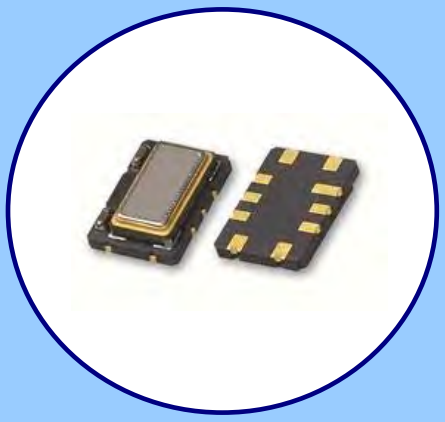
CTS ELECTRONIC COMPONENTS

FEATURES

- **Clipped Sine Output**
- **Optional Voltage Control for Frequency Tuning [VCTCXO]**
- 7.0mmx5.0mm Surface Mount Package
- Frequency Range 5 – 52 MHz
- Fundamental Crystal Design
- Operating Voltage, +3.0Vdc, +3.3Vdc or +5.0Vdc
- Overall Frequency Stability ±4.6ppm
- Operating Temperature to -40°C to +85°C
- Tape & Reel Packaging Standard, EIA-418
- **RoHS/Green Compliant [6/6]**



APPLICATIONS

The Model 578, a quartz based analog TCXO with Clipped Sine output and optional frequency tuning, is suitable for applications requiring Stratum 3 performance such as base stations, Microcells, Femtocells, 1588 and Synchronous Ethernet timing, wireless communications, test and measurement.

ORDERING INFORMATION

578 □ □ □ □ □ □ □

SUPPLY VOLTAGE
R = +3.0Vdc
L = +3.3Vdc
S = +5.0Vdc

FREQUENCY
Product Frequency Code [3 digits]
Refer to document 016-1454-0, Frequency Code Tables.

PACKAGING OPTIONS
T - 1k pcs./reel

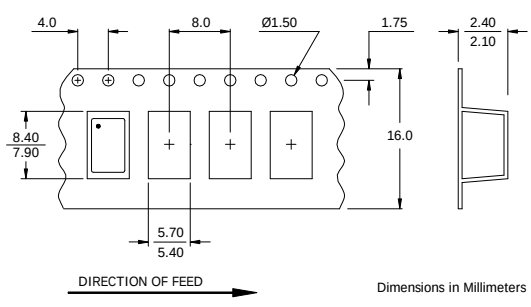
FREQUENCY TUNING [AFC]
T = No AFC [TCXO]
A = ±5ppm - ±8ppm [VCTCXO]

OPERATING TEMPERATURE RANGE
C = -20°C to +70°C
I = -40°C to +85°C

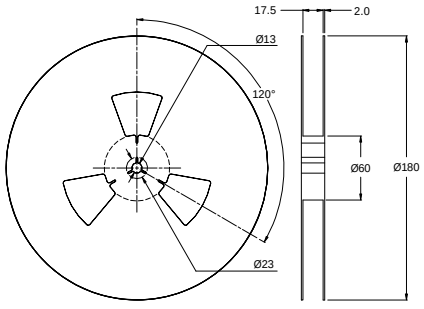
Not all performance combinations and frequencies may be available.
Contact your local CTS Representative or CTS Customer Service for availability.

PACKAGING INFORMATION [reference]

Device quantity is 1k pcs. maximum per 180mm reel.



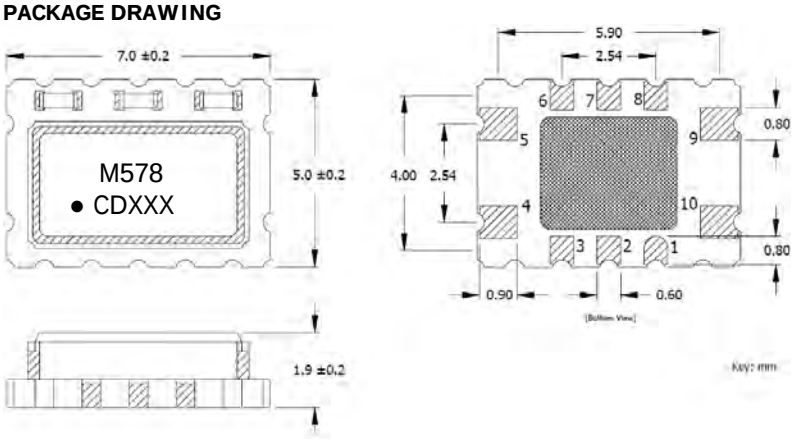
Dimensions in Millimeters



Dimensions in Millimeters

MECHANICAL SPECIFICATIONS

PACKAGE DRAWING



MARKING INFORMATION

1. M578 – CTS Model Series.
2. ● – Pin 1 identifier.
3. C – CTS identifier.4.
4. D – Date code. See Table II for codes.
5. xxx – Frequency Code.

Refer to document 016-1454-0, Frequency Code Tables.

NOTES

1. DO NOT make connections to non-labeled pins. Castellation pins may have internal connections used in the manufacturing process.
2. Termination pads (e4); barrier plating is nickel [Ni] with gold [Au] flash plate.
3. Reflow conditions per JEDEC J-STD-020, 260°C maximum.
4. MSL = 1.

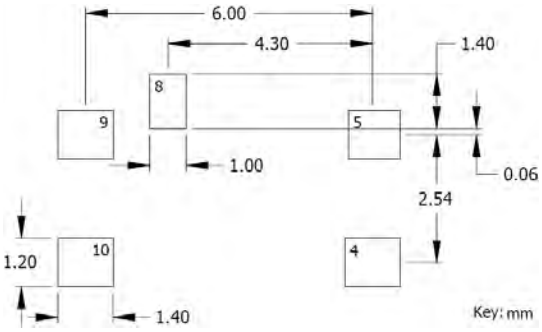
D.U.T. PIN ASSIGNMENTS

PIN	SYMBOL	DESCRIPTION
4	GND	Circuit & Package Ground
5	Output	Clipped Sine Wave Output
8	EOH	Tri-State Enable
9	V_{CC}	Supply Voltage
10	V_C	Control Voltage – VCTCXO [Note 1] GND - TCXO

NOTES

1. Connect to ground for TCXO [no AFC] option.
2. DC-Cut Capacitor Required.
   Add 1000pF capacitor between TCXO output and input of load.

SUGGESTED SOLDER PAD GEOMETRY



TEST CIRCUIT – CLIPPED SINE LOAD

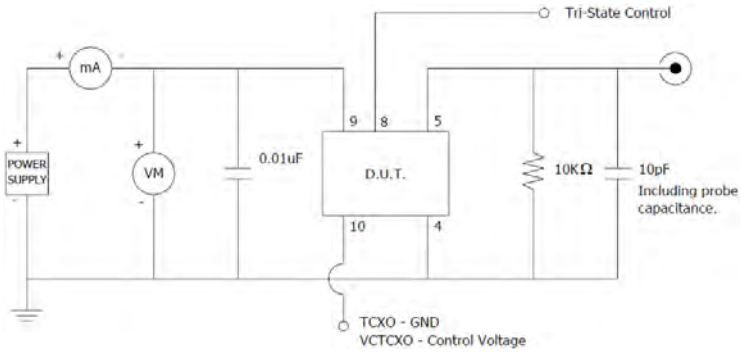


TABLE II – DATE CODE

YEAR \ MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2001 2005 2009 2013 2017	A	B	C	D	E	F	G	H	J	K	L	M
2002 2006 2010 2014 2018	N	P	Q	R	S	T	U	V	W	X	Y	Z
2003 2007 2011 2015 2019	a	b	c	d	e	f	g	h	j	k	l	m
2004 2008 2012 2016 2020	n	p	q	r	s	t	u	v	w	x	y	z