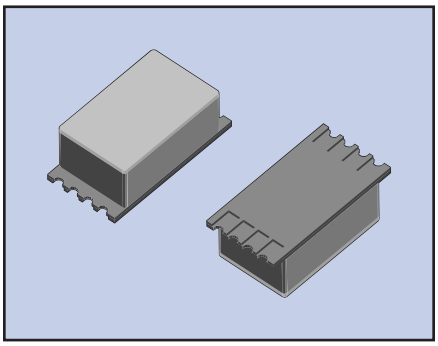
# ECS-VCO SERIES VOLTAGE CONTROLLED OSCILLATOR



The ECS-VCO Series offers a wide range of frequency coverage from 20MHz to 2800MHz for various wireless communications applications requiring Carrier to Noise Ratio and or Signal to Noise Ratio. Using L.C. oscillation for strip-line design combination the ECS-VCO drastically shortens development process time. It also allows fine tuning for final characteristics of VCO in a quick manner.

## FEATURES

- **Wide frequency range from 20~2800MHz**
- **Power supply as low as 2.0VDC**
- **Current consumption as low as 3mA**
- **Reflow soldering at 240˚C**
- **Customized designs available**

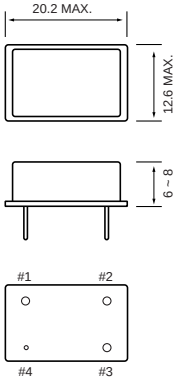
## Applications

**Cellular phones, private mobile radios, cordless phones, (GPS) global positioning systems receiver, variety of wireless communications equipment, high-precision, high stability, ultra high frequency oscillators.**

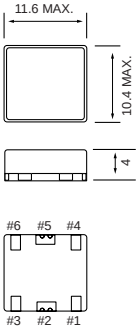
## OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

| PART TYPE | APPLICATION RANGE | SUPPLY VOLTAGE | C/N @25KHZ SEP. | OUTPUT | FEATURES |
|---|---|---|---|---|---|
| SMOP | 20~500MHz | 3~12V | ~ 120dBc/Hz | 1) 0dBm<br>2) 2.5Vp-p min | Hermetically sealed housing<br>High reliability<br>Possible to drive IC directly |
| SME | 200~2500MHz | 3~12V | ~ 110dBc/Hz | 0dBm | Compact in size<br>Tape & reel<br>Withstand reflow process |
| SMS | 100~2800MHz | 3~12V | ~ 120dBc/Hz | 0dBm | Wider VCO range<br>Quick development<br>Withstand reflow process |
| SMOS | 20~2500MHz | 2~12V | ~ 120dBc/Hz | 1) 0dBm<br>2) 2.5Vp-p min | Possible to drive IC directly<br>Withstand reflow process |
| WPS-T/R | 100~600MHz | 3~12V | ~ 115dBc/Hz | 0dBm | TR/RX in one module<br>Withstand reflow process |

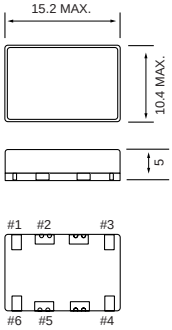
## PACKAGE DIMENSIONS (mm)



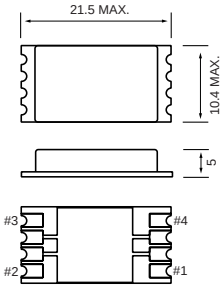

| SMOP PIN CONNECTIONS | |
|---|---|
| #1 | RF OUTPUT |
| #2 | VCC |
| #3 | VT (TUNING V) |
| #4 | GROUND |



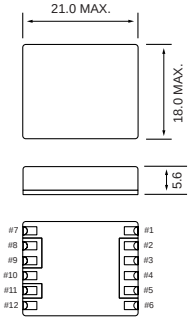

| SME PIN CONNECTIONS | |
|---|---|
| #1 | VT |
| #2 | GROUND |
| #3 | VCC |
| #4 | RF OUTPUT |
| #5 | GROUND |
| #6 | RX-N.C. TX MODULATION |




| SMS PIN CONNECTIONS | |
|---|---|
| #1 | VT |
| #2 | GROUND |
| #3 | VCC |
| #4 | RF OUTPUT |
| #5 | GROUND |
| #6 | RX-N.C. TX MODULATION |




| SMOS PIN CONNECTIONS | |
|---|---|
| #1 | RF OUTPUT |
| #2 | VCC |
| #3 | VT |
| #4 | GROUND |




| WPS-T/R PIN CONNECTIONS | |
|---|---|
| #1 | GND |
| #2 | TX OUT |
| #3 | TX VCC |
| #4 | MOD |
| #5 | TX VT |
| #6 | GND |
| #7 | GND |
| #8 | RX VT |
| #9 | GND |
| #10 | RX VT |
| #11 | RX OUT |
| #12 | GND |