

PIONEERING THE FUTURE OF FREQUENCY SOLUTIONS WORLDWIDE

 Product Catalog

 www.yxcxstal.com

YXC
XX.000
1012A

30+

30+ years in frequency control
and timing devices

100+

Global presence across
100+ countries

100K+

100,000+ m² integrated
R&D and production base

Crystal oscillator About 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.

Crystal Resonator

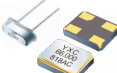
kHz Crystal

32.768kHz
1610~8038



MHz Crystal

49 Type/SMD Type
3.2768MHz~96MHz



Thermistor Crystal

Excellent frequency
stability over temperature



Crystal Oscillator

SPXO

CMOS Output
32.768kHz, 1MHz ~ 125MHz



(VC)TCXO

$\pm 0.1\text{ppm} \sim \pm 2.5\text{ppm}$
Ultra-high precision,
temperature-compensated circuit



Programmable XO

Ultra-high frequency, flexible
customization, fast delivery



Differential XO

LVDS/ LVPECL/HSDL/CML Output
Ultra-low jitter: 0.05ps



VCXO

Precise frequency tuning
Excellent phase noise



OCXO

Ultra-high stability, low phase noise, minimal
aging, and strong vibration resistance



Clock Chip

RTC Chip

Discrete RTC
External 32k crystal
Cost-effective solution



RTC Module

Built-in 32.768kHz crystal
Low power consumption,
high precision and small size



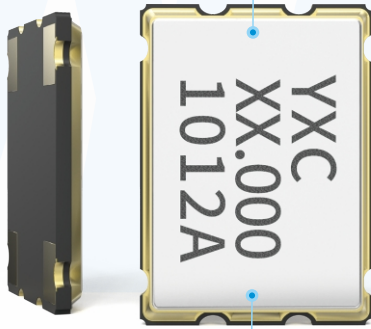
Clock Buffer/ Generator

Precise frequency output, flexible configuration
Multi-channel output, simplified design



Crystal oscillator

YXC Programmable Oscillators



Wide Frequency Range with Full Customization

- Supports any frequency from **1 MHz to 2100 MHz**, configurable to six decimal places

Rapid Prototyping & Flexible Supply

- Samples ready in just **2 seconds** — ideal for fast design verification and tuning
- Mass production lead time as short as 1 week, supporting agile supply needs

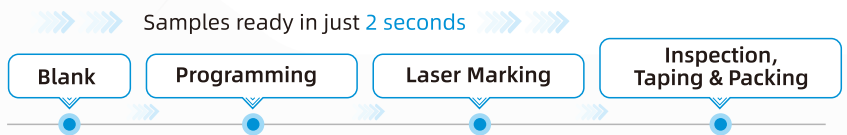
Exceptional Performance with Ultra-Fine Options

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

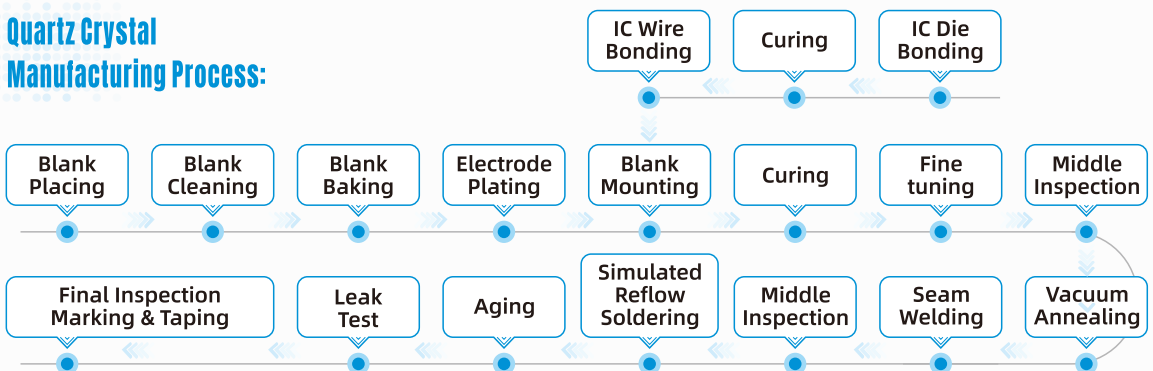
Comprehensive Portfolio for One-Stop Selection

- Supports SPXO, VCXO, VCTCXO, and TCXO
- Package sizes from 2016 to 7050
- Output options: CMOS, LVDS, LVPECL, HCSL, and CML

Programmable Oscillator Manufacturing Process:



Quartz Crystal Manufacturing Process:



Tuning Fork Quartz Crystals

Series	Package Size [mm]	Frequency	Features
YT-26 	2.0*6.0	32.768 KHz	Cost-effective solution
YT-38 	3.0*8.0	32.768 KHz	Cost-effective solution
YQM26K 	2.0*6.0	30 ~ 350KHz	A great number of standard frequencies
YQM38K 	3.0*8.0	30 ~ 350KHz	A great number of standard frequencies
YQM26KF 	8.0*2.0*2.54	25.600 ~ 307.200KHz (standard: 32.768KHz)	A great number of standard frequencies
YQM206FA 	8.0*2.1*2.7	25.600 ~ 307.200KHz (standard: 32.768KHz)	A great number of standard frequencies
YSX1210SK 	1.2*1.0*0.5	32.768KHz	Ultra small size 1.2x1.0x0.5 mm
 YSX1610SK 	1.6*1.0*0.5	32.768 KHz	Seam sealed metal SMD package
 YSX2012SK 	2.0*1.2*0.6	32.768 KHz	Seam sealed metal SMD package
 YST310S 	3.2*1.5*0.8	32.768 KHz	Seam sealed metal SMD package
YSX146GA 	7.0*1.5*1.5	32.768 KHz	/
YSX306GA 	8.0*3.8*2.6	32.768 KHz	/
YQM49XKS 	3 x 7mm/SMD	32.768KHz	Cost-effective solution
YQM415SK 	4.1*1.5*0.9	32.768KHz	P2P to FC-145, DST410S, CM415 , Fk145
YQM406SK 	10.4*4.6*3.6	25.600 ~ 307.20KHz (standard: 32.768KHz)	P2P to MC-406

MHZ Quartz Crystals

Series	Package Size [mm]	Frequency Range	Features
YQM26M 	2.0*6.0	3.579 ~ 50MHz	A great number of standard frequencies
YQM38M 	3.0*8.0	3.579 ~ 50MHz	A great number of standard frequencies
HC-49SMD 	11.4*4.8*3.8	3.2768 ~ 32 MHz	/
HC-49XSMD 	6.1*4.0*2.3	8 ~ 50 MHz	/

HC-49US 	11.5*4.5*3.5	3.2768 ~ 32 MHz	/
YQM-49US3 	HC-49/S (11.0 x 4.6)	3MHz~80MHz	GND pin
YQM-49UT 	HC-49/U (11 x 13.5)	1.8432MHz ~ 100MHz	low insertion loss
YQM-495T 	UM-5 (8 x 5.8)	1.8432MHz ~ 100MHz	low insertion loss
YQM-491T 	UM-1 (8 x 8)	12MHz ~ 35MHz	low insertion loss
YSX1210SL 	1.2*1.0*0.4	32 ~ 60 MHz	Ultra miniature
YSX1612SL 	1.6*1.2*0.4	24 ~ 60 MHz	Ultra miniature
 YSX211SL 	2.0*1.6*0.5	16 ~ 54, or 96 MHz	Ultra miniature
YSX221SL 	2.5*2.0*0.6	12 ~ 54 MHz	Seam sealed metal SMD package
 YSX321SL 	3.2*2.5*0.7	8 ~ 64 MHz	Seam sealed metal SMD package
YSX531SL 	5.0*3.2*0.9	8 ~ 54 MHz	Seam sealed metal SMD package
YSX530GA 	5.0*3.2*1.2	8 ~ 54 MHz	Seam sealed ceramic SMD package
YQM631SL 	6.0*3.5*1.0	7.3728M~100.000M	Seam sealed metal SMD package
YQM630GA 	6.0 x 3.5 (GLASS 2PINS)	8MHz ~ 50MHz	Seam sealed metal SMD package
YQM751SL 	7.0*5.0*1.1	6.000M~100.000M	Seam sealed metal SMD package
YQM840GA 	8.0*4.5*1.6	4.000M~80.000M	Seam sealed metal SMD package
YQM406MA 	10.4*4.06*3.6	7.3728M~90.000M	P2P to MA-406
YSX211TS 	2.0*1.6*0.7	19.2, 38.4, 76.8 MHz, or specify	Excellent frequency stability over temperature
YSX221TS 	2.5*2.0*1.0	19.2, 38.4, 76.8 MHz, or specify	Excellent frequency stability over temperature

Automotive Grade Quartz Crystals

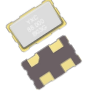
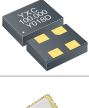
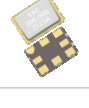
Series	Package Size [mm]	Frequency Range	Load Capacitance	Features
YSX1612SC 	1.6*1.2*0.4	24 ~ 60MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949
YSX211SC 	2.0*1.6*0.5	16 ~ 72MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949

HOT!

YSX221SC 	2.5*2.0*0.6	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
YSX531SC 	5.0*3.2*0.9	7.6 ~ 54MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949
YSX530SC 	5.0*3.2*1.2	7.6 ~ 54MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949
YSX532GC 	5.0*3.2*1.2	12 ~ 48MHz	6 to 22 pF or specify	AEC-Q200 & IATF 16949

SPXO-CMOS Output

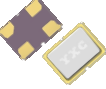
HOT!

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*0.9 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*0.9 3.2*2.5*1.0 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*1.0 5.0*3.2*1.2 7.0*5.0*1.4	1 ~ 100 MHz, or specify	5V CMOS	High reliability OSC
YSO131LR 	2.0*1.6*0.8 2.5*2.0*0.9 3.2*2.5*1.0 5.0*3.2*1.2 7.0*5.0*1.4	8 ~ 50 MHz, or specify	1.2V(typ.) 0.8 to 2.0V CMOS	Low Voltage Osc 1.2V(typ.), 0.8~2.0V, Low current consumption: 1mA (min.)
YSO150HT 	1.6*1.2*0.8 2.0*1.6*0.8 2.5*2.0*0.9 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
YSO690PR  programmable	2.0*1.6*0.8 2.5*2.0*0.9 3.2*2.5*0.9 5.0*3.2*1.2 7.0*5.0*1.4	1 ~ 200 MHz	1.8/ 2.5/ 3.3V CMOS	Wide frequency range available Fast delivery
YSO691ER  programmable	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  programmable	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
YSO1512SR 	20.4×13.1×5.3	0.25 MHz~ 180 MHz	5V,3.3V	/
YSO1212SR 	12.9×12.9×5.3	0.25 MHz~ 180 MHz	5V,3.3V	/

Automotive Grade Quartz Oscillators

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
 YSO140TC 	1.6*1.2*0.8 2.0*1.6*0.8 2.5*2.0*0.9 3.2*2.5*1.0 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

SSXO (EMI reduction)

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
 YSO171PS programmable 	2.5*2.0*0.7 3.2*2.5*1.0 5.0*3.2*1.2 7.0*5.0*1.4	1~200 MHz	1.8 to 3.3V CMOS	Spread types: center spread or down spread Spread percentage: $\pm 0.125\% \sim \pm 2\%$

SPXO-Differential Output

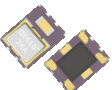
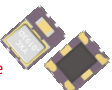
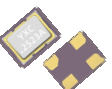
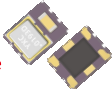
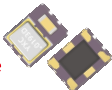
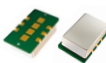
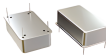
Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
YSO230LR 	2.5*2.0*1.1 3.2*2.5*1.2 5.0*3.2*1.3 7.0*5.0*1.6	13.5 ~ 200 MHz	1.8V/ 2.5 to 3.3V LVDS / LVPECL / HCSL	Low jitter: 0.1ps (typ.)
 YSO231LJ 	2.5*2.0*1.0 3.2*2.5*1.0 5.0*3.2*1.2 7.0*5.0*1.8	100 ~ 250 MHz	1.8/ 2.5/ 3.3V LVDS / LVPECL / HCSL	Ultra low jitter: 0.05ps (typ.)
YSO210PR programmable 	3.2*2.5*1.2 5.0*3.2*1.3 7.0*5.0*1.6	10~1500MHz	2.5/ 3.3V LVDS/ LVPECL	Wide frequency range available Fast delivery
YSO211PJ programmable 	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

VCXO

Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
YSV310PR programmable 	3.2*2.5*1.2 5.0*3.2*1.3 7.0*5.0*1.6	10~250MHz	2.5/ 3.3V CMOS	Wide pull range: $\pm 50\text{ppm}$ (min.) Low jitter: 1.0 ps typ.
YSV311PJ programmable 	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: $\pm 200\text{ppm}$ Ultra low jitter: 0.159 ps typ. @156.25 MHz
YSV220PR programmable 	3.2*2.5*1.2 5.0*3.2*1.3 7.0*5.0*1.6	10~1500MHz	2.5/ 3.3V LVDS/ LVPECL	Wide frequency range available Fast delivery
YSV221PJ programmable 	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: $\pm 200\text{ppm}$ Ultra low jitter: 0.163 ps typ. @ 2000 MHz

YSV1409SM 	14.2*9.3*5.4	30 ~ 250MHz	3.3V、5V CMOS	Wide frequency control range
YSV2012DP 	20.3*12.6*5.0	1 ~ 80MHz	3.3V、5V CMOS	Wide frequency control range
YSV1212DP 	12.6*12.6*5.0	1 ~ 80MHz	3.3V、5V CMOS	Wide frequency control range

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: ±2.5ppm (typ.), ±0.28 ppm (available)
YSO512ET 	5.0*3.2*1.6 7.0*5.0*2.1	10, 12, 12.8, 19.2, 20, 24.576, 25, 30, 32, 40, 48, 50MHz, or specify	1.8/ 2.5/ 3/ 3.3V CMOS/ Clipped Sine Wave	Ultra high precision: ±0.1 ppm (available)
YSO511PJ programmable 	3.2*2.5*1.6 7.0*5.0*2.6	10~250MHz	2.5/ 3.3V CMOS	Wide frequency range available/Fast delivery Superior frequency stability: ±2.5 ppm (max.)
YSO250PT programmable 	3.2*2.5*1.6 7.0*5.0*2.6	10~1500MHz	2.5/ 3.3V LVDS/ LVPECL	Wide frequency range available/Fast delivery Superior frequency stability: ±2.5 ppm (max.)
YSO251PJ programmable 	3.2*2.5*1.6 5.0*3.2*1.4	15~2100 MHz	1.8/ 2.5/ 3.3V PECL/ LVDS/ HCSL/ CML	Wide frequency range available/Fast delivery Ultra low jitter: 0.25 ps typ. @ 1200 MHz
 YSV350TP 	2.0*1.6*0.7 2.5*2.0*0.8 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/ Clipped Sine Wave	Superior frequency stability: ± 0.5 ppm (available)
YSV531PT programmable 	3.2*2.5*1.6 7.0*5.0*2.6	10~250MHz	2.5/ 3.3V CMOS	Wide frequency range available/Fast delivery Superior frequency stability: ±2.5 ppm (max.)
YSV322PT programmable 	3.2*2.5*1.6 7.0*5.0*2.6	10~1500MHz	2.5/ 3.3V LVDS/ PECL	Wide frequency range available/Fast delivery Superior frequency stability: ±2.5 ppm (max.)
YVT1409SM 	14.3*8.7	5~40MHz	2.5/ 3.3V CMOS	Wide frequency control range High stability
YVT1212DP 	12.9*12.9*5.5	1~200MHz	2.5/ 3.3V CMOS	Wide frequency control range High stability
YVT2012DP 	20.4*12.8*7.8	10~52MHz	2.5/ 3.3V CMOS	Wide frequency control range High stability

Real-Time Clock

	Series	Package Size [mm]	Power consumption (μA)	Stability	Features
	YSN8563 	SOP-8/TSSOP-8	0.9μA(typ.)	/	External crystal
	YSN8025 	SOP-14	1μA(typ.)	±3.4ppm@-40°C ~ +85°C	built-in 32khz Crystal Low power consumption
	YSN8130 	3.2*2.5*1.0	0.9μA(typ.)	5±23ppm@25°C	built-in 32khz Crysta Low power consumption
	YSN8010 	SOP-8	1μA(typ.)	±20ppm@-20°C ~ +70°C ±50ppm@-40°C ~ +85°C	built-in 32khz Crystal Low power consumption
	YSN8111 	3.2*2.5*1.0	0.25μA(typ.)	±11.5ppm @ 25°C	built-in 32khz Crystal Backup power supply; Ultra-low power
	YSN8900 	3.2*2.5*1.0	0.55μA(typ.)	±3.4ppm or ±5ppm @ -40°C ~ +85°C Ext. ±8ppm@ +85°C ~ +105°C	built-in 32khz Crystal Backup power supply; Ultra-low power; Ultra-high precision compensation

Oven Controlled Crystal Oscillator

	Series	Package Size [mm]	Frequency Range	Supply Voltage	Features
	YOV0907SM 	9.7*7.5*3.9	10~100MHz	3.3V、5V CMOS	Ultra miniature
	YOV1409SM 	14.4*9.5*6.5	10~100MHz	3.3V、5V CMOS/ Sine Wave	Ultra miniature
	YOV2020DP 	20.2*20.2*10.0	5~100MHz	3V、5V CMOS/ Sine Wave	Ultra high stability: ±0.5 ppb (min.)
	YOV2522SM 	25.4*22.0*12.0	5~100MHz	3.3V、5V CMOS/ Sine Wave	Ultra high stability: ±0.2 ppb (min.)
			5~10MHz	12V Sine Wave	1Hz offsets-120dBc/Hz@10MHz Superior frequency stability:±0.5 ppb (min.) 1s Allans1.5E-13 1Hz offsets-120dBc/Hz@10MHz
	YOV2525DP 	25.4*25.4*13.0	80~120MHz	3.3V、5V、12V CMOS/ Sine Wave	1KHz offset<- 165dBc/Hz 1MHz offset<-185dBc/Hz
			5~100MHz	3.3V、5V、12V CMOS/ Sine Wave	Ultra high stability: ±0.2 ppb (min.)

YOV3627DP 	36.2*27.2*13.5	80~120MHz	3.3V、5V、12V CMOS/ Sine Wave	(Ultra-low phase noise) 1KHz offset<- 165dBc/Hz 1MHz offset<-185dBc/Hz
		5~10MHz	12V Sine Wave	1Hz offsets<-120dBc/Hz@10MHz Superior frequency stability:±0.5 ppb (min.) 1s Allans1.5E-13 1Hz offsets<-120dBc/Hz@10MHz
		5~100MHz	3.3V、5V、12V CMOS/ Sine Wave	Ultra high stability: ±0.1 ppb (min.)
YOV5050DP 	50.8*50.8*19	5~10MHz	12V Sine Wave	1Hz offsets<-120dBc/Hz@10MHz Superior frequency stability:±0.5 ppb (min.) 1s Allans1.5E-13 1Hz offsets<-120dBc/Hz@10MHz
		5~200MHz	5V、12V CMOS/ Sine Wave	Ultra high stability: ±0.01 ppb (min.)

SAW Fliter

Series	Package Size [mm]	Frequency	Features
YQM1109FP 	1.1*0.9*0.6	110~3550MHz	Cost-effective
YQM1411FP 	1.4*1.1*0.6	110~3550MHz	Cost-effective
YQM1814FP 	1.8*1.4*0.6	110~3550MHz	Cost-effective
YQM2015FP 	2.0*1.5*0.6	110~3550MHz	Cost-effective
YQM2520FP 	2.5*2.0*0.6	110~3550MHz	Cost-effective
YQM3030FP 	3.0*3.0*0.13	110~3550MHz	Cost-effective
YQMF11F 	11*4.5*3.2	110~3550MHz	low insertion loss
YQM1365F 	13.3*6.5*0.76	110~3550MHz	low insertion loss
YQM3030F 	3.0*3.0*0.13	110~3550MHz	low insertion loss
YQM3838F 	3.8*3.8*1.5	110~3550MHz	low insertion loss
YQM5050F 	5.5*5.5*1.5	110~3550MHz	low insertion loss

SAW Resonator

Series	Package Size [mm]	Frequency	Features
YQM2016RP 	2.0*1.6*1	154-1000MHz	A great number of standard frequencies
YQMD11R 	8.3*3.45*5	154-1000MHz	A great number of standard frequencies
YQMF11R 	11*4.5*3.2	154-1000MHz	A great number of standard frequencies
YQMT039R 	9.14*5.08	154-1000MHz	A great number of standard frequencies
YQM3070R 	3.0*7.0	154-1000MHz	A great number of standard frequencies
YQM3030R 	3.0*3.0*0.13	154-1000MHz	A great number of standard frequencies
YQM3225R 	3.2*2.5	154-1000MHz	A great number of standard frequencies
YQM3838R 	3.8*3.8	154-1000MHz	A great number of standard frequencies
YQM5050R 	5.0*5.0	154-1000MHz	A great number of standard frequencies

Crystal oscillator
Cooperative partner



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