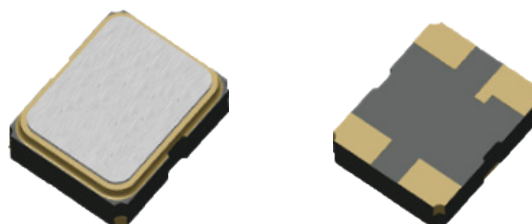


T20HS Series

2.0 x 1.6 mm TCXO

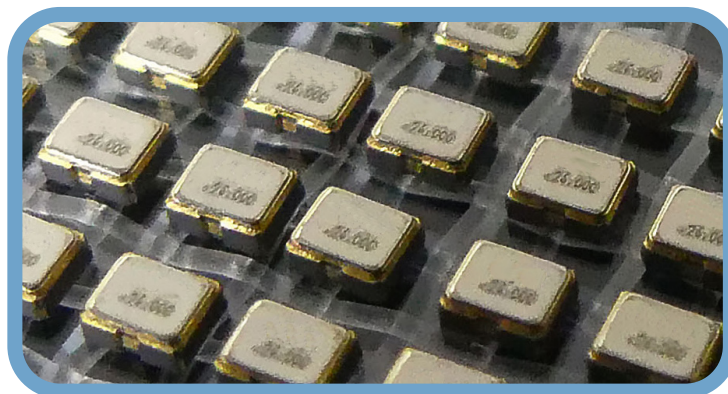
Key Features

- Standard 2.0 x 1.6 x 0.7 mm ceramic surface-mount design
- Automated assembly compatible
- lightweight, sleek profile
- 1.8 - 3.3V Supply Voltage options
- low-profile package



Common Applications

- GPS
- IoT
- Mobile Phones
- Wearable Electronics
- WiMAX, WLAN



Functional Description

The T20HS has been optimized for +/- 0.5 ppm stability over the industrial temperature range with a volume production record of high reliability for a wide range of RF applications. Several supply voltage selections are available, ranging from 1.8V to 3.3V with good phase noise and a maximum operating frequency of 52 MHz.

The T20HS has a sleek, 0.7 mm nominal thickness, lending itself well to applications where space is at a premium. The 2.0 x 1.6 mm standard package makes for easy integration into existing systems.

The small size and variable supply voltage options make the T20HS an excellent choice for small, portable electronics.

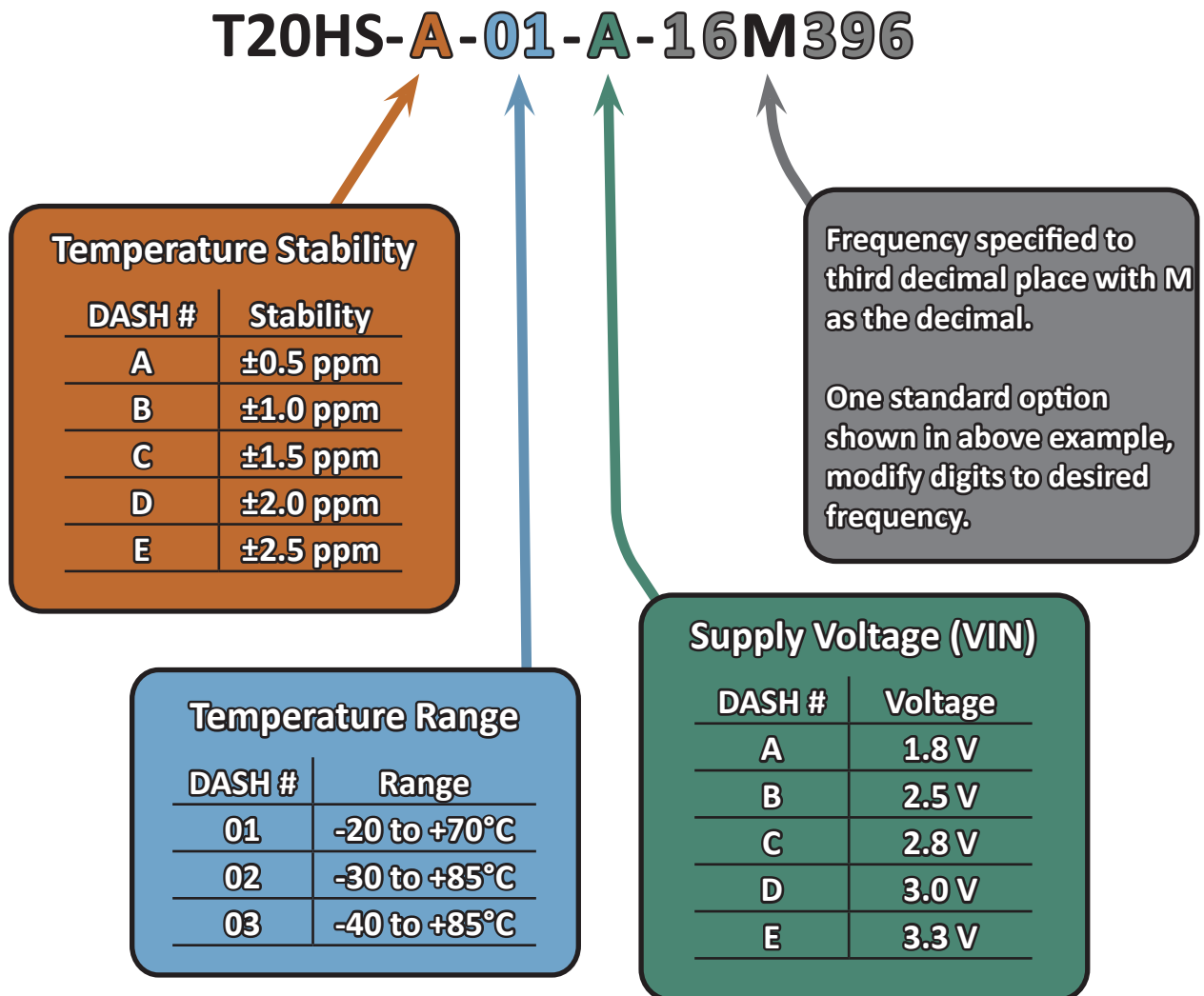
Standard Specifications:

Parameter	Min	Max	Units	Notes
Supply Voltage option	1.8 / 2.5 / 2.8 / 3.0 / 3.3		Volts	± 5%
Frequency Range	10	52	MHz	
Standard Frequencies ²	16.369 / 19.2 / 26.0 / 38.4			
Calibration Tolerance	-2.0	+2.0	ppm	At 25 °C 1 hour after reflow
Frequency vs. Supply	-0.2	+0.2	ppm	5% Change
Frequency vs Load	-0.2	+0.2	ppm	10% Change
Supply Current (low freq)	-	1.5	mA	nominal ≤ 26 MHz
Supply Current (high freq)	-	2.0	mA	nominal > 26 MHz
Output Level	0.8	-	V p-p	Clipped Sine Wave
Load	10 kΩ // 10 pF			
Start Time	-	2	mSec	
Aging	-	± 1.0	ppm	After one year
Storage Temperature	-55	125	°C	

Phase Noise Characteristics:³

Parameter	Minimum	Typical	Maximum	Units
100 Hz Offset		-115		dBc/Hz
1 KHz Offset		-135		dBc/Hz
10 KHz Offset		-148		dBc/Hz

Ordering Information:¹

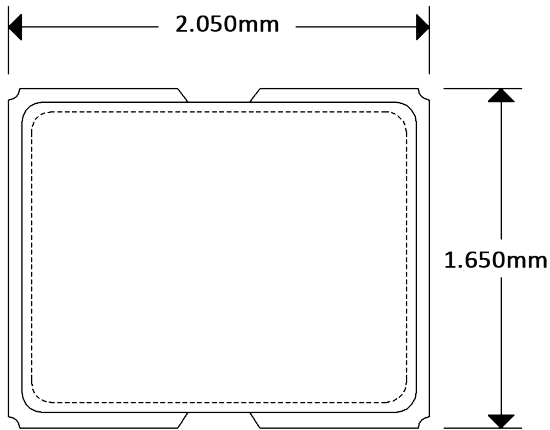


Notes:

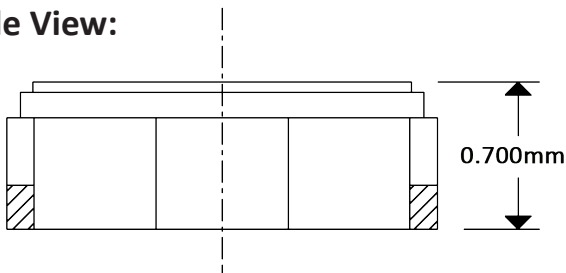
- 1.) Not all combinations of options are available. Consult factory for additional guidance.
- 2.) The crystal has been designed for standard frequencies, but alternate frequencies may be available upon request.
- 3.) Phase noise measured at 19.2 MHz.
- 4.) The information contained herein is subject to change at any time without notice.

Mechanical Specifications:

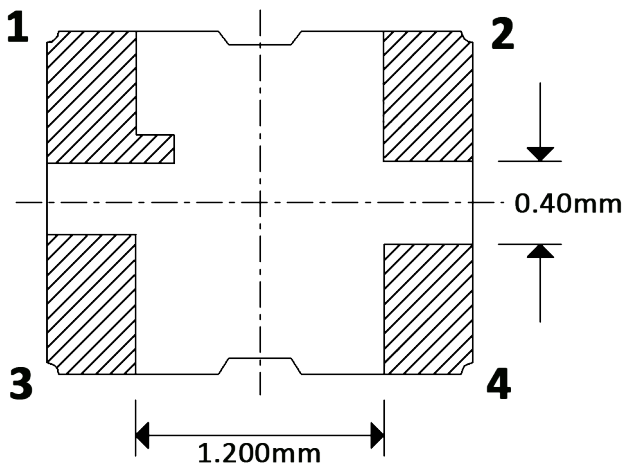
Top View:



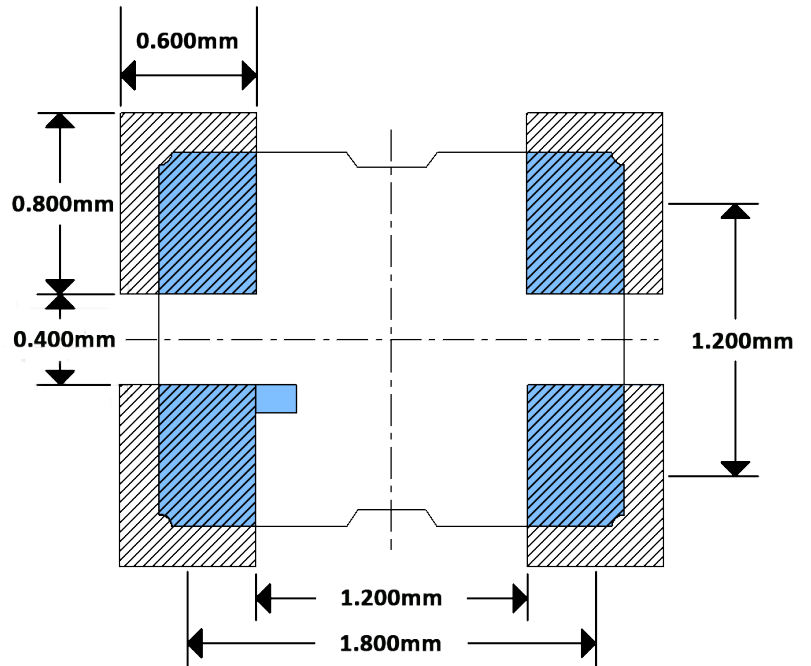
Side View:



Bottom View:



Landing Pattern:



TOLERANCES ARE ± 0.1 mm

PIN FUNCTIONS

Pin #	Function
1	GND
2	GND
3	RF OUT
4	Supply Voltage (VIN)

For best signal integrity, do not run traces beneath the part, and ensure the area under the oscillator is ground plane.