

# PROGRAMMABLE CRYSTAL OSCILLATOR



## YSO171PS Spread Spectrum



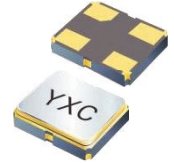
### Applications

- Computers or Servers
- Controller or PLC
- Communication

### Features

- 2 Kinds of Spread Type
- Multiple Spread Width Options
- EMI Reduction

- Package Size: 2.5\*2.0, 3.2\*2.5, 5.0\*3.2, 7.0\*5.0mm
- Standard Frequency: 1 ~ 200MHz



### Specifications (规格参数)

| Item  | Specifications  |         |  |         |
|---|---|---------|--|---------|
|   | 2.5*2.0   | 3.2*2.5 | 5.0*3.2  | 7.0*5.0 |
| Nominal Frequency Range (额定频率范围)                            | 1MHz ~ 200MHz   |         |  |         |
| Supply Voltage Variation (VDD)10% (电压范围)                    | 1.8V、2.5V、3.3V ±10%   |         |  |         |
| Frequency Tolerance over Operating Temperature Range (频率频差) | ±25ppm, ±50ppm, or specify                                  |         |  |         |
| Operating Temperature (工作温度)                                | -40 ~+ 85°C, or specify                                     |         |  |         |
| Storage Temperature (储存温度)                                  | -40 ~+ 125°C  |         |  |         |
| Output Type (输出方式)  | CMOS  |         |  |         |
| Output Load (输出负载)  | 15pF  |         |  |         |
| Rise Time/Fall Time (上升沿/下降沿)                               | 3ns Max (f0>40MHz)<br>6ns Max (f0≤40MHz)                    |         | 5ns Max (10% ↔ 90% waveform)                     |         |
| Duty Cycle (占空比)  | 45 ~ 55%  |         |  |         |
| Start-up Time (启动时间)  | 3.0ms Typ   |         |  |         |
| Frequency Aging (at 25°C) (老化)                              | ±5 ppm / year Max   |         |  |         |
| Current Consumption (消耗功率)                                  | 3.4 mA Min<br>8.3 mA Max                                    |         | 20mA Max (3 ~ 100MHZ)<br>30mA Max (101 ~ 200MHZ) |         |
| Enable Function (使能功能)                                      | 70% ( Min.) of VDD to Enable Output                         |         |  |         |
| Disable Function (禁用功能)                                     | 30% ( Max.) of VDD to Disable Output                        |         |  |         |
| Spread Type (展频方式)  | Center Spread or Down Spread                                |         |  |         |
| Center Spread ( “ C ” )                                     | ± 0.125 % ( C0.125 ) to ± 2.0 % ( C2.0 ) in ± 0.125 % steps |         |  |         |
| Down Spread ( “ D ” )                                       | - 0.25 % ( D0.25 ) to - 4.0 % ( D4.0 ) in 0.25 % steps      |         |  |         |

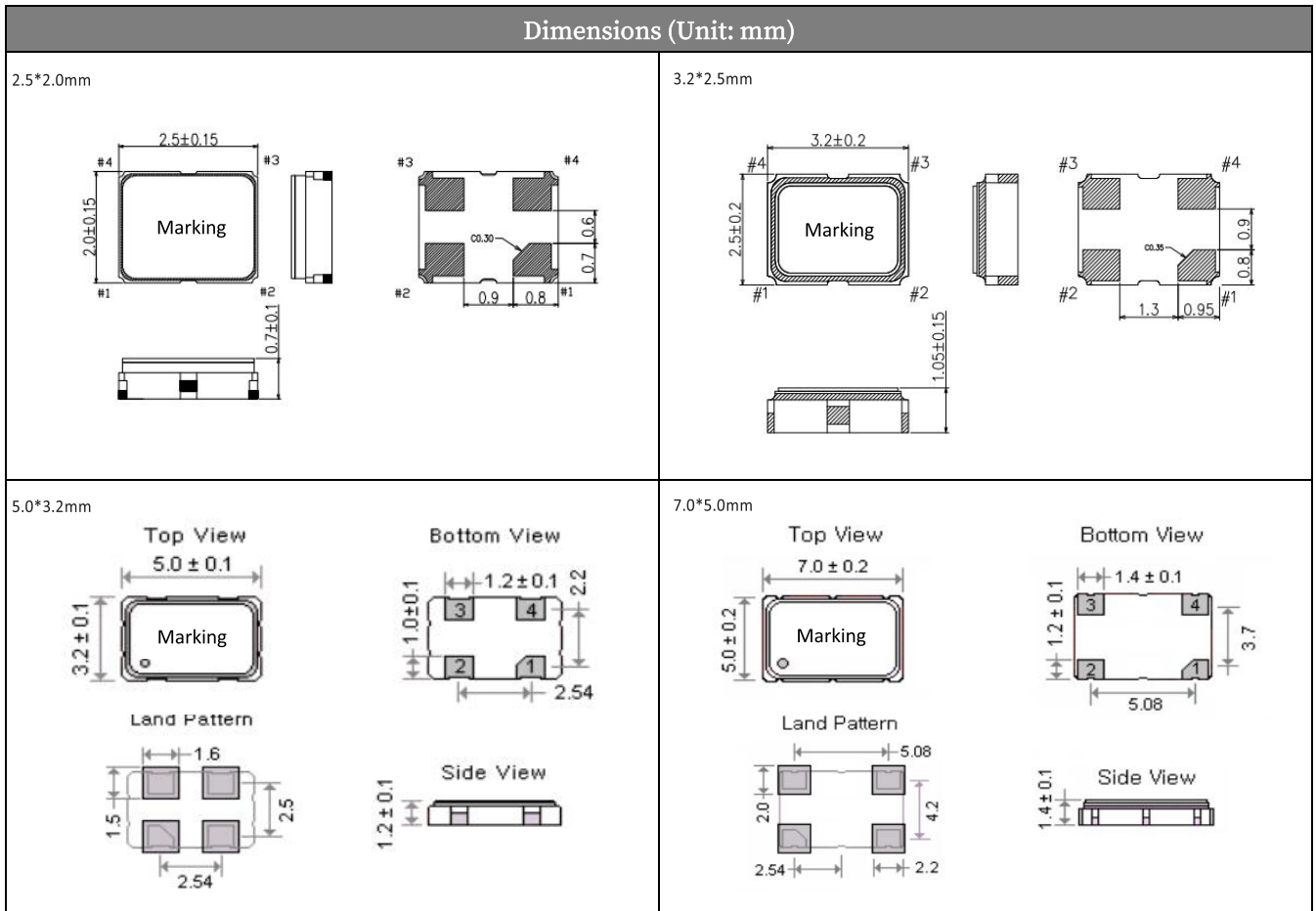
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### Dimensions and Recommended Land Pattern (外观尺寸及推荐焊盘)



| Pin | Name | Function      |   |
|-----|------|---------------|---|
| 1   | OE   | Output enable | High: Specified frequency output from OUT pin                         |
|     |      |               | Low: Out pin is low (weak pull down) , only output driver is disabled |
| 2   | GND  | Ground        |   |
| 3   | OUT  | Clock output  |   |
| 4   | VDD  | Power supply  |   |