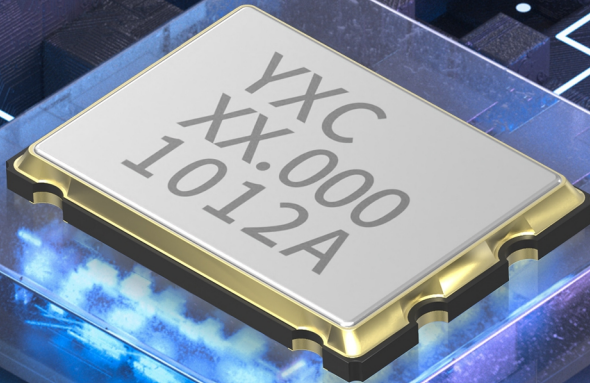


BUILDING WORLD-CLASS TIMING SOLUTIONS

成为国际一流时钟频率器件服务商

 Product manual

 WWW.YXC.HK



30+

30+ years of experience in the clock frequency device industry

100+

100+ countries and regions served by our services

100K+

100K+ m² of innovative product research and development base

About YXC 关于YXC



Shenzhen Yangxing Technology Co., Ltd. (A.K.A YXC Technology) is a semiconductor national hightech enterprise that focuses on the design of RF clock chips and provides frequency device solutions for research, development, production, and sales.

Our main products include programmable crystal oscillators, quartz MEMS oscillators, quartz crystal resonators, and Real-time clock (RTC). YXC's products are widely used in the fields of automotive, communications, industrial, medical, and military industries. Automotive products have passed AEC-Q200 and IATF16949 automotive system certifications

In recent years, YXC has continuously increased its research and development investment in quartz crystal oscillators, gathered a group of high-end R&D talents from China and abroad, successively established a semiconductor R&D center in Taiwan and a South China frequency device production center, successfully developed and mass-produced the domestically leading programmable frequency chips, and won more than 100 patents and honors.

YXC carries on the mission of "Animating technology with vitality, enriching together with partners", adheres to technological innovation as the foundation, and strives to provide excellent products and services to global customers, building a world-class timing solutions providers.

OUR ADVANTAGES 我们的优势

Our Technology

- » NO.1 programmable-oscillator manufacturer in China
- » Self-developed clock chip
- » Rich experience in customized development of high-end products

Our Quality

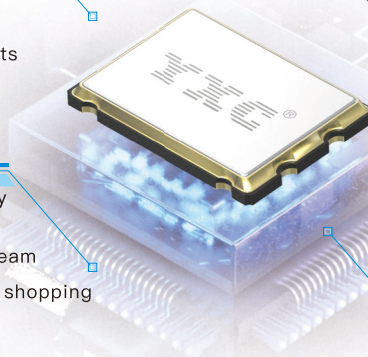
- » Independent Reliability Laboratory
- » 100% traceability of production process
- » IATF16949 certified, quality model enterprise

Our Service

- » Rapid response & sample delivery
- » Over 20 years of professional pre-sales / after-sales service team
- » Complete product line, one-stop shopping

Our Supply

- » Design, development, production and sales of the entire chain through the
- » Strategic cooperation with core material suppliers
- » Digitalized system management for the whole process



Programmable series

YXC石英可编程晶振



High Frequency Range · Customizable

- Frequency range from **1MHz to 2100MHz** (accurate to six decimal places), with customizable frequency

Fast Delivery · Flexible Supply

- Sample delivery within **2 seconds**, with the ability to flexibly adjust designs.
- Fastest batch delivery within one week, with flexible stocking options.

Excellent Performance · Ultimate Options

- Ultra-high precision of $\pm 2.5\text{PPM}$ (min.)
- Ultra-low jitter of **150fs** (min.)
- Wide temperature range of -40°C to $+125^{\circ}\text{C}$ (min.)

Complete Categories · One-Stop Purchasing

- Covering SPXO/VCXO/VC-TCXO/TCXO categories
- Package coverage from 2016 to 7050
- Providing CMOS/LVDS/LVPECL/HCSL/CML output options

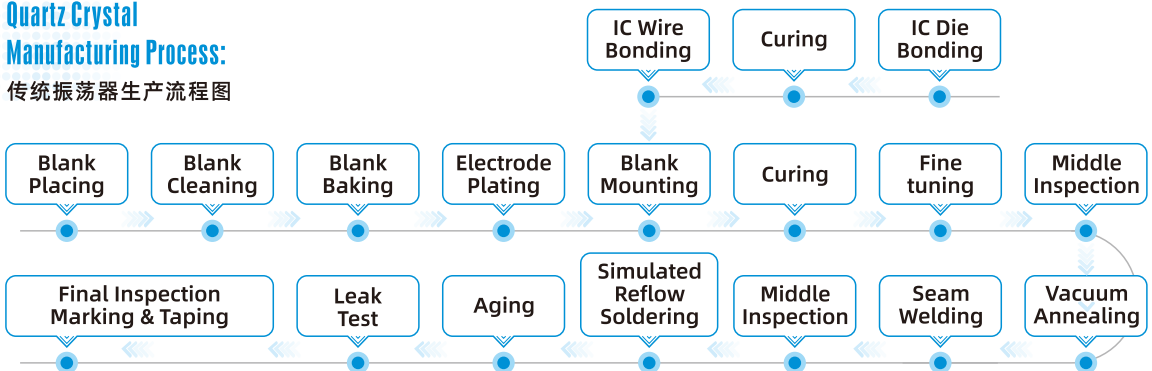
Programmable Oscillator Manufacturing Process:

石英可编程生产流程图










Quartz Crystal Manufacturing Process:

传统振荡器生产流程图






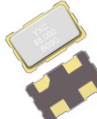


32.768kHz Tuning Fork Quartz Crystals

Series	Package Size [mm]	Frequency	Load Capacitance	Features
YT-26 	2.0*6.0	32.768 kHz	12.5 pF	cost-effective solution
YT-38 	3.0*8.0	32.768 kHz	12.5 pF	cost-effective solution
POPULAR YSX1610SK 	1.6*1.0*0.5	32.768 kHz	7, 9, 12.5 PF, or specify	Seam sealed metal SMD package
POPULAR YSX2012SK 	2.0*1.2*0.6	32.768 kHz	7, 9, 12.5 PF, or specify	Seam sealed metal SMD package
HOT! YST310S 	3.2*1.5*0.8	32.768 kHz	7, 9, 12.5 PF, or specify	Seam sealed metal SMD package
YSX146GA 	7.0*1.5*1.4	32.768 kHz	7, 9, 12.5 PF, or specify	/
YSX306GA 	8.0*3.8*2.5	32.768 kHz	7, 9, 12.5 PF, or specify	/





MHZ Quartz Crystals

Series	Package Size [mm]	Frequency Range	Load Capacitance	Features
HC-49US 	11.5*4.5*3.68	3.2768 ~ 32 MHz	7 to 22 pF or specify	/
HC-49SMD 	11.4*4.8*3.8	3.2768 ~ 32 MHz	7 to 22 pF or specify	/
HC-49XSMD 	6.1*4.0*2.0	8 ~ 50 MHz	7 to 22 pF or specify	/
YSX1210SL 	1.2*1.0*0.4	32 ~ 60 MHz	6 to 22 pF or specify	Ultra thin package
YSX1612SL 	1.6*1.2*0.4	24 ~ 60 MHz	6 to 22 pF or specify	Ultra thin package
HOT! YSX211SL 	2.0*1.6*0.5	16 ~ 54, or 96 MHz	6 to 22 pF or specify	Ultra thin package
YSX221SL 	2.5*2.0*0.6	12 ~ 54 MHz	7 to 22 pF or specify	Seam sealed metal SMD package
HOT! YSX321SL 	3.2*2.5*0.7	8 ~ 64 MHz	7 to 22 pF or specify	Seam sealed metal SMD package
YSX531SL 	5.0*3.20*0.9	8 ~ 54 MHz	7 to 22 pF or specify	Seam sealed metal SMD package
YSX530GA 	5.0*3.2*1.2	8 ~ 54 MHz	7 to 22 pF or specify	Seam sealed ceramic SMD package
YSX211TS 	2.0*1.6*0.7	19.2, 38.4, 76.8 MHz, or specify	7 to 22 pF or specify	Excellent frequency stability over temperature
YSX221TS 	2.5*2.0*1.0	19.2, 38.4, 76.8 MHz, or specify	7 to 22 pF or specify	Excellent frequency stability over temperature




SPXO(CMOS Output)

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
 YSO110TR 	1.6*1.2*0.8 2.0*1.6*0.8 2.5*2.0*0.8 3.2*2.5*1.0 5.0*3.2*1.2 7.0*5.0*1.4	1 ~ 125 MHz, or specify	1.8 to 3.3V CMOS	High reliability OSC
YSO120TK 	1.6*1.2*0.8 2.0*1.6*0.8 2.5*2.0*0.8 3.2*2.5*0.9 5.0*3.2*1.2 7.0*5.0*1.4	32.768 kHz	1.8 to 3.3V CMOS	32.768kHz OSC.
YSO130HR 	3.2*2.5*0.9 5.0*3.2*1.2 7.0*5.0*1.4	1 ~ 100 MHz, or specify	5V CMOS	High reliability OSC
 YSO150HT 	1.6*1.2*0.6 2.0*1.6*0.8 2.5*2.0*0.8 3.2*2.5*1.0	1 ~ 125 MHz, or specify	1.8 to 3.3V CMOS	Wide temperature range: up to -40 to +125°C





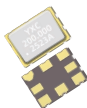
SPXO(Differential Output)

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
 YSO230LR 	2.5*2.0*1.1 3.2*2.5*1.2 5.0*3.2*1.3 7.0*5.0*1.3	13.5 ~ 200 MHz	1.8V/ 2.5 to 3.3V LVDS / LVPECL / HCSL	Low jitter: 0.1ps (Typ.)
 YSO231LJ 	2.5*2.0*1.0 3.2*2.5*1.0 5.0*3.2*1.2 7.0*5.0*1.7	100 ~ 250 MHz	1.8/ 2.5/ 3.3V LVDS / LVPECL/ HCSL	Ultra low jitter: 0.05ps (Typ.)




TCXO/ VCTCXO

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
 YSO510TP 	2.0*1.6*0.7 2.5*2.0*0.8 3.2*2.5*1.2 5.0*3.2*1.3 7.0*5.0*2.3	10 ~ 52 MHz	1.8/ 2.5/ 3/ 3.3V CMOS/ Clipped Sine Wave	Superior frequency stability: ±0.28 ppm (available)
YSV350TP 	3.2*2.5*1.0 5.0*3.2*1.2 7.0*5.0*2.3	6.4 ~ 60MHz, or specify	1.8/ 2.5/ 3/ 3.3V CMOS	Superior frequency stability: ± 0.5 ppm (available)

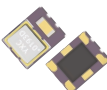

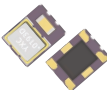
Programmable SPXO(CMOS Output)

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
 YSO690PR 	2.0*1.6*0.8 2.5*2.0*0.8 3.2*2.5*0.9 5.0*3.2*1.2 7.0*5.0*1.3	1 ~ 200 MHz	1.8/ 2.5/ 3.3V CMOS	Wide frequency range available Fast delivery
 YSO691ER 	5.0*3.2*1.8 7.0*5.0*1.8	1 ~ 200 MHz	1.8/ 2.5/ 3.3V CMOS	Low cost solutions/ Shock resistant
YSO692PR 	3.2*2.5*1.0 5.0*3.2*1.4 7.0*5.0*1.8	150~250MHz	1.8/ 2.5/ 3.3V CMOS	Ultra low jitter: 0.159 ps typ. @ 156.250 MHz



Programmable SPXO(Differential Output)

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
 YSO210PR 	3.2*2.5*1.2 5.0*3.2*1.3 7.0*5.0*1.3	10~1500MHz	2.5/ 3.3V LVDS/ LVPECL	Wide frequency range available Fast delivery
YSO211PJ 	3.2*2.5*1.0 5.0*3.2*1.4 7.0*5.0*1.8	150~2100MHz	1.8 / 2.5 / 3.3V LVDS/ PECL/ HCSL/ CML	Wide frequency range available Ultra low jitter: 0.159 ps typ. @ 156.250 MHz



Programmable TCXO

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
YSO511PJ 	3.2*2.5*1.6 7.0*5.0*2.5	10~250MHz	2.5/ 3.3V CMOS	Wide frequency range available/ Fast delivery Superior frequency stability: ±2.5 ppm (max.)
 YSO250PT 	3.2*2.5*1.6 7.0*5.0*2.5	10~1500MHz	2.5/ 3.3V LVDS/ LVPECL	Wide frequency range available/ Fast delivery Superior frequency stability: ±2.5 ppm (max.)

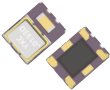
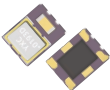
Programmable VCXO(CMOS Output)

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
YSV310PR 	3.2*2.5*1.2 5.0*3.2*1.3 7.0*5.0*1.3	10~250MHz	2.5 to 3.3V CMOS	Wide pull range: ±50ppm (min) Low jitter: 1.0 ps typ.
YSV311PJ 	5.0*3.2*1.4 7.0*5.0*1.8	15~250MHz	1.8/ 2.5/ 3/ 3.3V CMOS	Wide pull range: ± 200ppm Ultra low jitter: 0.159 ps typ. @156.25 MHz









Programmable VCXO(Differential Output)

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
YSV220PR 	3.2*2.5*1.2 5.0*3.2*1.3 7.0*5.0*1.3	10~1500MHz	2.5 to 3.3V LVDS/ LVPECL	Wide frequency range available Fast delivery
YSV221PJ 	5.0*3.2*1.4 7.0*5.0*1.8	15~2100MHz	1.8/ 2.5/ 3.3V LVDS/ PECL/ HCSL/ CML	Wide pull range: ± 200 ppm Ultra low jitter: 0.163 ps typ. @ 2000 MHz



Programmable VCTCXO

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
YSV531PT 	3.2*2.5*1.6 7.0*5.0*2.5	10~250MHz	2.5/ 3.3V CMOS	Wide frequency range available/ Fast delivery Superior frequency stability: ±2.5 ppm (max.)
YSV322PT 	3.2*2.5*1.6 7.0*5.0*2.5	10~1500MHz	2.5/ 3.3V LVDS/ PECL	Wide frequency range available/ Fast delivery Superior frequency stability: ±2.5 ppm (max.)

Automotive Grade Quartz Crystals

Series	Package Size [mm]	Frequency Range	Load Capacitance	Features
YSX1612SC 	1.6*1.2*0.3	24 ~ 60MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949
YSX211SC 	2.0*1.6*0.5	16 ~ 72MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949
YSX221SC 	2.5*2.0*0.5	12 ~ 80MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949
 YSX321SC 	3.2*2.5*0.7	8 ~ 66MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949
YSX530SC 	5.0*3.2*1.1	7.6 ~ 54MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949
YSX531SC 	5.0*3.2*0.8	7.6 ~ 54MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949
YSX532GC 	5.0*3.2*1.1	12 ~ 48MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949

Automotive Grade Quartz Oscillators

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
 YSO140TC 	1.6*1.2*0.6 2.0*1.6*0.8 2.5*2.0*0.8 3.2*2.5*1.2 5.0*3.2*1.2 7.0*5.0*1.4	1 ~ 54MHz, or specify	1.8 to 3.3V CMOS	AEC-Q200 & IATF 16949

Cooperative partner

合作伙伴



YANGXING HEADQUARTER

扬兴（深圳）总部

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深圳生产研发基地 | R&D

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