

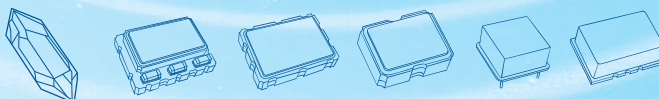


TAITTIEN

**QUARTZ CRYSTAL
CRYSTAL OSCILLATOR
VCXO
VCTCXO / TCXO
OCXO
TIMING MODULE**



TAIWAN
EXCELLENCE
2006



Our Performance, Your Reputation

Our Products

OCXO
0.06-200ppb

TCXO
0.1-2ppm

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

Crystal Units
10-100ppm



Marine Communication
Aerial Radio
Satellite
Small cell
Drone

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



Car (ICE/IVI)
GPS
RKE, TPMS
ADAS
Autopilot

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



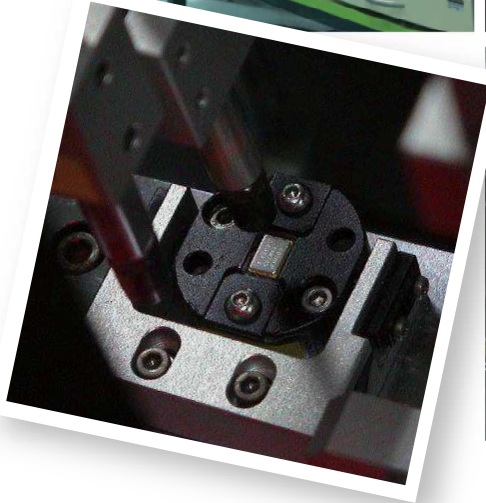
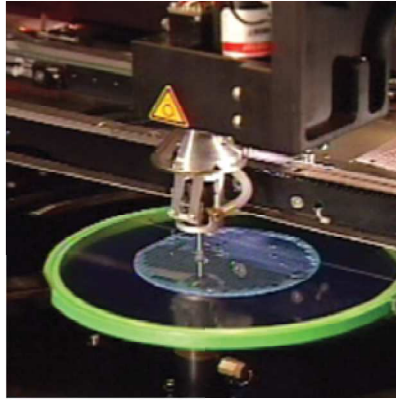
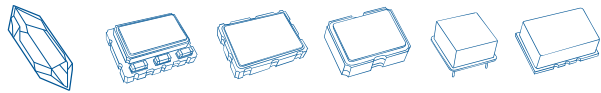
Watch
DSC
Mobile Phone
HiFi, HD Video

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



Personal Computer
Scanner
Satellite TV
Radio
VR
Cordless Telephone
ADSL
3G, 4G, 5G/LTE
High Speed Network
Base Station

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



Maintain sustainable competitive advantage from the satisfaction of customers, shareholders and employees

Taitien Electronics, a Quartz Frequency Control Product (FCP) solution provider, started its first production run of Tuning Fork Crystal in 1976. Our main products include XTAL, OSC, VCXO, TCXO, and is the only manufacturer in Taiwan that provides the technique of OCXO and inverted mesa (Qmesa) quartz resonator. Taitien service is capable of addressing one-stop procurement for all FCP requirements.

Our missions are

- 1 Provide our customer with quality Frequency Control Products at competitive price.
- 2 Create knowledge from the integration of information technology and educational training.
- 3 Maintain our quality through continuous improvement; challenge the goal of zero defects.
- 4 Focus product innovation on our core technology.
- 5 To be a world-class Frequency Control Products manufacturer, building network of strategic alliances with quality resources to maintain our market competitiveness.

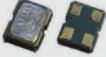
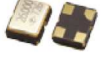
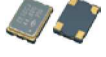
Crystal Units

TYPE	PACKAGE	FREQ. RANGE	FEATURE
 X3 	1.6 x 1.2 x 0.35mm Ceramic SMD Package	24MHz~54MHz	• Tight Tolerance • Ultra Low Profile
 XZ 	2.05 x 1.65 x 0.45mm Ceramic SMD Package	16MHz~60MHz	• Tight Tolerance
 XY 	2.5 x 2.0 x 0.45mm Ceramic SMD Package	12MHz~54MHz	• Tight Tolerance
 XX-O 	3.2 x 2.5 x 0.6mm Ceramic SMD Package	12MHz~54MHz	• Ultra Thin SMD Crystal
 XX 	3.2 x 2.5 x 0.7mm Ceramic SMD Package	12MHz~60MHz	• Tight Tolerance
X2 	3.2 x 2.5 x 0.75mm Ceramic SMD package Glass Seal	12MHz~48MHz	• Full Ceramic Package
 XV 	5.0 x 3.2 x 0.8mm Ceramic SMD Package	8MHz~80MHz	• Tight Tolerance
 XS 	5.0 x 3.2 x 1.2mm Ceramic SMD Package Glass Seal	8MHz~54MHz	• Full Ceramic Package
 XR 	6.0 x 3.5 x 1.0mm Ceramic SMD Package	8MHz~50MHz	• Tight Tolerance
 XQ 	8.0 x 4.5 x 1.4mm Ceramic SMD Package Glass Seal	7.3728MHz~70MHz	• Full Ceramic Package
 XI 	10.8 x 4.5 x 3.4mm Metal Can Through Hole Package	3.58MHz~80MHz	• Standard Footprint • Low Profile For Close PCB Stacking
XJ 	12.5 x 4.5 x 4.0mm Metal Can SMD Package	3.58MHz~80MHz	• Metal Can SMD Package

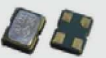
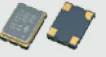
Tuning Fork Crystal Units

TYPE	PACKAGE	FREQ. RANGE	FEATURE
 XB 	1.0 x 4.6mm 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
 XD 	2.0 x 1.2 x 0.6mm 3.2 x 1.5 x 0.9mm 4.1 x 1.5 x 0.9mm 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

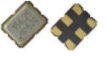
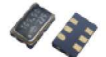
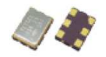
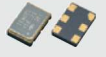
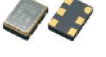
FASTXO Crystal Oscillators

TYPE	PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
 PZ 	2.05 x 1.65 x 0.75mm Ceramic SMD Package	1MHz~200MHz	CMOS	• Fast Delivery • Smaller Size • Low RMS Jitter
 PY 	2.5 x 2.0 x 0.81mm Ceramic SMD Package	2.048MHz~200MHz	CMOS	• Fast Delivery • Custom Freq. from 2.048 to 200MHz • Low Standby Current
 PX 	3.2 x 2.5 x 0.95mm Ceramic SMD Package	2.048MHz~200MHz	CMOS	• Fast Delivery • Custom Freq. from 2.048 to 200MHz • Low Standby Current
 PC 	7.0 x 5.0 x 1.3mm Ceramic SMD Package	1MHz~200MHz	CMOS	• Fast Delivery • Low RMS Jitter

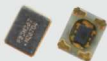
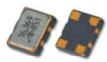
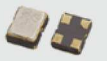
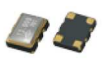
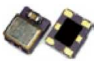
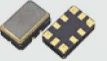
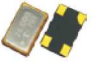
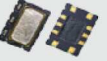
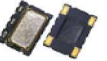
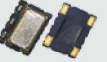
Crystal Oscillators (CMOS Output)

TYPE	PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
 OZ 	2.05 x 1.65 x 0.75mm Ceramic SMD Package	1.5MHz~50MHz	CMOS	• Ultra-Compact and light • Low Jitter • Low Standby Current
 OY 	2.5 x 2.0 x 0.81mm Ceramic SMD Package	32.768kHz~125MHz	CMOS	• Low Jitter • Low Standby Current • Operating Temp. Up to 125°C • Enhanced Stability Support
 OX 	3.2 x 2.5 x 0.95mm Ceramic SMD Package	32.768kHz~125MHz	CMOS	• Low Jitter • Low Standby Current • Operating Temp. Up to 125°C • Enhanced Stability Support
OV 	5.0 x 3.2 x 1.2mm Ceramic SMD Package	13.7kHz~160MHz	CMOS	• Low Jitter • Low Standby Current
OC 	7.0 x 5.0 x 1.3mm Ceramic SMD Package	13.7kHz~166MHz	CMOS	• Low Jitter • Low Standby Current

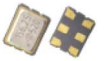
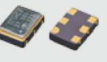
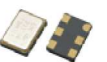
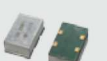
Crystal Oscillators (LVPECL/LVDS/HCSL/CML Output)

TYPE	PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
 OA 	3.2 x 2.5 x 0.9mm Ceramic SMD Package	10MHz~250MHz 90MHz~125MHz	LVPECL / LVDS HCSL	• Very Low Jitter • Differential Logic • Up to 250MHz
 OA-M 	3.2 x 2.5 x 0.9mm Ceramic SMD Package	10MHz~1.5GHz	LVPECL / LVDS	• Fast Delivery • Low Jitter • Differential Logic
 OW 	5.0 x 3.2 x 1.25mm Ceramic SMD Package	10MHz~320MHz 25MHz~175MHz	LVPECL / LVDS HCSL	• Very Low Jitter • Differential Logic • Up to 320MHz
 OW-M 	5.0 x 3.2 x 1.25mm Ceramic SMD Package	10MHz~1.5GHz	LVPECL / LVDS	• Low Jitter • Differential Logic • Up to 1.5GHz
 OT   台灣精品 2006 TAIWAN EXCELLENCE	7.0 x 5.0 x 1.45mm Ceramic SMD Package	10MHz~320MHz 25MHz~175MHz	LVPECL / LVDS HCSL	• Very Low Jitter • Differential Logic • Up to 320MHz
OT-U Ultra Low Jitter 	7.0 x 5.0 x 1.45mm Ceramic SMD Package	70~170MHz	LVPECL	• RMS Phase Jitter < 0.1ps, from 12kHz to 20MHz • Differential Logic
 OT-M 	7.0 x 5.0 x 1.75mm Ceramic SMD Package	10MHz~1.5GHz	LVPECL / LVDS	• Low Jitter • Differential Logic • Up to 1.5GHz
 OD-M 	7.0 x 5.0 x 1.7mm Ceramic SMD Package	15MHz~2.1GHz 15MHz~700MHz	LVPECL / LVDS / CML HCSL	• Fast Delivery • Ultra Low Jitter • Differential Logic

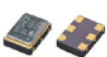
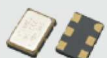
Voltage Controlled Temperature Compensated Crystal Oscillators

TYPE	PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
 TZ 	2.0 x 1.6 x 0.8mm Ceramic SMD Package	10MHz~52MHz	Clipped Sine Wave	• Miniature SMD Type • Low Power Consumption • VCTCXO Available
 TY 	2.5 x 2.0 x 0.7mm Ceramic SMD Package	10MHz~52MHz	Clipped Sine Wave	• Low Power Consumption • VCTCXO Available
 TY-J 	2.5 x 2.0 x 0.85mm Ceramic SMD Package	9.5MHz~60MHz	CMOS	• Low Power Consumption
 TX 	3.2 x 2.5 x 0.9mm Ceramic SMD Package	10MHz~52MHz	Clipped Sine Wave	• Low Power Consumption • VCTCXO Available
 TX-J 	3.2 x 2.5 x 0.95mm Ceramic SMD Package	9.5MHz~60MHz	CMOS	• Low Power Consumption
 TX-P 	3.2 x 2.5 x 1.6mm Ceramic SMD Package	10MHz~1.5GHz	CMOS / LVPECL / LVDS	• Fast Delivery • $\pm 1.0\text{ppm}$ @-30~+85°C • Low Jitter • Differential Logic
 TL 	5.0 x 3.2 x 1.85mm Ceramic SMD Package	10MHz~50MHz	CMOS / Clipped Sine Wave	• Fast Delivery • $\pm 1.0\text{ppm}$ @-40~+85°C • Low Jitter • Differential Logic
 TW High Precision 	5.0 x 3.2 x 1.55mm Ceramic SMD Package	10MHz~52MHz	CMOS / Clipped Sine Wave	• High Precision for $\pm 0.1\text{ppm}$ @-20°C~+70°C • $\pm 0.2\text{ppm}$ @-40°C~+85°C
 TS High Precision 	7.0 x 5.0 x 1.9mm Ceramic SMD Package	5MHz~52MHz	CMOS / Clipped Sine Wave	• High Precision for $\pm 0.1\text{ppm}$ @-20°C~+70°C • $\pm 0.2\text{ppm}$ @-40°C~+85°C
 TT Stratum3 	7.0 x 5.0 x 1.9mm Ceramic SMD Package	5MHz~52MHz	CMOS / Clipped Sine Wave	• Overall $\pm 4.6\text{ppm}$ Including 20 Years Aging @-40°C~+85°C
 TA 	7.0 x 5.0 x 1.9mm 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	• FR-4 PCB Based • Low Current Option • VCTCXO Available
TF 	20.4 x 12.8 x 7.8mm Metal Can Through Hole Package	1.25MHz~52MHz	CMOS / Clipped Sine Wave	• Standard DIP 14 Pin • VCTCXO Available

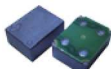
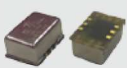
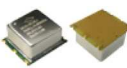
Voltage Controlled Crystal Oscillators (CMOS/Sine Wave Output)

TYPE	PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
 VA-M 	3.2 x 2.5 x 0.9mm Ceramic SMD Package	10MHz~250MHz	CMOS	• Fast Delivery • Up to 250MHz
 VW 	5.0 x 3.2 x 1.25mm Ceramic SMD Package	1.5MHz~170MHz	CMOS	• Tight Symmetry • Low Jitter
 VW-M 	5.0 x 3.2 x 1.25mm Ceramic SMD Package	10MHz~250MHz	CMOS	• Fast Delivery • Up to 250MHz
 VT 	7.0 x 5.0 x 1.75mm Ceramic SMD Package	1.5MHz~170MHz	CMOS	• Tight Symmetry • Low Jitter
 VT-M 	7.0 x 5.0 x 1.75mm Ceramic SMD Package	10MHz~250MHz	CMOS	• Up to 250MHz
VLCU 	14.0 x 9.0 x 5.5mm Metal Can SMD Package	50MHz~125MHz	Sine Wave	• Ultra Low Phase Noise • Low Power Consumption

Voltage Controlled Crystal Oscillators (LVPECL/LVDS/HCSL Output)

TYPE	PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
 VA-M 	3.2 x 2.5 x 0.9mm Ceramic SMD Package	10MHz~1.5GHz	LVPECL / LVDS	• Fast Delivery • Wide Pulling Range • Differential Logic • Low Jitter
 VW 	5.0 x 3.2 x 1.25mm Ceramic SMD Package	30MHz~250MHz	LVPECL / LVDS	• Tight Symmetry • Differential Logic • Very Low Jitter
 VW-M 	5.0 x 3.2 x 1.25mm Ceramic SMD Package	10MHz~1.5GHz	LVPECL / LVDS	• Fast Delivery • Wide Pulling Range • Differential Logic • Low Jitter
 VT 	7.0 x 5.0 x 1.75mm Ceramic SMD Package	1.5MHz~200MHz	LVPECL / LVDS	• Tight Symmetry • Wide Pulling Range • Differential Logic • Very Low Jitter
 VT-M 	7.0 x 5.0 x 1.75mm Ceramic SMD Package	10MHz~1.5GHz	LVPECL / LVDS	• Tight Symmetry • Wide Pulling Range • Differential Logic • Up to 1.5GHz • Low Jitter
VK 	14.2 x 9.3 x 5.4mm Metal Cover, FR-4 PCB Based SMD Package	30MHz~250MHz	LVPECL / LVDS	• FR-4 PCB Based • Differential Logic

Oven Controlled Crystal Oscillators

TYPE	PACKAGE	FREQ. RANGE	OUTPUT	FEATURE
 NN 	9.7 x 7.5 x 4.1mm Metal Can SMD Package	10MHz~40MHz	Rectangular / Clipped Sine Wave	• Low Power Consumption • ± 20ppb Stability over -40~+85°C • Stratum 3 (Overall ± 4.6ppm Including 20 Years Aging)
 NK-N 	14.3 x 9.3 x 6.5mm Metal Can SMD Package	10MHz~40MHz	CMOS	• Low Power Consumption • Overall ± 4.6ppm Including 20 Years Aging • Fast Warm-Up
 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)
 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~100MHz	CMOS / Sine Wave	• SC or AT Cut Crystal • High Stability • Low Phase Noise • Fast Warm-Up
 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

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