

Our Products

OCXO
0.06-200ppb

TCXO
0.1-2ppm

**Crystal Oscillators/
VCXO**
25-100ppm

Crystal Units
10-100ppm

Frequency Stability: ppm > ppb



Marine communication
Aerial radio
Satellite
Femtocell

- TCXO, VCXO
- X'TAL, TCXO
- OCXO
- TCXO, OCXO



Car
GPS

- X'TAL, XO, TCXO
- X'TAL, TCXO



Watch
DSC
Mobile phone

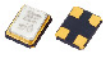
- Tuning Fork
- X'TAL, XO
- X'TAL, TCXO



Personal Computer
Scanner
Satellite TV
Radio
DVD player
FAX
Cordless telephone
ADSL
WiMAX
High Speed Network
Base Station

- X'TAL, XO
- X'TAL, XO
- X'TAL, TCXO
- X'TAL, TCXO
- X'TAL, XO
- X'TAL, OCXO, TCXO
- X'TAL
- X'TAL, XO
- TCXO, OCXO
- XO, VCXO
- VCXO, TCXO, OCXO

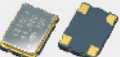
Crystal Units

TYPE		PACKAGE	FREQ. RANGE	FEATURE
NEW XZ		2.0 x 1.6 x 0.45mm Ceramic SMD Package	20MHz ~ 50MHz	• Smaller Size • Tight Tolerance
HOT XY		2.5 x 2.0 x 0.55mm Ceramic SMD Package	16MHz~54MHz	• Smaller Size • Tight Tolerance
HOT XX		3.2 x 2.5 x 0.7mm Ceramic SMD Package	12MHz~54MHz	• Tight Tolerance
X2		3.2 x 2.5 x 0.8mm Ceramic SMD package Glass Seal	12MHz~48MHz	• Full Ceramic Package
XV		5.0 x 3.2 x 0.9mm Ceramic SMD Package	11MHz~80MHz	• Tight Tolerance
XS		5.0 x 3.2 x 1.3mm Ceramic SMD Package Glass Seal	10MHz~50MHz	• Full Ceramic Package
XR		6.0 x 3.5 x 1.0mm Ceramic SMD Package	8MHz~49MHz	• Tight Tolerance
XQ		8.0 x 4.5 x 1.5mm Ceramic SMD Package Glass Seal	7.3728MHz~70MHz	• Full Ceramic Package
XI		11.1 x 4.68 x 3.51mm Metal Can Through Hole Package	3.5MHz~80MHz	• Standard Footprint • Low Profile For Close PCB Stacking
XJ		13.0 x 4.85 x 4.2mm Metal Can SMD Package	3.5MHz~80MHz	• Metal Can SMD Package

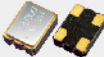
Tuning Fork Crystal Units

TYPE		PACKAGE	FREQ. RANGE	FEATURE
XB		2.0 x 6.0mm Through Hole Package	32.768kHz	• Watch Crystal
XA		3.0 x 8.0mm Through Hole Package	32.768kHz	• Watch Crystal
HOT XD		3.2 x 1.5 x 0.8mm 4.1 x 1.5 x 0.8mm Ceramic SMD Package	32.768kHz	• Low Profile SMD Watch Crystal
XN		6.9 x 1.4mm 8.0 x 3.8mm Plastic SMD Package	32.768kHz	• SMD Watch Crystal

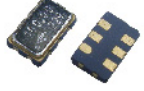
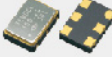
Crystal Oscillators (CMOS Output)

TYPE		PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
HOT OY		2.5 x 2.0 x 0.9mm Ceramic SMD Package	32.768kHz ~ 50MHz	CMOS	• Smaller Size • Low Jitter • Low Standby Current
HOT OX		3.2 x 2.5 x 1.05mm Ceramic SMD Package	32.768kHz~125MHz	CMOS	• Low Jitter • Low Standby Current
OV		5.0 x 3.2 x 1.2mm Ceramic SMD Package	13.7kHz~125MHz	CMOS	• Low Jitter • Low Standby Current
OC		7.0 x 5.0 x 1.4mm Ceramic SMD Package	13.7kHz ~ 166MHz	CMOS	• Low Jitter • Low Standby Current
OC-M		7.0 x 5.0 x 1.4mm Ceramic SMD Package	1MHz~200MHz	CMOS	• Up To 200MHz

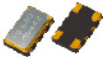
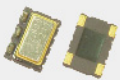
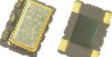
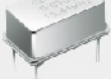
Programmable Crystal Oscillators

TYPE		PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
HOT PY		2.5 x 2.0 x 0.9mm Ceramic SMD Package	1MHz~200MHz	CMOS	• Smaller Size • Fast Delivery • Custom Freq. from 1 to 200MHz • Low Standby Current
HOT PX		3.2 x 2.5 x 1.05mm Ceramic SMD Package	1MHz~200MHz	CMOS	• Fast Delivery • Custom Freq. from 1 to 200MHz • Low Standby Current

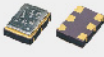
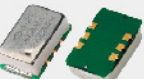
Crystal Oscillators (PECL/LVDS/HCSL Output)

TYPE		PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
NEW OW		5.0 x 3.2 x 1.2mm Ceramic SMD Package	80MHz~320MHz	PECL / LVDS	• Very Low Jitter • Differential Logic • Up To 320MHz
HOT OT	 台灣精品2006 TAIWAN EXCELLENCE	7.0 x 5.0 x 1.5mm Ceramic SMD Package	19.44MHz ~ 320MHz 90MHz ~ 125MHz	PECL/LVDS HCSL	• Very Low Jitter • Differential Logic • Up To 320MHz
OT-M		7.0 x 5.0 x 1.6mm Ceramic SMD Package	100MHz~800MHz	PECL	• Low Jitter • Differential Logic • Up To 800MHz
NEW OT-U Ultra Low Jitter		7.0 x 5.0 x 1.5mm Ceramic SMD Package	70~170MHz	PECL	• RMS Phase Jitter < 0.1ps, from 12kHz to 20MHz • Differential Logic

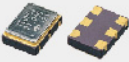
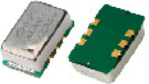
Voltage Controlled Temperature Compensated Crystal Oscillators

TYPE		PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
NEW TY		2.5 x 2.0 x 0.75mm Ceramic SMD Package	13MHz~52MHz	Clipped Sine Wave	• Smaller Size • Low Power Consumption • VCTCXO Available
HOT TX		3.2 x 2.5 x 0.9mm Ceramic SMD Package	10MHz~52MHz	Clipped Sine Wave	• Low Power Consumption • VCTCXO Available
TV		5.0 x 3.2 x 1.15mm Ceramic SMD Package	10MHz~40MHz	CMOS / Clipped Sine Wave	• Low Power Consumption • VCTCXO Available
NEW TW High Precision		5.0 x 3.2 x 1.55mm High Precision	5MHz ~ 52MHz	CMOS / Clipped Sine Wave	• High Precision For -20°C~+70°C, ±0.1ppm -40°C~+85°C, ±0.2ppm
HOT TS High Precision		7.0 x 5.0 x 1.85mm Ceramic SMD Package	5MHz ~ 52MHz	CMOS / Clipped Sine Wave	• High Precision For -20°C~+70°C, ±0.1ppm -40°C~+85°C, ±0.2ppm
HOT TT Stratum3		7.0 x 5.0 x 1.85mm Ceramic SMD Package	5MHz ~ 52MHz	CMOS / Clipped Sine Wave	• Overall ±4.6ppm Including 20 Years Aging(@ -40°C~+85°C)
HOT TA		7.0 x 5.0 x 1.85mm Ceramic SMD Package	5MHz ~ 52MHz	CMOS / Clipped Sine Wave	• Low Power Consumption • VCTCXO Available
TK		14.3 x 8.7 x 4.9mm Metal Cover, FR-4 PCB Based SMD Package	5MHz~40MHz	CMOS / Clipped Sine Wave PECL / LVDS	• FR-4 PCB Based • Low Current Option • VCTCXO Available
NEW T9 Ultra High Precision		20.4 x 12.8 x 7.8mm Metal Can Through Hole Package	10MHz ~ 40MHz	CMOS / Clipped Sine Wave	• Low-Power alternative to OCXOs • Ultra High Precision For -20°C~+70°C, ±30ppb -40°C~+85°C, ±50ppb
TF		20.4 x 12.8 x 7.8mm Metal Can Through Hole Package	1.25MHz~40MHz	CMOS / Clipped Sine Wave	• Standard DIP 14 Pin • VCTCXO Available
TG		20 x 13 x 5.7mm Metal Cover, FR-4 PCB Based SMD Package	50MHz~160MHz	CMOS / PECL / LVDS	• FR-4 PCB Based • High Precision for -40°C~+85°C, ±0.28ppm

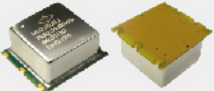
Voltage Controlled Crystal Oscillators (CMOS Output)

TYPE		PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
NEW VW		5.0 x 3.2 x 1.2mm Ceramic SMD Package	1.5MHz~80MHz	CMOS	• Smaller Size • Tight Symmetry • Low Jitter
HOT VT		7.0 x 5.0 x 1.6mm Ceramic SMD Package	1.5MHz~200MHz	CMOS	• Tight Symmetry • Low Jitter
VT-M		7.0 x 5.0 x 1.6mm Ceramic SMD Package	60MHz~200MHz	CMOS	• Tight Symmetry
VK		14.2 x 9.3 x 5.5mm Metal Cover, FR-4 PCB Based SMD Package	1.5MHz~200MHz	CMOS	• FR-4 PCB Based

Voltage Controlled Crystal Oscillators (PECL/LVDS Output)

TYPE		PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
NEW VW		5.0 x 3.2 x 1.2mm Ceramic SMD Package	60MHz~175MHz	PECL / LVDS	• Smaller Size • Tight Symmetry • Differential Logic • Very Low Jitter
HOT VT		7.0 x 5.0 x 1.6mm Ceramic SMD Package	1.5MHz~200MHz	PECL / LVDS	• Tight Symmetry • Wide Pulling Range • Differential Logic • Very Low Jitter
VT-M		7.0 x 5.0 x 1.6mm Ceramic SMD Package	100MHz~800MHz	PECL	• Tight Symmetry • Wide Pulling Range • Differential Logic • Up To 800MHz • Low Jitter
NEW VT-A Ultra Low Jitter		7.0 x 5.0 x 1.6mm Ceramic SMD Package	200MHz ~ 800MHz	PECL	• RMS Phase Jitter < 0.1ps @ 614.4MHz, from 12kHz to 20MHz • Differential Logic
VK		14.2 x 9.3 x 5.5mm Metal Cover, FR-4 PCB Based SMD Package	1.5MHz~700MHz	PECL / LVDS	• FR-4 PCB Based • Differential Logic • Up To 700MHz

Oven Controlled Crystal Oscillators

TYPE		PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
HOT NK		14.3 x 9.3 x 6.0mm Metal Can SMD Package	5MHz~40MHz	CMOS	• AT-Cut Crystal • Low Power Consumption • Overall ± 4.6ppm Including 20 Years Aging • Fast Warm-Up
HOT NF		20.3 x 12.7 x 11.0mm Metal Can Through Hole Package	5MHz~40MHz	CMOS	• AT or SC Cut Crystal • Standard DIP 14 Pin • Excellent Stability • SMD Optional • NF-25MHz-2050 series (Fast Delivery: 1 week, Quantity <= 20pcs)
HOT NA		25.4 x 25.4 x 12.7mm Metal Can Through Hole Package	5MHz~100MHz	LVTTTL / Sine Wave	• SC-CUT Crystal • High Stability • Low Phase Noise • Fast Warm-Up • NA-10MHz-2000/ NA-10MHz-2500 Series (Fast Delivery: 1 week, Quantity <= 20pcs)
NJ		25.4 x 22.1 x 11.0mm Metal Can SMD Package	5MHz~40MHz	CMOS / Sine Wave	• SC or AT Cut Crystal • High Stability • Low Phase Noise • Fast Warm-Up
HOT NI		36.3 x 27.2 x 12.7mm Metal Can Through Hole Package	5MHz ~ 100MHz	LVTTTL / Sine Wave	• SC-CUT Crystal • High Stability • Stratum 3E compliant • Up To -110dBc @ 1Hz • NI-10MHz-2400/NI-10MHz-2500/ NI-100MHz-2900 Series (Fast Delivery: 1 week, Quantity <= 20pcs)
NP		20.6 x 20.6 x 11.0mm Metal Can Through Hole Package	5MHz~40MHz	CMOS	• SC or AT Cut Crystal • Stratum 3E compliant • High Stability • Up To -110dBc @ 1Hz