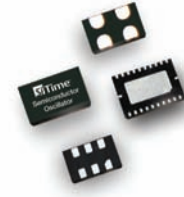


# SiTime全硅MEMS时脉方案和应用实例

- 振荡器, 时钟产生器和嵌入式谐振器
- 封装兼容, 直接替换石英
- 3周供货期
- 最佳稳定性和可靠性



## 储存和计算机

±10PPM稳定性, 2 FIT半导体可靠性



## 消费

3周供货期, 最小, 最薄, 最低成本



## 网络通讯

1-800MHz, 1.8V工作电压, ±10PPM稳定性



## 工业级, 高可靠性, 车规电子

5000G抗震, 70G抗振, 5亿小时平均无故障时间(MTBF)



# 以频率, 应用选择SiTime时脉产品

		高效能可编程振荡器		差分(D/E)可编程振荡器		低功耗可编程振荡器		扩频可编程振荡器			压控可编程振荡器		可编程时钟产生器			可编程kHz振荡器	车规温度可编程振荡器
基本型号		SiT8103	SiT8102	SiT9102	SiT9107	SiT8003	SiT8033	SiT9001	SiT9002	SiT9003	SiT3701	SiT3702	SiT9103	SiT9104	SiT9105	SiT8503	SiT8002AA
频率范围(MHz)		1 - 110	1 - 200	1 - 220	220 - 800	1 - 110	2 - 110	1 - 200	1 - 220	1 - 110	1 - 110	1 - 220	1 - 800	1 - 220	1-220 (S/E) 1-800 (D/E)	0.2 - 1.0	1 - 125
输出接口数量		1	1	1	1	1	1, 频率可切换	1	1	1	1	1	3	6	1 (D/E) 4 (S/E)	1	1
单端(S/E)输出		●	●			●	●	●		●	●			●	●	●	●
差分(D/E)输出				●	●				●		●	●			●		
扩频功能								●	●	●			请联络SiTime	请联络SiTime	请联络SiTime		
频率稳定性(±PPM)		20 - 50	10 - 100	10 - 50	10 - 50	20 - 50	20 - 50	50 - 100	25 - 50	50 - 100	20 - 50	10 - 50	25 - 50	25 - 50	25 - 50	25 - 50	100
平均耗电量(mA)		6.7	25	40 - 70	40 - 70	3.2	3.7	25	40 - 70	3.2	6.7	40 - 70	每个输出 40 - 70	每个输出 30	S/E输出 25 D/E输出 40 - 70	6.3	20
何时使用		≤ 110 MHz	> 110 MHz	≤ 220 MHz D/E	> 220 MHz D/E	< 6 mA	2 个可选 频率	需扩频 控制	D/E 需扩 频控制	< 6 mA, 需扩频 控制	电压变频	D/E 电压变频	3 D/E	6 S/E	Mixed S/E 和 D/E 输出	F ≤ 1 MHz	> 85 °C
应用	常用频率	串口 (Serial I/O) 协议															
Ethernet (10/100)	25	●				●	●								●	●	
Ethernet (1G)	25, 50, 62.5	●				●	●								●	●	
	125		●	●										●	●	●	
	250				●									●	●	●	
Ethernet (10GBase-R)	161.1328		●	●								●	●	●	●		
	322.2656 644.5313				●							请联络 SiTime	●		●		
	156.25		●	●								●	●	●	●		
Ethernet (10GBase-X) / XAUI	312.5, 625				●							请联络 SiTime	●		●		
	31.25, 37.5, 75, 100	●		●		●	●	●	●	●			●	●	●		
SATA / SAS	120, 150		●	●				●	●				●	●	●		
	300, 600				●								●	●	●		
	21.25, 26.5625, 53.125, 106.25	●		●		●	●						●	●	●		
Fibre Channel	159.375		●	●									●	●	●		
	212.5			●									●	●	●		
	318.75, 425, 637.5				●								●		●		
1394B (FireWire, iLink)	24.576, 49.152, 98.304	●				●	●							●	●		
Infiniband	125		●	●									●	●	●		
PCI Express (PCI-E)	100	●		●		●	●	●	●	●			●	●	●		
	125, 200		●	●				●	●				●	●	●		
RapidIO	100	●		●		●	●						●	●	●		
HDMI	13.513, 27.027, 74.25	●		●		●	●						●	●	●		
	148.5		●	●									●	●	●		
	222.75, 297, 340				●								●		●		
UART	1.8432, 2.4576, 3.6864, 7.3728, 11.0592, 12.288, 14.7456, 18.432, 29.4912	●				●	●							●			●
USB 1.1 / USB 2.0	12, 24, 26, 48	●				●	●										●
FB-DIMM / AMB	133.33, 166.67, 200		●	●				●	●				●	●	●		
USB3.0	12, 24, 26, 48, 50	●				●	●	●		●				●	●		
	125		●					●						●	●		
	250, 500 (on FPGA)				●					请联络 SiTime			●		●		

D/E = 差分。S/E=单端。MHz频率可精确到小数点五位。kHz频率可精确到小数点六位。具体规格, 以参考规格书为准。如需克制化参数, 请联络SiTime。 Subject to change without notice.

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差分(D/E)输出				●	●				●		●	●			●		
扩频功能								●	●	●			请联络SiTime	请联络SiTime	请联络SiTime		
频率稳定性(±PPM)		20 - 50	10 - 100	10 - 50	10 - 50	20 - 50	20 - 50	50 - 100	25 - 50	50 - 100	20 - 50	10 - 50	25 - 50	25 - 50	25 - 50	25 - 50	100
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应用	常用频率	串口 (Serial I/O) 协议															
Zigbee (802.15.4)	13, 24, 40	●				●	●								●		
HyperTransport	100	●		●		●	●						●	●	●		
DDR1, DDR2, DDR3	< 200		●	●				●	●	●			●	●	●		
	> 200			●	●			●	●				●	●	●		
Microprocessor / Microcontroller / DSP / PCI / PCI-X	1 - 110 (e.g. 14.318, 66.666, 100)	●		●		●	●	●	●	●			●	●	●		
	110 - 200 (e.g. 133.33, 166.67, 200)		●	●				●	●	●			●	●	●		
	200 - 800 (e.g. 266.66, 400, 533.33, 800)			●	●					●			●		●		
应用	常用频率	音响视频															
Audio (< 1 MHz)	400 - 800 kHz for PWM Tracking																●
Audio (32kHz Standard)	2.048, 3.072, 4.096, 6.144, 8.192, 12.288, 16.384, 24.576, 32.768, 49.152, 65.536	●				●	●							●	●		
Audio (44.1kHz standard)	2.8224, 4.2336, 5.6448, 8.4672, 11.2896, 16.9344, 22.5792, 33.8688, 45.1584, 67.738, 90.317	●				●	●							●	●		
Audio (48kHz standard)	3.072, 4.608, 6.144, 9.216, 12.288, 18.432, 24.576, 36.864, 49.152, 73.728, 98.304	●				●	●							●	●		
Television (NTSC)	3.579545, 13.5, 14.31818, 27	●				●	●				●				●		
Television (PAL)	3.57611, 3.58205, 4.43367, 8.86724, 13.5, 13.875, 17.73447, 27	●				●	●				●				●		
Video, HDTV, 1080i, 720p	74.25	●		●		●	●				●		●	●	●		
	74.17582418	●		●		●	●				●		●	●	●		
Video, HDTV, 1080p	148.5		●	●							●		●	●	●		
	148.3516484		●	●							●		●	●	●		
Video, MPEG-2	13.5, 27, 27.027, 54, 54.054, 108, 108.108	●				●	●				●		●	●	●		

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# 利用SiTime工具简化设计, 加快产品开发

立即替换石英!  
线上交互比对工具

**CROSS REFERENCE**

SiTime is the market leader in all-silicon MEMS timing solutions. SiTime MEMS solution performance, the shortest lead time and the smallest sizes.

Use this tool to get cross references of SiTime devices and request your customized

Select crystal (Quartz) oscillator supplier:

OR

Enter crystal (Quartz) oscillator part number:

**Search Results by Quartz Supplier**

Filter results by quartz device name:

Quartz	SiTime	Frequency	Datasheet	Part number generator
210 S	<a href="#">SIT8002</a>	1-110MHz	<a href="#">view</a>	<a href="#">configure</a>
210 SS	<a href="#">SIT8003</a>	1-110MHz	<a href="#">view</a>	<a href="#">configure</a>
210	<a href="#">SIT8003</a>	1-110MHz	<a href="#">view</a>	<a href="#">configure</a>

[www.sitime.com/crossreference](http://www.sitime.com/crossreference)

各种组合,自由配置!  
线上点选规格

**SiT9002 Part Number Generator**

Frequency (MHz)

Output Signaling  LVPECL-0  LVPECL-1  LVDS  CML

Frequency Stability (PPM)  ±25  ±50

Temperature Range (°C)  0 to 70  -20 to 70  -40 to 85

Supply Voltage (V)  3.3  2.5  1.8

Package Size (mm)  5.0x3.2  7.0x5.0  7.0x5.0 (w/o EDP)

Control Pin  ST  OE  SD

Spread Option (%)  -0.5  -1  ±0.5  ±1  ±2

Swing  Normal  High

Packaging  Bulk  1Ku Reel  3Ku Reel

**SiTime Part number is:**

[www.sitime.com/support/request-samples.htm](http://www.sitime.com/support/request-samples.htm)

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