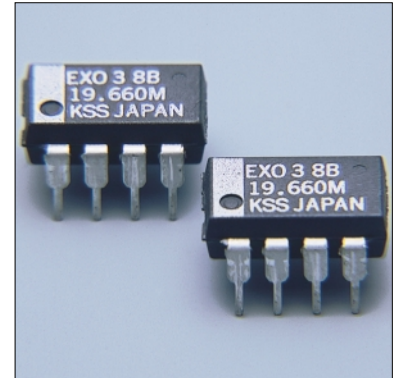


EXO-3

CMOS Crystal Oscillator

Features

- Since it has a frequency dividing function, it is able to obtain a frequency division of $1/2 \cdot 1/2^8$ (1/256).
- The symmetry of frequency divided output is within 50 plus/minus 2%.
- The oscillation start time has the fast starting characteristic of being 1.5msec. or less.
- The pin arrangement is DIP 8PIN.



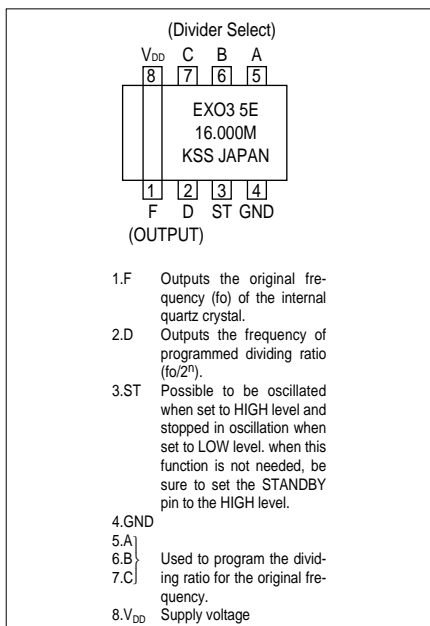
Specifications

Item	Type	EXO-3
Frequency Range		12~24.576MHz
Standard Frequency		Table 1
Frequency Stability		$\pm 100 \times 10^{-6}$
Operating Temperature Range		-10~+70°C
Storage Temperature Range		-40~+85°C
Supply Voltage		5V \pm 0.5V
Current		20mA MAX.
Load		50pF
Output Level		V _{OH} : V _{DD} -0.5V/V _{OL} : 0.5V MAX.
Output Symmetry		40~60%
Rise Time/Fall Time		15ns MAX.
Start-up Time		1.5ms MAX.
Vibration		10~55Hz Amplitude 1.5mm, 50~2000Hz Amplitude 20G Cycle 1 minute, 3 direction, 1 hour each
Shock		1000G
Weight		0.6g

Table 1
Original Frequencies

Frequency (MHz)1/2 ⁰	
12.000	17.734476
12.288	18.432
12.800	19.0909
14.31818	19.200
14.500	19.6608
14.7456	20.000
14.9105	20.48
15.000	21.47727
15.360	22.000
15.9744	22.1184
16.000	24.000
16.128	24.576
16.257	
16.384	

Pin connection



Settings of the frequency division output

Input				Output	
Select			ST	F	D
C	B	A		Original Frequency	Divided Wave form
L	L	L	H	fo clock	fo · 1/2 clock
L	L	H	H	fo clock	fo · 1/2 ² clock
L	H	L	H	fo clock	fo · 1/2 ³ clock
L	H	H	H	fo clock	fo · 1/2 ⁴ clock
H	L	L	H	fo clock	fo · 1/2 ⁵ clock
H	L	H	H	fo clock	fo · 1/2 ⁶ clock
H	H	L	H	fo clock	fo · 1/2 ⁷ clock
H	H	H	H	fo clock	fo · 1/2 ⁸ clock
-	-	-	L	L	L

Outline

