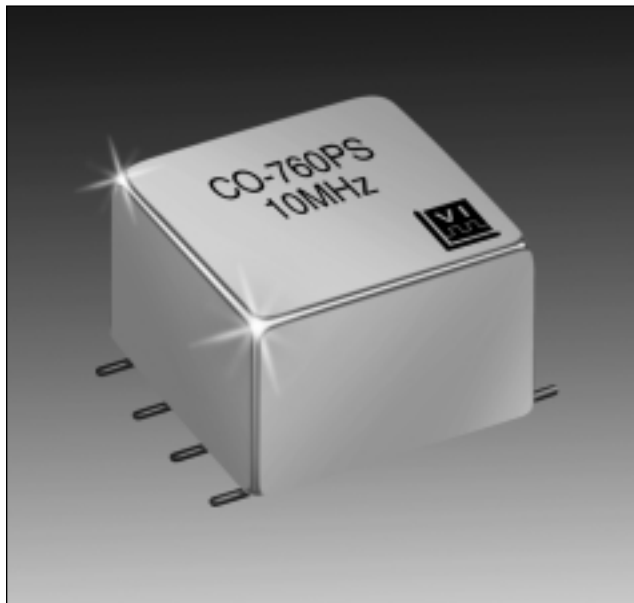


## CO-760PS Series

### Surface Mount Oven Controlled Crystal Oscillators



#### Features

- Frequencies Available from 4.8 MHz to 61.44 MHz.
- Stability as high as  $\pm 2 \times 10^{-8}$  over  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$
- Aging:  $5 \times 10^{-9}$  / day to  $5 \times 10^{-10}$  / day
- Package: 0.8" x 0.8" x 0.6" (20.5 x 20.5 x 15.2 mm)
- Low Profile, Surface Mount Design
- Supply Voltage: +5 volts or +3.3 volts

#### Applications

- Telecommunication Systems
- Wireless Communication Equipment
- Data Communications
- Instrumentation

#### Description

Vectron International has introduced a series of low profile, surface mount, oven controlled crystal oscillators (OCXOs) available in frequencies from 4.8 MHz to 61.44 MHz.

The model CO-760PS provides exceptionally low aging rates and high temperature stabilities and is packaged as a surface mount device (SMD), measuring 0.8" x 0.8" x 0.6" (20.5mm x 20.5 mm x 15.2 mm).

The oscillators are available with SC or AT cut crystals and provide an aging rate as low as  $5 \times 10^{-10}$ /day with temperature stabilities from  $\pm 2 \times 10^{-8}$  over  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  and operate from a +5V supply steady power of 1watt. The phase noise floor at 50 kHz is - 140 dBc/Hz for AT cut crystals and - 145 dBc/Hz for SC types, depending on the output frequency.

The product finds application in telecommunications, data communications, frequency synthesizers, timing, navigation, telemetry and instrumentation systems.

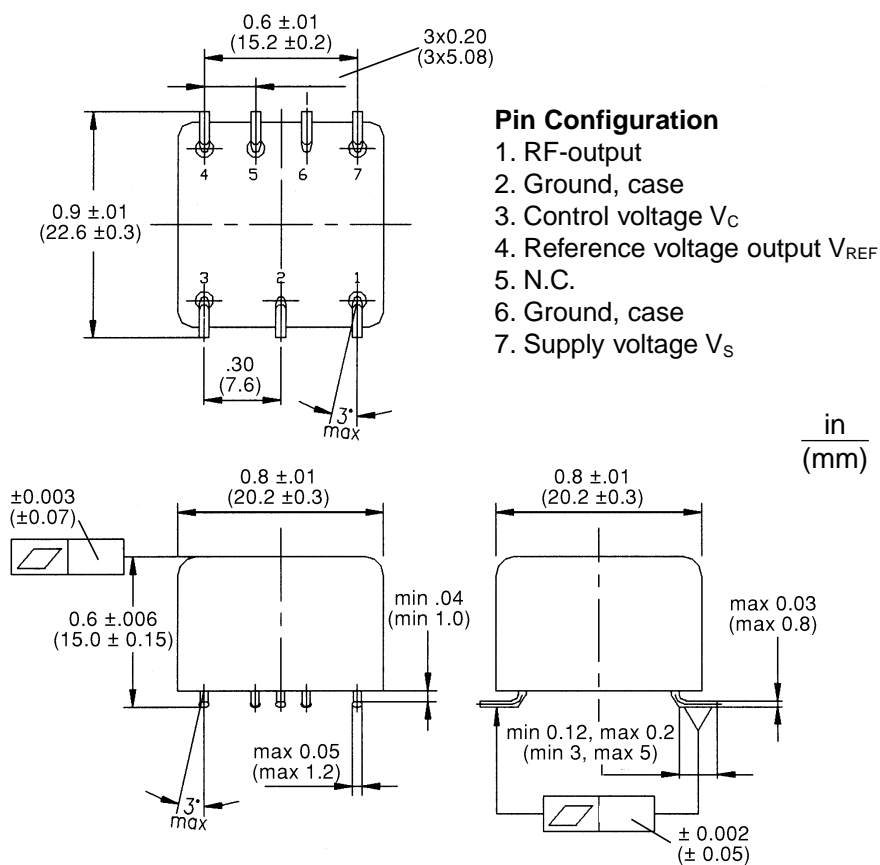
# CO-760PS Series Surface Mount Oven Controlled Crystal Oscillators

## Performance Characteristics

Parameter	Characteristic	
	CO-764/766/767PS Series (AT cut crystal)	CO-767/768PS Series (SC cut crystal)
Frequency:	4.8 MHz to 61.44 MHz with 5, 10, 13, 16.384, 20, 20.48, 26, 38.88, 52 and 61.44 MHz standard	
Temperature stability: Temperature Range B: 0°C to +50°C Temperature Range D: -20°C to +70°C Temperature Range J: -10°C to +75°C	B38: $\pm 3 \times 10^{-8}$ D58: $\pm 5 \times 10^{-8}$ J17: $\pm 1 \times 10^{-7}$	B18: $\pm 1 \times 10^{-8}$ D28: $\pm 2 \times 10^{-8}$ J58: $\pm 5 \times 10^{-8}$
Aging:	CO-764PS: $5 \times 10^{-9}$ /day ( $5 \times 10^{-7}$ /year) CO-766PS: $3 \times 10^{-9}$ /day ( $3 \times 10^{-7}$ /year) CO-767PS: $1 \times 10^{-9}$ /day ( $1 \times 10^{-7}$ /year)	CO-767PS: $1 \times 10^{-9}$ /day ( $1 \times 10^{-7}$ /year) CO-768PS: $5 \times 10^{-10}$ /day ( $5 \times 10^{-8}$ /year) optional for some frequencies
Warm-up: (after 24 hours off)	to within $1 \times 10^{-7}$ of final frequency in 5 minutes @ 25°C	to within $1 \times 10^{-8}$ of final frequency in 5 minutes @ 25°C
Frequency vs. Supply ( $\pm 5\%$ ):	$5 \times 10^{-9}$ per percent	$2 \times 10^{-9}$ per percent
Short Term (Allan Variance):	$1 \times 10^{-10}$ /second	$5 \times 10^{-11}$ /second
Output level:	HCMOS/TTL Standard, >0.5 Vrms/50Ω (+7 dBm) optional (LVCMOS output with +3.3 volt power supply)	
Harmonics (sinewave):	-25 dBc	
Power supply:	+5 Vdc $\pm 5\%$ ; 2.5W peak @ -20°C; 1.0W stabilized at 25°C (+3.3 VdC $\pm 5\%$ , optional)	
Frequency adjustment:	$\pm 5 \times 10^{-6}$ typical for 0 to 4V control	$\pm 2 \times 10^{-6}$ typical for 0 to 4V control
Phase Noise: (typical)	-100 dBc/Hz @ 10 Hz offset -140 dBc/Hz @ 50 kHz offset	-110 dBc/Hz @ 10 Hz offset -145 dBc/Hz @ 50 kHz offset
Size:	0.8" x 0.8" x 0.6" max. (20.5 x 20.5 x 15.2mm)	
Base:	FR4 material with Gull wing leads	
Reflow:	240 (+5, -0)°C for 10 to 40 seconds	

# CO-760PS Series Surface Mount Oven Controlled Crystal Oscillators

## Outline Drawing



## Recommended Soldering Profile

