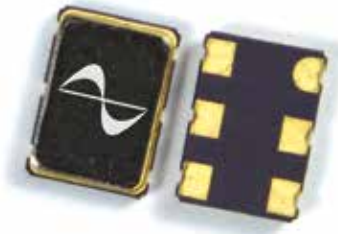


# FC7-Series Specifications

**7.00L x 5.00W x 1.80H (mm)**



Wi2Wi's *FC7-Series* provides precision timing in a hermetically sealed package, and is available in both standard and custom frequencies and configurations. Wi2Wi provides quick-turn sampling for your proto-typing needs, mass production capability, and competitive pricing.

ex) **FC7—T—25000X—C—C—D—3—R—X\***

\* - for standard or assigned for customization.

### ENABLE

**T** = Tri-State  
**N** = No Connect

### FREQUENCY

**10000X-99999X** =  
10.000 MHz –  
99.999 MHz  
**C10000-C99999** =  
100.00 MHz –  
999.99 MHz  
**M10000-M15000** =  
1000.00 MHz –  
1500.00 MHz

### OUTPUT

**O** = LVCMOS  
**M** = LVDS  
**P** = LVPECL

### FREQUENCY STABILITY

**C** = ±50  
**D** = ±100  
**S** = Special

### OPERATING TEMPERATURE

**A** = 0 to +70°C  
**B** = -20 to +70°C  
**D** = -40 to +85°C  
**S** = Special

### SUPPLY VOLTAGE

**2** = 2.5  
**3** = 3.3

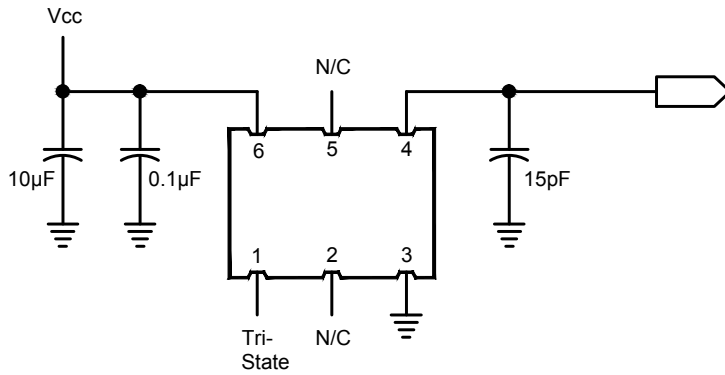
### PACKAGE

**R** = Tape & Reel

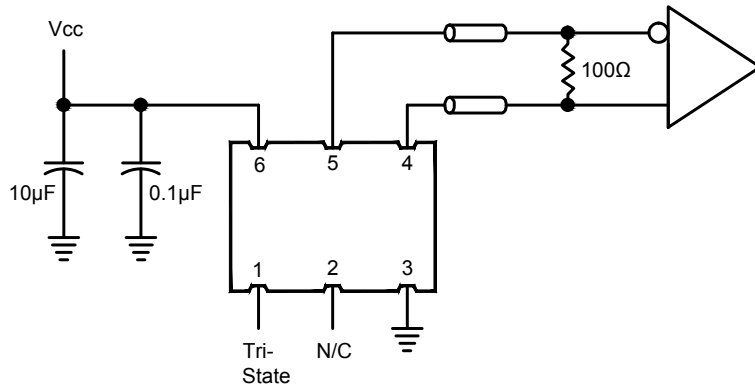
Parameter		Supply Voltage (±10%)		Units
		3.3	2.5	
Frequency Range	Low (LVCMOS/LVDS/LVPECL)	10.000000		MHz
	High (LVCMOS)	200.000000		
	High (LVDS/LVPECL)	1500.000000		
Frequency Stability	All Causes (Maximum) *1	Per Option		ppm
Temperature Range	Operating	Per Option		°C
	Storage	-55 to +125		°C
Supply Current (Maximum, no Load)	10.000 to 200.000MHz (LVCMOS)	25		mA
	10.000 to 1500.000MHz (LVDS/LVPECL)	65		
Load		See Load/Test Circuits (Page 2)		
Duty Cycle (at 50% Vcc)		45 to 55		%
Rise/Fall Times (Maximum under Load)	10.000 to 200.000MHz (LVCMOS)	3.0		nS
	10.000 to 1500.000MHz (LVDS/LVPECL)	0.6		
Start up Time (Maximum)		15.0		mS
Output Voltage Levels (LVCMOS)	High (Minimum)	90		% Vcc
	Low (Maximum)	10		
Output Voltage Levels (LVDS)	High	1.43 Typ , 1.60 Max		V
	Low	0.90 Min , 1.10 Typ		
	Differential Voltage	250 Min , 350 Typ , 450 Max		mV
Output Voltage Levels (LVPECL)	High	Vcc-1.025 Min , Vcc-0.95 Typ , Vcc-0.88 Max		V
	Low	Vcc-1.810 Min , Vcc-1.70 Typ , Vcc-1.62 Max		
	Differential Voltage	595 Min , 750 Typ , 930 Max		mV
Pin 1 (Tri-State Option Only)	Enable	80		% Vcc
	Tri-State (Disable)	10		% Vcc
Phase Jitter Maximum (rms)	Fractional Divider (12KHz to 20MHz)	1.0		pS
	Integer Divider (12KHz to 20MHz)	0.6		
Period Jitter Maximum (rms)		2.5		pS

\*1 - Inclusive of Tolerance @25°C, Operating Temperature, Supply Voltage, Load, 1st Year Aging, Shock and Vibration.

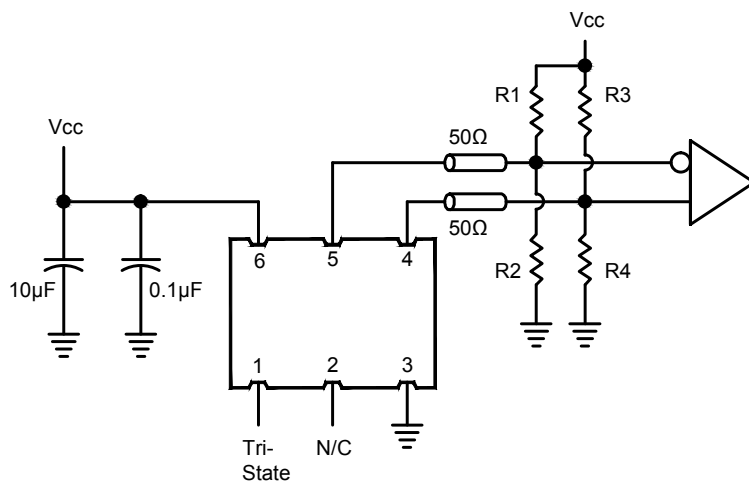
## Load/Test Circuits



LVC MOS Test Circuit



LVDS Test Circuit

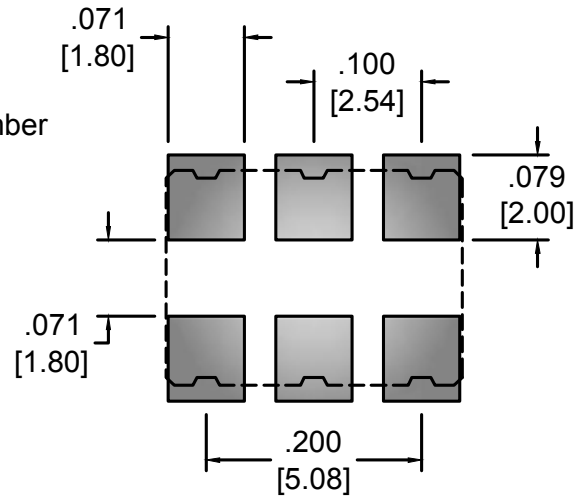
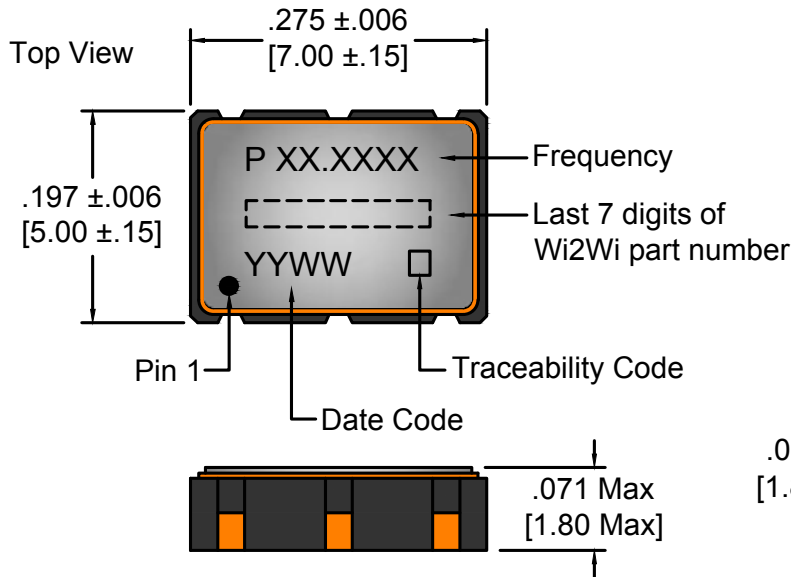


LVPECL Test Circuit

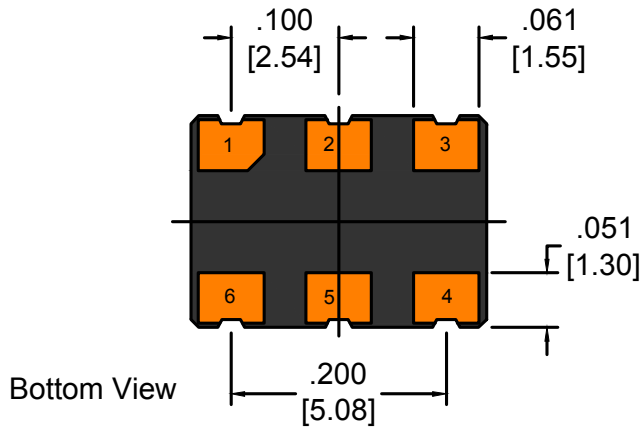
Vcc @ 3.3V: R1/R3 = 127Ω , R2/R4 = 82.5Ω  
 Vcc @ 2.5V: R1/R3 = 250Ω , R2/R4 = 62.5Ω

### PACKAGE DIMENSIONS

Tolerance:  $\pm 0.008$  [.20mm] (Unless otherwise specified)



Recommended Land Pattern  
(Top View)



PIN	CONNECTION
1	Tri-State or No Connect
2	No Connect
3	Ground/Case
4	Output
5	Complementary Output (LVDS & LVPECL) No Connect (LVCMOS)
6	Supply Voltage

**Contacts:** Electro Au, 11.8 to 40.0  $\mu$ mches (.30 to 1.0  $\mu$ m) over Electro Ni, 50 to 350  $\mu$ mches (1.27 to 8.89  $\mu$ m)



**NOTES:**

Other options are available, please consult factory.  
All product is supplied *RoHS* and *REACH* compliant.  
Product can be supplied on Tape and Reel, on reels of 1,000 units.  
Specifications subject to change without notice, last updated 3/21/16.

## FC7-Series 7.00 x 5.00 x 1.80 (mm)

1. Material: Black Conductive Polystyrene or equivalent.
2. 10 Sprocket Hole pitch cumulative tolerance of  $\pm 0.008$ .
3. Camber in compliance with EIA 481.
4. Empty pockets: Trailing end (Minimum) 200 mm. and Leading end (Minimum) 400 mm.
5. Pocket position relative to sprocket hole measured as true position of pocket, not pocket hole.

