

ISSUE 9; 23 SEPTEMBER 1994

Outline

Output Compatibility

- HCMOS/LS TTL

Holder Style

- 8-pin DIL compatible resistance welded enclosure, hermetically sealed with glass to metal seals.

Standard Frequency Stabilities

- $\pm 25\text{ppm}$, $\pm 50\text{ppm}$, $\pm 100\text{ppm}$
(inclusive of supply voltage variations over the standard operating temperature range)

Standard Operating Temperature Range

- 0 to 70°C

Standard Storage Temperature Range

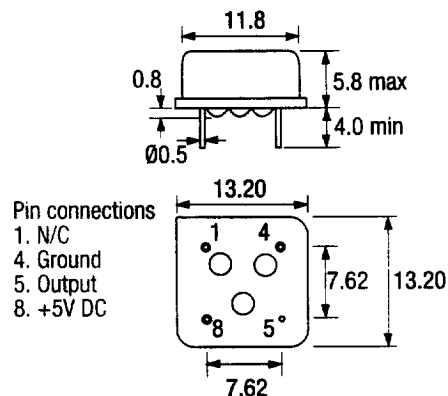
- -55 to 125°C

Marking

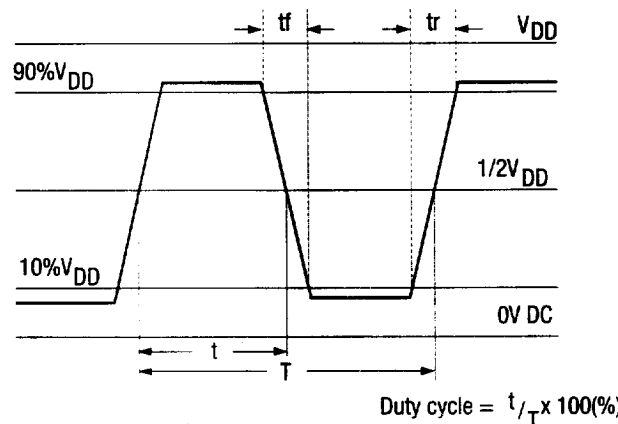
- Type number (letters IQ may not be included)
- Frequency
- Date code (Year/Week)
- Frequency stability (as part of type number)
- 1st Letter (overall stability)
A = $\pm 25\text{ppm}$, B = $\pm 50\text{ppm}$, C = $\pm 100\text{ppm}$
- 2nd Letter (initial frequency tolerance where applicable)
D = $\pm 5\text{ppm}$, E = $\pm 10\text{ppm}$, F = $\pm 25\text{ppm}$

Non-Standard Frequency Tolerance at 25°C

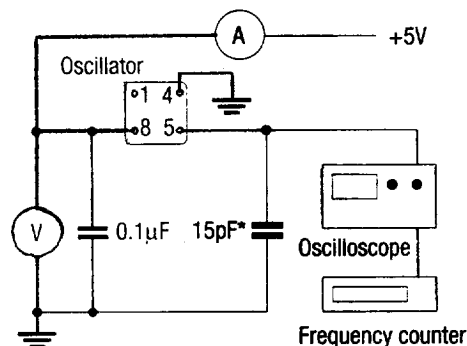
- $\pm 5\text{ppm}$, $\pm 10\text{ppm}$, $\pm 25\text{ppm}$



Output Waveform - HCMOS



Test Circuit - HCMOS

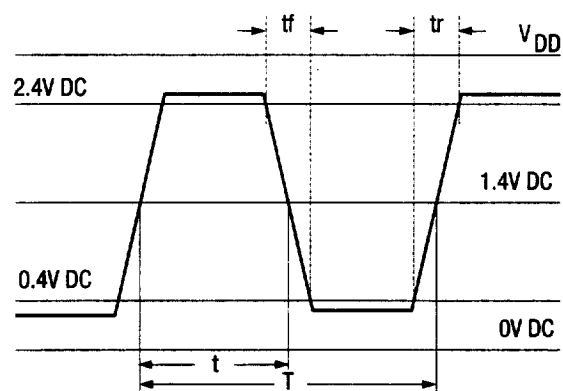


*Inclusive of jigging & equipment Capacitance

Electrical Specification – maximum limiting values when measured in test circuit

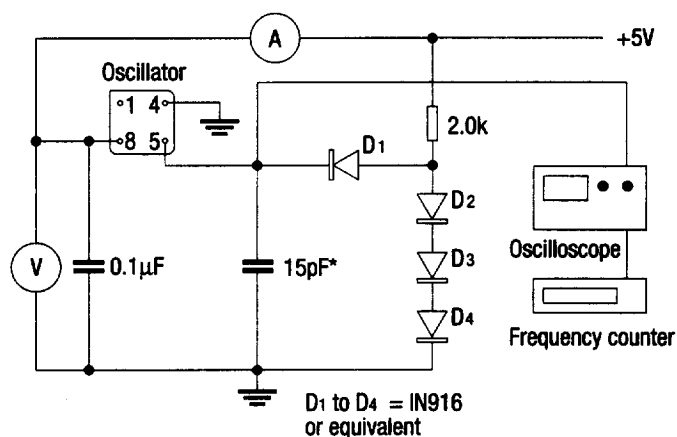
Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (t_r)	Fall Time (t_f)	Duty Cycle	Model Number
250.0 to 999.999kHz	± 25 , ± 50 & ± 100 ppm	$5V \pm 0.5V$	20mA	15ns	15ns	45/55%	IQX0-22
1.0 to 3.999MHz	± 25 , ± 50 & ± 100 ppm	$5V \pm 0.5V$	20mA	15ns	15ns	45/55%	IQX0-22
4.0 to 15.999MHz	± 25 , ± 50 & ± 100 ppm	$5V \pm 0.5V$	20mA	10ns	10ns	45/55%	IQX0-22
16.0 to 29.999MHz	± 25 , ± 50 & ± 100 ppm	$5V \pm 0.5V$	30mA	10ns	10ns	45/55%	IQX0-22
30.0 to 49.999MHz	± 25 , ± 50 & ± 100 ppm	$5V \pm 0.5V$	40mA	8ns	8ns	45/55%	IQX0-22
50.0 to 80.0MHz	± 25 , ± 50 & ± 100 ppm	$5V \pm 0.5V$	50mA	8ns	8ns	40/60%	IQX0-22

Output Waveform - LS TTL



$$\text{Duty cycle} = t / T \times 100(\%)$$

Test Circuit - LS TTL



*Inclusive of jigging & equipment Capacitance

STOCK OSCILLATORS

8-pin DIL Clock Oscillators

Frequency	Type	Frequency Stability	Model No.	Stock No.
1.84320MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X361H
1.84320MHz	HCMOS/LS TTL	100ppm	IQX0-23C	X362H
3.68640MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X363H
4.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X351H
8.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X352H
8.0MHz	TTL	50ppm	IQX0-3	U301A
8.388608MHz	TTL	50ppm	IQX0-3	U305A
9.6000MHz	TTL	50ppm	IQX0-3	U307A
9.8304MHz	TTL	50ppm	IQX0-3	U309A
10.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X353H
10.0MHz	TTL	50ppm	IQX0-3	U311A
12.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X354H
12.0MHz	TTL	50ppm	IQX0-3	U313A
12.288MHz	TTL	50ppm	IQX0-3	U315A
14.31818MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X373H
14.74560MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X388H
15.0MHz	TTL	50ppm	IQX0-3	U321A
16.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X355H
16.0MHz	TTL	50ppm	IQX0-3	U323A
16.3840MHz	TTL	50ppm	IQX0-3	U325A
16.77722MHz	TTL	50ppm	IQX0-3	U327A
19.2MHz	TTL	50ppm	IQX0-3	U329A
19.66080MHz	TTL	50ppm	IQX0-3	U331A
20.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X356H
20.0MHz	TTL	50ppm	IQX0-3	U333A
24.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X371H
24.0MHz	TTL	50ppm	IQX0-3	U334A
24.5760MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X386H
25.0MHz	TTL	50ppm	IQX0-3	U336A
25.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X390H
25.1750MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X374H
28.3220MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X375H
28.63636MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X376H
32.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X360H
32.5140MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X378H
32.768MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X380H
33.86880MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X377H
40.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X357H
50.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X358H
60.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X381H
60.0MHz	HCMOS/LS TTL	100ppm	IQX0-23C	X381T
64.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X384H
80.0MHz	HCMOS/LS TTL	100ppm	IQX0-22C	X389H

14-pin DIL Clock Oscillators

Frequency	Type	Frequency Stability	Model No.	Stock No.
1.0MHz	TTL	100ppm	IQX0-200C	X201A
1.0MHz	TTL	100ppm	IQX0-200M	X201B
1.84320MHz	TTL	100ppm	IQX0-200C	X207A
2.0MHz	TTL	100ppm	IQX0-200C	X202A
2.45760MHz	TTL	100ppm	IQX0-200C	X206A
3.0MHz	TTL	100ppm	IQX0-200C	X203A
3.68640MHz	TTL	100ppm	IQX0-100C	X115A
4.0MHz	TTL	100ppm	IQX0-100C	X101A
4.0MHz	TTL	100ppm	IQX0-100M	X101B
4.0MHz	TTL	100ppm	IQX0-200M	X205B
4.0MHz	HCMOS/LS TTL	100ppm	IQX0-350C	X351A
4.0960MHz	TTL	100ppm	IQX0-100C	X123A
4.194304MHz	TTL	100ppm	IQX0-100C	X119A
4.91520MHz	TTL	100ppm	IQX0-100C	X102A
5.0MHz	TTL	100ppm	IQX0-100C	X103A
5.06880MHz	TTL	100ppm	IQX0-100C	X104A
6.0MHz	TTL	100ppm	IQX0-100C	X105A
6.0MHz	TTL	100ppm	IQX0-100M	X105B
6.1440MHz	TTL	100ppm	IQX0-100C	X106A
8.0MHz	TTL	100ppm	IQX0-100C	X107A
8.0MHz	TTL	100ppm	IQX0-100M	X107B
8.0MHz	HCMOS/LS TTL	100ppm	IQX0-350C	X352A
9.6000MHz	TTL	100ppm	IQX0-100C	E110A
9.83040MHz	TTL	100ppm	IQX0-100C	X121A
9.83040MHz	TTL	100ppm	IQX0-100M	X121B
9.83040MHz	HCMOS/LS TTL	100ppm	IQX0-350C	X359A
10.0MHz	TTL	100ppm	IQX0-100C	X108A
10.0MHz	TTL	100ppm	IQX0-100M	X108B
10.0MHz	HCMOS/LS TTL	100ppm	IQX0-350C	X353A
10.0/20.0MHz	DUAL	100ppm	IQX0-450C	X451A
12.0MHz	TTL	100ppm	IQX0-100C	X110A
12.0MHz	TTL	100ppm	IQX0-100M	X110B
12.0MHz	HCMOS/LS TTL	100ppm	IQX0-350C	X354A
12.2880MHz	TTL	100ppm	IQX0-100C	X122A
14.74560MHz	TTL	100ppm	IQX0-100C	X118A
15.0MHz	TTL	100ppm	IQX0-100C	X111A
15.0MHz	TTL	100ppm	IQX0-100M	X111B
16.0MHz	TTL	100ppm	IQX0-100C	X112A
16.0MHz	TTL	100ppm	IQX0-100M	X112B
16.0MHz	HCMOS/LS TTL	100ppm	IQX0-350C	X355A
16.3840MHz	HCMOS/LS TTL	50ppm	IQX0-350B	X370A
18.4320MHz	TTL	100ppm	IQX0-100C	X117A
18.4320MHz	HCMOS/LS TTL	100ppm	IQX0-350C	X367A