

CROSS REFERENCE TO Q-TECH PRODUCT

PIN CONNECTIONS

MIL#	QT#*	OUT	Vcc/Vdd	GND
/19	QT66T	39	4, 10	31, 37
/20	QT62T	42	6, 12	34, 40

* For Q-TECH's equivalent part type and outline drawings, please refer to pages 12 and 13.



TTL /19



TTL /20

Leadless Chip Carrier: TTL

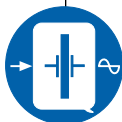
MIL-O-55310
Crystal Clock
Oscillators

TTL /19
TTL /20

For Q-TECH's
equivalent part
type and outline
drawings, please
refer to pages
12 and 13

Q-Tech
Corporation

(310) 836-7900
fax (310) 836-2157



TTL /19

sample part number

M55310/19 - B12A 32M00000

M55310/19 - B 1 2A 32M00000

PRODUCT ASSURANCE LEVEL
CLASS B

	ELECTRICAL SPECIFICATIONS: **			
CODE	FREQUENCY RANGE	MAX. INPUT CURRENT*	RISE/FALL TIME	DUTY CYCLE
0	1 MHz to 16 MHz	75 mA	15 ns (max)	40 to 60%
1	16 MHz to 40 MHz	40 mA	5 ns (max)	
2	40 MHz to 60 MHz	70 mA		

* Maximum Input Current at 5.00V ± 5 Vdc.

** Output Voltage:

Logic "1" (min)=2.4 Vdc with 10 TTL Load.

Logic "0" (max)=0.5 Vdc with 10 TTL Load.

(Maximum Load = 10 TTL Load.)

STABILITY OPTIONS:				
CODE	TEMP. RANGE	FREQ. STABILITY vs. TEMP	FREQ. ACCURACY @ +23°C	AGING (per year)
1A	-55 to +125°C	± 100 ppm	± 25 ppm	± 10 ppm (max)
1B	-55 to +105°C	± 75 ppm		
1C	-20 to +70°C	± 50 ppm		
2A	-55 to +125°C	± 200 ppm		
2B	-55 to +105°C	± 150 ppm	± 15 ppm	± 5 ppm (max)
2C	-20 to +70°C	± 100 ppm		
3A	-55 to +125°C	± 50 ppm		
3B	-55 to +105°C	± 40 ppm		
3C	-20 to +70°C	± 25 ppm		

TTL /20

sample part number

M55310/20 - B02A 3M686400

M55310/20 - B 0 2A 3M686400

PRODUCT ASSURANCE LEVEL
CLASS B

ELECTRICAL SPECIFICATIONS: **				
CODE	FREQUENCY RANGE	MAX. INPUT CURRENT*	RISE/FALL TIME	DUTY CYCLE
0	40 KHz to 14 MHz	75 mA	15 ns (max)	40 to 60%
1	14 MHz to 30 MHz	30 mA	5 ns (max)	
2	30 MHz to 60 MHz	55 mA		

* Maximum Input Current at 5.25V $\pm 1\%$.

** Output Voltage:

Logic "1" (min)=2.4 Vdc with 10 TTL Load.

Logic "0" (max)=0.5 Vdc with 10 TTL Load.

(Maximum Load = 10 TTL Load.)

STABILITY OPTIONS:				
CODE	TEMP. RANGE	FREQ. STABILITY vs. TEMP	FREQ. ACCURACY @ +23°C	AGING (per year)
1A	-55 to +125°C	±50 ppm	±15 ppm	±10 ppm (max)
1B	-55 to +105°C	±40 ppm	±25 ppm	
1C	-20 to +70°C	±25 ppm		
2A	-55 to +125°C	±100 ppm	±15 ppm	
2B	-55 to +105°C	±80 ppm	±25 ppm	
2C	-20 to +70°C	±50 ppm		
3A	-55 to +125°C	±200 ppm	±15 ppm	
3B	-55 to +105°C	±150 ppm	±25 ppm	
3C	-20 to +70°C	±100 ppm		