

### Description:

The TV79B Temperature Compensated Voltage Controllable Crystal Oscillator (TCVCXO) Series products provide cost effective solutions with Stratum III level frequency stability and voltage controlled frequency adjust in an industry standard DIP package.



### Features:

- From 0.625 MHz to 52 MHz with 10 MHz, 12.8 MHz, 25 MHz, and other standard frequencies
- Standard 4-pin DIP package with several package height options
- +/-4.6ppm overall frequency stability including 20 years aging
- Up to +/-8ppm frequency pull range
- TTL, CMOS, Sine, and Clipped Sine output waveforms available
- RoHS-6/Leadfree compliant
- 3.3V, 5.0V, 12V, or 15V versions

### Frequency Range, Operating Temperature, and Frequency Stability:

Frequency Range	Operating Temperature	Product Code	Temperature Stability	Stability (Overall)*	Product Code
0.625 MHz to 52 MHz	-20 to +70°C	C	+/- 0.28ppm	+/- 4.6ppm	A
	-40 to +85°C	D	+/- 0.37ppm	+/- 4.6ppm	B
			+/- 0.50ppm	-	C
			+/- 1.0ppm	-	D
			+/- 2.5ppm	-	E

\* Includes +/- 1ppm setting calibration @ +25°C

### Aging

Frequency	Timeframe	Aging	Product Code
All	For 20 Years	2.5 ppm	N/A

### Phase Noise:

Frequency	Offset	Phase Noise	Product Code
			N/A
10.0MHz	1 Hz	- 60 dBc/Hz	N/A
	10 Hz	- 90 dBc/Hz	
	100Hz	-120 dBc/Hz	
	1KHz	-140 dBc/Hz	
	10K Hz	-155 dBc/Hz	
	100K Hz	-155 dBc/Hz	

### Supply Voltage (Vs) & Power Consumption:

Power Supply (Vs)	+3.3 Vdc +/-10%	+5.0 Vdc +/- 10%	+12.0 Vdc +/- 10%	+15.0 Vdc +/-10%
Product Code	D	C	B	A

CMOS ( 5V supply )		Clipped Sine ( 5V supply )		Other Output Waveforms	
Supply Current	6 mA	Supply Current	3.5 mA	Supply Current	Consult Factory

### Environmental:

Storage Temperature	-55 to 125 °C
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### Output Waveform:

CMOS		Clipped Sine		Sine		TTL	
Product Code	A	Product Code	B	Product Code	C	Product Code	D
CMOS Output (15pf load)	"0" < 0.1(Vs); "1" > 0.9(Vs)	Output Level	0.8V p-p min	Output into 50 Ohms	3dBm min to 9dBm max	Logic Levels	Standard
Rise / Fall Time	<10ns (10% to 90%)						
Duty Cycle	45%to55%@ 50% Logic 1						

### Pulling Range:

Tuning Range	None (TCXO)	+/- 5ppm	+/- 8ppm
Product Code	T	A	B

### Package Height:

Package Height *	0.3 in max	0.4 in max	0.5 in max
Product Code	A	B	C

\* Other package heights available

### Ordering Options:

Product Family	Package	Package Height	RoHS Compliance	Pulling Range	Supply Voltage	Output	Stability Options	Temp Range	Frequency
TV	79B	A	G	B	D	A	A	C	xx.xxxx

T= 0  
 A=0.3 in. G=RoHS-6 (TCXO) A=+15 Vdc A=CMOS A=+/-0.28ppm C=-20 to 70 °C MHz  
 B=0.4 in. B=+/-5ppm B=+12 Vdc B=Clipped B=+/-0.37ppm D=-40 to 85 °C  
 C=0.5 in. C=+/-8ppm C=+5 Vdc C=Sine C=+/-0.50ppm  
 D=+3.3 Vdc D=TTL D=+/-1.0ppm  
 E=+/-2.5ppm

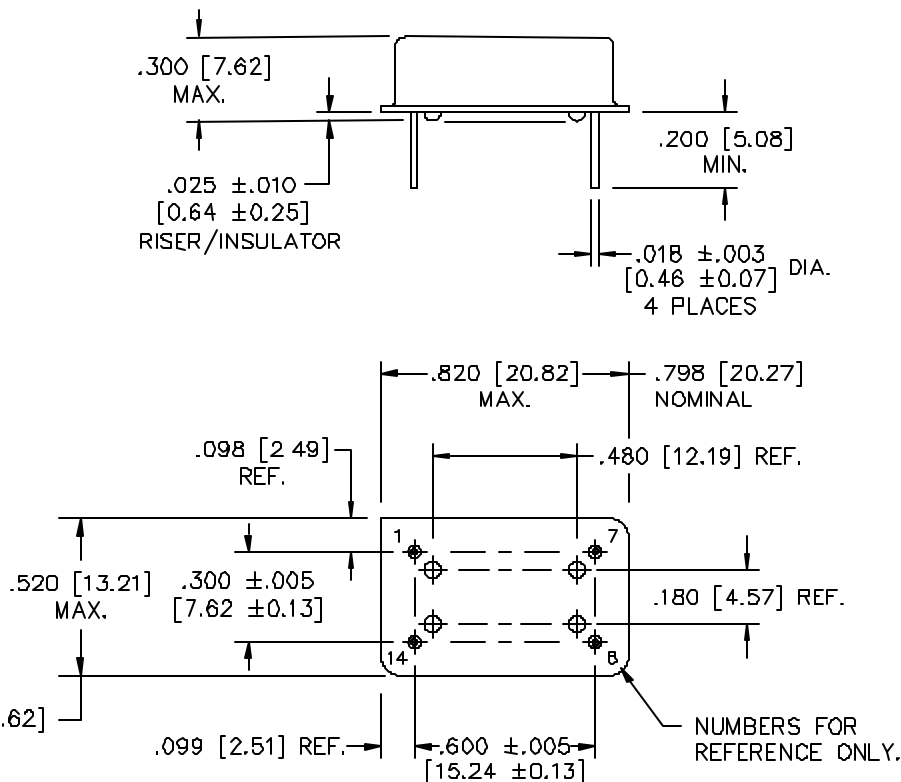
Note: Not all combinations are available.

### The following are some suggested options.

Product Family	Package	Package Height	RoHS	Pulling Range	Supply Voltage	Output	Stability Options	Temp Range	Frequency
TV	79B	A	G	T	D	A	A	C	10.000
TV	79B	A	G	C	C	B	A	C	12.800
TV	79B	A	G	T	D	A	B	D	25.000

## Outline Drawing & Pin Out:

PIN NO.	PIN FUNCTION	REVISION				
		LET.	DESCRIPTION	DATE	BY	CKD.
1	VOLTAGE CONTROL					
7	RF & CASE GROUND					
8	OUTPUT					
14	+ VDC					



**ATTENTION**  
Static Sensitive  
Devices  
Handle only at  
Static Safe Work  
Stations

DO NOT SCALE PRINT. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

TOLERANCES	HOLES ±.002	ANGLES ±1°	INCHES XXX ± .020 XX ±	[MILLIMETERS] [XX ± 0.51] [X ± ]
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**BLILEY TECHNOLOGIES INC.**  
2545 WEST GRANDVIEW BLVD.  
ERIE, PENNSYLVANIA 16506

MATERIAL:	SHOP TYPE		OUTLINE DRAWING TV79B			
	SUPERSEDES					
FINISH:	DR.	CKD.	SIZE	FSCM NO.	DRAWING NO.	REV.LET.
	AP	AP	A	71034	812067	
			SCALE:	2:1		DATE DRAWN 1-4-2007

PE200-1

## How to Order This Product:

Contact Bliley Technologies with Product Selection Code from the worksheet or Product Information Request Form.

**Attn:**  
 Sales @ Bliley  
 Fax: **814-833-2712**  
 Phone: 814-838-3571  
 Email: [info@bliley.com](mailto:info@bliley.com)  
 Web: [www.bliley.com](http://www.bliley.com)  
 Date: \_\_\_\_\_  
**From:**  
 Name: \_\_\_\_\_ Company: \_\_\_\_\_  
 Fax: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Email: \_\_\_\_\_  
 Quantities to Quote: \_\_\_\_\_ Target Price: \$ \_\_\_\_\_  
 Application / Reference #: \_\_\_\_\_

### Product Selection Code Worksheet:

Product Family	Pack -age	Package Height	RoHS	Pulling Range	Supply Voltage	Output	Stability Options	Temp Range	Frequency
TV	79B		G						
TV	79B		G						
TV	79B		G						
TV	79B		G						

### Product Information Request Form:

## TV79B TCVCXO Product Information Request

1. Frequency: \_\_\_\_\_ MHz (0.625 MHz to 52 MHz available)
2. Output Type: **CMOS**    ~~Clipped-Sine~~    **Sine**    **TTL**    (Circle One)
3. Frequency Stability: **+/-0.28ppm**    **+/-0.37ppm**    **+/-0.50ppm**    **+/-1.0ppm**    **+/-2.5ppm**    (Circle One)
4. Supply Voltage: **+3.3 Vdc**    **+5 Vdc**    **+12Vdc**    **+15Vdc**    (Circle One)
5. Temperature Range: **-20to+70 °C**    **-40to+85 °C**    (Circle One)
6. Pull Range: **0 (TCXO)**    **+/-5ppm**    **+/-8ppm**    (Circle One)
7. Package Height: **0.30 in.**    **0.40 in.**    **0.50 in.**    **Other** \_\_\_\_\_ (Circle One)