00	-12000.00
n	AN35	MC0_D052	16000.00	-14000.00
n	AP36	MC0_D053	17000.00	-15000.00
n	AM87	MC0_D054	18000.00	-13000.00
n	AM86	MC0_D055	17000.00	-13000.00
n	AK37	MC0_D056	18000.00	-11000.00
n	AJ34	MC0_D057	15000.00	-10000.00
n	AG36	MC0_D058	17000.00	-8000.00
n	AG37	MC0_D059	18000.00	-8000.00
n	AK35	MC0_D060	16000.00	-11000.00
n	AK36	MC0_D061	17000.00	-11000.00
n	AH37	MC0_D062	18000.00	-9000.00
n	AH36	MC0_D063	17000.00	-9000.00
n	AK03	MC0_D0SN00	-16000.00	-11000.00
n	AN03	MC0_D0SN01	-16000.00	-14000.00
n	AT03	MC0_D0SN02	-16000.00	-17000.00
n	AT07	MC0_D0SN03	-12000.00	-17000.00
n	AT32	MC0_D0SN04	13000.00	-17000.00

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	AP34	MC0_DQSN05	15000.00	-15000.00
n	AM85	MC0_DQSN06	16000.00	-13000.00
n	AJ35	MC0_DQSN07	16000.00	-10000.00
n	AT11			

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	AL24	MC1_A07	5000.00	-12000.00
n	AK23	MC1_A08	4000.00	-11000.00
n	AN26	MC1_A09	7000.00	-13000.00
n	AM5	MC1_A10	-4000.00	-13000.00
n	AN26	MC1_A11	7000.00	-14000.00
n	AL26	MC1_A12	7000.00	-12000.00
n	AL12	MC1_A13	-7000.00	-12000.00
n	AK12	MC1_A17	-7000.00	-11000.00
n	AL28	MC1_ACTN	9000.00	-12000.00
n	AN27	MC1_ALERTN	8000.00	-14000.00
n	AL17	MC1_BA0	-2000.00	-12000.00
n	AN17	MC1_BA1	-2000.00	-14000.00
n	AL25	MC1_BG0	6000.00	-12000.00
n	AN27	MC1_BG1	8000.00	-13000.00
n	AN14	MC1_CASN	-5000.00	-14000.00
n	AL33	MC1_CB0	14000.00	-12000.00
n	AL32	MC1_CB1	13000.00	-12000.00
n	AN30	MC1_CB2	11000.00	-14000.00
n	AN30	MC1_CB3	11000.00	-13000.00
n	AJ31	MC1_CB4	12000.00	-10000.00
n	AJ30	MC1_CB5	11000.00	-10000.00
n	AL30	MC1_CB6	11000.00	-12000.00
n	AK30	MC1_CB7	11000.00	-11000.00
n	AN12	MC1_C1D2	-7000.00	-14000.00
n	AN29	MC1_CKE0	10000.00	-14000.00
n	AN29	MC1_CKE1	10000.00	-13000.00
n	AL27	MC1_CKE2	8000.00	-12000.00
n	AL29	MC1_CKE3	10000.00	-12000.00
n	AK21	MC1_CKN0	2000.00	-11000.00
n	AN21	MC1_CKN1	2000.00	-14000.00
n	AN20	MC1_CKN2	1000.00	-14000.00
n	AK20	MC1_CKN3	1000.00	-11000.00
n	AL21	MC1_CKP0	2000.00	-12000.00
n	AN21	MC1_CKP1	2000.00	-13000.00
n	AN20	MC1_CKP2	1000.00	-13000.00
n	AL20	MC1_CKP3	1000.00	-12000.00
n	Y35	MC1_DM0N_DCSP09	16000.00	-1000.00
n	AB30	MC1_DM1N_DCSP10	11000.00	-3000.00
n	AE31	MC1_DM2N_DCSP11	12000.00	-6000.00
n	AF36	MC1_DM3N_DCSP12	17000.00	-7000.00
n	AN08	MC1_DM4N_DCSP13	-11000.00	-13000.00

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	Y33	MC1_D001	14000.00	-1000.00
n	AB36	MC1_D002	17000.00	-3000.00
n	AB37	MC1_D003	18000.00	-3000.00
n	Y30	MC1_D004	11000.00	-1000.00
n	Y31	MC1_D005	12000.00	-1000.00
n	AA37	MC1_D006	18000.00	-2000.00
n	AA36	MC1_D007	17000.00	-2000.00
n	AB31	MC1_D008	12000.00	-3000.00
n	AB32	MC1_D009	13000.00	-3000.00
n	AC36	MC1_D010	17000.00	-4000.00
n	AC35	MC1_D011	16000.00	-4000.00
n	AB34	MC1_D012	15000.00	-3000.00
n	AB33	MC1_D013	14000.00	-3000.00
n	AC33	MC1_D014	14000.00	-4000.00
n	AC34	MC1_D015	15000.00	-4000.00
n	AD36	MC1_D016	17000.00	-5000.00
n	AD37	MC1_D017	18000.00	-5000.00
n	AF33	MC1_D018	14000.00	-7000.00
n	AF30	MC1_D019	11000.00	-7000.00
n	AC37	MC1_D020	18000.00	-4000.00
n	AD35	MC1_D021	16000.00	-5000.00
n	AE37	MC1_D022	18000.00	-6000.00
n	AE36	MC1_D023	17000.00	-6000.00
n	AF34	MC1_D024	15000.00	-7000.00
n	AF35	MC1_D025	16000.00	-7000.00
n	AJ32	MC1_D026	13000.00	-10000.00
n	AJ33	MC1_D027	14000.00	-10000.00
n	AF32	MC1_D028	13000.00	-7000.00
n	AF31	MC1_D029	12000.00	-7000.00
n	AH30	MC1_D030	11000.00	-9000.00
n	AH31	MC1_D031	12000.00	-9000.00
n	AN09	MC1_D032	-10000.00	-14000.00
n	AL09	MC1_D033	-10000.00	-12000.00
n	AL06	MC1_D034	-13000.00	-12000.00
n	AM05	MC1_D035	-14000.00	-13000.00
n	AK09	MC1_D036	-10000.00	-11000.00
n	AM09	MC1_D037	-10000.00	-13000.00
n	AN06	MC1_D038	-13000.00	-14000.00
n	AM06	MC1_D039	-13000.00	-13000.00
n	AH08	MC1_D040	-11000.00	-9000.00
n	AJ08	MC1_D041	-11000.00	-10000.00
n	AG02	MC1_D042	-17000.00	-8000.00
n	AG01	MC1_D043	-18000.00	-8000.00
n	AN05	MC1_D044	-14000.00	-14000.00
n	AL05	MC1_D045	-14000.00	-12000.00
n	AJ07	MC1_D046	-12000.00	-10000.00

Net/Pwr	Pl n Number	Net Name	X Coord	Y Coord
n	AH07	MC1_D047	-12000.00	-9000.00
n	AF05	MC1_D048	-14000.00	-7000.00
n	AF06	MC1_D049	-13000.00	-7000.00
n	AE05	MC1_D050	-14000.00	-6000.00
n	AE04	MC1_D051	-15000.00	-6000.00
n	AF07	MC1_D052	-12000.00	-7000.00
n	AF08	MC1_D053	-11000.00	-7000.00
n	AE01	MC1_D054	-18000.00	-6000.00
n	AE02	MC1_D055	-17000.00	-6000.00
n	AD03	MC1_D056	-16000.00	-5000.00
n	AE08	MC1_D057	-11000.00	-6000.00
n	AC07	MC1_D058	-12000.00	-4000.00
n	AC06	MC1_D059	-13000.00	-4000.00
n	AE07	MC1_D060	-12000.00	-6000.00
n	AE06	MC1_D061	-13000.00	-6000.00
n	AC05	MC1_D062	-14000.00	-4000.00
n	AC08	MC1_D063	-11000.00	-4000.00
n	Y36	MC1_DQSN00	17000.00	-1000.00
n	AC32	MC1_DQSN01	13000.00	-4000.00
n	AE33	MC1_DQSN02	14000.00	-6000.00
n	AH33	MC1_DQSN03	14000.00	-9000.00
n	AL08	MC1_DQSN04	-11000.00	-12000.00
n	AH06	MC1_DQSN05	-13000.00	-9000.00
n	AF01	MC1_DQSN06	-18000.00	-7000.00
n	AC02	MC1_DQSN07	-17000.00	-4000.00
n	AN33	MC1_DQSN08	14000.00	-14000.00
n	Y34	MC1_DQSN09	15000.00	-1000.00
n	AC30	MC1_DQSN10	11000.00	-4000.00
n	AE30	MC1_DQSN11	11000.00	-6000.00
n	AF37	MC1_DQSN12	18000.00	-7000.00
n	AN08	MC1_DQSN13	-11000.00	-14000.00
n	AJ06	MC1_DQSN14	-13000.00	-10000.00
n	AF03	MC1_DQSN15	-16000.00	-7000.00
n	AD01	MC1_DQSN16	-18000.00	-5000.00
n	AM83	MC1_DQSN17	14000.00	-13000.00
n	Y37	MC1_DQSP00	18000.00	-1000.00
n	AC31	MC1_DQSP01	12000.00	-4000.00
n	AE32	MC1_DQSP02	13000.00	-6000.00
n	AH32	MC1_DQSP03	13000.00	-9000.00
n	AK08	MC1_DQSP04	-11000.00	-11000.00
n	AH05	MC1_DQSP05	-14000.00	-9000.00
n	AF02	MC1_DQSP06	-17000.00	-7000.00
n	AC01	MC1_DQSP07	C01	

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	AK14	MC1_ODT2	-5000.00	-11000.00
n	AN18	MC1_ODT3	-1000.00	-14000.00
n	AM7	MC1_PAR	-2000.00	-13000.00
n	AL15	MC1_RASN	-4000.00	-12000.00
n	AL18	MC1_RESETN	-1000.00	-12000.00
n	AK29	MC1_REXT	10000.00	-11000.00
n	AM4	MC1_SCSN0	-5000.00	-13000.00
n	AM2	MC1_SCSN1	-7000.00	-13000.00
n	AN11	MC1_SCSN2	-8000.00	-14000.00
n	AK11	MC1_SCSN3	-8000.00	-11000.00
n	AK15	MC1_SCSN4	-4000.00	-11000.00
n	AM8	MC1_SCSN5	-1000.00	-13000.00
n	AK18	MC1_SCSN6	-1000.00	-11000.00
n	AL11	MC1_SCSN7	-8000.00	-12000.00
n	AN15	MC1_VEN	-4000.00	-14000.00
n	M03	NMIN	-16000.00	7000.00
n	M02	NODE_I D0	-17000.00	7000.00
n	N07	NODE_I D1	-12000.00	6000.00
n	N04	NODE_I D2	-15000.00	6000.00
n	V06	SE00	17000.00	0.00
n	V34	SE01	15000.00	1000.00
n	V33	SE02	14000.00	1000.00
n	V35	SE03	16000.00	1000.00
n	V37	SE04	18000.00	1000.00
n	V04	SE05	15000.00	0.00
n	V36	SE06	17000.00	1000.00
n	V02	SE07	13000.00	0.00
n	V03	SE08	14000.00	0.00
n	V05	SE09	16000.00	0.00
n	V07	SE10	18000.00	0.00
n	P36	SE11	17000.00	5000.00
n	P35	SE12	16000.00	5000.00
n	P37	SE13	18000.00	5000.00
n	R33	SE14	14000.00	4000.00
n	R34	SE15	15000.00	4000.00
n	R36	SE16	17000.00	4000.00
n	R37	SE17	18000.00	4000.00
n	R35	SE18	16000.00	4000.00
n	P34	SE19	15000.00	5000.00
n	P33	SE20	14000.00	5000.00
n	P32	SE21	13000.00	5000.00
n	N35	SE22	16000.00	6000.00
n	N37	SE23	18000.00	6000.00
n	N36	SE24	17000.00	6000.00
n	T35	SE25	16000.00	3000.00
n	U33	SE26	14000.00	2000.00

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
n	T37	SE27	18000.00	3000.00
n	U34	SE28	15000.00	2000.00
n	U35	SE29	16000.00	2000.00
n	U37	SE30	18000.00	2000.00
n	U36	SE31	17000.00	2000.00
n	V32	SE32	13000.00	1000.00
n	T33	SE33	14000.00	3000.00
n	T34	SE34	15000.00	3000.00
n	T32	SE35	13000.00	3000.00
n	T36	SE36	17000.00	3000.00
n	N34	SE37	15000.00	6000.00
n	M85	SE38	16000.00	7000.00
n	N33	SE39	14000.00	6000.00
n	M87	SE40	18000.00	7000.00
n	M82	SE41	13000.00	7000.00
n	M83	SE42	14000.00	7000.00
n	M86	SE43	17000.00	7000.00
n	M84	SE44	15000.00	7000.00
n	L01	SPI_CSN	-18000.00	8000.00
n	L07	SPI_HOLDN	-12000.00	8000.00
n	L02	SPI_SCK	-17000.00	8000.00
n	L06	SPI_SDI	-13000.00	8000.00
n	L03	SPI_SDO	-16000.00	8000.00
n	M06	SPI_VPN	-13000.00	7000.00
n	T06	SYSCLK	-13000.00	3000.00
n	T05	SYSRESETN	-14000.00	3000.00
n	V01	TCK	-18000.00	0.00
n	V02	TDI	-17000.00	0.00
n	V03	TDO	-16000.00	0.00
n	V04	TESTCLK	-15000.00	0.00
n	Y06	TM8	-13000.00	-1000.00
n	Y07	TRSTN	-12000.00	-1000.00
n	V06	TSELO	-13000.00	0.00
n	Y03	TSEL1	-16000.00	-1000.00
n	M05	UART_RXD	-14000.00	7000.00
n	M04	UART_TXD	-15000.00	7000.00
n_pll	AB08	PLL_DDR_AVDD	-11000.00	-3000.00
n_pll	AB05	PLL_DDR_AVSS	-14000.00	-3000.00
n_pll	AB07	PLL_DDR_DVDD	-12000.00	-3000.00
n_pll	AB06	PLL_DDR_DVSS	-13000.00	-3000.00
n_pll	AA01	PLL_DDRPHY_VDD	-18000.00	-2000.00
n_pll	AA02	PLL_DDRPHY_VDD	-17000.00	-2000.00
n_pll	AA03	PLL_DDRPHY_VDD	-16000.00	-2000.00
n_pll	AA04	PLL_DDRPHY_VDD	-15000.00	-2000.00
n_pll	AA05	PLL_DDRPHY_VSS	-14000.00	-2000.00
n_pll	AA06	PLL_DDRPHY_VSS	-13000.00	-2000.00

Net Name	Pin Number	Net Name	X Coord	Y Coord
n_pll	AA07	PLL_DDRPH_VSS	-12000.00	-20000.00
n_pll	AA08	PLL_DDRPH_VSS	-11000.00	-20000.00
n_pll	H03	PLL_HTO_AVDD	-16000.00	11000.00
n_pll	H04	PLL_HTO_AVSS	-15000.00	11000.00
n_pll	H02	PLL_HTO_DVDD	-17000.00	11000.00
n_pll	H01	PLL_HTO_DVSS	-18000.00	11000.00
n_pll	J03	PLL_HT1_AVDD	-16000.00	10000.00
n_pll	J04	PLL_HT1_AVSS	-15000.00	10000.00
n_pll	J02	PLL_HT1_DVDD	-17000.00	10000.00
n_pll	J01	PLL_HT1_DVSS	-18000.00	10000.00
n_pll	J05	PLL_SE_VDD	-14000.00	10000.00
n_pll	H05	PLL_SE_VSS	-14000.00	11000.00
n_pll	AB04	PLL_SYS_AVDD	-15000.00	-3000.00
n_pll	AB01	PLL_SYS_AVSS	-18000.00	-3000.00
n_pll	AB03	PLL_SYS_DVDD	-16000.00	-3000.00
n_pll	AB02	PLL_SYS_DVSS	-17000.00	-3000.00
p	P16	OTP4K_1V8	-3000.00	5000.00
p	L19	NC	0.00	8000.00
p	B17	VDDE_1V2R	-2000.00	17000.00
p	B21	VDDE_1V2R	2000.00	17000.00
p	C11	VDDE_1V2R	-8000.00	16000.00
p	C12	VDDE_1V2R	-7000.00	16000.00
p	C17	VDDE_1V2R	-2000.00	16000.00
p	C21	VDDE_1V2R	2000.00	16000.00
p	C26	VDDE_1V2R	7000.00	16000.00
p	C27	VDDE_1V2R	8000.00	16000.00
p	D14	VDDE_1V2R	-5000.00	15000.00
p	D18	VDDE_1V2R	-1000.00	15000.00
p	D20	VDDE_1V2R	1000.00	15000.00
p	D24	VDDE_1V2R	5000.00	15000.00
p	E11	VDDE_1V2R	-8000.00	14000.00
p	E12	VDDE_1V2R	-7000.00	14000.00
p	E14	VDDE_1V2R	-5000.00	14000.00
p	E18	VDDE_1V2R	-1000.00	14000.00
p	E20	VDDE_1V2R	1000.00	14000.00
p	E24	VDDE_1V2R	5000.00	14000.00
p	E26	VDDE_1V2R	7000.00	14000.00
p	E27	VDDE_1V2R	8000.00	14000.00
p	H11	VDDE_1V2R	-8000.00	11000.00
p	H12	VDDE_1V2R	-7000.00	11000.00
p	H13	VDDE_1V2R	-6000.00	11000.00
p	H14	VDDE_1V2R	-5000.00	11000.00
p	H16	VDDE_1V2R	-3000.00	11000.00
p	H17	VDDE_1V2R	-2000.00	11000.00
p	H18	VDDE_1V2R	-1000.00	11000.00
p	H20	VDDE_1V2R	1000.00	11000.00

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
p	H21	VDDE_1V2R	2000.00	11000.00
p	H22	VDDE_1V2R	3000.00	11000.00
p	H24	VDDE_1V2R	5000.00	11000.00
p	H25	VDDE_1V2R	6000.00	11000.00
p	H26	VDDE_1V2R	7000.00	11000.00
p	H27	VDDE_1V2R	8000.00	11000.00
p	B02	VDDE_1V2T	-17000.00	17000.00
p	B05	VDDE_1V2T	-14000.00	17000.00
p	B09	VDDE_1V2T	-10000.00	17000.00
p	B29	VDDE_1V2T	10000.00	17000.00
p	B33	VDDE_1V2T	14000.00	17000.00
p	B36	VDDE_1V2T	17000.00	17000.00
p	C05	VDDE_1V2T	-14000.00	16000.00
p	C09	VDDE_1V2T	-10000.00	16000.00
p	C29	VDDE_1V2T	10000.00	16000.00
p	C33	VDDE_1V2T	14000.00	16000.00
p	D06	VDDE_1V2T	-13000.00	15000.00
p	D32	VDDE_1V2T	13000.00	15000.00
p	E03	VDDE_1V2T	-16000.00	14000.00
p	E04	VDDE_1V2T	-15000.00	14000.00
p	E06	VDDE_1V2T	-13000.00	14000.00
p	E08	VDDE_1V2T	-11000.00	14000.00
p	E30	VDDE_1V2T	11000.00	14000.00
p	E32	VDDE_1V2T	13000.00	14000.00
p	E34	VDDE_1V2T	15000.00	14000.00
p	E35	VDDE_1V2T	16000.00	14000.00
p	F05	VDDE_1V2T	-14000.00	13000.00
p	F09	VDDE_1V2T	-10000.00	13000.00
p	F29	VDDE_1V2T	10000.00	13000.00
p	F33	VDDE_1V2T	14000.00	13000.00
p	G05	VDDE_1V2T	-14000.00	12000.00
p	G07	VDDE_1V2T	-12000.00	12000.00
p	G09	VDDE_1V2T	-10000.00	12000.00
p	G29	VDDE_1V2T	10000.00	12000.00
p	G31	VDDE_1V2T	12000.00	12000.00
p	G33	VDDE_1V2T	14000.00	12000.00
p	K01	VDDE_1V8	-18000.00	9000.00
p	K02	VDDE_1V8	-17000.00	9000.00
p	K03	VDDE_1V8	-16000.00	9000.00
p	K04	VDDE_1V8	-15000.00	9000.00
p	N31	VDDE_1V8	12000.00	

Net/Pwr	Pl n Number	Net Name	X Coord	Y Coord
p	T31	VDDE_1V8	12000.00	3000.00
p	U30	VDDE_1V8	11000.00	2000.00
p	U31	VDDE_1V8	12000.00	2000.00
p	V31	VDDE_1V8	12000.00	1000.00
p	AF14	VDDE_DDR	-5000.00	-7000.00
p	AF15	VDDE_DDR	-4000.00	-7000.00
p	AF18	VDDE_DDR	-1000.00	-7000.00
p	AF20	VDDE_DDR	1000.00	-7000.00
p	AF23	VDDE_DDR	4000.00	-7000.00
p	AF24	VDDE_DDR	5000.00	-7000.00
p	AF26	VDDE_DDR	7000.00	-7000.00
p	AF27	VDDE_DDR	8000.00	-7000.00
p	AG13	VDDE_DDR	-6000.00	-8000.00
p	AG14	VDDE_DDR	-5000.00	-8000.00
p	AG17	VDDE_DDR	-2000.00	-8000.00
p	AG18	VDDE_DDR	-1000.00	-8000.00
p	AG20	VDDE_DDR	1000.00	-8000.00
p	AG21	VDDE_DDR	2000.00	-8000.00
p	AG24	VDDE_DDR	5000.00	-8000.00
p	AG25	VDDE_DDR	6000.00	-8000.00
p	AK13	VDDE_DDR	-6000.00	-11000.00
p	AK16	VDDE_DDR	-3000.00	-11000.00
p	AK19	VDDE_DDR	0.00	-11000.00
p	AK24	VDDE_DDR	5000.00	-11000.00
p	AK25	VDDE_DDR	6000.00	-11000.00
p	AK26	VDDE_DDR	7000.00	-11000.00
p	AK27	VDDE_DDR	8000.00	-11000.00
p	AK28	VDDE_DDR	9000.00	-11000.00
p	AL13	VDDE_DDR	-6000.00	-12000.00
p	AL16	VDDE_DDR	-3000.00	-12000.00
p	AL19	VDDE_DDR	0.00	-12000.00
p	AL22	VDDE_DDR	3000.00	-12000.00
p	AM3	VDDE_DDR	-6000.00	-13000.00
p	AM6	VDDE_DDR	-3000.00	-13000.00
p	AM9	VDDE_DDR	0.00	-13000.00
p	AN22	VDDE_DDR	3000.00	-13000.00
p	AN25	VDDE_DDR	6000.00	-13000.00
p	AN28	VDDE_DDR	9000.00	-13000.00
p	AN13	VDDE_DDR	-6000.00	-14000.00
p	AN16	VDDE_DDR	-3000.00	-14000.00
p	AN19	VDDE_DDR	0.00	-14000.00
p	AN22	VDDE_DDR	3000.00	-14000.00
p	AN25	VDDE_DDR	6000.00	-14000.00
p	AN28	VDDE_DDR	9000.00	-14000.00
p	AP13	VDDE_DDR	-6000.00	-15000.00
p	AP16	VDDE_DDR	-3000.00	-15000.00

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
p	AB23	VDDN	4000.00	-3000.00
p	AB24	VDDN	5000.00	-3000.00
p	AC13	VDDN	-6000.00	-4000.00
p	AC14	VDDN	-5000.00	-4000.00
p	AC19	VDDN	0.00	-4000.00
p	AC24	VDDN	5000.00	-4000.00
p	AC25	VDDN	6000.00	-4000.00
p	N14	VDDN	-5000.00	6000.00
p	N15	VDDN	-4000.00	6000.00
p	N23	VDDN	4000.00	6000.00
p	N24	VDDN	5000.00	6000.00
p	N27	VDDN	8000.00	6000.00
p	P13	VDDN	-6000.00	5000.00
p	P14	VDDN	-5000.00	5000.00
p	P19	VDDN	0.00	5000.00
p	P22	VDDN	3000.00	5000.00
p	P23	VDDN	4000.00	5000.00
p	P25			

b

N

Net/Pwr	Pl n Number	Net Name	X Coord	Y Coord
p	U25	VDDN	6000.00	2000.00
p	V15	VDDN	-4000.00	1000.00
p	V16	VDDN	-3000.00	1000.00
p	V18	VDDN	-1000.00	1000.00
p	V19	VDDN	0.00	1000.00
p	V21	VDDN	2000.00	1000.00
p	V22	VDDN	3000.00	1000.00
p	V24	VDDN	5000.00	1000.00
p	V14	VDDN	-5000.00	0.00
p	V15	VDDN	-4000.00	0.00
p	V17	VDDN	-2000.00	0.00
p	V18	VDDN	-1000.00	0.00
p	V20	VDDN	1000.00	0.00
p	V21	VDDN	2000.00	0.00
p	V23	VDDN	4000.00	0.00
p	V24	VDDN	5000.00	0.00
p	Y14	VDDN	-5000.00	-1000.00
p	Y16	VDDN	-3000.00	-1000.00
p	Y17	VDDN	-2000.00	-1000.00
p	Y19	VDDN	0.00	-1000.00
p	Y20	VDDN	1000.00	-1000.00
p	Y22	VDDN	3000.00	-1000.00
p	Y23	VDDN	4000.00	-1000.00
p	Y25	VDDN	6000.00	-1000.00
p	AB12	VDDP	-7000.00	-3000.00
p	AB17	VDDP	-2000.00	-3000.00
p	AB21	VDDP	2000.00	-3000.00
p	AB26	VDDP	7000.00	-3000.00
p	AC16	VDDP	-3000.00	-4000.00
p	AC17	VDDP	-2000.00	-4000.00
p	AC21	VDDP	2000.00	-4000.00
p	AC22	VDDP	3000.00	-4000.00
p	AD11	VDDP	-8000.00	-5000.00
p	AD12	VDDP	-7000.00	-5000.00
p	AD15	VDDP	-4000.00	-5000.00
p	AD18	VDDP	-1000.00	-5000.00
p	AD20	VDDP	1000.00	-5000.00
p	AD23	VDDP	4000.00	-5000.00
p	AD26	VDDP	7000.00	-5000.00
p	AD27	VDDP	8000.00	-5000.00
p	AE13	VDDP	-6000.00	-6000.00
p	AE14	VDDP	-5000.00	-6000.00
p	AE16	VDDP	-3000.00	-6000.00
p	AE17	VDDP	-2000.00	-6000.00
p	AE21	VDDP	2000.00	-6000.00
p	AE22	VDDP	3000.00	-6000.00

Net/Pwr	Pl n Number	Net Name	X Coord	Y Coord
p	AE24	VDDP	5000.00	-6000.00
p	AE25	VDDP	6000.00	-6000.00
p	L14	VDDP	-5000.00	8000.00
p	L16	VDDP	-3000.00	8000.00
p	L22	VDDP	3000.00	8000.00
p	L23	VDDP	4000.00	8000.00
p	L25	VDDP	6000.00	8000.00
p	M3	VDDP	-6000.00	7000.00
p	M5	VDDP	-4000.00	7000.00
p	M6	VDDP	-3000.00	7000.00
p	M8	VDDP	-1000.00	7000.00
p	M9	VDDP	0.00	7000.00
p	M21	VDDP	2000.00	7000.00
p	M22	VDDP	3000.00	7000.00
p	M24	VDDP	5000.00	7000.00
p	M25	VDDP	6000.00	7000.00
p	M27	VDDP	8000.00	7000.00
p	N12	VDDP	-7000.00	6000.00
p	N17	VDDP	-2000.00	6000.00
p	N18	VDDP	-1000.00	6000.00
p	N20	VDDP	1000.00	6000.00
p	N21	VDDP	2000.00	6000.00
p	N26	VDDP	7000.00	6000.00
p	P17	VDDP	-2000.00	5000.00
p	P20	VDDP	1000.00	5000.00
p	R12	VDDP	-7000.00	4000.00
p	T11	VDDP	-8000.00	3000.00
p	T12	VDDP	-7000.00	3000.00
p	V13	VDDP	-6000.00	1000.00
p	V25	VDDP	6000.00	1000.00
p	V12	VDDP	-7000.00	0.00
p	V26	VDDP	7000.00	0.00
p	A36	VSS	17000.00	18000.00
p	AA14	VSS	-5000.00	-2000.00
p	AA17	VSS	-2000.00	-2000.00
p	AA20	VSS	1000.00	-2000.00
p	AA23	VSS	4000.00	-2000.00
p	AA25	VSS	6000.00	-2000.00
p	AA32	VSS	13000.00	-2000.00
p	AA33	VSS	14000.00	-2000.00
p	AA34	VSS	15000.00	-2000.00
p	AA35	VSS	16000.00	-2000.00
p	AB11	VSS	-8000.00	-3000.00
p	AB13	VSS	-6000.00	-3000.00
p	AB16	VSS	-3000.00	-3000.00
p	AB19	VSS	0.00	-3000.00

Net/Pwr	Pl n Number	Net Name	X Coord	Y Coord
p	AB22	VSS	3000.00	-3000.00
p	AB25	VSS	6000.00	-3000.00
p	AB27	VSS	8000.00	-3000.00
p	AB35	VSS	16000.00	-3000.00
p	AC03	VSS	-16000.00	-4000.00
p	AC04	VSS	-15000.00	-4000.00
p	AC11	VSS	-8000.00	-4000.00
p	AC12	VSS	-7000.00	-4000.00
p	AC15	VSS	-4000.00	-4000.00
p	AC18	VSS	-1000.00	-4000.00
p	AC20	VSS	1000.00	-4000.00
p	AC23	VSS	4000.00	-4000.00
p	AC26	VSS	7000.00	-4000.00
p	AC27	VSS	8000.00	-4000.00
p	AD04	VSS	-15000.00	-5000.00
p	AD05	VSS	-14000.00	-5000.00
p	AD06	VSS	-13000.00	-5000.00
p	AD13	VSS	-6000.00	-5000.00
p	AD14	VSS	-5000.00	-5000.00
p	AD16	VSS	-3000.00	-5000.00
p	AD17	VSS	-2000.00	-5000.00
p	AD19	VSS	0.00	-5000.00
p	AD21	VSS	2000.00	-5000.00
p	AD22	VSS	3000.00	-5000.00
p	AD24	VSS	5000.00	-5000.00
p	AD25	VSS	6000.00	-5000.00
p	AD30	VSS	11000.00	-5000.00
p	AD31	VSS	12000.00	-5000.00
p	AD32	VSS	13000.00	-5000.00
p	AD33	VSS	14000.00	-5000.00
p	AD34	VSS	15000.00	-5000.00
p	AE03	VSS	-16000.00	-6000.00
p	AE11	VSS	-8000.00	-6000.00
p	AE12	VSS	-7000.00	-6000.00
p	AE15	VSS	-4000.00	-6000.00
p	AE18	VSS	-1000.00	-6000.00
p	AE19	VSS	0.00	-6000.00
p	AE20	VSS	1000.00	-6000.00
p	AE23	VSS	4000.00	-6000.00
p	AE26	VSS	7000.00	-6000.00
p	AE27	VSS	8000.00	-6000.00
p	AE34	VSS	15000.00	-6000.00
p	AE35	VSS	16000.00	-6000.00
p	AF11	VSS	-8000.00	-7000.00
p	AF12	VSS	-7000.00	-7000.00
p	AF13	VSS	-6000.00	-7000.00

Net/Pwr	Pl n Number	Net Name	X Coord	Y Coord
p	AF16	VSS	-3000.00	-7000.00
p	AF17	VSS	-2000.00	-7000.00
p	AF19	VSS	0.00	-7000.00
p	AF21	VSS	2000.00	-7000.00
p	AF22	VSS	3000.00	-7000.00
p	AF25	VSS	6000.00	-7000.00
p	AG03	VSS	-16000.00	-8000.00
p	AG04	VSS	-15000.00	-8000.00
p	AG05	VSS	-14000.00	-8000.00
p	AG06	VSS	-13000.00	-8000.00
p	AG07	VSS	-12000.00	-8000.00
p	AG08	VSS	-11000.00	-8000.00
p	AG11	VSS	-8000.00	-8000.00
p	AG12	VSS	-7000.00	-8000.00
p	AG15	VSS	-4000.00	-8000.00
p	AG16	VSS	-3000.00	-8000.00
p	AG19	VSS	0.00	-8000.00
p	AG22	VSS	3000.00	-8000.00
p	AG23	VSS	4000.00	-8000.00
p	AG26	VSS	7000.00	-8000.00
p	AG27	VSS	8000.00	-8000.00
p	AG30	VSS	11000.00	-8000.00
p	AG31	VSS	12000.00	-8000.00
p	AG32	VSS	13000.00	-8000.00
p	AG33	VSS	14000.00	-8000.00
p	AG34	VSS	15000.00	-8000.00
p	AG35	VSS	16000.00	-8000.00
p	AH34	VSS	15000.00	-9000.00
p	AJ03	VSS	-16000.00	-10000.00
p	AJ04	VSS	-15000.00	-10000.00
p	AK04	VSS	-15000.00	-11000.00
p	AK05	VSS	-14000.00	-11000.00
p	AK06	VSS	-13000.00	-11000.00
p	AK07	VSS	-12000.00	-11000.00
p	AK10	VSS	-9000.00	-11000.00
p	AK31	VSS	12000.00	-11000.00
p	AK32	VSS	13000.00	-11000.00
p	AK33	VSS	14000.00	-11000.00
p	AK34	VSS	15000.00	-11000.00
p	AL07	VSS	-12000.00	-12000.00
p	AL10	VSS	-9000.00	-12000.00
p	AL31	VSS	12000.00	-12000.00
p	AL34	VSS	15000.00	-12000.00
p	AL35	VSS	16000.00	-12000.00
p	AM07	VSS	-12000.00	-13000.00
p	AM0	VSS	-9000.00	-13000.00

Net/Pwr

Pin Number

Net/Pwr	Pl n Number	Net Name	X Coord	Y Coord
p	F17	VSS	- 2000. 00	13000. 00
p	F19	VSS	0. 00	13000. 00
p	F21	VSS	2000. 00	13000. 00
p	F23	VSS	4000. 00	13000. 00
p	F25	VSS	6000. 00	13000. 00
p	F35	VSS	16000. 00	13000. 00
p	G03	VSS	- 16000. 00	12000. 00
p	G13	VSS	- 6000. 00	12000. 00
p	G17	VSS	- 2000. 00	12000. 00
p	G19	VSS	0. 00	12000. 00
p	G21	VSS	2000. 00	12000. 00
p	G25	VSS	6000. 00	12000. 00
p	G35	VSS	16000. 00	12000. 00
p	H06	VSS	- 13000. 00	11000. 00
p	H07	VSS	- 12000. 00	11000. 00
p	H08	VSS	- 11000. 00	11000. 00
p	H09	VSS	- 10000. 00	11000. 00
p	H10	VSS	- 9000. 00	11000. 00
p	H19	VSS	0. 00	11000. 00
p	H28	VSS	9000. 00	11000. 00
p	H29	VSS	10000. 00	11000. 00
p	H30	VSS	11000. 00	11000. 00
p	H31	VSS	12000. 00	11000. 00
p	J06	VSS	- 13000. 00	10000. 00
p	J07	VSS	- 12000. 00	10000. 00
p	J08	VSS	- 11000. 00	10000. 00
p	J30	VSS	11000. 00	10000. 00
p	J31	VSS	12000. 00	10000. 00
p	J32	VSS	13000. 00	10000. 00
p	J33	VSS	14000. 00	10000. 00
p	K05	VSS	- 14000. 00	9000. 00
p	K06	VSS	- 13000. 00	9000. 00
p	K07	VSS	- 12000. 00	9000. 00
p	K08	VSS	- 11000. 00	9000. 00
p	L13	VSS	- 6000. 00	8000. 00
p	L15	VSS	- 4000. 00	8000. 00
p	L17	VSS	- 2000. 00	8000. 00
p	L18	VSS	- 1000. 00	8000. 00
p	L20	VSS	1000. 00	8000. 00
p	L21	VSS	2000. 00	8000. 00
p	L24	VSS	5000. 00	8000. 00
p	L26	VSS	7000. 00	8000. 00
p	L27	VSS	8000. 00	8000. 00
p	L30	VSS	11000. 00	8000. 00
p	L31	VSS	12000. 00	8000. 00
p	L32	VSS	13000. 00	8000. 00

Net/Pwr Pin N

Net/Pwr	Pin Number	Net Name	X Coord	Y Coord
p	U32	VSS	13000.00	2000.00
p	V08	VSS	-11000.00	1000.00
p	V14	VSS	-5000.00	1000.00
p	V17	VSS	-2000.00	1000.00
p	V20	VSS	1000.00	1000.00
p	V23	VSS	4000.00	1000.00
p	V30	VSS	11000.00	1000.00
p	V08	VSS	-11000.00	0.00
p	V11	VSS	-8000.00	0.00
p	V13	VSS	-6000.00	0.00
p	V16	VSS	-3000.00	0.00
p	V19	VSS	0.00	0.00
p	V22	VSS	3000.00	0.00
p	V25	VSS	6000.00	0.00
p	V27	VSS	8000.00	0.00
p	V30	VSS	11000.00	0.00
p	V31	VSS	12000.00	0.00
p	Y13	VSS	-6000.00	-1000.00
p	Y15	VSS	-4000.00	-1000.00
p	Y18	VSS	-1000.00	-1000.00
p	Y21	VSS	2000.00	-1000.00
p	Y24	VSS	5000.00	-1000.00

3A5000/3B5000

	06	07	08	09	10
A	HT1_TX_CADN11	HT1_TX_CADP14	HT1_TX_CTLN1	HT1CLKN	HT1CLKP
B	HT1_TX_CADN09	HT1_TX_CADN14	HT1_TX_CTLP1	VDDE_1V2T	HT1_RX_CTLN1
C	HT1_TX_CADP09	VSS	VSS	VDDE_1V2T	HT1_RX_CTLP1
D	VDDE_1V2T	HT1_TX_CADN12	HT1_TX_CADP12	HT1_TX_CADP13	VSS
E	VDDE_1V2T	HT1_TX_CADN10	VDDE_1V2T	HT1_TX_CADN13	VSS
F	HT1_TX_CADN07	HT1_TX_CADP10	HT1_TX_CLKP1	VDDE_1V2T	HT1_TX_CADN15
G	HT1_TX_CADP07	VDDE_1V2T	HT1_TX_CLKN1	VDDE_1V2T	HT1_TX_CADP15
H	VSS	VSS	VSS	VSS	VSS
J	VSS	VSS	VSS		
K	VSS	VSS	VSS		
L	SPI_SDI	SPI_HOLDN	VDDE_1V8		
M	SPI_WPN	VDDE_1V8	VSS		
N	CHIP_CONF1G0	NODE_ID1	VSS		
P	CLKSEL00	CHIP_CONF1G4	VSS		
R	CLKSEL04	VSS	VSS		
T	SYSCLK	VSS	VSS		
U	GPI004	GPI005	VSS		
V	GPI010	GPI011	VSS		
W	TSEL0	VDDE_1V8	VSS		
Y	TM8	TRSTN	VDDE_1V8		
AA	PLL_DDRPHY_VSS	PLL_DDRPHY_VSS	PLL_DDRPHY_VSS		
AB	PLL_DDR_AVSS	PLL_DDR_AVDD	PLL_DDR_AVDD		
AC	MC1_DC69	MC1_DC68	MC1_DC63		
AD	VSS	MC1_VREF	MC0_VREF		
AE	MC1_DC61	MC1_DC60	MC1_DC57		
AF	MC1_DC49	MC1_DC52	MC1_DC53		
AG	VSS	VSS	VSS		
AH	MC1_DCSN05	MC1_DC47	MC1_DC40		
AJ	MC1_DCSN14	MC1_DC46	MC1_DC41		
AK	VSS	VSS	MC1_DCSP04	MC1_DC36	VSS
AL	MC1_DC34	VSS	MC1_DCSN04	MC1_DC33	VSS
AM	MC1_DC39	VSS	MC1_DM4N_DCSP13	MC1_DC37	VSS
AN	MC1_DC38	VSS	MC1_DCSN13	MC1_DC32	VSS
AP	VSS	MC0_DC24	VSS	MC0_DC30	VSS
AR	VSS	MC0_DC25	MC0_DC27	VSS	VSS
AT	MC0_DCSN12	MC0_DCSN03	MC0_DC31	MC0_CB4	MC0_DCSN17
AU	MC0_DM8N_DCSP12	MC0_DCSP03	MC0_DC26	MC0_CB5	MC0_DM8N_DCSP17

	11	12	13	14	15
A	HT1_RX_CADP09	HT1_RX_CTLPO	HT1_RX_CADPO6	HT1_RX_CADN06	HT1_RX_CADPO5
B	HT1_RX_CADN09	HT1_RX_CTLNO	VSS	HT1_RX_CADN08	HT1_RX_CADN05
C	VDDE_1V2R	VDDE_1V2R	VSS	HT1_RX_CADPO8	VSS
D	HT1_RX_CLKP1	HT1_RX_CLKN1	HT1_RX_CADP11	VDDE_1V2R	HT1_RX_CADN10
E	VDDE_1V2R	VDDE_1V2R	HT1_RX_CADN11	VDDE_1V2R	
F	HT1_RX_CADP15	HT1_RX_CADP14	VSS	HT1_RX_CADN12	VSS
G	HT1_RX_CADN15	HT1_RX_CADN14	VSS	HT1_RX_CADP12	HT1_RX_CADP13
H	VDDE_1V2R	VDDE_1V2R	VDDE_1V2R	VDDE_1V2R	HT1_RX_CADN13
J					
K					
L	VDDE_1V8	VDDE_1V8	VSS	VDDP	VSS
M	VDDE_1V8	VSS	VDDP	VSS	VDDP
N	VSS	VDDP	VSS	VDDN	VDDN
P	VDDE_1V8	VSS	VDDN	VDDN	VSS
R	VSS	VDDP	VDDN	VSS	VDDN
T	VDDP	VDDP	VSS	VDDN	VDDN
U	NC_BBG1_GNDSR	NC_BBG1_VDDSR	VDDN	VDDN	VSS
V	NC_BBG1_GNDST	NC_BBG1_VDDST	VDDP	VSS	VDDN
W	VSS	VDDP	VSS	VDDN	VDDN
Y	NC_BBG3_GNDST	NC_BBG3_VDDST	VSS	VDDN	VSS
AA	NC_BBG3_GNDSR	NC_BBG3_VDDSR	VDDN	VSS	VDDN
AB	VSS	VDDP	VSS	VDDN	VDDN
AC	VSS	VSS	VDDN	VDDN	VSS
AD	VDDMPHY	VDDMPHY	VSS	VSS	VDDMPHY
AE	VSS	VSS	VDDMPHY	VDDMPHY	VSS
AF	VSS	VSS	VSS	VDDE_DDR	VDDE_DDR
AG	VSS	VSS	VDDE_DDR	VDDE_DDR	VSS
AH					
AJ					
AK	MC1_SCSN3	MC1_A17	VDDE_DDR	MC1_CDT2	MC1_SCSN4
AL	MC1_SCSN7	MC1_A13	VDDE_DDR	MC1_CDT0	MC1_RASN
AM	MC1_CDT1	MC1_SCSN1	VDDE_DDR	MC1_SCSN0	MC1_A10
AN	MC1_SCSN2	MC1_CI D2	VDDE_DDR	MC1_CASN	MC1_VEN
AP	MC0_CB0	MC0_CB6	VDDE_DDR	MC0_REXT	MC0_CKE1
AR	MC0_CB1	VDDE_DDR	VDDE_DDR	MC0_CB3	VDDE_DDR
AT	MC0_DCSN08	MC0_CB7	MC0_CKE3	MC0_CKE2	MC0_BG1
AU	MC0_DCSPO8	MC0_CB2	MC0_CKE0		

	16	17	18	19	20
A	HT1_RX_CADP04	HT1_RX_CADN03	HT1_RX_CADP03	HT1_RX_CADN00	HT0_RX_CADP03
B	HT1_RX_CADN04	VDDE_1V2R	HT1_RX_CADN01	HT1_RX_CADP00	HT0_RX_CADN01
C	VSS	VDDE_1V2R	HT1_RX_CADP01	VSS	HT0_RX_CADP01
D	HT1_RX_CADP10	HT1_RX_CLKP0	VDDE_1V2R	HT0_RX_CADN00	VDDE_1V2R
E	VSS	HT1_RX_CLKN0	VDDE_1V2R	HT0_RX_CADP00	VDDE_1V2R
F	HT1_RX_CADP07	VSS	HT1_RX_CADP02	VSS	HT0_RX_CADP02
G	HT1_RX_CADN07	VSS	HT1_RX_CADN02	VSS	HT0_RX_CADN02
H	VDDE_1V2R	VDDE_1V2R	VDDE_1V2R	VSS	VDDE_1V2R
J					
K					
L	VDDP	VSS	VSS	NC_POR_3V3	VSS
M	VDDP	VSS	VDDP	VDDP	VSS
N	VSS	VDDP	VDDP	VSS	VDDP
P	NC_OTP4K_1V8	VDDP	VSS	VDDN	VDDP
R	VDDN	VSS	VDDN	VDDN	VSS
T	VSS	VDDN	VDDN	VSS	VDDN
U	VDDN	VDDN	VSS	VDDN	VDDN
V	VDDN	VSS	VDDN	VDDN	VSS
W	VSS	VDDN	VDDN	VSS	VDDN
Y	VDDN	VDDN	VSS	VDDN	VDDN
AA	VDDN	VSS	VDDN	VDDN	VSS
AB	VSS	VDDMC	VDDN	VSS	VDDN
AC	VDDMC	VDDMC	VSS	VDDN	VSS
AD	VSS	VSS	VDDMPHY	VSS	VDDMPHY
AE	VDDMPHY	VDDMPHY	VSS	VSS	VSS
AF	VSS	VSS	VDDE_DDR	VSS	VDDE_DDR
AG	VSS	VDDE_DDR	VDDE_DDR	VSS	VDDE_DDR
AH					
AJ					
AK	VDDE_DDR	MC1_A00	MC1_SCSN6	VDDE_DDR	MC1_CKN3
AL	VDDE_DDR	MC1_BA0	MC1_RESETN	VDDE_DDR	MC1_CKP3
AM	VDDE_DDR	MC1_PAR	MC1_SCSN5	VDDE_DDR	MC1_CKP2
AN	VDDE_DDR	MC1_BA1	MC1_ODT3	VDDE_DDR	MC1_CKN2
AP	VDDE_DDR	MC0_BG0	MC0_A12	VDDE_DDR	MC0_A01
AR	VDDE_DDR	MC0_A07	MC0_A05	VDDE_DDR	MC0_A02
AT	MC0_A09	MC0_A08	MC0_A04	MC0_CKN1	MC0_CKN0
AU	MC0_A11	MC0_A06	MC0_A03	MC0_CKP1	MC0_CKPO

	21	22	23	24	25
A	HTO_RX_CADN03	HTO_RX_CADP04	HTO_RX_CADP05	HTO_RX_CADN06	HTO_RX_CADP06
B	VDDE_1V2R	HTO_RX_CADN04	HTO_RX_CADN05	HTO_RX_CADN08	VSS
C	VDDE_1V2R	VSS	VSS	HTO_RX_CADP08	VSS
D	HTO_RX_CLKP0	HTO_RX_CADP10	HTO_RX_CADN10	VDDE_1V2R	HTO_RX_CADP11
E	HTO_RX_CLKN0	VSS	VSS	VDDE_1V2R	HTO_RX_CADN11
F	VSS	HTO_RX_CADP07	VSS	HTO_RX_CADN12	VSS
G	VSS	HTO_RX_CADN07	HTO_RX_CADP13	HTO_RX_CADP12	VSS
H	VDDE_1V2R	VDDE_1V2R	HTO_RX_CADN13	VDDE_1V2R	VDDE_1V2R
J					
K					
L	VSS	VDDP	VDDP	VSS	VDDP
M	VDDP	VDDP	VSS	VDDP	VDDP
N	VDDP	VSS	VDDN	VDDN	VSS
P	VSS	VDDN	VDDN	VSS	VDDN
R	VDDN	VDDN	VSS	VDDN	VDDN
T	VDDN	VSS	VDDN	VDDN	VSS
U	VSS	VDDN	VDDN	VSS	VDDN
V	VDDN	VDDN	VSS	VDDN	VDDP
W	VDDN	VSS	VDDN	VDDN	VSS
Y	VSS	VDDN	VDDN	VSS	VDDN
AA	VDDN	VDDN	VSS	VDDN	VSS
AB	VDDMC	VSS	VDDN	VDDN	VSS
AC	VDDMC	VDDMC	VSS	VDDN	VDDN
AD	VSS	VSS	VDDMPHY	VSS	VSS
AE	VDDMPHY	VDDMPHY	VSS	VDDMPHY	VDDMPHY
AF	VSS	VSS	VDDE_DDR	VDDE_DDR	VSS
AG	VDDE_DDR	VSS	VSS	VDDE_DDR	VDDE_DDR
AH					
AJ					
AK	MC1_CKN0	MC1_A03	MC1_A08	VDDE_DDR	VDDE_DDR
AL	MC1_CKPO	VDDE_DDR	MC1_A06	MC1_A07	MC1_B00
AM	MC1_CKP1	VDDE_DDR	MC1_A01	MC1_A05	VDDE_DDR
AN	MC1_CKN1	VDDE_DDR	MC1_A02	MC1_A04	VDDE_DDR
AP	MC0_CKN3	VDDE_DDR	MC0_CDT3	MC0_RASN	VDDE_DDR
AR	MC0_CKP3	VDDE_DDR	MC0_A00	MC0_A10	VDDE_DDR
AT	MC0_CKN2	MC0_RESETN	MC0_SCSN5	MC0_BA1	MC0_VEN
AU	MC0_CKP2	MC0_SCSN6	MC0_PAR	MC0_BA0	MC0_SCSN4

	26	27	28	29	30
A	HTO_RX_CTLPO	HTO_RX_CADPO9	HTOCLKP	HTOCLKN	HTO_TX_CTLN1
B	HTO_RX_CTLNO	HTO_RX_CADNO9	HTO_RX_CTLN1	VDDE_1V2T	HTO_TX_CTLP1
C	VDDE_1V2R	VDDE_1V2R	HTO_RX_CTLP1	VDDE_1V2T	VSS
D	HTO_RX_CLKN1	HTO_RX_CLKP1	VSS	HTO_TX_CADP13	HTO_TX_CADP12
E	VDDE_1V2R	VDDE_1V2R	VSS	HTO_TX_CADN13	VDDE_1V2T
F	HTO_RX_CADP14	HTO_RX_CADP15	HTO_TX_CADN15	VDDE_1V2T	HTO_TX_CLKP1
G	HTO_RX_CADN14	HTO_RX_CADN15	HTO_TX_CADP15	VDDE_1V2T	HTO_TX_CLKN1
H	VDDE_1V2R	VDDE_1V2R	VSS	VSS	VSS
J					VSS
K					HTO_HI_POWERCK
L	VSS	VSS			VSS
M	VSS	VDDP			HTO_LO_RSTN
N	VDDP	VDDN			VSS
P	VDDN	VSS			VDDE_1V8
R	VSS	VSS			VDDE_1V8
T	VDDN	VDDN			VDDE_1V8
U	NC_BBG0_VDDSR	NC_BBG0_GNDSR			VDDE_1V8
V	NC_BBG0_VDDST	NC_BBG0_GNDST			VSS
W	VDDP	VSS			VSS
Y	NC_BBG2_VDDST	NC_BBG2_GNDST			MC1_D004
AA	NC_BBG2_VDDSR	NC_BBG2_GNDSR			NC_AA30
AB	VDDP	VSS			MC1_DM1N_D0SP10
AC	VSS	VSS			MC1_D0SN10
AD	VDDMPHY	VDDMPHY			VSS
AE	VSS	VSS			MC1_D0SN11
AF	VDDE_DDR	VDDE_DDR			MC1_D019
AG	VSS	VSS			VSS
AH					MC1_D030
AJ					MC1_CB5
AK	VDDE_DDR	VDDE_DDR	VDDE_DDR	MC1_REXT	MC1_CB7
AL	MC1_A12	MC1_CKE2	MC1_ACTN	MC1_CKE3	MC1_CB6
AM	MC1_A09	MC1_BG1	VDDE_DDR	MC1_CKE1	MC1_CB3
AN	MC1_A11	MC1_ALERTN	VDDE_DDR	MC1_CKE0	MC1_CB2
AP	MC0_CDT0	MC0_A17	VDDE_DDR	VDDE_DDR	MC0_D033
AR	VDDE_DDR	MC0_CDT2	VDDE_DDR	MC0_SCSN2	MC0_D032
AT	MC0_SCSN0	MC0_SCSN1	MC0_CDT1	MC0_SCSN7	MC0_D037
AU	MC0_CASN	MC0_A13	MC0_CI_D2	MC0_SCSN3	MC0_D036

	31	32	33	34	35
A	HTO_TX_CADP14	HTO_TX_CADN11	HTO_TX_CADP11	HTO_TX_CTLN0	HTO_TX_CADN06
B	HTO_TX_CADN14	HTO_TX_CADN09	VDDE_1V2T	HTO_TX_CTLP0	HTO_TX_CADP06
C	VSS	HTO_TX_CADP09	VDDE_1V2T	VSS	VSS
D	HTO_TX_CADN12	VDDE_1V2T	HTO_TX_CADN08	HTO_TX_CADN05	HTO_TX_CADP05
E	HTO_TX_CADN10	VDDE_1V2T	HTO_TX_CADP08	VDDE_1V2T	VDDE_1V2T
F	HTO_TX_CADP10	HTO_TX_CADN07	VDDE_1V2T	HTO_TX_CADN04	VSS
G	VDDE_1V2T	HTO_TX_CADP07	VDDE_1V2T	HTO_TX_CADP04	VSS
H	VSS	HT1_LO_RSTN	HT1_LO_LDT_REQN	HT1_LO_LDT_STOPN	HT1_LO_HOSTMODE
J	VSS	VSS	VSS	HTO_HI_RSTN	HTO_HI_HOSTMODE
K	HTO_HI_LDT_STOPN	HT1_HI_RSTN	HT1_HI_LDT_REQN	HT1_HI_LDT_STOPN	HT1_HI_HOSTMODE
L	VSS	VSS	VSS	HTO_LO_LDT_STOPN	HTO_LO_POWERCK
M	HTO_LO_HOSTMODE	SE_UART0_RX	SE_UART0_TX	SE_UART1_TX	SE_SPI_CSN
N	VDDE_1V8	VSS	SE_SPI_MISO	SE_SPI_CLK	SE_CSPI_2_IO1
P	VDDE_1V8	SE_CSPI_2_IO0	SE_CSPI_2_CSN	SE_CSPI_2_CLK	SE_I2C_SDA
R	VDDE_1V8	VSS	SE_CSPI_1_FLASH_CSN	SE_CSPI_1_FLASH_IO0	SE_CSPI_1_FLASH_IO3
T	VDDE_1V8	SE_SCI_DETECT	SE_SCI_CLK	SE_SCI_DATA	SE_RNG0_CLK
U	VDDE_1V8	VSS	SE_RNG0_DATA	SE_RNG0_PE	SE_RNG1_CLK
V	VDDE_1V8	SE_RNG1_PE	SE_GPI001	SE_GPI000	SE_GPI002
W	VSS	SE_GPI006	SE_GPI007	SE_GPI004	SE_GPI008
Y	MC1_D005	MC1_D000	MC1_D001	MC1_D0S09	MC1_DMON_D0SP09
AA	NC_AA31	VSS	VSS	VSS	VSS
AB	MC1_D008	MC1_D009	MC1_D013	MC1_D012	VSS
AC	MC1_D0SP01	MC1_D0S01	MC1_D014	MC1_D015	MC1_D011
AD	VSS	VSS	VSS	VSS	MC1_D021
AE	MC1_DMON_D0SP11	MC1_D0SP02	MC1_D0S02	VSS	VSS
AF	MC1_D029	MC1_D028	MC1_D018	MC1_D024	MC1_D025
AG	VSS	VSS	VSS	VSS	VSS
AH	MC1_D031	MC1_D0SP03	MC1_D0S03	VSS	M00_D0SP07
AJ	MC1_CB4	MC1_D026	MC1_D027	M00_D057	M00_D0S07
AK	VSS	VSS	VSS	VSS	M00_D060
AL	VSS	MC1_CB1	MC1_C00	VSS	VSS
AM	VSS	MC1_DMON_D0SP17	MC1_D0S017	M00_D0SP06	M00_D0S06
AN	VSS	MC1_D0SP08	MC1_D0S08	M00_D049	M00_D052
AP	VSS	M00_D038	M00_D044	M00_D0S05	M00_D0SP05
AR	VSS	VSS	M00_D035	M00_D041	M00_D042
AT	M00_D0S013	M00_D0S04	M00_D039	M00_D040	M00_D0S014
AU	M00_DMON_D0SP13	M00_D0SP04	M00_D034	M00_D045	M00_DMON_D0SP14

	36	37
A	VSS	
B	VDDE_1V2T	VSS
C	HTO_TX_CADNO3	HTO_TX_CADPO3
D	HTO_TX_CLKNO	HTO_TX_CLKPO
E	HTO_TX_CADNO2	HTO_TX_CADPO2
F	HTO_TX_CADNO1	HTO_TX_CADPO1
G	HTO_TX_CADPO0	HTO_TX_CADNO0
H	HT1_LO_POWERCK	HT1_8X2
J	HTO_8X2	HTO_HI_LDT_RECN
K	HT1_HI_POWERCK	I2CO_SCL
L	HTO_LO_LDT_RECN	I2CO_SDA
M	SE_UART1_RX	SE_SPI_M0SI
N	SE_CSPI_2_I03	SE_CSPI_2_I02
P	SE_I2C_SCL	SE_CSPI_1_FLASH_CLK
R	SE_CSPI_1_FLASH_I01	SE_CSPI_1_FLASH_I02
T	SE_SCI_RSTN	SE_RNG0_CEN
U	SE_RNG1_CEN	SE_RNG1_DATA
V	SE_GPI005	SE_GPI003
W	SE_CLK_SEL	SE_GPI009
Y	MC1_DCSN00	MC1_DCSPO0
AA	MC1_D007	MC1_D006
AB	MC1_D002	MC1_D003
AC	MC1_D010	MC1_D020
AD	MC1_D016	MC1_D017
AE	MC1_D023	MC1_D022
AF	MC1_DM8N_DCSP12	MC1_DCSN12
AG	MC0_DC58	MC0_DC59
AH	MC0_DC63	MC0_DC62
AJ	MC0_DM7N_DCSP16	MC0_DCSN16
AK	MC0_DC61	MC0_DC56
AL	MC0_DC50	MC0_DC51
AM	MC0_DC55	MC0_DC54
AN	MC0_DM6N_DCSP15	MC0_DCSN15
AP	MC0_DC53	MC0_DC48
AR	MC0_DC47	MC0_DC43
AT	MC0_DC46	VSS
AU	VSS	

10. 不使用引脚处理

10.1. 系统配置引脚

DOTEST CLKSEL ICCC_EN NODEID CHIP_CONFIG

10.2. SPI 总线

SPI Flash

10.3. I2C/UART/GPIO 总线

I2C UART GPIO

10.4. DDR 总线

DDR

10.5. HyperTransport 总线

HyperTransport		HyperTransport
	LDT_STOPn	
HT0	HT0_2x8	HT0 16
	HT0_LO_LDT_STOPn	
HT1	HT1_2x8	HT1 8
	HT1_HI_LDT_STOPn	
LDT_STOPn	GPIO	

10. 6. HTx_CLKp/n 时钟输入

HT0/1_CLKp/n HT PHY
SYSCLK HT

3A5000/3B5000

10. 7. JTAG 总线、TESTCLK

JTAG TESTCLK

10. 8. 系统中断管脚

NMn

10. 9. SE 管脚

SE SE

11. 封装走线长度

Net Name	Overall Total (um)	Net Name	Overall Total (um)	Net Name	Overall Total (um)
CHI_P_CONFI G0	12783.42	HT1_TX_CLKP0	19580.85	MC1_CKN0	15985.38
CHI_P_CONFI G1	15033.37	HT1_TX_CLKP1	19581.11	MC1_CKN1	15885.61
CHI_P_CONFI G2	17123.33	HT1_TX_CTLN0	19589.44	MC1_CKN2	15823.08
CHI_P_CONFI G3	16264.94	HT1_TX_CTLN1	19591.61	MC1_CKN3	15796.71
CHI_P_CONFI G4	11860.31	HT1_TX_CTLP0	19608.8	MC1_CKPO	15995.8
CHI_P_CONFI G5	13082.42	HT1_TX_CTLP1	19609.02	MC1_CKP1	15879.48
CLKSELO0	12508.43	I2C0_SCL	16643.32	MC1_CKP2	15841.79
CLKSELO1	14805.39	I2C0_SDA	15763.98	MC1_CKP3	15814.63
CLKSELO2	16956.85	I2C1_SCL	14457.13	MC1_DM0N_DCSP09	16956.55
CLKSELO3	16166.07	I2C1_SDA	15506.6	MC1_DM1N_DCSP10	16888.7
CLKSELO4	11844.16	I3CC_EN	17532.77	MC1_DM2N_DCSP11	18687.65
CLKSELO5	13848.34	MC0_A00	16503.01	MC1_DM3N_DCSP12	19879.91
CLKSELO6	12849.67	MC0_A01	16554.07	MC1_DM4N_DCSP13	16391.98
CLKSELO7	14620.02	MC0_A02	16609.81	MC1_DM5N_DCSP14	17199.13
CLKSELO8	16610.38	MC0_A03	16511.59	MC1_DM6N_DCSP15	16457
CLKSELO9	15921.66	MC0_A04	16805.07	MC1_DM7N_DCSP16	14653.55
DOTESTN	11705.2	MC0_A05	16471.16	MC1_DM8N_DCSP17	19376.66
GPI000	13708.33	MC0_A06	16722.78	MC1_DC00	16959.91
GPI001	15695.21	MC0_A07	16501.68	MC1_DC01	16962.1
GPI002	14427.93	MC0_A08	16621.61	MC1_DC02	16974.48
GPI003	16415.37	MC0_A09	16664.97	MC1_DC03	17009.16
GPI004	11563.74	MC0_A10	16556.19	MC1_DC04	16953.7
GPI005	10823.99	MC0_A11	16503.46	MC1_DC05	16970.34
GPI006	12054.13	MC0_A12	16531.9	MC1_DC06	16978.91
GPI007	15570.37	MC0_A13	16533.8	MC1_DC07	16980.42
GPI008	14118.22	MC0_A17	16436.85	MC1_DC08	16821.29
GPI009	16297.35	MC0_ACTN	16633.87	MC1_DC09	16817.18
GPI010	11344.19	MC0_ALERTN	16599.53	MC1_DC010	16888.94
GPI011	11047.47	MC0_BA0	16584.07	MC1_DC011	16820.18
GPI012	13211.12	MC0_BA1	16510.27	MC1_DC012	16829.97
GPI013	15137.22	MC0_BG0	16766.28	MC1_DC013	16900.93
GPI014	13860.94	MC0_BG1	16421.94	MC1_DC014	16830.46
GPI015	15915.74	MC0_CASN	16497.34	MC1_DC015	16885.75
HTOCLKN	17214.86	MC0_CB0	16747.58	MC1_DC016	18766.79
HTOCLKP	17196.83	MC0_CB1	16691.13	MC1_DC017	18724.82
HTO_8X2	15394.93	MC0_CB2	16718.41	MC1_DC018	18694.36
HTO_HI_HOSTMODE	14275.75	MC0_CB3	16700.19	MC1_DC019	18708.78
HTO_HI_LDT_RECN	15872.49	MC0_CB4	16756.67	MC1_DC020	18693.68
HTO_HI_LDT_STOPN	10434.16	MC0_CB5	16738.36	MC1_DC021	18693.62
HTO_HI_POWEROK	9677.75	MC0_CB6	16730.59	MC1_DC022	18705.8

Net Name	Overall Total (um)	Net Name	Overall Total (um)	Net Name	Overall Total (um)
HTO_HI_RSTN	13471.45	MCO_CB7	16710.81	MC1_DC23	18704.29
HTO_LO_HOSTMODE	9423.4	MCO_CI D2	16560.83	MC1_DC24	19806.89
HTO_LO_LDT_RECN	14709.18	MCO_CKE0	16440.6	MC1_DC25	19834.57
HTO_LO_LDT_STOPN	12971.82	MCO_CKE1	16585.77	MC1_DC26	19838.31
HTO_LO_POWEROK	13681.71	MCO_CKE2	16420.85	MC1_DC27	19875.53
HTO_LO_RSTN	9021.37	MCO_CKE3	16585.96	MC1_DC28	19865.64
HTO_REXT	6553.59	MCO_CKN0	16578.56	MC1_DC29	19843.53
HTO_RX_CADN00	17410.68	MCO_CKN1	16415.87	MC1_DC30	19842.28
HTO_RX_CADN01	17414.38	MCO_CKN2	16594.7	MC1_DC31	19838.37
HTO_RX_CADN02	17426.04	MCO_CKN3	16432.29	MC1_DC32	16438.64
HTO_RX_CADN03	17425.87	MCO_CKP0	16595.08	MC1_DC33	16390.38
HTO_RX_CADN04	17436.87	MCO_CKP1	16429.97	MC1_DC34	16480.43
HTO_RX_CADN05	17429.1	MCO_CKP2	16605.97	MC1_DC35	16405.76
HTO_RX_CADN06	17408.71	MCO_CKP3	16421.95	MC1_DC36	16472.45
HTO_RX_CADN07	17445.94	MCO_DM0N_DCSP09	17059.97	MC1_DC37	16384.81
HTO_RX_CADN08	17432.15	MCO_DM1N_DCSP10	19639.94	MC1_DC38	16428.31
HTO_RX_CADN09	17422.35	MCO_DM2N_DCSP11	19984.35	MC1_DC39	16401.28
HTO_RX_CADN10	17427.28	MCO_DM3N_DCSP12	18269.27	MC1_DC40	17181.33
HTO_RX_CADN11	17434.57	MCO_DM4N_DCSP13	18399.86	MC1_DC41	17186.26
HTO_RX_CADN12	17425.07	MCO_DM5N_DCSP14	19887.16	MC1_DC42	17203.21
HTO_RX_CADN13	17417.93	MCO_DM6N_DCSP15	19147.54	MC1_DC43	17251.08
HTO_RX_CADN14	17431.28	MCO_DM7N_DCSP16	16714.93	MC1_DC44	17242.35
HTO_RX_CADN15	17431.53	MCO_DM8N_DCSP17	16748.36	MC1_DC45	17198.11
HTO_RX_CADP00	17427.97	MCO_D000	17065.36	MC1_DC46	17174.88
HTO_RX_CADP01	17427.52	MCO_D001	17101.81	MC1_DC47	17173.86
HTO_RX_CADP02	17441.36	MCO_D002	17057.85	MC1_DC48	16541.41
HTO_RX_CADP03	17425.35	MCO_D003	17126.3	MC1_DC49	16507.93
HTO_RX_CADP04	17435.74	MCO_D004	17090.52	MC1_DC50	16500.15
HTO_RX_CADP05	17428.15	MCO_D005	17098.8	MC1_DC51	16548.95
HTO_RX_CADP06	17410.73	MCO_D006	17125.19	MC1_DC52	16497.59
HTO_RX_CADP07	17430.24	MCO_D007	17124	MC1_DC53	16510.02
HTO_RX_CADP08	17438.23	MCO_D008	19653.77	MC1_DC54	16516.82
HTO_RX_CADP09	17434.67	MCO_D009	19585.6	MC1_DC55	16506.12
HTO_RX_CADP10	17437.62	MCO_D010	19597.58	MC1_DC56	14655.59
HTO_RX_CADP11	17430.69	MCO_D011	19636.5	MC1_DC57	14668.89
HTO_RX_CADP12	17424.17	MCO_D012	19624.42	MC1_DC58	14716.23
HTO_RX_CADP13	17419.91	MCO_D013	19632.68	MC1_DC59	14732.46
HTO_RX_CADP14	17441.08	MCO_D014	19587.24	MC1_DC60	14694.47
HTO_RX_CADP15	17444.15	MCO_D015	19598.84	MC1_DC61	14682.54
HTO_RX_CLKNO	17428.7	MCO_D016	20019.27	MC1_DC62	14648.52
HTO_RX_CLKN1	17436.18	MCO_D017	20044.59	MC1_DC63	14673.02
HTO_RX_CLKP0	17410	MCO_D018	20015.42	MC1_DCSN00	16998.5
HTO_RX_CLKP1	17428.83	MCO_D019	20055.44	MC1_DCSN01	16859.07
HTO_RX_CTLNO	17426.96	MCO_D020	20042.74	MC1_DCSN02	18730.36

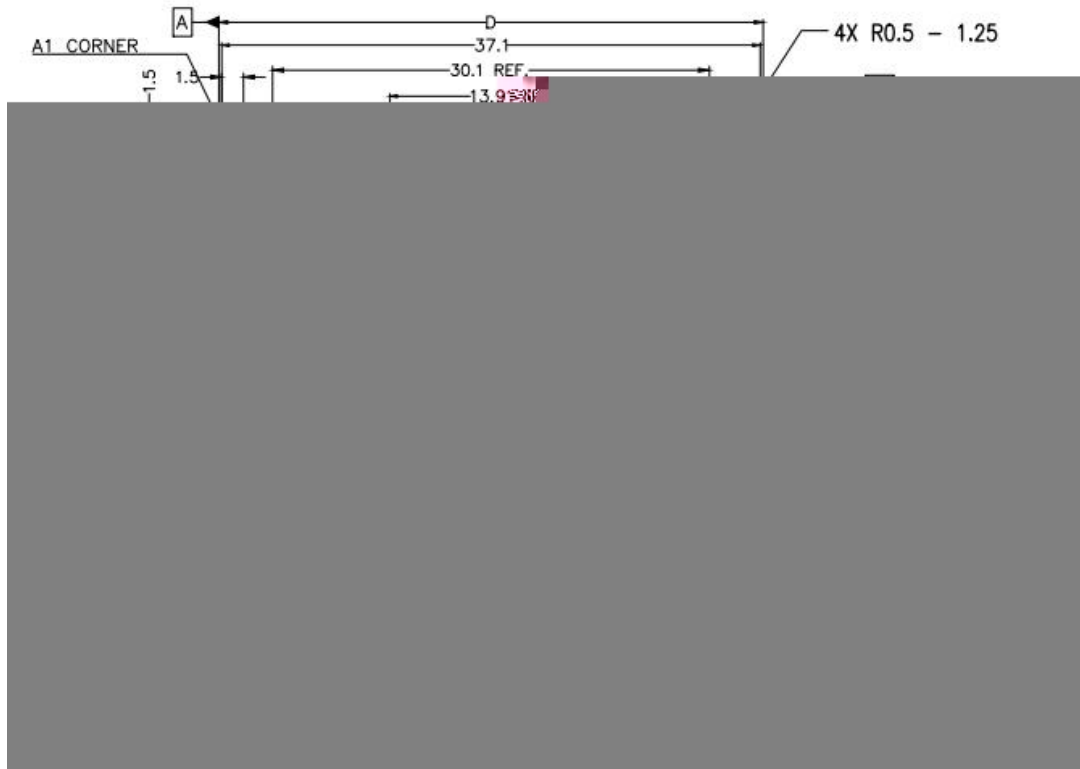
Net Name	Overall I Total (um)	Net Name	Overall I Total (um)	Net Name	Overall I Total (um)
HTO_RX_CTLN1	17429.34	MC0_D021	20050.16	MC1_DCSN03	19851.63
HTO_RX_CTLPO	17428.36	MC0_D022	20011.69	MC1_DCSN04	16431.61
HTO_RX_CTLP1	17434.33	MC0_D023	20008.15	MC1_DCSN05	17209.3
HTO_TX_CADN00	19577.77	MC0_D024	18223.83	MC1_DCSN06	16500.04
HTO_TX_CADN01	19586.78	MC0_D025	18249.12	MC1_DCSN07	14688.17
HTO_TX_CADN02	19584.09	MC0_D026	18233.37	MC1_DCSN08	19347.09
HTO_TX_CADN03	19576.72	MC0_D027	18295.34	MC1_DCSN09	16958.21
HTO_TX_CADN04	19574.79	MC0_D028	18244.48	MC1_DCSN10	16902.63
HTO_TX_CADN05	19596.13	MC0_D029	18281.98	MC1_DCSN11	18705.97
HTO_TX_CADN06	19604.94	MC0_D030	18270.42	MC1_DCSN12	19897.71
HTO_TX_CADN07	19591.82	MC0_B705D00000			

Net Name	Overall Total (um)	Net Name	Overall Total (um)	Net Name	Overall Total (um)
HT1CLKP	17062.01	MCO_DCSN01	19616.66	NODE_I D1	12092.74
HT1_8X2	16888.61	MCO_DCSN02	20014.47	NODE_I D2	13867.27
HT1_HI_HOSTMODE	14276.44	MCO_DCSN03	18257.93	PLL_DDRPHY_VDD	35790.59
HT1_HI_LDT_RECN	12386.63	MCO_DCSN04	18410.59	PLL_DDRPHY_VSS	28372.94
HT1_HI_LDT_STOPN	13230.9	MCO_DCSN05	19915.58	PLL_DDR_AVDD	4935.07
HT1_HI_POWEROK	15049.4	MCO_DCSN06	19193.7	PLL_DDR_AVSS	11270.03
HT1_HI_RSTN	11038.92	MCO_DCSN07	16756.61	PLL_HTO_AVDD	4240.87
HT1_LO_HOSTMODE	14813.54	MCO_DCSN08	16732.26	PLL_HTO_AVSS	5998.95
HT1_LO_LDT_RECN	13604.42	MCO_DCSN09	17070.46	PLL_HT1_AVDD	21003.89
HT1_LO_LDT_STOPN	13628.51	MCO_DCSN10	19622.09	PLL_HT1_AVSS	23385.84
HT1_LO_POWEROK	15716.26	MCO_DCSN11	19998.53	PLL_SE_VDD	5326.57
HT1_LO_RSTN	12325.03	MCO_DCSN12	18285.11	PLL_SE_VSS	5216.41
HT1_REXT	6061.41	MCO_DCSN13	18413.27	PLL_SYS_AVDD	3609
HT1_RX_CADN00	17428.76	MCO_DCSN14	19881.65	PLL_SYS_AVSS	4305.83
HT1_RX_CADN01	17420.82	MCO_DCSN15	19157.1	SE_CLK_SEL	13307.48
HT1_RX_CADN02	17424.17	MCO_DCSN16	16728.4	SE_GPI 000	11041.34
HT1_RX_CADN03	17417.73	MCO_DCSN17	16762.43	SE_GPI 001	10304.04
HT1_RX_CADN04	17436.87	MCO_DCSP00	17091.68	SE_GPI 002	12174.6
HT1_RX_CADN05	17429.45	MCO_DCSP01	19627.79	SE_GPI 003	14531.89
HT1_RX_CADN06	17435.51	MCO_DCSP02	20004.57	SE_GPI 004	10935.37
HT1_RX_CADN07	17441.02	MCO_DCSP03	18242.48	SE_GPI 005	13284.59
HT1_RX_CADN08	17417.83	MCO_DCSP04	18396.52	SE_GPI 006	9440.74
HT1_RX_CADN09	17410.37	MCO_DCSP05	19922.77	SE_GPI 007	10066.5
HT1_RX_CADN10	17430.17	MCO_DCSP06	19205.32	SE_GPI 008	12582.23
HT1_RX_CADN11	17424.79	MCO_DCSP07	16745.53	SE_GPI 009	14627.46
HT1_RX_CADN12	17431.25	MCO_DCSP08	16715.21	SE_I 2C_SCL	14094.63
HT1_RX_CADN13	17413.16	MCO_ODT0	16536.44	SE_I 2C_SDA	13277.19
HT1_RX_CADN14	17433.57	MCO_ODT1	16426.51	SE_CSPI 1_FLASH_CLK	15200.67
HT1_RX_CADN15	17432.76	MCO_ODT2	16456.3	SE_CSPI 1_FLASH_CSN	10435.65
HT1_RX_CADP00	17436.32	MCO_ODT3	16608.36	SE_CSPI 1_FLASH_I 00	11655.13
HT1_RX_CADP01	17433.96	MCO_PAR	16733.77	SE_CSPI 1_FLASH_I 01	14112.69
HT1_RX_CADP02	17409.08	MCO_RASN	16535.02	SE_CSPI 1_FLASH_I 02	14896.05
HT1_RX_CADP03	17425.49	MCO_RESETN	13957.48	SE_CSPI 1_FLASH_I 03	12709.93
HT1_RX_CADP04	17435.74	MCO_REXT	16631.15	SE_CSPI 2_CLK	12116.29
HT1_RX_CADP05	17428.5	MCO_SCSN0	16490.08	SE_CSPI 2_CSN	11111.45
HT1_RX_CADP06	17442	MCO_SCSN1	16656.46	SE_CSPI 2_I 00	10214.97
HT1_RX_CADP07	17426.81	MCO_SCSN2	16437.31	SE_CSPI 2_I 01	13472.2
HT1_RX_CADP08	17435.11	MCO_SCSN3	16775.33	SE_CSPI 2_I 02	15370.39
HT1_RX_CADP09	17418.35	MCO_SCSN4	16729.1	SE_CSPI 2_I 03	14395.68
HT1_RX_CADP10	17446.22	MCO_SCSN5	16503.15	SE_RNG0_CLK	12402.05
HT1_RX_CADP11	17432.13	MCO_SCSN6	16528.31	SE_RNG0_DATA	10443.8
HT1_RX_CADP12	17444.39	MCO_SCSN7	16706.6	SE_RNG0_OEN	14719.49
HT1_RX_CADP13	17424.98	MCO_VREF	3636.52	SE_RNG0_PE	11278.11
HT1_RX_CADP14	17423.37	MCO_VREF1	0	SE_RNG1_CLK	12366.99

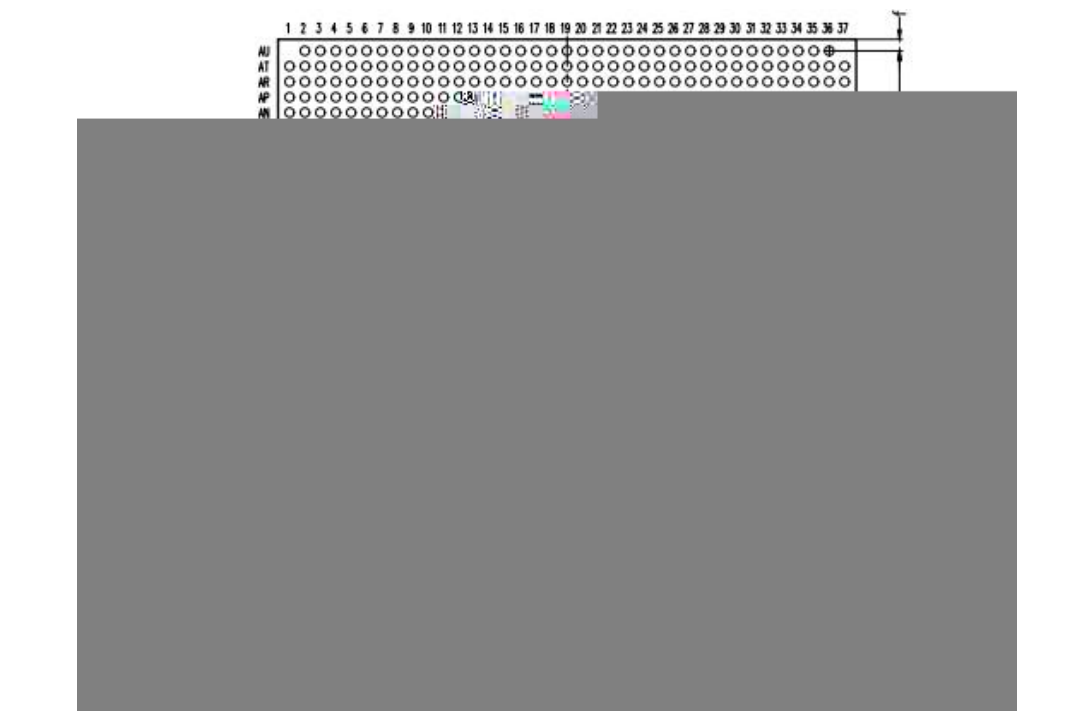
Net Name	Overall Total (um)	Net Name	Overall Total (um)	Net Name	Overall Total (um)
HT1_RX_CADP15	17435.86	MC0_VREF2	0	SE_RNG1_DATA	14740.81
HT1_RX_CLKNO	17426.94	MC0_VREF3	0	SE_RNG1_OEN	13337.04
HT1_RX_CLKN1	17435.62	MC0_VREF4	0	SE_RNG1_PE	9197.84
HT1_RX_CLKPO	17414.19	MC0_VREF5	0	SE_SCI_CLK	10185.84
HT1_RX_CLKP1	17432.38	MC0_VREF6	0	SE_SCI_DATA	11347.25
HT1_RX_CTLNO	17411.9	MC0_VREF7	0	SE_SCI_DETECT	9612.82
HT1_RX_CTLN1	17415.87	MC0_VREF8	0	SE_SCI_RSTN	13624.5
HT1_RX_CTLPO	17428.59	MC0_WEN	16456.31	SE_SPI_CLK	12380.64
HT1_RX_CTLP1	17417.57	MC1_A00	15971.89	SE_SPI_CSN	13776.81
HT1_TX_CADN00	19594.13	MC1_A01	15871.53	SE_SPI_MISO	11154.76
HT1_TX_CADN01	19585.98	MC1_A02	15822.71	SE_SPI_MOSI	15514.17
HT1_TX_CADN02	19585.84	MC1_A03	16048.99	SE_UART0_RX	10470.18
HT1_TX_CADN03	19611.57	MC1_A04	16052.49	SE_UART0_TX	11745.2
HT1_TX_CADN04	19598.76	MC1_A05	16153.2	SE_UART1_RX	14591.21
HT1_TX_CADN05	19598.67	MC1_A06	15817.77	SE_UART1_TX	12716.64
HT1_TX_CADN06	19600.18	MC1_A07	16148.89	SPI_CSN	18112.07
HT1_TX_CADN07	19604.06	MC1_A08	16061.46	SPI_HOLDN	12808.46
HT1_TX_CADN08	19579.48	MC1_A09	16175.39	SPI_SCK	17497.2
HT1_TX_CADN09	19608.37	MC1_A10	15842.9	SPI_SDI	13423.94
HT1_TX_CADN10	19596.83	MC1_A11	15984.91	SPI_SDO	16051.41
HT1_TX_CADN11	19604.97	MC1_A12	16098.71	SPI_VPN	12477.91
HT1_TX_CADN12	19587.67	MC1_A13	15920.25	SYSCLK	11686.76
HT1_TX_CADN13	19587.83	MC1_A17	15807.99	SYSRESETN	12382.27
HT1_TX_CADN14	19598.24	MC1_ACTN	15881.11	TCK	15670.02
HT1_TX_CADN15	19610.18	MC1_ALERTN	16042.26	TDI	14994.59
HT1_TX_CADPO0	19596.21	MC1_BAO	15914.07	TDO	13611.13
HT1_TX_CADPO1	19594.19	MC1_BA1	15899.51	TESTCLK	12687.64
HT1_TX_CADPO2	19589.97	MC1_BGO	15918.95	TMS	10357.79
HT1_TX_CADPO3	19607.88	MC1_BG1	15885.22	TRSTN	9506.43
HT1_TX_CADPO4	19606.18	MC1_CASN	15967.71	TSELO	10764.16
HT1_TX_CADPO5	19595.69	MC1_CBO	19386.8	TSEL1	13670.52
HT1_TX_CADPO6	19611.82	MC1_CB1	19358.04	UAB_C	

12 封装机械尺寸

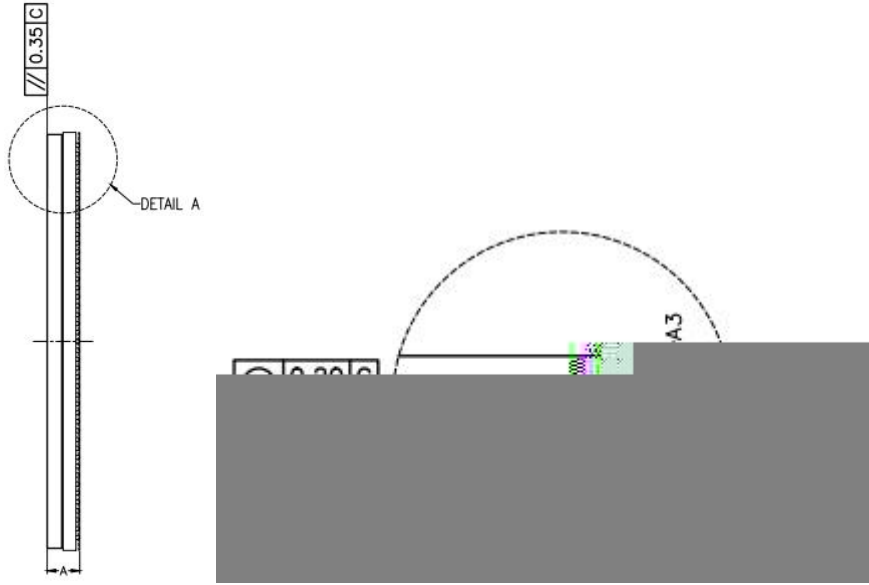
12.1. LS3A5000/LS3B5000



12.1 3A5000/3B5000



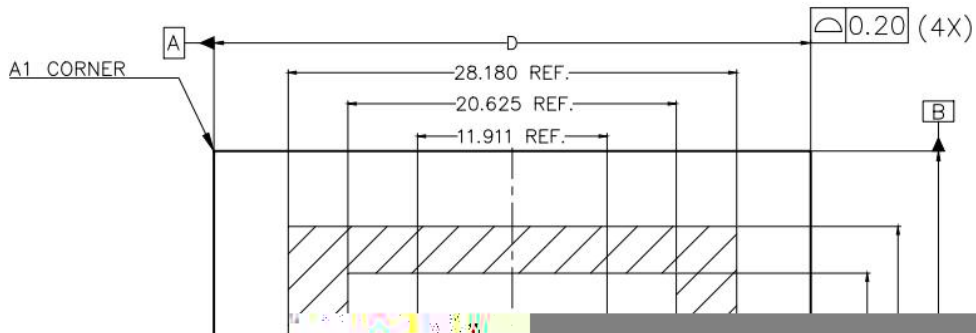
12.2 3A5000/3B5000



12.3 3A5000/3B5000

0.48mm

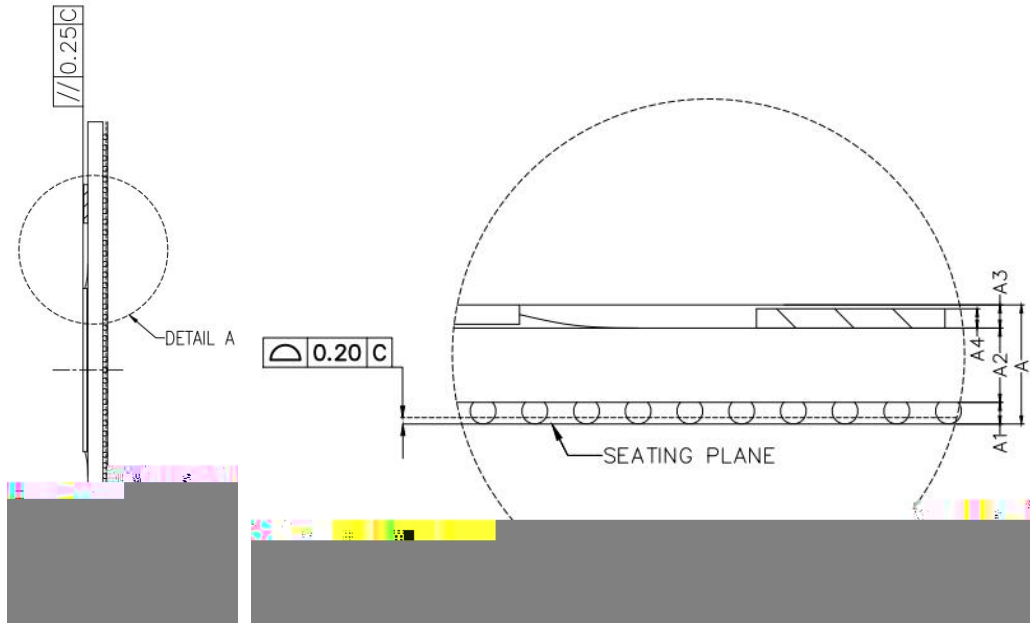
12.2 LS3A5000M



12.4 3A5000M



12.5 3A5000M



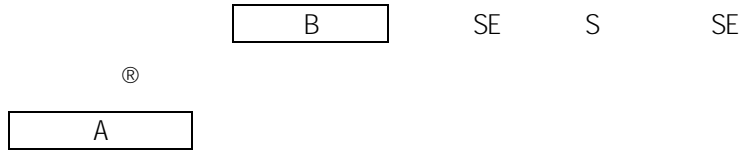
(UNITS OF MEASURE=MILLIMETER)

SYMBOL	MIN	NOM	MAX
[REDACTED]			

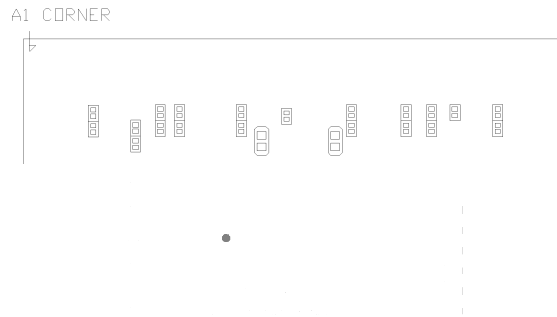
12.6 3A5000M

0.48mm

13. 订货信息



13.3. LS3A5000M



LS3A5000
CHN YYVWXX
TFAAAAAYMNNN
LOONGSON
LS3A5000M

