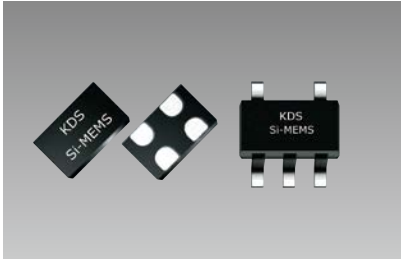


高温支持MEMS振荡器

MO8918/MO8919/MO2018/MO2019/MO8920/MO8921/MO2020/MO2021



■ 优点

- 低消耗电流: +3.5 mA (typical, f = 20MHz, Vdd = +1.8V)
- 频率公差: $\pm 20 \times 10^{-6}$

■ 用途

- 工业用控制设备、传感器等耐高温装置
- 伺服电机、PLC & 耐高温网络设备
- 室外网络设备 (medical and health monitoring)
- 资产跟踪系统



型号	频率范围 (MHz)	频率公差 ($\times 10^{-6}$)	电源电压 (V)	消耗电流 (mA Typ.)	尺寸 (mm)	输出
MO8918	1 to 110	$\pm 20, \pm 25, \pm 30, \pm 50$ (-40 to +125°C)	+1.62 to +1.98, +2.25 to +3.63	+3.6 to +5.4 (+1.0 μ A stby)	2.0×1.6×0.8, 2.5×2.0×0.8, 3.2×2.5×0.8, 5.0×3.2×0.8, 7.0×5.0×1.0 (QFN)	LVCMOS
MO8919	115 to 137					
MO2018	1 to 110					
MO2019	115 to 137	$\pm 20, \pm 25, \pm 30, \pm 50$ (-55 to +125°C)			2.9×2.8×1.3 (SOT23-5)	LVCMOS
MO8920	1 to 110					
MO8921	119 to 137					
MO2020	1 to 110				2.0×1.6×0.8, 2.5×2.0×0.8, 3.2×2.5×0.8, 5.0×3.2×0.8, 7.0×5.0×1.0 (QFN)	
MO2021	119 to 137				2.9×2.8×1.3 (SOT23-5)	

■ 一般规格(MO8918)

项目	符号	Min.	Typ.	Max.	单位	条件
输出频率范围	f	1	-	110	MHz	关于支持频率的详细信息请参考数据表。
电源电压	Vdd	+1.62	+1.8	+1.98	V	
		+2.25	+2.5	+2.75		
		+2.52	+2.8	+3.08		
		+2.7	+3.0	+3.3		
		+2.97	+3.3	+3.63		
运行温度范围	T_use	-40	-	+105	°C	Extended Industrial
		-40	-	+125		Automotive
频率公差	F_stab	-20	-	+20	$\times 10^{-6}$	包含 +25°C 时的初始频率偏差, 长年老化 (1 年), 温度特性, 运行电源电压范围内的电源电压特性, 负载特性 (15 pF $\pm 10\%$)。
		-25	-	+25		
		-30	-	+30		
		-50	-	+50		
消耗电流	Idd	-	+3.8	+4.7	mA	No load condition, f = 20 MHz, Vdd = +2.8V, +3.0V or +3.3V
		-	+3.6	+4.5		No load condition, f = 20 MHz, Vdd = +2.5V
		-	+3.5	+4.5		No load condition, f = 20 MHz, Vdd = +1.8V
OE 端子禁用电流	I_od	-	-	+4.5	mA	Vdd = +2.5V to +3.3V, OE = Low, Output in high Z state
		-	-	+4.3		Vdd = +1.8V, OE = Low, Output in high Z state
待机时电流	I_std	-	+2.6	+8.5	μ A	Vdd = +2.8V to +3.3V, ST = Low, Output is weakly pulled down
		-	+1.4	+5.5		Vdd = +2.5V, ST = Low, Output is weakly pulled down
		-	+0.6	+4.0		Vdd = +1.8V, ST = Low, Output is weakly pulled down
占空比	DC	45	-	55	%	All Vdds
0 电平电压	V _{OL}	-	-	Vdd×0.1	V	I _{OL} = +4.0 mA (Vdd = +3.0V or +3.3V) I _{OL} = +3.0 mA (Vdd = +2.8V or +2.5V) I _{OL} = +2.0 mA (Vdd = +1.8V)
1 电平电压	V _{OH}	Vdd×0.9	-	-	V	I _{OH} = -4.0 mA (Vdd = +3.0V or +3.3V) I _{OH} = -3.0 mA (Vdd = +2.8V or +2.5V) I _{OH} = -2.0 mA (Vdd = +1.8V)
上升时间、下降时间	Tr, Tf	-	1.0	2.0	ns	Vdd = +2.5V, +2.8V, +3.0V or +3.3V, 20% to 80%
		-	1.3	2.5		Vdd = +1.8V, 20% to 80%
		-	1.0	3.0		Vdd = +2.25V to +3.63V, 20% to 80%
OE 端子 0 电平输入电压	V _{IL}	-	-	Vdd×0.3	V	Pin 1, OE or ST
OE 端子 1 电平输入电压	V _{IH}	Vdd×0.7	-	-	V	Pin 1, OE or ST
启动时间	T_start	-	-	5.0	ms	Vdd 达到额定最小值以后经过的时间
输出使能时间	T_oe	-	-	130	ns	f = 110 MHz. For other frequencies, T_oe = 100 ns + 3×cycles
输出禁用时间	T_resume	-	-	5.0	ms	ST 端子达到界限值 50% 以后经过的时间
RMS 周期抖动	T_jitt	-	1.6	2.5	ps	f = 75 MHz, Vdd = +2.5V, +2.8V, +3.0V or +3.3V
		-	1.9	3.0		f = 75 MHz, Vdd = +1.8V
Peak-to-peak 周期抖动	T_pk	-	12	20	ps	f = 75 MHz, Vdd = +2.5V, +2.8V, +3.0V or +3.3V
		-	14	25		f = 75 MHz, Vdd = +1.8V
RMS 相位抖动 (随机)	T_phj	-	0.5	0.8	ps	f = 75 MHz, Integration bandwidth = 900 kHz to 7.5 MHz
		-	1.3	2.0		f = 75 MHz, Integration bandwidth = 12 kHz to 20 MHz
包装单位		1000pcs./reel (ϕ 180) or 3000pcs./reel (ϕ 180: 2016, 2520, 3225 package)				