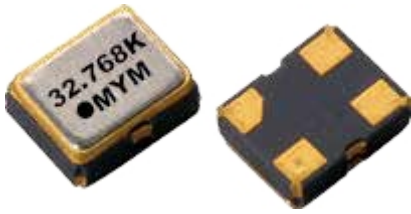


# O221S RTC Series-2.5mm x 2.0mm

## CRYSTAL OSCILLATOR, SPXO



### Features

- Tri-state function.
- 3.3V drive and low current consumption.
- Small supply voltage shift.
- Optimal solution for RF power saving application on portable devices such as smart watches.

### STANDARD SPECIFICATION:

ITEMS		PARAMETER			
Frequency Range		32.768kHz			
Frequency Stability		±25ppm, ±50ppm, ±100ppm			
Option on pin 1		pin 1 Have Control			
POWER voltage		+1.8 V (±10%)	+2.5 V (±10%)	+2.8 V (±10%)	+3.3 V (±10%)
Storage Temp.		-55°C ~ +125°C			
Output Character	"0" Level	10%VDD max			
	"1" Level	90%VDD min			
	Rise Time (Tr)	10% ~ 90%VDD 300ns max			
	Fall Time (Tf)	90% ~ 10%VDD 300ns max			
	Symmetry	60/40 to 40/60 at 50%VDD			
	Output Load	15pF Max.			
Current Consumption	I <sub>cc</sub>	2mA max .			
Stand-by Current (#1 pin "L" Level)	I <sub>std</sub>	10uA max .			
Start-up time		10ms max			

**Packing Unit : 3,000pcs/Reel.**

### DIMENSION

Unit: mm

Pin Connections	
1	OE(Output Enable)
2	GND
3	Output
4	Vdd

**Recommended Land Pattern (Top View)**

### Test Circuit and Output Waveform:

**Measurement Circuit**

C-MOS ※CL:Including Fixture and Probe Capacitance

**Output Waveform**

VOH: 90% Vdd(SA2,4V)  
VOL: 50% Vdd(SA1,4V)  
10% Vdd(SA3,5V)  
0V DC

**Input and Output Condition**