

Mercury's Profile



Taiwan Plant (Taipei) : (since 1973)
200 employees
The 1st xtal manufacturer in Taiwan
The head quarter
The major production line



US Plant (LA) :
15 employees
RD center, small production
The sales office for US



China Office (Shang Hai):
10 employees
The sales office for China

Main Products

- Crystal Units
- Crystal Oscillators
 - Clock Oscillators (CXO)
 - VCXO
 - TCXO / VCTCXO
 - OCXO
- Crystal Filters (MCF)

The Availability for Crystal Units

SMD type

MQ: 7 x 5 x 1.3 (H) mm (6-200 MHz)

MF: 6 x 3.5 x 1.1 (H) mm (8- 60 MHz)

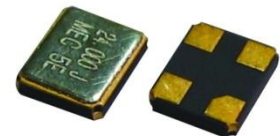
MJ: 5 x 3.2 x 1.0 (H) mm (8-200 MHz)

X42: 4.2x2.5x0.8 (H) mm (10-60 MHz)

X32: 3.2x2.5x0.6 (H) mm (8-200 MHz)

X22: 2.5x2.0x0.6 (H) mm (12-60 MHz)

X21: 2.0x1.6x0.5 (H) mm (20-60 MHz)



The Available Product Range for the Crystal Oscillators

- **SMD Clock Oscillators**

Frequency Range: 20 KHz to 1.45 GHz

Output: TTL / CMOS, Sine Wave, LVPECL, LVDS, Spread Spectrum

Package Size: 7x5, 5x3.2, 3.2x2.5, 2.5x2.0 mm

- **VCXO**

Frequency Range: 0.5 MHz to 1.45 GHz

Output: TTL / CMOS, Sine Wave, LVPECL, LVDS

Package Size: 7x5, 5x3.2, 3.2x2.5

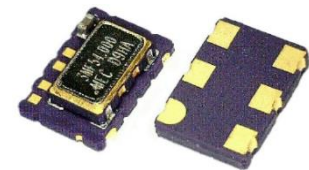
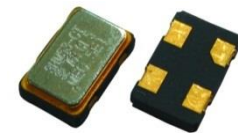
- **TCXO / VCTCXO**

Frequency Range: 20 KHz to 1.45 GHz

Output: Clipped Sine Wave, TTL / CMOS, LVPECL, LVDS

- **OCXO (8 MHz to 100 MHz)**

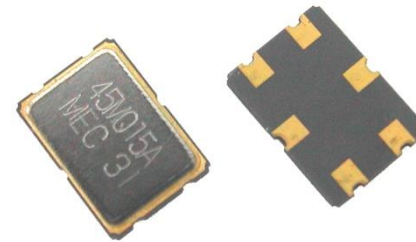
(Stability: ± 0.01 ppm)



CRYSTAL FILTERS

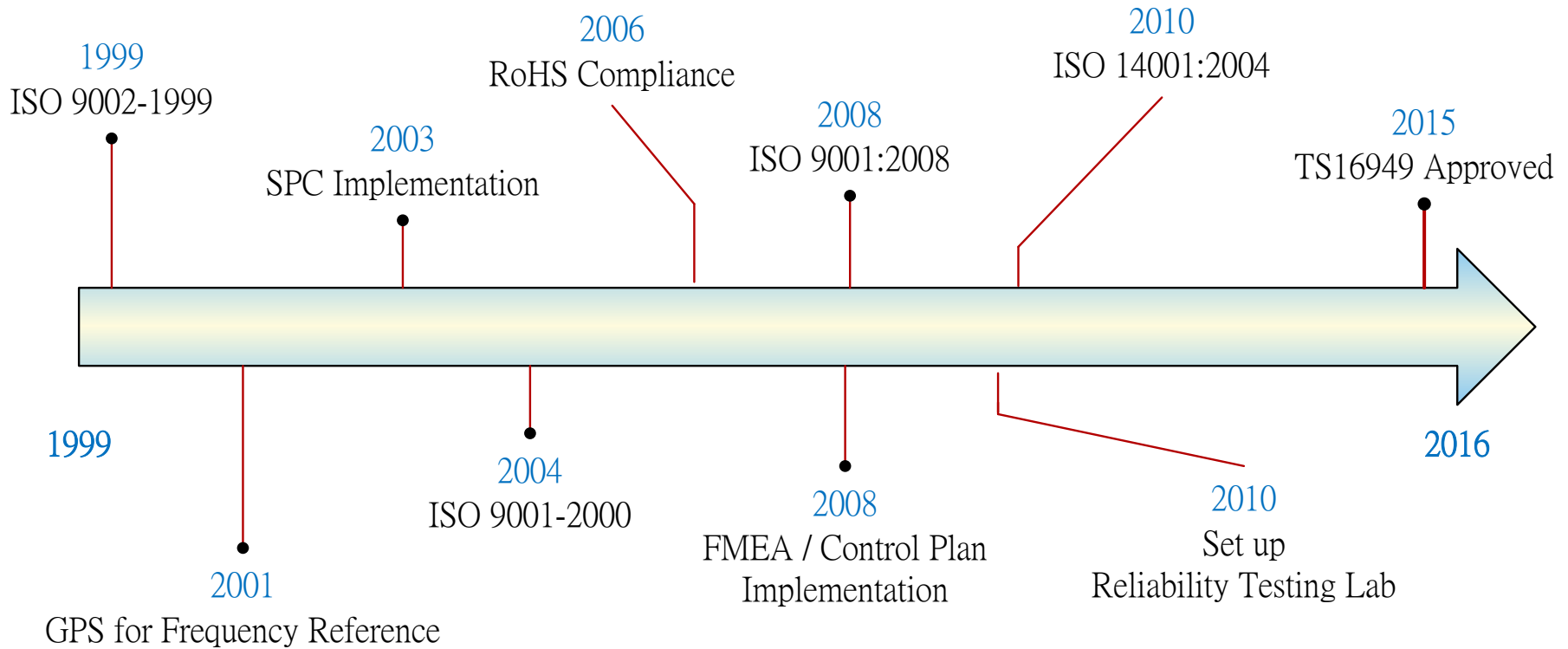
- HC-49 / T
10.7 MHz

- UM-5
21.4 MHz, 45 MHz



- SMD 7x5 mm
(2 poles, 4 poles in one package)
21.4 MHz, 21.700 MHz, 45 MHz

The Quality System

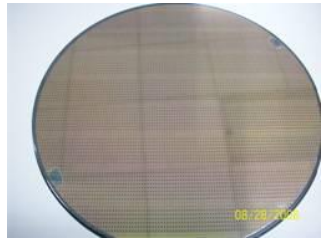


Reliability Test

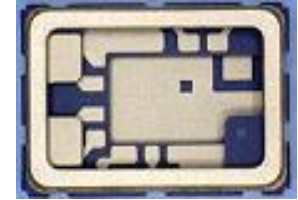
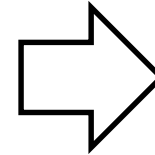
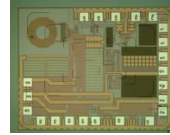
Product Reliability Test Plan by Product (Reliability Monitoring Program) (HP/HD/HC) Product Year Test Schedule

	Contents	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Note
1	Resistance To Soldering Heat Test			⊙						⊙				
2	High Temperature Storage	⊙						⊙						
3	Moisture Resistance Test					⊙						⊙		
4	Low Temperature Storage				⊙						⊙			
5	Free Drop Test						⊙						⊙	
6	Vibration Test						⊙						⊙	Out Sourcing
7	Salt Atmosphere (Corrosion) Test			⊙						⊙				
8	Temperature Cycling (Static)	⊙						⊙						
9	Accelerated Life Test. (Aging) Biased					⊙						⊙		
10	Thermal Shock				⊙						⊙			
11	Highly Accelerated Stress Test(HAST)		⊙						⊙					
12	Solder ability Test (SMD)						⊙						⊙	
13	Mechanical Shock													per customer's requirement

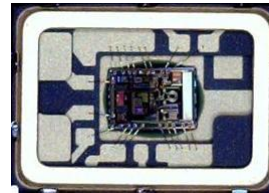
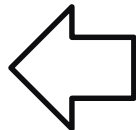
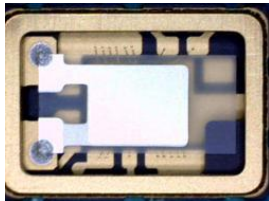
Process Flow



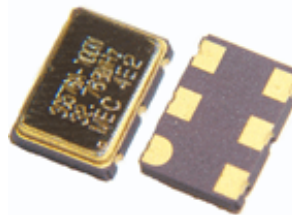
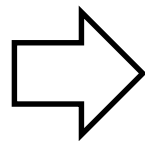
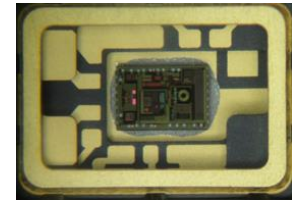
Wafer Saw



Die Bond



Wire Bond



Clean Room

FS-209 : Class 10,000

