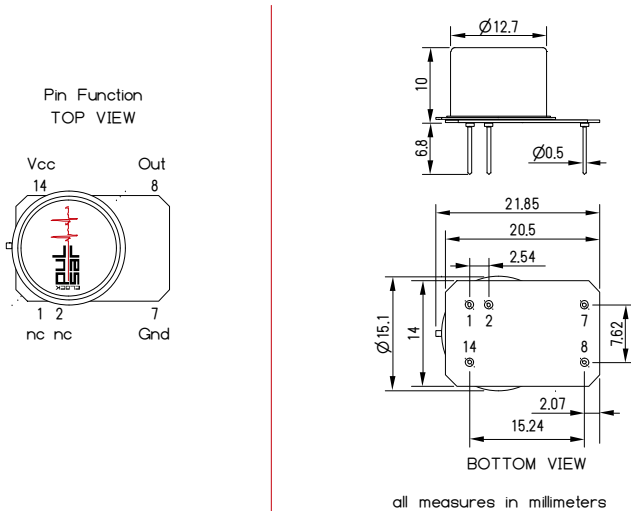


Available in a wide selection of audio frequencies
Designed for High-End Audio DAC
Makes digital music a unique listening experience
Ultra Low Phase Noise
Femtosecond Jitter
Very Low Power Consumption
Fits into DIL14 Clock Sockets
HCMOS Output
Easy Installation
Laser Etched Serial Number

PULSAR CLOCK is an oven controlled crystal oscillator designed for top quality audio playback providing significant improvement on listening parameters like focus, scene extension, tonal quality.



MAIN FEATURES

Frequency Range	From 10 MHz To 100 MHz	
Standard Frequencies (f_0)	11.289600 MHz	12.288000 MHz
	22.579200 MHz	24.576000 MHz
	45.158400 MHz	49.152000 MHz
	90.316800 MHz	98.304000 MHz
100.000000 MHz		
Case Pinout	DIP14 Compatible	
Power Supply Voltage (V_{cc})	+ 3.3 Vdc \pm 0.15 V	

POWER

Steady State Current	50 mA Max @ + 25 °C V_{cc} = 3.3V
Steady State Power	0.165 W Max @ + 25 °C V_{cc} = 3.3V
Warm Up Current	150 mA Max @ V_{cc} = 3.3V
Warm Up Power	0.495 W Max @ V_{cc} = 3.3V
Warm Up Time	120 s Max @ + 25 °C

OUTPUT

Output Waveform	HCMOS
Output Logic High (V_{OH})	2.4 V Min
Output Logic Low (V_{OL})	0.4 V Max
Duty Cycle	50 % \pm 5 %
Load	10 k Ω Min 5 pF Max

TIMING

Frequency Stability vs. Temperature	\pm 0.1 ppm @ + 25 °C
Frequency Stability vs. Supply Voltage	\pm 0.005 ppm @ V_{cc} = 3.3V
Initial Tolerance ($\delta f/f_0$)	\pm 0.2 ppm @ + 25 °C
Ageing Per Day	\pm 0.005 ppm
Ageing Per Year	\pm 0.1 ppm first year

ABSOLUTE MAXIMUM RATINGS

Power Supply Voltage (V_{cc})	-0.5 To 4.0 V
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ENVIRONMENT

Operating Temperature	0°C To +50 °C
Storage Temperature	-60°C To +90 °C
Humidity	Non-condensing 95% Max
Shock	30 g 1/2sine 11 ms
Vibration	10 g 10 Hz to 2000 Hz

HANDLING

Socket Install	Can be mounted on a clock socket
Soldering	NOT FOR REFLOW Hand solder: 10 s @ 260 °C on pins

PULSAR CLOCK Phase Noise [dBc/Hz]

SSB Offset [Hz]	Clock Frequency [Mhz]																	
	11.289600		12.288000		22.579200		24.576000		45.158400		49.152000		90.316800		98.304000		100.000000	
	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ
1	-90	-95	-90	-95	-85	-90	-85	-90	-80	-85	-80	-85	-75	-80	-75	-80	-75	-80
10	-120	-125	-120	-125	-115	-120	-115	-120	-112	-115	-112	-115	-105	-110	-105	-110	-105	-110
100	-145	-150	-145	-150	-140	-145	-140	-145	-132	-135	-132	-135	-130	-135	-130	-135	-130	-135
1 k	-158	-162	-158	-162	-155	-160	-155	-160	-140	-145	-140	-145	-140	-145	-140	-145	-140	-148
10 k	-160	-165	-160	-165	-160	-165	-160	-165	-145	-150	-145	-150	-145	-150	-145	-150	-148	-150
100 k	-160	-165	-160	-165	-160	-165	-160	-165	-150	-155	-150	-155	-150	-155	-150	-155	-150	-155