

Datasheet

DLHCV HCMOS THRU-HOLE VOLTAGE CONTROLLED
CRYSTAL CLOCK OSCILLATOR

FEATURES

12.7 x 12.7 x 5.08 mm

- Thru-hole DIL08 package
- Large frequency pulling available
- Many options available
- Applications: Set-top boxes, Audio-video applications, Fibre channel, ...



Item	Specification			
Frequency Range	1.0 MHz ~ 125.0 MHz			
Output Logic	CMOS			
Overall Frequency Stability *	± 20 ppm ~ ± 100 ppm (see options)			
Operating Temperature Range	0 ~ +70°C commercial application (see options) -40 ~ +85°C industrial application (see options)			
Supply Voltage Vdd	+1.8V ±5%	+2.5V ±5%	+3.3V ±5%	+5.0V ±5%
Control Voltage Center	+0.9 V	+1.25V	+1.65V	+2.5V
Control Voltage Range	0.0V to 1.8V	0.25V to 2.25V	0.3V to 3.0V	0.5V to 4.5V
Supply Current Idd	10 ~ 45 mA (Frequency dependent)			
Output Level	VOH ≥ 0.9 Vdd		VOL ≤ 0.1 Vdd	
Output Load	15pF			
Symmetry	45 / 55%			
Rise Time / Fall Time Fr/Ff	10 ns max (1.0 MHz ~9.99 MHz) 6 ns (10.0 Mhz ~54 MHz) 4 ns (54.1 Mhz ~125 MHz)			
Start-up Time	10 ms max.			
RMS Jitter (12 kHz to 20 MHz band)	1 ps max.			
Phase Noise	-130 dBc/Hz max. at 1 kHz offset			
Frequency Pulling Range	±50 ppm min.; ±100 ppm min.; ±150 ppm min.; ±200 ppm min. (See options)			
Linearity	6% typical; 10% max.			
Slope Polarity	Positive (Increasing control voltage always increases output frequency)			
Modulation Bandwidth	10 kHz min (-3 dB)			
Input Impedance	1 MΩ min.			
Packing Unit	100 pcs / box			

Customer specifications on request

(*) Includes initial tolerance @+25°C, stability over operating temperature, stability vs. load change, stability vs. supply change and one year aging

OPTIONS & ORDERING INFORMATION

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Supply Voltage	Operating Temp. *	Overall Stability *	Tri-state Function	Package type	Pulling *	Frequency in MHz
18 = +1.8 V	D = -10° / +60°C	20 = ±20 ppm	F = No Tri-state	H1 = 5.08 mm	50 = ±50 ppm min.	Please specify the frequency in MHz
25 = +2.5 V	E = 0° / +70°C	25 = ±25 ppm			100 = ±100 ppm min.	
33 = +3.3 V	F = -20° / +70°C	30 = ±30 ppm			150 = ±150 ppm min.	
50 = +5.0V	G = -30° / +75°C	50 = ±50 ppm			200 = ±200 ppm min.	
	H = -30° / +85°C	100 = ±100 ppm				
	K = -40° / +85°C					

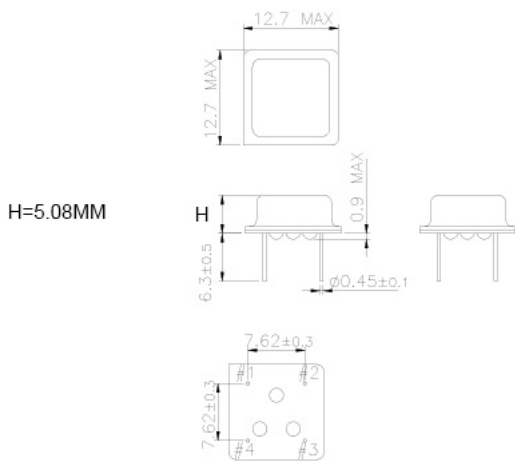
(*) Note : Not all combinations are possible, please consult us.

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OUTLINE DIMENSIONS



Pin Connections #1 : Control Voltage #2 : GND #3: Output #4 : Vdd