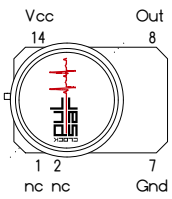
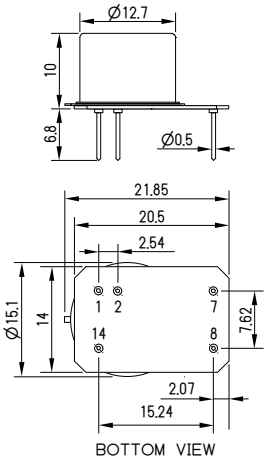
Available in a wide selection of audio frequencies
Designed for High-End Audio DAC
Makes digital music a unique listening experience
Ultra Low Phase Noise
Femtosecond Jitter
Very Low Power Consumption
Fits into DIL14 Clock Sockets
HCMOS Output
Easy Installation
Laser Etched Serial Number

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.

Pin Function
TOP VIEW



Pin 2 not mounted on selected models



BOTTOM VIEW

all measures in millimeters

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	(Vcc)	+ 3.3 Vdc ± 0.15 V

POWER

Steady State Current	50 mA Max @ + 25 °C Vcc = 3.3V
Steady State Power	0.165 W Max @ + 25 °C Vcc = 3.3V
Warm Up Current	150 mA Max @ Vcc = 3.3V
Warm Up Power	0.495 W Max @ Vcc = 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 % ± 5 %
Load		10 kΩ Min 5 pF Max

TIMING

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

ABSOLUTE MAXIMUM RATINGS

Power Supply Voltage	(Vcc)	-0.5 To 4.0 V

ENVIRONMENT

Operating Temperature	0°C To +50 °C
Storage Temperature	-10°C To +80 °C
Humidity	Non-condensing 95% Max
Shock	30 g ½sine 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 Static 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	-88	-93	-88	-93	-80	-85	-80	-85	-75	-80	-75	-80	-75	-80
10	-120	-125	-120	-125	-118	-123	-118	-123	-112	-115	-112	-115	-105	-110	-105	-110	-105	-110
100	-145	-150	-145	-150	-143	-148	-143	-148	-132	-135	-132	-135	-130	-135	-130	-135	-130	-135
1 k	-158	-162	-158	-162	-158	-163	-158	-163	-140	-145	-140	-145	-140	-145	-140	-145	-140	-148
10 k	-160	-165	-160	-165	-163	-168	-163	-168	-145	-150	-145	-150	-145	-150	-145	-150	-148	-150
100 k	-160	-165	-160	-165	-163	-168	-163	-168	-150	-155	-150	-155	-150	-155	-150	-155	-150	-155