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**1.4 2024.4**

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# 1

## 1.1



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## 1.4



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1.



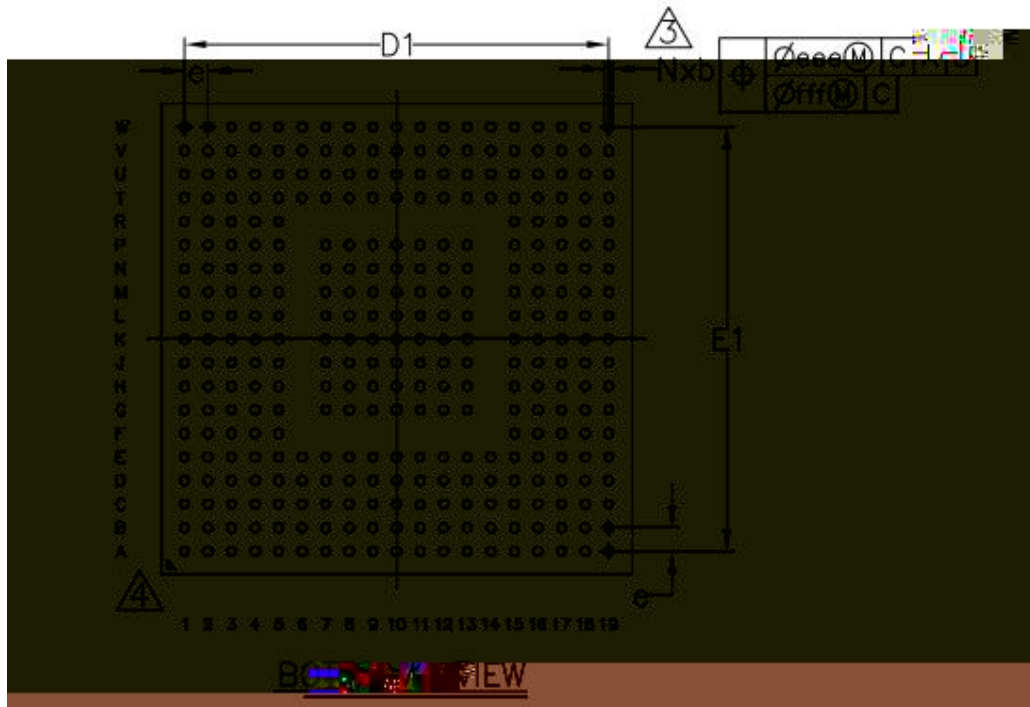
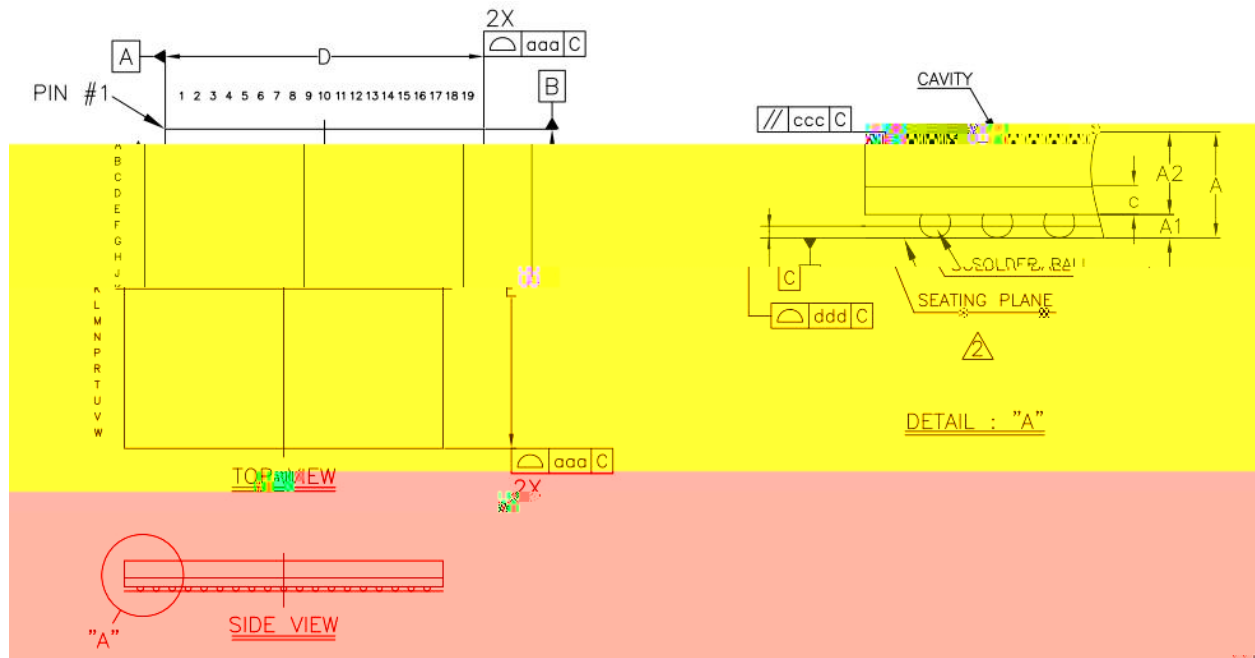
1.



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# 2

## 2.1





## 2.2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
A	GND_PEP	PE_TX_N	GND_PEP	PE_RX_N	PE_RX_N	GND_PEP	PE_TX_N	PE_TX_N	GND_PEP	PE_RX_N	PE_RX_N	GND_PEP	PE_TX_N	UART_SRX	SPI_CLK_D	NO_GPIO	N2_GPIO	N3_GPIO	GND
	HY_GD	3	HY_GD	3	2	HY_GD	2	1	HY_GD	1	0	HY_GD	0		IV_0	1	1	1	
	GND_PEP	PE_TX_P	GND_PEP	PE_RX_P	PE_RX_P	GND_PEP	PE_TX_P	PE_TX_P	GND_PEP	PE_RX_P	PE_RX_P	GND_PEP	PE_TX_P	SPI_CLK	GPIO	PE_RST	SPI_CLK	JRST_N	JT
														IV_2	1	EQ			

## 2.3

### 2.3.1



**2.3.2**

**#0**











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### 2.3.



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### 2.3. #3 (4- )



#### 2.3.10



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## 2.3.14



## 2.3.15



## 2.3.1

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### 2.3.1



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## 3

### 3.1

	-65		140	° C
Tj (PN )	-55		125	° C
VCK VCC11A	-0.1	1.1	1.155	V
VCC11A_PE, VCC11A_A10, VCC11A_CEN, VCC11A_PLL	-0.1	1.1	1.155	V
VCC3I Q, VCC33A VCC33	-0.4	3.3	3.7	V
VCC18I O_25V	-0.4	3.3	3.7	V

### 3.2

	-40		85	° C
VCK VCC11A	1.045	1.1	1.155	V
VCC11A_PE, VCC11A_A10, VCC11A_CEN, VCC11A_PLL	1.045	1.1	1.155	V
VCC3I Q, VCC33A VCC33	3.135	3.3	3.465	V
VCC18I O_25V	3.135	3.3	3.465	V

### 3.3

I O reference vol tage	Vref		3.0	3.3	3.6	V
I nput l ow vol tage	Vil				0.8	V
I nput hi gh vol tage	Vih		2.0			V
I nput l ow current	Iil	Vin=0V	-20		0	μA
I nput hi gh current	Iih	Vin=Vref - Vref, max	0		200	μA
Output l ow vol tage	Vol	Iol=4mA, Vref=mi n	0		400	mV
Output hi gh vol tage	Voh	I Oh=-4mA, Vref=mi n	2.4		Vref	V

### 3.4

Tckf	NCSI_REF_CLK Frequency		50		MHz
Rdc	NCSI_REF_CLK duty cycle	35		65	%
Racc	NCSI_REF_CLK accuracy			100	ppm
Tco	Clock-to-out (10 pF $\Rightarrow$ load $\leq$ 50 pF) NCSI_RXD[1:0], NCSI_CSR_DV Data valid from NCSI_REF_CLK rising edge	2.5		12.5	ns
Tsu	NCSI_TXD[1:0], NCSI_TX_EN Data Setup to NCSI_CLK_IN rising edge	3			ns
Thold	NCSI_TXD[1:0], NCSI_TX_EN Data hold from NCSI_REF_CLK rising edge	1			ns
Tor	NCSI_RXD[1:0], NCSI_CSR_DV Output Time rise	0.5		6	ns
Tof	NCSI_RXD[1:0], NCSI_CSR_DV Output Time fall	0.5		6	ns
Tckr/Tckf	NCSI_REF_CLK Rise/Fall Time	0.5		3.5	ns

### 3.5

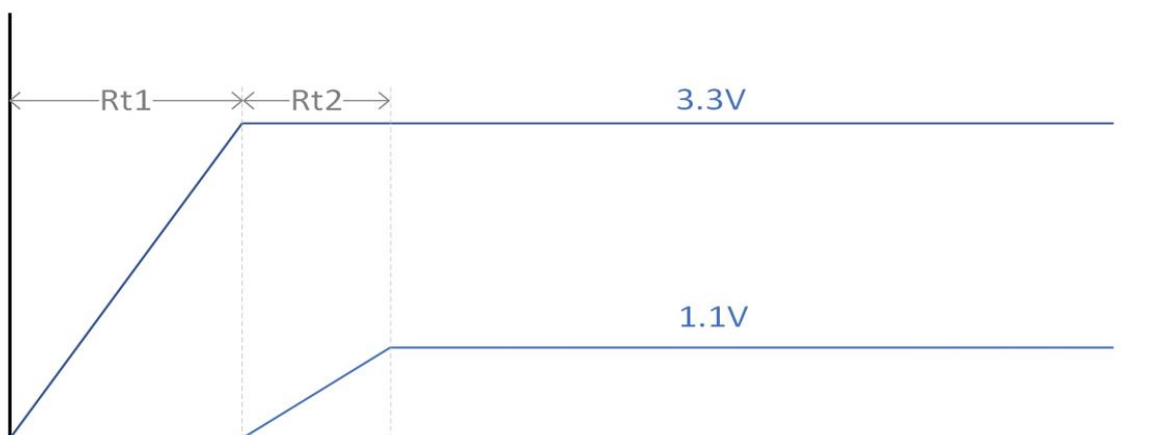
Frequency	-	-	25	-	MHz

Vibration mode			Fundamental		
Frequency Stability	Ta=0-70	-30		+30	ppm
Frequency Tolerance	Ta=25	-50		+50	ppm
Load Capacitance			20		pf

Frequency	-	-	25	-	MHz
Frequency Stability	Ta=0-70	-30		+30	ppm
Frequency Tolerance	Ta=25	-50		+50	ppm
Duty Cycle		40		60	%
Broadband Peak-to-peak Jitter				200	ps
Vpeak-to-peak		3.135	3.3	3.465	V
Rise time 10% 90%				10	ns
Fall time 10% 90%				10	ns
Operation temperature Range		0		70	

### 3.5

GPHY IP      1.1V      3.3V 5ns      3.3V rise time      1ns  
3.3V      1.1V



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# 4

w nbond	V25C80DV
microchip	SST25VF080B
	GD25C80

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1	VX1860A2		0 - 70 , 40nm 2	2
2	VX1860A4		0 - 70 , 40nm 4	4
3	VX1860AL1		- 40 - 85 , 40nm 1 SM <del>2</del> /SM <del>3</del> /SM <del>4</del>	1
4	VX1860AL2		- 40 - 85 , 40nm 2 SM <del>2</del> /SM <del>3</del> /SM <del>4</del>	2
5	VX1860AL4		- 40 - 85 , 40nm 4 SM <del>2</del> /SM <del>3</del> /SM <del>4</del>	4

1

NO

2

NO N1

N2 N3

NO N1 N2 N3