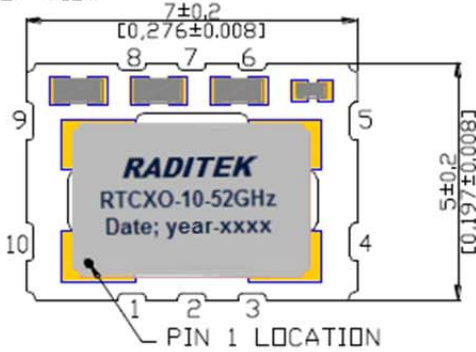
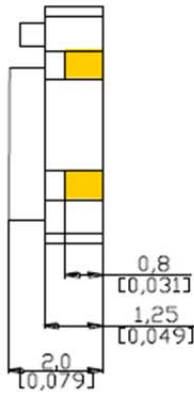


Temperature Compensated Crystal Oscillators 10-52MHz TCXO (7 x 5 mm) Stratum 3, SMD

TOP VIEW



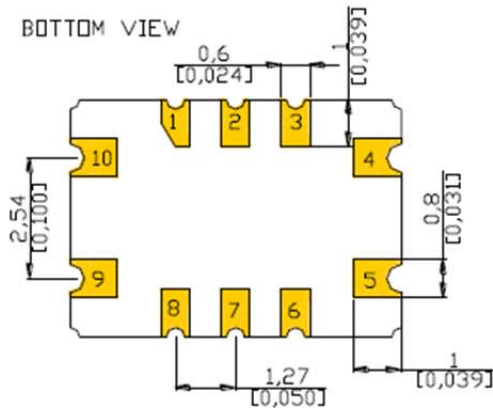
SIDE VIEW



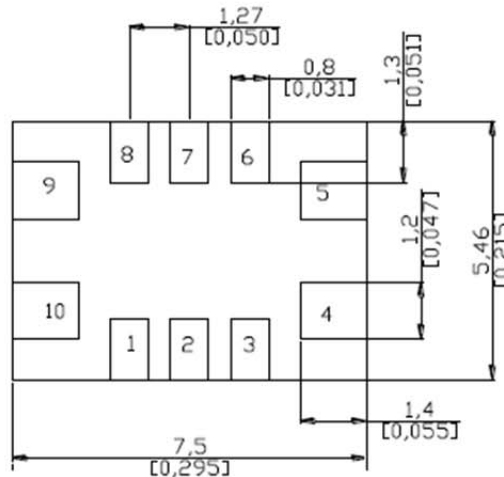
FRONT VIEW



BOTTOM VIEW



RECOMMENDED SOLDER PAD LAYOUT TOP VIEW



Features:

- ±0.25 ppm Holdover Stability
- ±4.6 ppm accuracy over all conditions including 20 years aging
- Miniature 5x7 mm SMD Package
- Low Current consumption

Applications:

- Mobile Phones
- Base Stations
- Mobile Radios
- GPS Devices
- Broadband Equipment

10 pin ceramic package

Pin Out	Electrical Connections
Pin #1	NC
Pin #2	NC
Pin #3	NC
Pin#4	GND
Pin#5	Output
Pin#6	NC
Pin#7	NC
Pin#8	Enable / Disable
Pin#9	Vcc
Pin#10	NC or Control Voltage

Unit all Dimension in mm [inch]

Tolerance ±0.4mm, [±0.015"] Out line Drw
±0.5mm, [±0.2"] Pad solder
unless otherwise specified

10 pin ceramic package

Parameter	Symbol	Conditions	Value	Unit
Frequency range	fo		10 ~ 52	MHz
Supply voltage	V _{CC}		3.3 or 5.0	V
Supply current	I _s	Typical (depending on V _{cc} and output)	4 ~ 10	mA
Clipped sine wave – Output Voltage Swing (peak-to-peak)	V _{p-p}	Load = 10KΩ // 10pF	0.6 ~ 1.0	V
HCMOS – Output Levels	V _{OH} / V _{OL}	Min/Max, 15pF Load	0.9 V _{cc} / 0.1 V _{cc}	V
Duty Cycle	DC	HCMOS - Load = 15pF (2 TTL)	40/60 or 45/55	%
Rise Time / Fall Time	t _r / t _f	10% ~ 90%	5	ns
Start up time	t _s	Typical	3	ms
Enable / Disable	E/D	Min / Max	0.8 (V _{cc}) / 0.2 V _{cc}	V _d c
Control Voltage1	V _c	Optional	0 ~ V _{cc}	V _d c
Pull Range (1)	f _T		±5 ~ ±12	ppm
Linearity, max	L	Positive tuning slope	10	%
Initial Frequency Calibration	f _C	Measures at 25°C	±1.0	ppm

Temperature Compensated Crystal Oscillators 10-52MHz TCXO (7 x 5 mm) Stratum 3, SMD

Stability vs. Supply Voltage change	fV	Vcc ±5%	±0.20	ppm
Stability vs. Load change	fL	Load ±10%	±0.20	ppm
Stability over operating temperature (2)	$\Delta f/f_o(T)$	Referenced at 25°C	±0.28	ppm
Overall frequency stability, max	$\Delta f/f_c$	Including 20 years of aging	±4.60	ppm
Phase noise @ freq. offset, typical	$\mathcal{E}(\Delta f)$	$\Delta f=100\text{Hz}$	-110	dBc/Hz
	$\mathcal{E}(\Delta f)$	$\Delta f=1\text{kHz}$	-135	dBc/Hz
	$\mathcal{E}(\Delta f)$	$\Delta f=10\text{kHz}$	-145	dBc/Hz
Integrated Phase Jitter RMS, max	J	BW= 12kHz to 20MHz, Vcc±5%, 15pF load	1.0	ps
Operating temperature (3)	Ta		-20 ~ +70°C -40 ~ +85°C	°C
Storage temperature	T(stg)	Absolute max	-55 ~ +125°C	°C

Notes

1 Available with TV series only

2 Not available at all frequencies, Contact Factory

3 Check part numbering table below. For others contact factory

TYPE	Output Type	Frequency (MHz)	Series	Rev	Operating Temp Range (°C)	Stability (PPM)	Supply Voltage (V)	Tape & Reel	Ceramic Package
SMD TCXO	1: Clipped Sine 2: HCMOS	10 ~ 52	75	A	A: 0~+70 B: -20~+70 C: -40~+85	0.28 ±0.028	5: Vcc=5.0 3: Vcc=3.3	TR	10P-S Blank-10 pin 2 - 8 pin
TX TV*	2	12.8	75	A	B	0.28	3	TR	8P-S

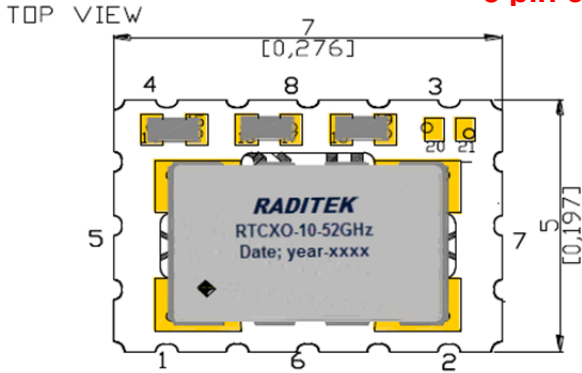
Notes * Available with Control Voltage option.

Order Examples: RTCXO-10M-1C-5v-10P-S-r24
Description: (Temperature Compensated Crystal Oscillators, 10MHz, Clipped Sinewave output, 0T-40~+85°C, 5 Volts supply voltage, Control Voltage range ±5 ppm to ±12 ppm, 10Pin ceramic base Surface Mount)

Additional option: Frequency from 10-52MHz 1: (Clipped Sinewave output) 2(HCMOS) (Operating Temp; A(0~+70°C) / B: (-20~+70°C), C: (-40~+85°C) 3(3VDC), 10P(10Pin) see Table above) and 8P(8Pin) Drawing on next Page

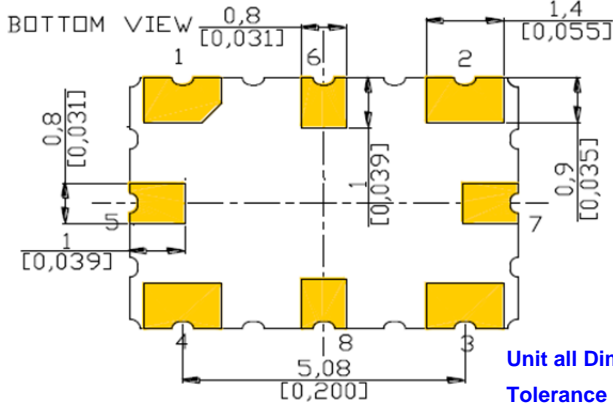
Temperature Compensated Crystal Oscillators 10-52MHz TCXO (7 x 5 mm) Stratum 3, SMD

8 pin ceramic package

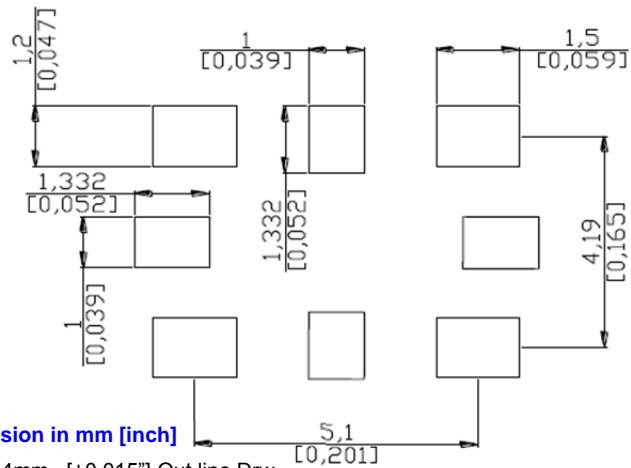


8 pin ceramic package

Pin Out	Electrical Connections
Pin #1	NC or Control Voltage
Pin #2	GND
Pin #3	Output
Pin#4	Vcc
Pin#5	NC
Pin#6	NC
Pin#7	NC
Pin#8	NC



RECOMMENDED LAND PATTERN TOP VIEW



Unit all Dimension in mm [inch]

Tolerance $\pm 0.4\text{mm}$, [± 0.015 "] Out line Drw
unless otherwise specified