



ZHEJIANG A-CRYSTAL
ELECTRONIC TECHNOLOGY CO., LTD.



Issue	June 27, 2025
Rev.	1.0
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CRYSTAL UNIT SPECIFICATIONS

客户批准 Customer Approval

(请批准后回签一份 Please Return A Copy With Approval)

Customer	
Customer P/N	
Product	SMD 2525 OCXO
Spec	POC2525/5.0M~120.000M
A-Crystal P/N	AG5 Series

Drawn	Checked	Approved
Caogaobang	Fengying	Tanglong

Review Record				
Rev.	Rev. Date	Item	Content	Remark
1.0	2025-02-10		Initial released	

**ZHEJIANG A-CRYSTAL****ELECTRONIC TECHNOLOGY CO., LTD.**

1. ELECTRICAL SPECIFICATIONS

1.1 FEATURE

- ① Ultra Low Phase Noise & Low G-Sensitivity
- ② Hermetically Sealed Package
- ③ Tight Frequency Stability
- ④ Low Power Consumption
- ⑤ Fast Warm-up Time
- ⑥ Electrical Frequency Tuning Input
- ⑦ Reference Voltage Output
- ⑧ RoHS-Compliant (lead-free)

1.2 TYPICAL APPLICATION

- ① Instrument Reference
- ② Microwave Communication
- ③ Clock Reference for Microwave Signal Source
- ④ Test & Measurement
- ⑤ Telecom Systems
- ⑥ Radar Systems
- ⑦ Medical (MRT)

1.3 Hold Type: POC2525

No.	Item	Electrical Specification				Remark
		Min.	Type	Max.	Units	
OUTPUT (PIN = “R.F. OUTPUT”)						
1	Nominal Frequency	5.00		120.00	MHz	
2	Initial Accuracy	-0.3		+0.3	ppm	@ +25 ±1°C,after turn on power 60 minutes, Vco=+5V
3	Waveform	Sine wave				
4	Level	+15			dBm	
5	Load		50		Ω	± 10%
6	Harmonics			-30	dBc	
7	Spurious			-100	dBc	



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No.	Item		Electrical Specification				Remark
			Min.	Type	Max.	Units	
FREQUENCY STABILITY							
8	Ambient		± 50		± 500	ppb	referenced to 25°C
9	Aging	Daily	-5		+5	ppb	After 30 days.
		yearly	-200		+200	ppb	
		15 years	-2		+2	ppm	
10	Voltage		-5		+5	ppb	± 5% change
11	Short term				0.05	ppb	root Allan variance for τ=1 sec
12	Load		-5		+5	ppb	± 10% change
13	Warm-up		-50		+50	ppb	in 5 minutes @ +25 ±1°C, referenced to 1 hour
14	G-Sensitivity (each axis)				1	Ppb/g	
15	Phase Noise		Option A	Option B			Refer to Table 1 : Ordering Information
		@10Hz	-100	-105		dBc/Hz	
		@100Hz	-130	-135		dBc/Hz	
		@1KHz	-157	-162		dBc/Hz	
		@10KHz	-180	-180		dBc/Hz	
		@100KHz	-185	-185		dBc/Hz	
		@1MHz	-185	-185		dBc/Hz	
ELECTRICAL FREQUENCY ADJUSTMENT (PIN = “VCO INPUT”)							
16	Tuning Range		± 2.5			ppm	Referenced to frequency at nominal Center Voltage
17	Control Voltage		0		+10.0	V	
18	Slope			Positive			
19	Center Voltage			+5		V	
20	Linearity		-10		+10	%	
* Sufficient to adjust the oscillator to nominal frequency for 10 years. Some unit will have ±0.7ppm tuning range.							
INPUT POWER (PIN = “+VDC”)							
21	Voltage		+4.75	+5	+5.25	V	
22	Current	Steady State			2.1	W	@ +25°C
23		During Warm-Up			950	mA	@ +25°C



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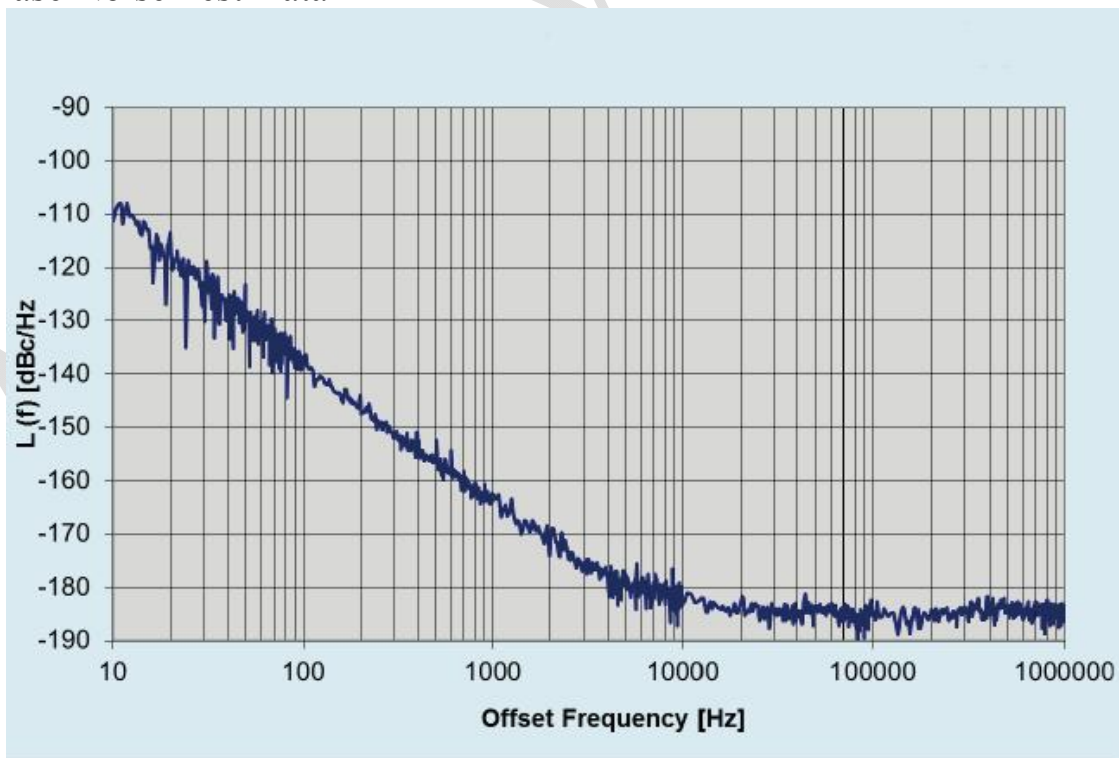


No.	Item	Electrical Specification				Remark
		Min.	Type	Max.	Units	
ENVIRONMENTAL						
24	Operable Temperature	-40		+85	°C	
25	Storage Temperature	-55		+105	°C	
26	Humidity	MIL-STD-202, Method 103 Test Condition A				95% RH @ +40°C, non-condensing, 240 hours
27	Vibration (non-operating)	MIL-STD-202, Method 201				0.06" Total p-p, 10 to 55 Hz
28	Shock (non-operating)	MIL-STD-202, Method 213, Test Condition J				30g, 11ms, half-sine
29	Package type	25.4*25.4*12.8				

Note 1: Output maintained over this temperature range. Other requirements of this specification may not be met when operating outside the temperature range in -40~85°C.

Note 2: Test conditions: VDC = +5 V; VCO = +5 V; at +25 ± 3°C unless otherwise identified.

1.4 Phase Noise Test Data



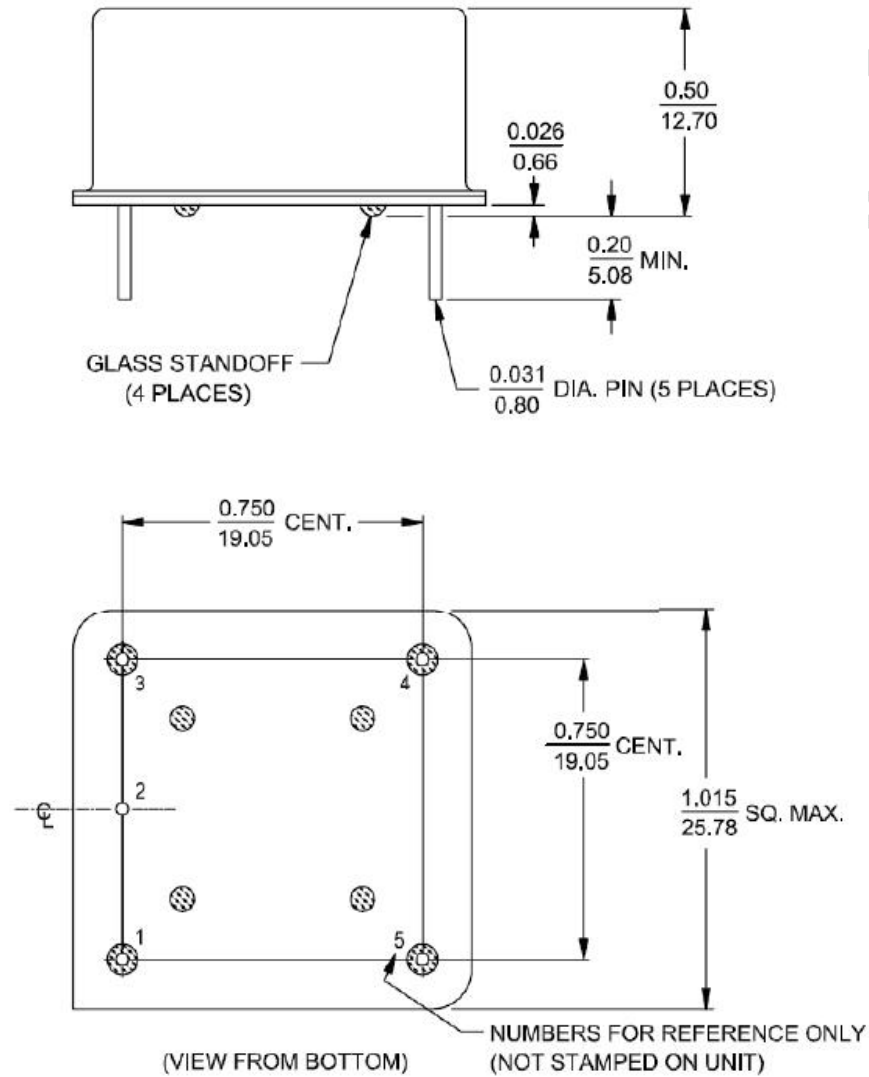


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2. PRODUCT SIZE

2.1 Dimension (Unit: mm)



Pin No.	Function
1	R.F.OUTPUT
2	0 VOLTS & CASE
3	VCO INPUT
4	NOT CONNECTED
5	+VDC