

A low profile smd enclosure in which precision SC cut, AT cut and IT cut crystals may be encapsulated. The SMP-8 utilizes a braze seal and is assembled in a vacuum resulting in higher Q values and therefore improved phase noise.

Excellent heat transfer through the metal and ceramic package provide opportunities to improve thermal designs for OCXO.

Four point mounting provides excellent shock and vibration performance with good immunity to G sensitivity.

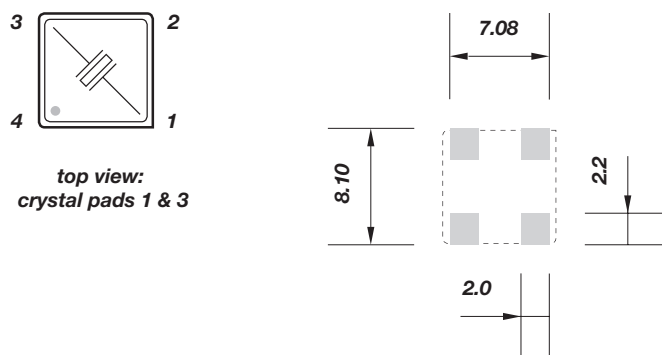
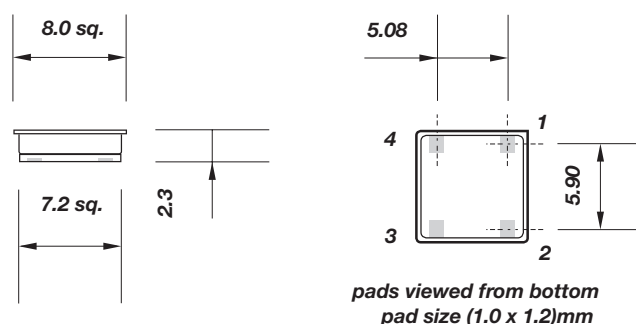
High temperature batch sealing at ultra high vacuum ensures superb long term stability.

Custom specified with typical data as follows:

### Specification data:

<b>Environment</b>	High vacuum
<b>Quartz orientation</b>	SC cut AT cut or IT cut
<b>Frequency range</b>	(8 ~ 25)MHz fundamental (20 ~ 70)MHz 3rd overtone (60 ~ 130)MHz 5th overtone
<b>Adjustment tolerance</b>	from $\pm 2$ ppm at ref. temp. frequency dependent
<b>Thermal stability</b>	OCXO turn point from $\pm 3^\circ\text{C}$ TCXO from $\pm 0.5^\circ$ equivalent $\emptyset$ angle XO from $\pm 3$ ppm temperature dependent
<b>Operating temperature</b>	$(-40 \sim +200)^\circ\text{C}$ custom specified
<b>Storage temperature</b>	$(-40 \sim +160)^\circ\text{C}$
<b>Load</b>	custom specified
<b>Shunt capacitance <math>C_0</math></b>	(1.5 ~ 6.5)pF
<b>Suggested drive level</b>	(5 ~ 150) $\mu\text{W}$
<b>Q factor</b>	up to 400,000 frequency and mode dependent
<b>Ageing - frequency dependent</b>	AT cut: $\pm 2$ ppm typical, first year max. SC cut: $\pm 0.4$ ppm typical, first year max.
<b>Insulation resistance</b>	500Meg. $\Omega$ min. at 100Vd.c.

### Dimensions(mm):



pads are gold 2.5 $\mu$  min. over nickel, suitable for vapour phase or reflow soldering, preheat +150 $^\circ\text{C}$  for 2 minutes, peak temperature +250 $^\circ\text{C}$  for 30 seconds max.