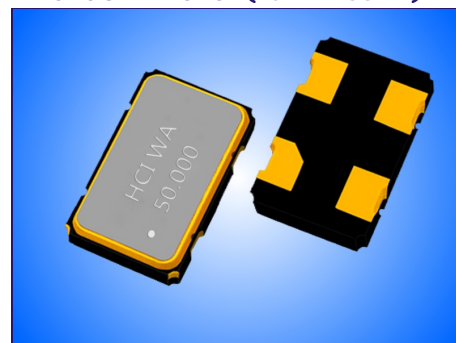


**OSCILLATOR UNIT WITH CMOS OUTPUT IN SMD 5.0x3.2mm CERAMIC SEAM SEAL PACKAGE.**
**PRODUCT FEATURES**

- Small dimensions 5.0x3.2x1.2 with 4 solder pads.
- Tight stabilities over temperature range.
- Tri-state enable/ disable function (pad 1).
- Automotive compliance to AEC-Q200 available.
- RoHS compliant, LEAD-FREE, HALOGEN-FREE and REACH compliant.

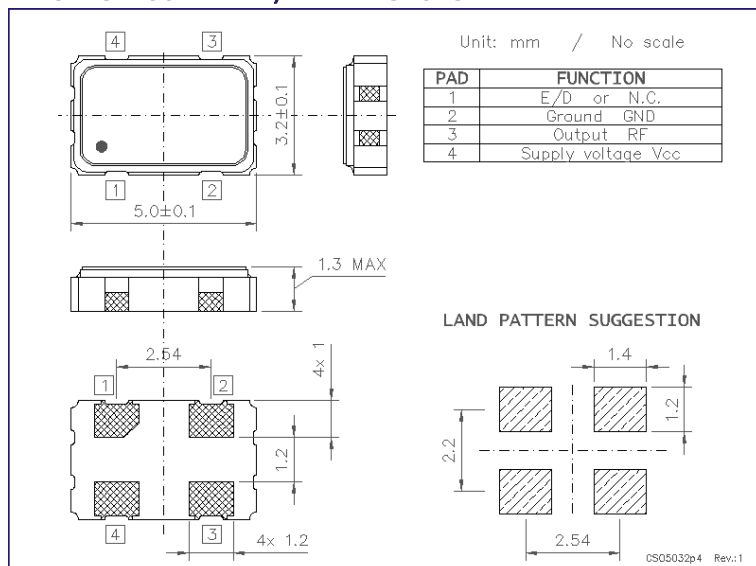
**APPLICATIONS**

- WiFi / WLAN / Ethernet / GPS
- Notebook
- Mobil phone
- DSC / PDA

**PRODUCT PHOTO (NOT IN SCALE)**

**PRODUCT SPECIFICATIONS**

| PARAMETER                   | SUPPLY VOLTAGE                                                                               |              |              | REMARKS                                  |
|-----------------------------|----------------------------------------------------------------------------------------------|--------------|--------------|------------------------------------------|
|                             | 1.8V                                                                                         | 2.5V         | 3.3V         |                                          |
| Frequency range             | 0.137~135MHz                                                                                 | 0.137~160MHz | 0.137~160MHz | 32.768kHz available                      |
| Frequency stability         | $\pm 20\text{ppm} / \pm 25\text{ppm} / \pm 50\text{ppm}$                                     |              |              | See note below                           |
| Operating temperature range | $-10$ to $+60^{\circ}\text{C} / -20$ to $+70^{\circ}\text{C} / -40$ to $+85^{\circ}\text{C}$ |              |              | Options up to $+125^{\circ}\text{C}$     |
| Aging first year            | $\pm 3.0\text{ppm}$                                                                          |              |              | @ $+25^{\circ}\text{C}$                  |
| Supply current              | 7~15mA                                                                                       | 8~18mA       | 10~20mA      | 1~40~75MHz @15pF                         |
|                             | 25mA                                                                                         | 30mA         | 35mA         | $\geq 75\sim 135\text{MHz}$ @15pF        |
|                             | ---                                                                                          | 40mA         | 45mA         | $\geq 135\text{MHz}$ @15pF               |
| Output waveform and load    | LVCMOS 15pF                                                                                  |              |              | 30pF optional                            |
| Output voltage level HIGH   | 1.62V                                                                                        | 2.25V        | 2.97V        | Minimum                                  |
| Output voltage level LOW    | 0.18V                                                                                        | 0.25V        | 0.33V        | Maximum                                  |
| Rise and Fall times         | 5ns                                                                                          | 5ns          | 5ns          | 1~100MHz @10~90% of $V_{CC}$             |
|                             | 3ns                                                                                          | 3ns          | 3ns          | $\geq 100\text{MHz}$ @10~90% of $V_{CC}$ |
| Symmetry (duty cycle)       | 45~55% or 40~60%                                                                             |              |              | @ 50% $V_{CC}$                           |
| Phase jitter RMS            | <1ps                                                                                         |              |              | 12kHz $\leq F_j \leq 20\text{MHz}$       |

Note: Stability includes frequency deviations at  $+25^{\circ}\text{C}$ , over temperature range, due to supply voltage

**PACKAGE OUTLINE / DIMENSIONS**

**PACKAGING INFORMATION**

- Tape & Reel compliant to EIA-481.
- Embossed carrier width 12mm.
- Component pitch in carrier 8mm.
- Reel diameter 180mm.
- QTY per reel: 1,000pcs

**RECOMMENDED REFLOW PROFILE**
