HUIXUN ELECTRONIC

HUI XUN ELECTRONIC

为客户提供专业化规范化的服务

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Email : sales@hxcrystals.com

Huijing Industry

汇晶电子

唐山汇讯电子科技有限公司

TANGSHAN HUIXUN ELECTRONIC TECHNOLOGY CO., LTD.

| 质量第一　| 客户至上

唐山汇讯
Tangshan Huixun Electronic

COMPANY PROFILE

Tangshan Huixun Electronic Technology Co., Ltd.

唐山汇讯电子科技有限公司

唐山汇讯电子科技有限公司是由深圳汇晶电子科技有限公司投资兴建的独资企业,注册资金2000万元人民币，主要从事石英晶体谐振器生产和销售,产品远销欧美、东南亚及港台地区。

汇讯电子成立于2012年4月,厂房面积由原来800㎡扩建到现在的2200㎡，其中万级净化厂房800㎡，主要生产石英谐振器，生产检测设备是从日本、美国配套引进的。年产量一亿件。公司秉承质量第一、客户至上的管理理念，通过严格质量管理和良好的信誉,深受厂商的信赖。

我司现有员工56名，其中管理及技术人员11名，生产工人45人。设有：品质部、生技部、设备部及两个生产车间。并通过了ISO9001、IATF16949体系认证。

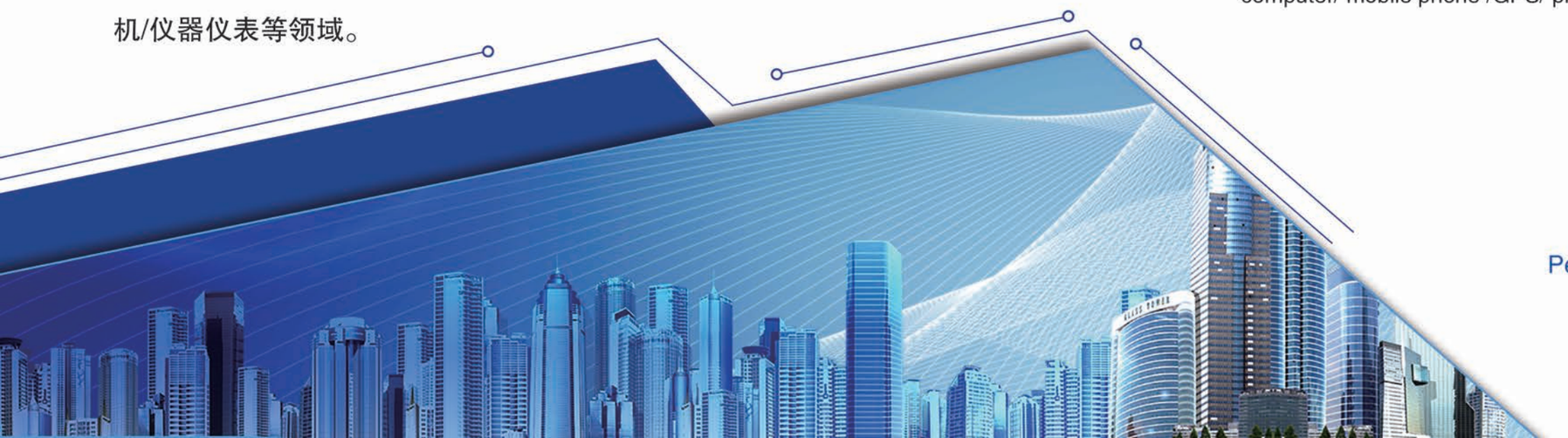
产品广泛用于军工/航空/汽车/通讯/探测/计算机 /手机/GPS/程控交换机/仪器仪表等领域。

Tangshan Huixun Electronic Technology Co., Ltd. is a wholly–owned enterprise in–vested by Shenzhen Huijing Electronic Technology Co., LTD., with a registered capital of 20 million yuan, mainly engaged in the production and sales of quartz crystal resonators, whose products are exported to Europe, America, Southeast Asia and Hong Kong and Taiwan.

Huixun Electronics was established in April 2012, the plant area from the original 800 square meters to the current 2200 square meters, including 10,000 purification plant 800 square meters, the main production of quartz resonators, production testing equipment from Japan, the United States supporting the introduction. Annual output of 100 million pieces. Company adhering to the quality first, customer first management philosophy, through strict quality management and good reputation, deeply trusted by manufacturers.

Our company has 56 employees, including 11 management and technical personnel, 45 production workers. There are: Quality department, production technology Department, equipment department and two production workshops. And passed the ISO9001, IATF16949 system certification.

Products are widely used in military/ aviation/ automotive/ communication/ detection/ computer/ mobile phone /GPS/ program–controlled switch/instrumentation and other fields.



以人为本
People–oriented

求质量
Quality

重信誉
Credit

唐山汇讯
Tangshan Huixun Electronic

DEVELOPMENT HISTORY

发展历史

2020

扩大Glass封装SMD谐振器产能，使得公司年产能达一亿件。

Expanding the production capacity of Glass packaged SMD resonators, resulting in the company's annual production capacity reaching 100 million units.

2017

通过IATF16949认证
Certified by IATF16949

2014

通过 ISO 9001认证
Certified to ISO 9001

2016

厂房扩建，由800㎡扩建至2200㎡，产能每年7200万只。

Plant expansion, from 800 square meters to 2,200 square meters, the annual capacity of 72 million.

2012

公司成立，厂房面积为800㎡，产能每年1500万只。

The company was established, the plant area is 800 square meters, the annual production capacity of 15 million

我们一直在努力
再创辉煌12年
CREATE NEW GLORY

唐山汇讯
Tangshan Huixun Electronic

ADVANCED EQUIPMENT
先进设备


镀膜机
Coating machine


点胶机
Dispenser machine

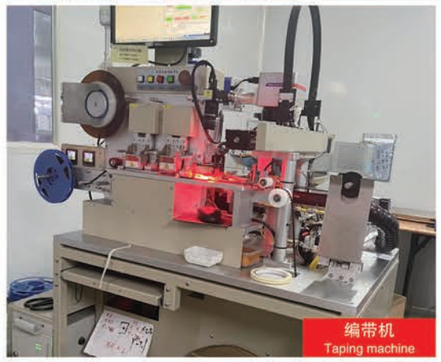

微调机
Fine tuning machine


激光打标
Laser marking


氮气柜
Nitrogen gas tank


封盖机
Capping machine


清洗机
Cleaning machine


编带机
Taping machine

CLEAN ROOM
无尘车间

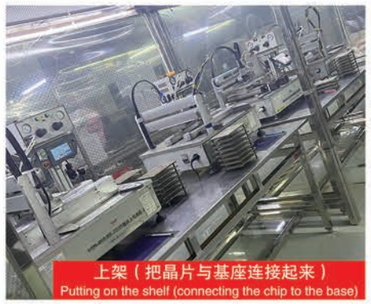

陶瓷SMD无尘车间
Ceramic SMD dust-free workshop


49S无尘车间
49S dust-free workshop

PRODUCTION PROCESS
生产流程


晶片清洗
Chip cleaning


镀膜（在晶片上被银形成电极）
Coating (electrode formed by silver on a chip)

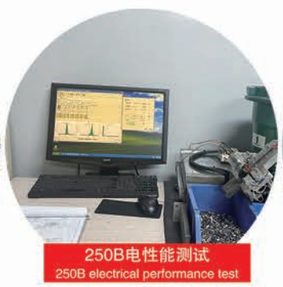

上架（把晶片与基座连接起来）
Putting on the shelf (connecting the chip to the base)


微调（调整银层厚度使其达到目标频率）
Fine tuning (adjusting the thickness of the silver layer to achieve the target frequency)


封焊（把外壳与基座压封在一起）
Seal welding (to seal the shell and base together)


压气密（加压后测绝缘）
Pressure tightness (test insulation after pressure)


回流焊、老化
Reflow soldering, aging


250B电性能测试
250B electrical performance test

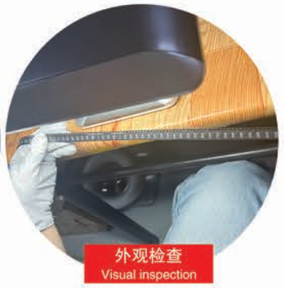

温度特性测试
Temperature characteristic test


激光打标
Laser marking


加绝缘垫片
Add insulation gasket


250B电性能测试
250B electrical performance test


编带
Braid


外观检查
Visual inspection

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HC–49U

Features

- Wide Frequency Range
- Good Aging Rate
- AT or BT Cut
- Environmentally friendly product

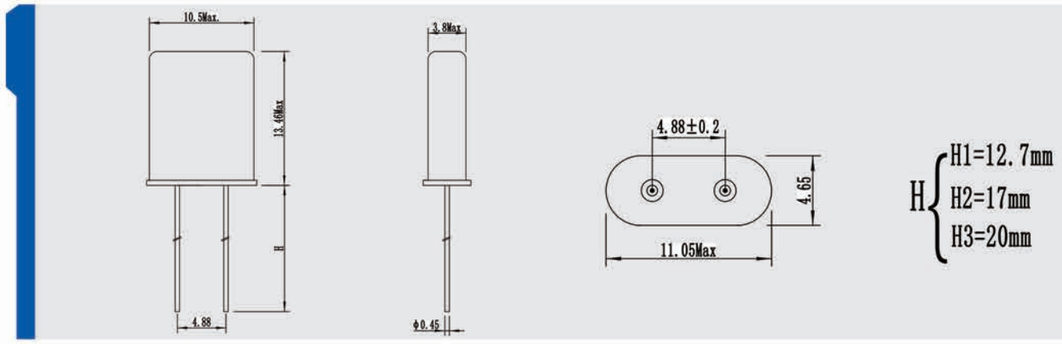
Application

- Commercial Units
- Communication Devices
- Military equipment

Electrical Specification

Model	HC–49U				
Frequency Range(MHz)	1.8432~40	20~40	23~100	60~150	120~200
Vibration Mode	AT Fundamental	BT Fundamental	3rd Overtone	5rd Overtone	7rd Overtone
Resonance Resistance(Ω)					
Frequency Tolerance(25℃)	± 5 × 10^–6~ ± 30 × 10^–6				
Storage Temperature	–55℃~+125℃				
Static Capacity	7pF Max.				
Load Capactiance	6pF~30pF or Cascade				
Insulation Resistance	>500MΩ DC/100V ± 10V				
Driving Power	0.01mW~2mW				
Frequency Aging	± 5 × 10^–6 /Year Max.				

Drawing



HC–49U–Jacket

Features

- Wide Frequency Range
- Good Aging Rate
- AT or BT Cut
- Environmentally friendly product

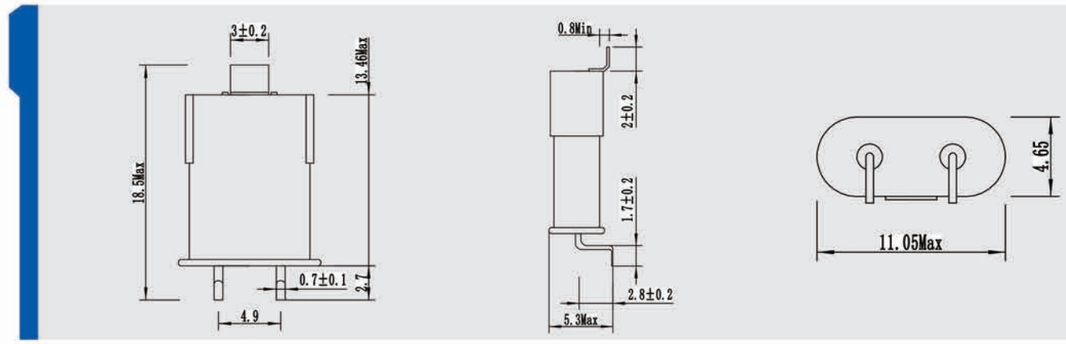
Application

- Commercial Units
- Communication Devices
- Military equipment

Electrical Specification

Model	HC–49U–Jacket				
Frequency Range(MHz)	1.8432~40	20~40	23~100	60~150	120~200
Vibration Mode	AT Fundamental	BT Fundamental	3rd Overtone	5rd Overtone	7rd Overtone
Resonance Resistance(Ω)					
Frequency Tolerance(25℃)	± 5 × 10^–6~ ± 30 × 10^–6				
Storage Temperature	–55° C~+125℃				
Static Capacity	7pF Max.				
Load Capactiance	6pF~30pF or Cascade				
Insulation Resistance	>500MΩ DC/100V ± 10V				
Driving Power	0.01mW~2mW				
Frequency Aging	± 5 × 10^–6 /Year Max.				

Drawing



HC–49S

Features

- Wide Frequency Range
- Good Aging Rate
- AT or BT Cut
- Environmentally friendly product

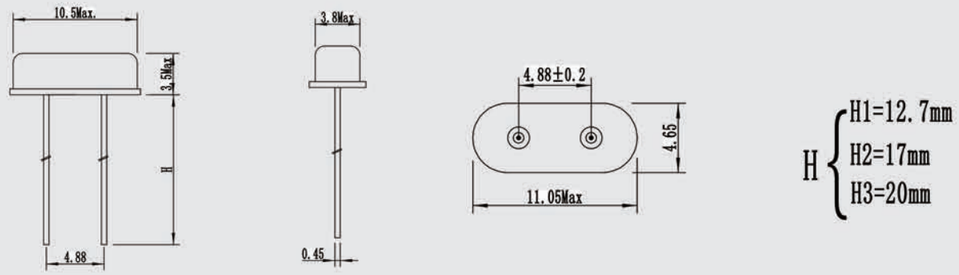
Application

- Internet
- Commercial Units
- Communication Devices
- Military equipment

Electrical Specification

Model	HC–49S		
Frequency Range(MHz)	3.2768~40.000	20.000~40.000	24.000~70.000
Vibration Mode	AT Fundamental	BT Fundamental	3rd Overtone
Resonance Resistance(Ω)			
Frequency Tolerance(25℃)	±5×10ˆ–6~±30×10ˆ–6		
Storage Temperature	–55° C~+125℃		
Static Capacity	7pF Max.		
Load Capactiance	6pF~30pF or Cascade		
Insulation Resistance	>500MΩ DC/100V±10V		
Driving Power	0.01mW~0.1mW		
Frequency Aging	±5×10ˆ–6 /Year Max.		

Drawing



HC–49S–3L

Features

- Wide Frequency Range
- Good Aging Rate
- AT or BT Cut
- Environmentally friendly product

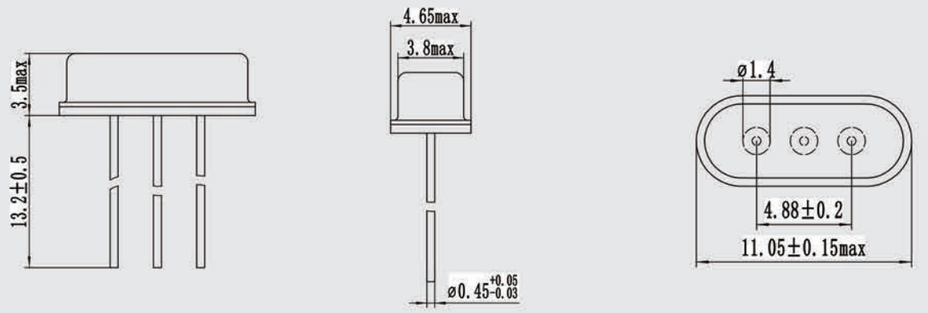
Application

- Internet
- Commercial Units
- Communication Devices
- Military equipment

Electrical Specification

Model	HC–49S–3L		
Frequency Range(MHz)	3.2768~40.000	20.000~40.000	24.000~70.000
Vibration Mode	AT Fundamental	BT Fundamenta	3rd Overtone
Resonance Resistance(Ω)			
Frequency Tolerance(25℃)	±5×10ˆ–6~±30×10ˆ–6		
Storage Temperature	–55℃~+125℃		
Static Capacity	7pF Max.		
Load Capactiance	6pF~30pF or Cascade		
Insulation Resistance	>500MΩ DC/100V±10V		
Driving Power	0.01mW~0.1mW		
Frequency Aging	±5×10ˆ–6 /Year Max.		

Drawing



HC–49SMD

Features

- Wide Frequency Range
- Good Aging Rate
- AT or BT Cut
- Environmentally friendly product

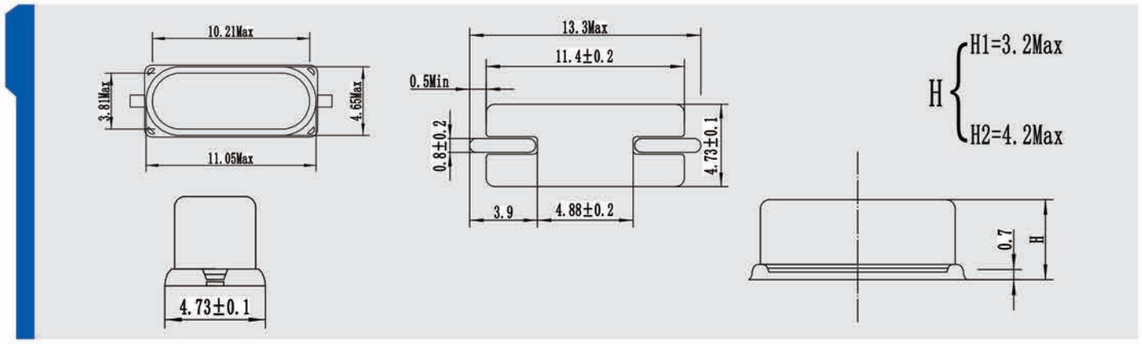
Application

- Internet
- Commercial Units
- Communication Devices
- Military equipment

Electrical Specification

Model	HC–49SMD		
Frequency Range(MHz)	3.2768~40.000	20.000~40.000	24.000~70.000
Vibration Mode	AT Fundamental	BT Fundamental	3rd Overtone
Frequency Tolerance(25℃)	± 5 × 10ˆ–6~ ± 30 × 10ˆ–6		
Storage Temperature	–55° C~+125℃		
Static Capacity	7pF Max.		
Load Capactiance	6pF~30pF or Cascade		
Insulation Resistance	>500MΩ DC/100V ± 10V		
Driving Power	0.01mW~0.1mW		
Frequency Aging	± 5 × 10ˆ–6 /Year Max.		

Drawing



HC–49SMD–3L

Features

- Wide Frequency Range
- Good Aging Rate
- AT or BT Cut
- Environmentally friendly product

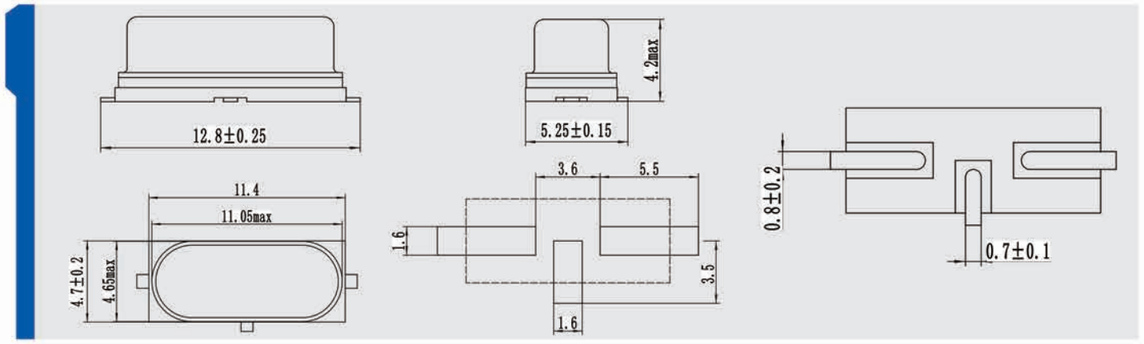
Application

- Internet
- Commercial Units
- Communication Devices
- Military equipment

Electrical Specification

Model	HC–49SMD–3L		
Frequency Range(KHz)	3.2768~40.000	20.000~40.000	24.000~70.000
Vibration Mode	AT Fundamental	BT Fundamenta	3rd Overtone
Frequency Tolerance(25℃)	± 5 × 10ˆ–6~ ± 30 × 10ˆ–6		
Storage Temperature	–55℃~+125℃		
Static Capacity	7pF Max.		
Load Capactiance	6pF~30pF or Cascade		
Insulation Resistance	>500MΩ DC/100V ± 10V		
Driving Power	0.01mW~0.1mW		
Frequency Aging	± 5 × 10ˆ–6 /Year Max.		

Drawing



HC–49S5H

Features

- Wide Frequency Range
- Good Aging Rate
- AT or BT Cut
- Anti Vibration
- Environmentally friendly product

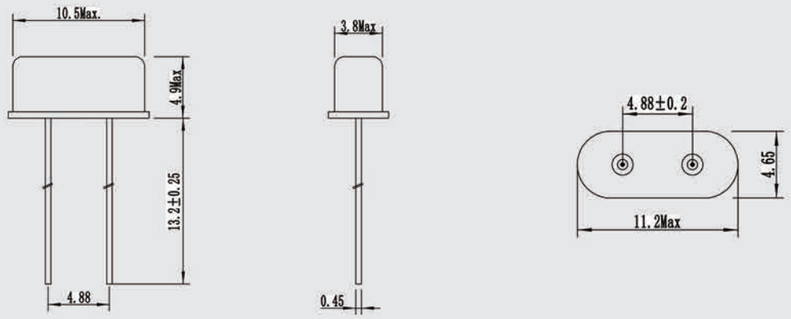
Application

- Automotive Electronics
- Commercial Units
- Communication Devices
- Military equipment

Electrical Specification

Model	HC–49S5H		
Frequency Range(MHz)	3.579~40.000	20.000~40.000	24.000~70.000
Vibration Mode	AT Fundamental	BT Fundamental	3rd Overtone
Frequency Tolerance(25℃)	± 5 × 10ˆ–6~ ± 30 × 10ˆ–6		
Storage Temperature	–55℃~+125℃		
Static Capacity	7pF Max.		
Load Capactiance	6pF~30pF or Cascade		
Insulation Resistance	>500MΩ DC/100V ± 10V		
Driving Power	0.01mW~0.1mW		
Frequency Aging	± 5 × 10ˆ–6 /Year Max.		

Drawing



HC–49S5H–Jacket

Features

- Wide Frequency Range
- Good Aging Rate
- AT or BT Cut
- Anti Vibration
- Environmentally friendly product

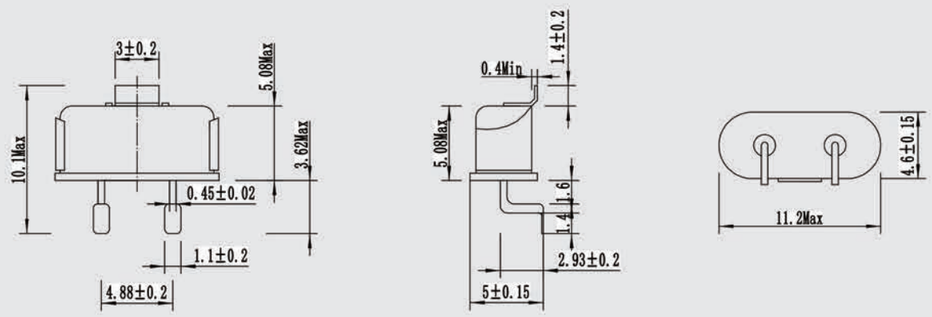
Application

- Automotive Electronics
- Commercial Units
- Communication Devices
- Military equipment

Electrical Specification

Model	HC–49S5H–Jacket		
Frequency Range(MHz)	3.579~40.000	20.000~40.000	24.000~70.000
Vibration Mode	AT Fundamental	BT Fundamental	3rd Overtone
Frequency Tolerance(25℃)	± 5 × 10ˆ–6~ ± 30 × 10ˆ–6		
Storage Temperature	–55℃~+125℃		
Static Capacity	7pF Max.		
Load Capactiance	6pF~30pF or Cascade		
Insulation Resistance	>500MΩ DC/100V ± 10V		
Driving Power	0.01mW~0.1mW		
Frequency Aging	± 5 × 10ˆ–6 /Year Max.		

Drawing



HC–49SNC

Features

- Wide Frequency Range
- Good Aging Rate
- AT or BT Cut
- Anti Vibration
- Environmentally friendly product

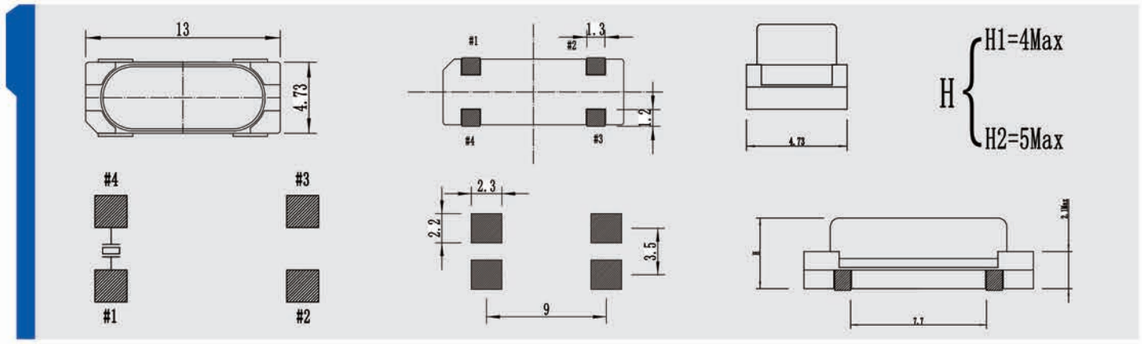
Application

- Automotive Electronics
- Commercial Units
- Communication Devices

Electrical Specification

Model	HC–49SNC		
Frequency Range(MHz)	3.2768~40.000	29.000~75.000	24.000~70.000
Vibration Mode	AT Fundamental	BT Fundamental	3rd Overtone
Frequency Tolerance(25℃)	± 5 × 10ˆ–6~ ± 30 × 10ˆ–6		
Storage Temperature	–55℃~+125℃		
Static Capacity	7pF Max.		
Load Capactiance	6pF~30pF or Cascade		
Insulation Resistance	>500MΩ DC/100V ± 10V		
Driving Power	0.01mW~0.1mW		
Frequency Aging	± 5 × 10ˆ–6 /Year Max.		

Drawing



HC–49SUB

Features

- Wide Frequency Range
- Good Aging Rate
- AT or BT Cut
- Anti Vibration
- Environmentally friendly product

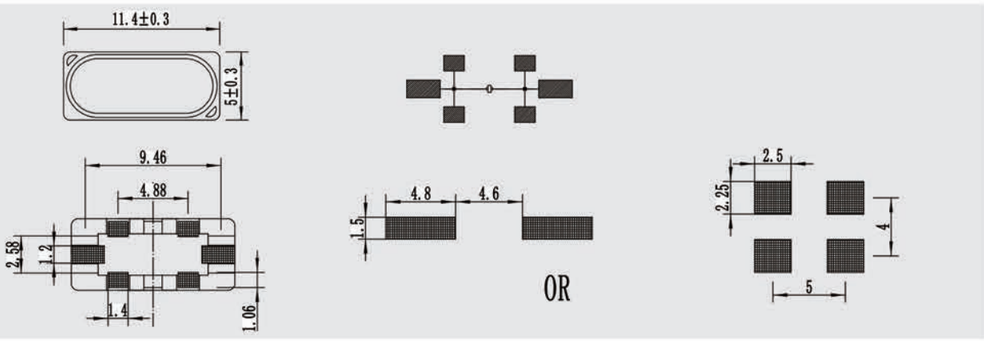
Application

- Automotive Electronics
- Commercial Units
- Communication Devices

Electrical Specification

Model	HC–49SUB		
Frequency Range(MHz)	3.2768~40.000	29.000~75.000	24.000~70.000
Vibration Mode	AT Fundamental	BT Fundamental	3rd Overtone
Frequency Tolerance(25℃)	± 5 × 10ˆ–6~ ± 30 × 10ˆ–6		
Storage Temperature	–55℃~+125℃		
Static Capacity	7pF Max.		
Load Capactiance	6pF~30pF or Cascade		
Insulation Resistance	>500MΩ DC/100V ± 10V		
Driving Power	0.01mW~0.1mW		
Frequency Aging	± 5 × 10ˆ–6 /Year Max.		

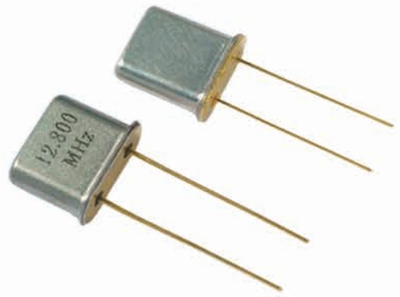
Drawing



UM–1

Features

- Wide Frequency Range
- Good Aging Rate
- AT Cut
- Environmentally friendly product



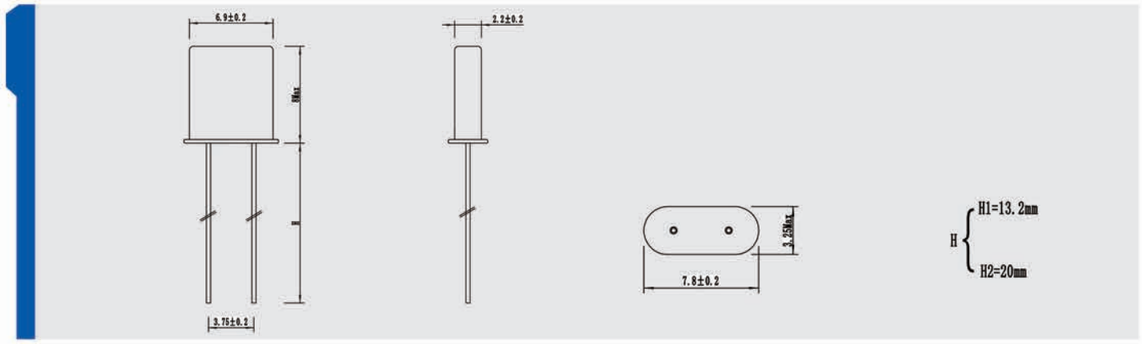
Application

- Communication Devices
- Instruments and Apparatus

Electrical Specification

Model	UM–1			
Frequency Range(MHz)	8~40	30~100	80~155	120~200
Vibration Mode	AT Fundamental	3rd Overtone	5rd Overtone	7rd Overtone
Frequency Tolerance(25℃)	± 5 × 10ˆ–6~ ± 30 × 10ˆ–6			
Storage Temperature	–55℃~+125℃			
Static Capacity	7pF Max.			
Load Capactiance	6pF~30pF or Cascade			
Insulation Resistance	>500MΩ DC/100V ± 10V			
Driving Power	0.01mW~0.1mW			
Frequency Aging	± 3 × 10ˆ–6 /Year Max.			

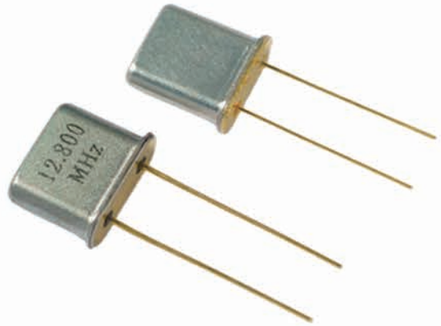
Drawing



UM–5

Features

- Wide Frequency Range
- Good Aging Rate
- AT Cut
- Environmentally friendly product



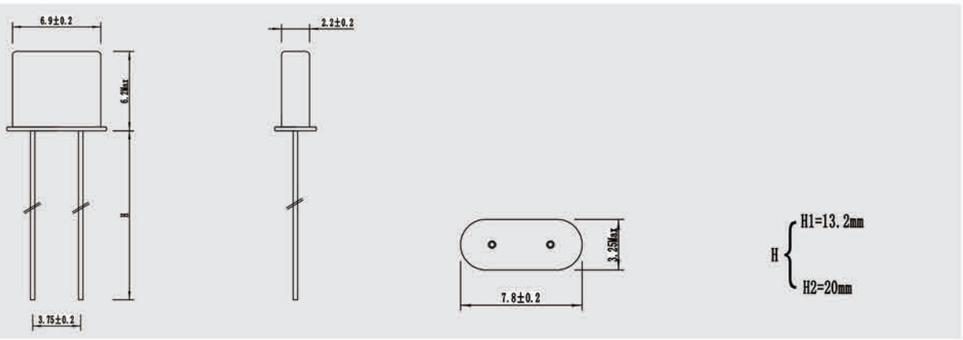
Application

- Communication Devices
- Instruments and Apparatus

Electrical Specification

Model	UM–5			
Frequency Range(MHz)	8~40	30~100	80~155	120~200
Vibration Mode	AT Fundamental	3rd Overtone	5rd Overtone	7rd Overtone
Frequency Tolerance(25℃)	± 5 × 10ˆ–6~ ± 30 × 10ˆ–6			
Storage Temperature	–55℃~+125℃			
Static Capacity	7pF Max.			
Load Capactiance	6pF~30pF or Cascade			
Insulation Resistance	>500MΩ DC/100V ± 10V			
Driving Power	0.01mW~0.1mW			
Frequency Aging	± 3 × 10ˆ–6 /Year Max.			

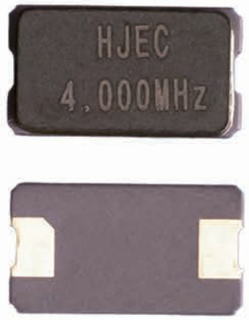
Drawing



Glass–8045

Features

- Minature size surface mount
- Ceramic package
- Glass sealing
- Small and thin



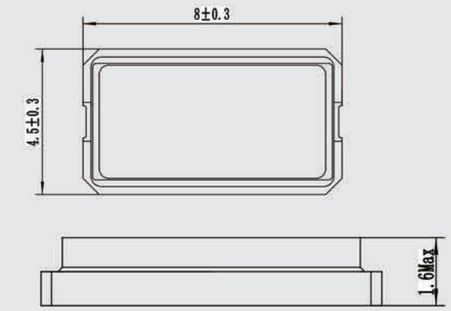
Application

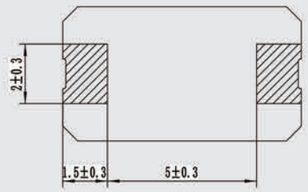
- Cellular phone
- Notebooks
- Communication equipment
- Paper

Electrical Specification

Model	Glass–8045
Frequency rang	4.000–70.000MHz
Oscillation mode	Fundamental 3rd overtone
Load capacitance	5–50PF Series
Frequency tolerance at 25℃	± 20– ± 50ppm
Frequency stability	± 20– ± 50ppm
Operation temperature range	–20+70℃ –40+85℃
Storage temperature	–55+125℃
Drive level	100 μ w typical
Shunt capacitance	7PF Max
Aging per year	± 5ppm
Insulation resistance	500MΩ min DC 100V

Drawing

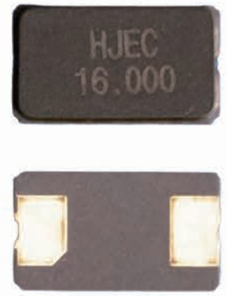




Glass–6035

Features

- Minature size surface mount
- Ceramic package
- Glass sealing
- Small and thin



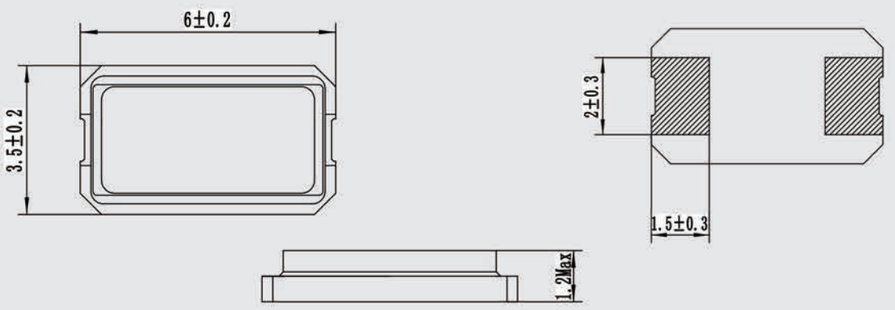
Application

- Cellular phone
- Notebooks
- Communication equipment
- Paper

Electrical Specification

Model	Glass–6035
Frequency rang	8.000–40.000MHz
Oscillation mode	Fundamental 3rd overtone
Load capacitance	5–50PF Series
Frequency tolerance at 25℃	± 10– ± 50ppm
Frequency stability	± 10– ± 50ppm
Operation temperature range	–20+70℃ –40+85℃
Storage temperature	–55+125℃
Drive level	100 μ w typical
Shunt capacitance	7PF Max
Aging per year	± 5ppm
Insulation resistance	500MΩ min DC 100V

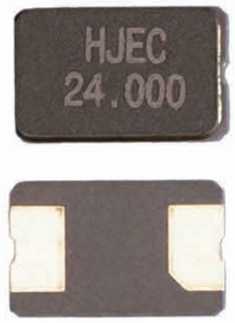
Drawing



Glass–5032

Features

- Minature size surface mount
- Ceramic package
- Glass sealing
- Small and thin



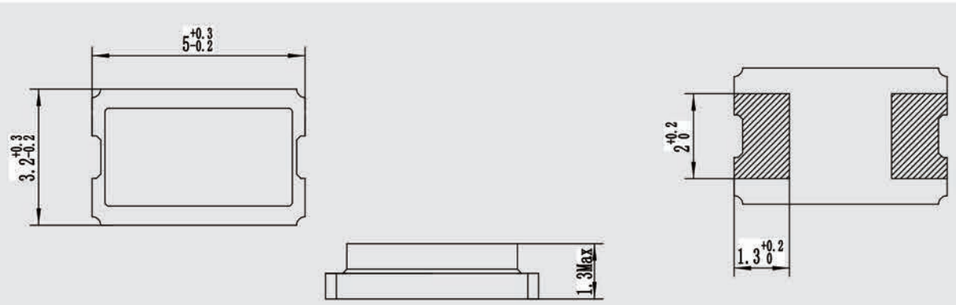
Application

- Cellular phone
- Notebooks
- Communication equipment
- Paper

Electrical Specification

Model	Glass–5032
Frequency rang	8.000–40.000MHz
Oscillation mode	Fundamental 3rd overtone
Load capacitance	5–50PF Series
Frequency tolerance at 25℃	± 10– ± 50ppm
Frequency stability	± 10– ± 50ppm
Operation temperature range	–20+70℃ –40+85℃
Storage temperature	–55+125℃
Drive level	100 μ w typical
Shunt capacitance	7PF Max
Aging per year	± 5ppm
Insulation resistance	500MΩ min DC 100V

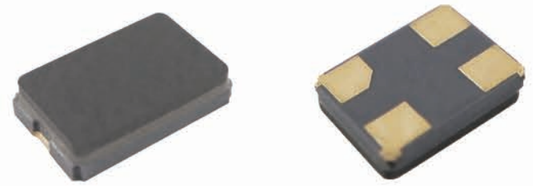
Drawing



Glass–3225

Features

- Minature size surface mount
- Ceramic package
- Glass sealing
- Small and thin



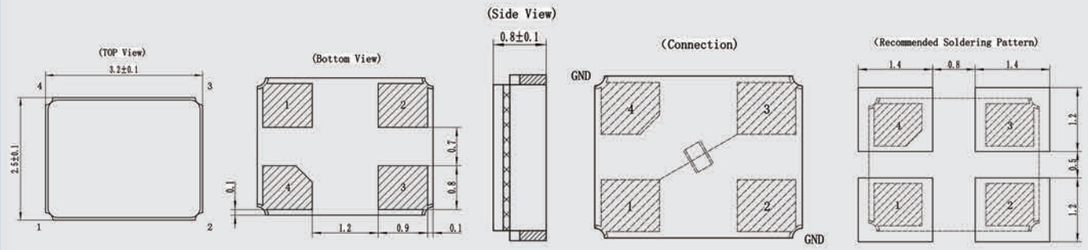
Application

- Cellular phone
- Notebooks
- Communication equipment
- Paper

Electrical Specification

Model	Glass–3225
Frequency rang	8.000–40.000MHz
Oscillation mode	Fundamental 3rd overtone
Load capacitance	5–50PF Series
Frequency tolerance at 25℃	± 10– ± 50ppm
Frequency stability	± 10– ± 50ppm
Operation temperature range	–20+70℃ –40+85℃
Storage temperature	–55+125℃
Drive level	100 μ w typical
Shunt capacitance	7PF Max
Aging per year	± 5ppm
Insulation resistance	500MΩ min DC 100V

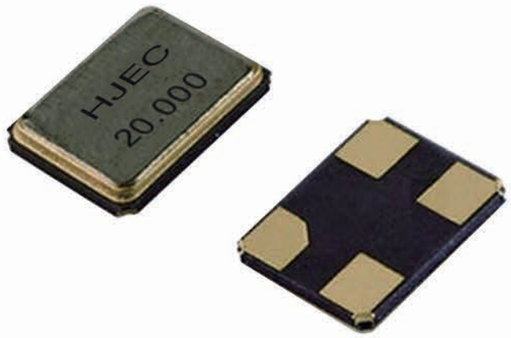
Drawing



Seam–3225

Features

- Small size
- High Precision
- Ceramic Package
- Dribbling Packing



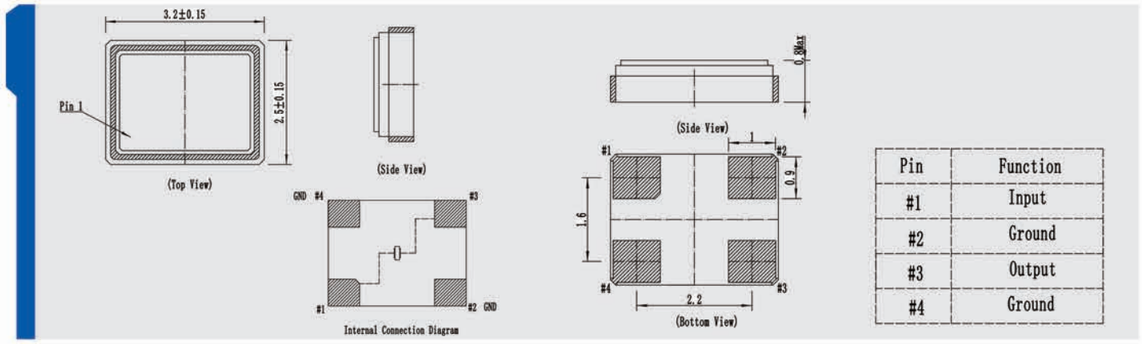
Application

- Internet
- Industrial Control
- Military Equipment
- Automotive Electronics

Electrical Specification

Model	Seam–3225
Frequency Range(MHz)	8.000~50.000
Vibration Mode	AT Fundamental
Frequency Tolerance(25℃)	± 5 × 10^–6~ ± 30 × 10^–6
Storage Temperature	–55℃~+125℃
Static Capacity	7pF Max.
Load Capactiance	6pF~30pF or Cascade
Insulation Resistance	>500MΩ DC/100V ± 10V
Driving Power	0.01mW~0.1mW
Frequency Aging	± 3 × 10^–6 /Year Max.

Drawing

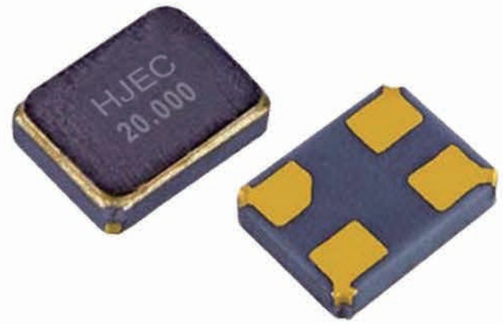


Pin	Function
#1	Input
#2	Ground
#3	Output
#4	Ground

Seam–2520

Features

- Small size
- High Precision
- Ceramic Package
- Dribbling Packing



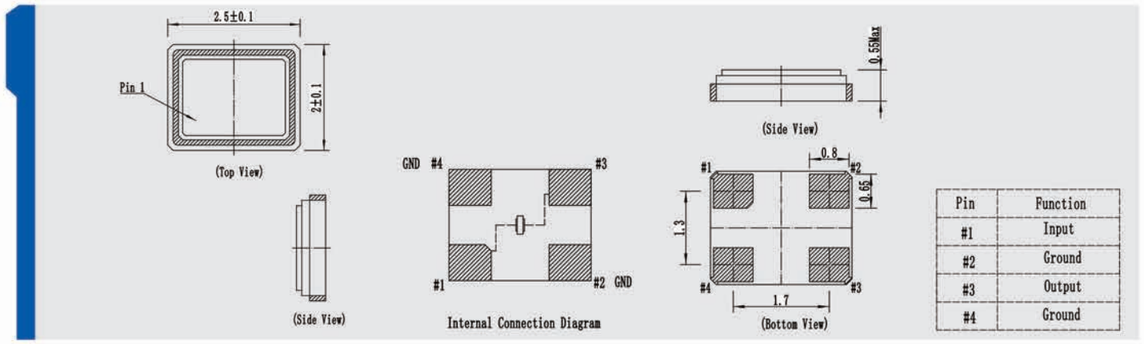
Application

- Audio Visual Equipment
- Bluetooth
- Internet
- Industrial Control

Electrical Specification

Model	Seam–2520
Frequency Range(MHz)	12.000~54.000
Vibration Mode	AT Fundamental
Frequency Tolerance(25℃)	± 5 × 10^–6~ ± 30 × 10^–6
Storage Temperature	–55℃~+125℃
Static Capacity	7pF Max.
Load Capactiance	6pF~30pF or Cascade
Insulation Resistance	>500MΩ DC/100V ± 10V
Driving Power	0.01mW~0.1mW
Frequency Aging	± 3 × 10^–6 /Year Max.

Drawing

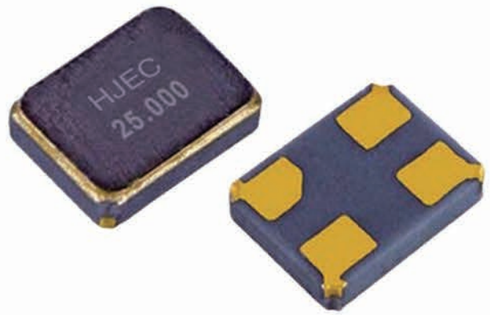


Pin	Function
#1	Input
#2	Ground
#3	Output
#4	Ground

Seam–2016

Features

- Small size
- High Precision
- Ceramic Package
- Dribbling Packing



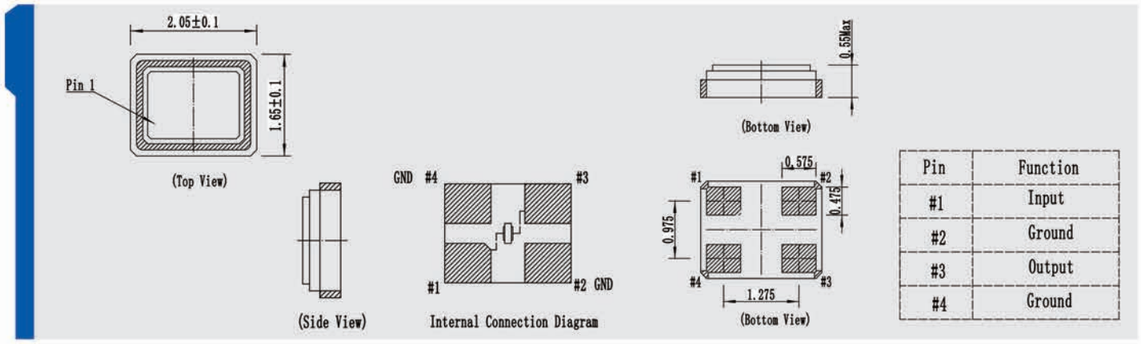
Application

- Audio Visual Equipment
- Handheld Devices
- Internet

Electrical Specification

Model	Seam–2016
Frequency Range(MHz)	16.000~60.000
Vibration Mode	AT Fundamental
Frequency Tolerance(25℃)	± 5 × 10^–6~ ± 30 × 10^–6
Storage Temperature	–55℃~+125℃
Static Capacity	3pF Max.
Load Capactiance	6pF~30pF or Cascade
Insulation Resistance	>500MΩ DC/100V ± 10V
Driving Power	0.01mW~0.1mW
Frequency Aging	± 3 × 10^–6 /Year Max.

Drawing

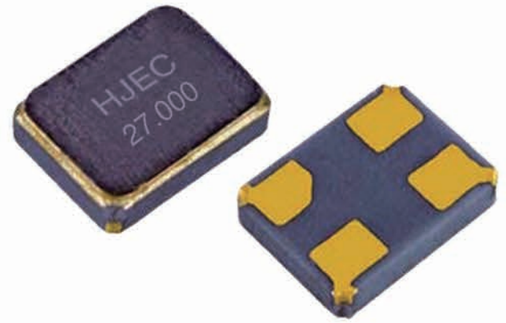


Pin	Function
#1	Input
#2	Ground
#3	Output
#4	Ground

Seam–1612

Features

- Small size
- High Precision
- Ceramic Package
- Dribbling Packing



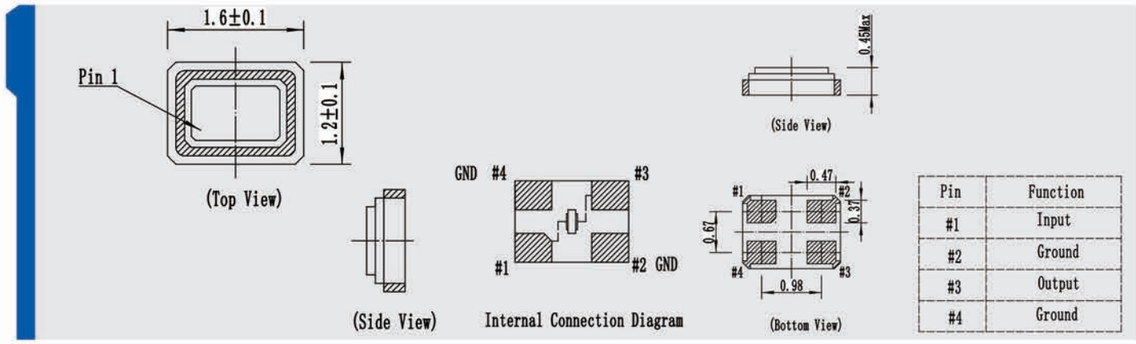
Application

- Audio Visual Equipment
- Handheld Devices
- Bluetooth Devices

Electrical Specification

Model	Seam–1612
Frequency Range(MHz)	26.000~54.000
Vibration Mode	AT Fundamental
Frequency Tolerance(25℃)	± 5 × 10^–6~ ± 30 × 10^–6
Storage Temperature	–55℃~+125℃
Static Capacity	5pF Max.
Load Capactiance	6pF~30pF or Cascade
Insulation Resistance	>500MΩ DC/100V ± 10V
Driving Power	0.01mW~0.1mW
Frequency Aging	± 3 × 10^–6 /Year Max.

Drawing



Pin	Function
#1	Input
#2	Ground
#3	Output
#4	Ground

XO7050

Features

- Optional ED control function
- Compatible with TTL/HCMOS
- Compact size
- Dribbling packaging
- Environmentally friendly product

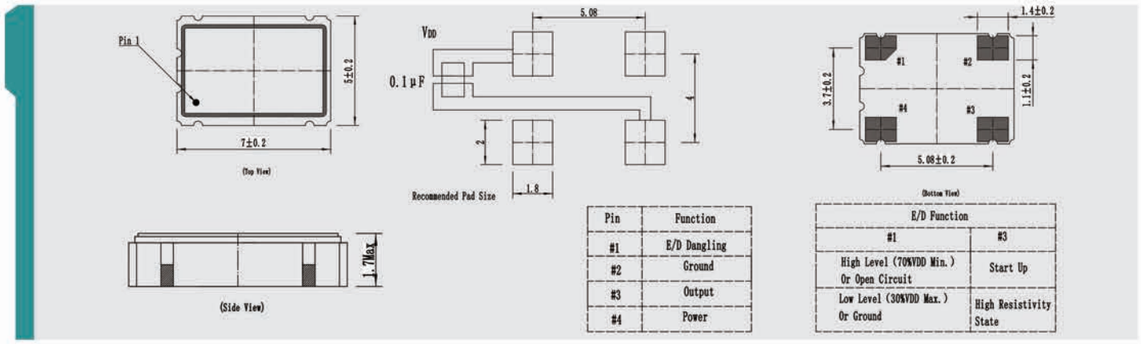
Application

- Industrial control
- Communication network
- Automotive electronic
- Instruments and Apparatus
- Military equipment

Electrical Specification

Model		Condition	XO7050			
Frequency Range			32.768KHz~200.000MHz			
Frequency Tolerance		At 25℃	≤ ± 25 ppm			
Supply Voltage (V)		+/–10%	+5.0	+3.3	+2.5	+1.8
Supply Current (mA)		32.768KHz	–	2 Max	2 Max	1 Max
		1M≤F0<40M	25 Max	15 Max	10 Max	10 Max
		40M≤F0<70M	40 Max	20 Max	15 Max	15 Max
		70M≤F0<110M	50 Max	30 Max	20 Max	–
		110M≤F0≤200M	–	30 Max	–	–
Standby Consumption		E/D=GND	30 μ A Max			
Output Waveform			TTL & CMOS		CMOS	
Output Load			15pF & 50pF		15pF	
E/D Control Function			N:Fixed Frequency, No E/D Control			
Output Symmetry		1.4V or 1/2VDD	45%~55%			
Rise time/Fall time		32.768K≤F0≤1M	50nS Max.			
		1M≤F0≤200M	5nS Max.			
Jitter		12KHz~20MHz	1.0pS Max.			
Output Level	“0”		0.4V Max. or 10% Supply voltage			
	“1”		2.4V Min. or 90%Supply voltage			
Start–Up Time			<30mS (32.768K≤F0<1M); <10mS (1M≤F0≤125M)			
Frequency Aging		25° C ± 3° C	± 3 × 10^–6 /Year Max.			
Storage Temperature			–55° C~+125° C			

Drawing



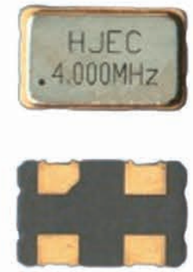
XO5032

Features

- Optional ED control function
- Compatible with TTL/HCMOS
- Compact size
- Dribbling packaging
- Environmentally friendly product

Application

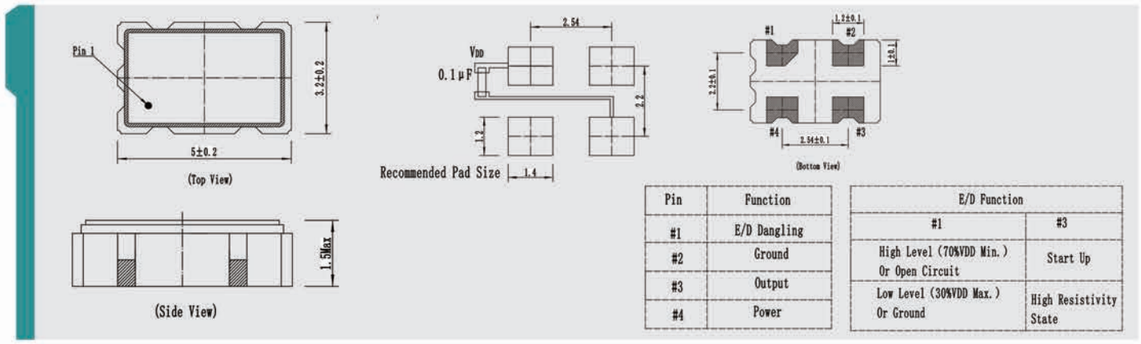
- Industrial control
- Communication network
- Automotive electronic
- Instruments and Apparatus
- Military equipment



Electrical Specification

Model		Condition	XO5032			
Frequency Range			32.768KHz~125.000MHz			
Frequency Tolerance		At 25℃	≤ ± 25 ppm			
Supply Voltage (V)		+/–10%	+5.0	+3.3	+2.5	+1.8
Supply Current (mA)		32.768KHz	–	2 Max	2 Max	1 Max
		1M≤F0<40M	25 Max	15 Max	10 Max	10 Max
		40M≤F0<70M	40 Max	20 Max	15 Max	15 Max
		70M≤F0<200M	50 Max	30 Max	20 Max	–
Standby Consumption		E/D=GND	30 μ A Max			
Output Waveform			TTL & CMOS		CMOS	
Output Load			15pF & 50pF		15pF	
E/D Control Function			N:Fixed Frequency, No E/D Control			
Output Symmetry		1.4V or 1/2VDD	45%~55%			
Rise time/Fall time		32.768K≤F0≤1M	50nS Max.			
		1M≤F0≤125M	5nS Max.			
Jitter		12KHz~20MHz	1.0pS Max.			
Output Level	“0”		0.4V Max. or 10% Supply voltage			
	“1”		2.4V Min. or 90%Supply voltage			
Start–Up Time			<30mS (32.768K≤F0<1M); <10mS (1M≤F0≤125M)			
Frequency Aging		25° C ± 3° C	± 3 × 10^–6 /Year Max.			
Storage Temperature			–55° C~+125° C			

Drawing



XO3225

Features

- Optional ED control function
- Compatible with TTL/HCMOS
- Compact size
- Dribbling packaging
- Environmentally friendly product

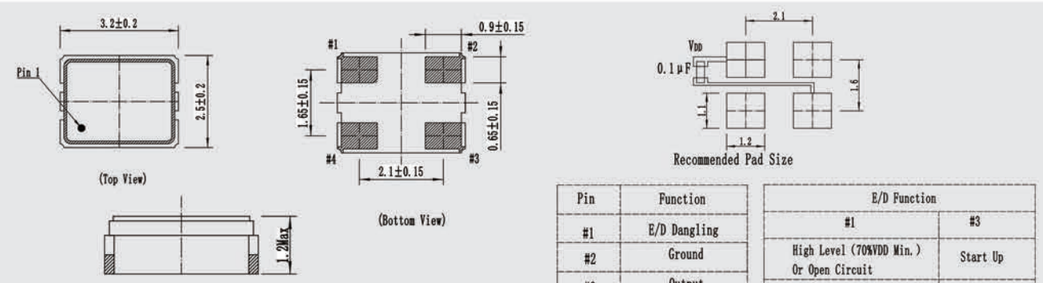
Application

- Industrial control
- Communication network
- Automotive electronic
- Instruments and Apparatus
- Military equipment

Electrical Specification

Model		Condition	XO3225		
Frequency Range			32.768KHz~125.000MHz		
Frequency Tolerance		At 25℃	≤ ± 25 ppm		
Supply Voltage (V)		+/−10%	+3.3	+2.5	+1.8
Supply Current (mA)		32.768KHz	2 Max	2 Max	1 Max
		1M≤F0<40M	15 Max	10 Max	10 Max
		40M≤F0<70M	20 Max	15 Max	15 Max
		70M≤F0<200M	30 Max	20 Max	–
Standby Consumption		E/D=GND	10 μ A Max		
Output Waveform			CMOS		
Output Load			15pF		
E/D Control Function			N:Fixed Frequency, No E/D Control		
Output Symmetry		1.4V or 1/2VDD	45%~55%		
Rise time/Fall time		32.768K≤F0≤1M	50nS Max.		
		1M≤F0≤125M	5nS Max.		
Jitter		12KHz~20MHz	3.0pS Max.		
Output Level	“0”		10% Supply voltage		
	“1”		90%Supply voltage		
Start−Up Time			<30mS (32.768K≤F0<1M); <10mS (1M≤F0≤125M)		
Frequency Aging		25° C ± 3° C	± 3 × 10ˆ−6 /Year Max.		
Storage Temperature			−55° C~+125° C		

Drawing



Pin	Function
#1	E/D Dangling
#2	Ground
#3	Output
#4	Power

E/D Function	
#1	#3
High Level (70%VDD Min.) Or Open Circuit	Start Up
Low Level (30%VDD Max.) Or Ground	High Resistivity State

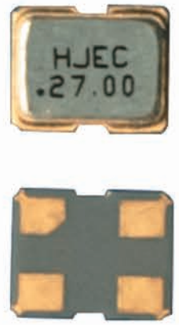
XO2016

Features

- Optional ED control function
- Compatible with TTL/HCMOS
- Compact size
- Dribbling packaging
- Environmentally friendly product

Application

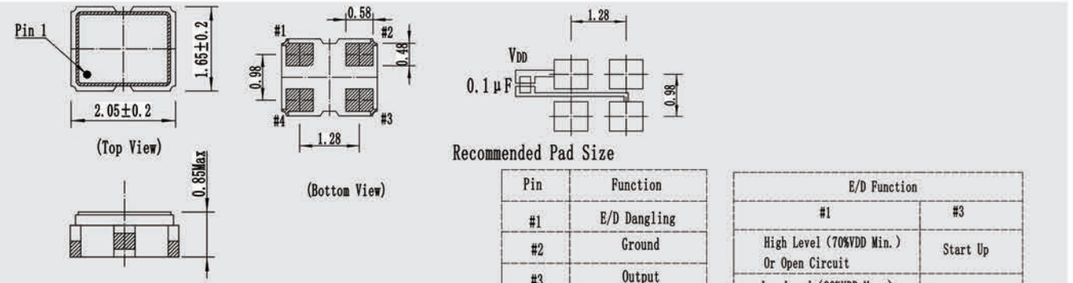
- Industrial control
- Communication network
- Internet
- Instruments and Apparatus



Electrical Specification

Model		Condition	XO2016		
Frequency Range			1.500MHZ~80.000MHz		
Frequency Tolerance		At 25℃	≤ ± 25 ppm		
Supply Voltage (V)		+/−10%	+3.3	+2.5	+1.8
		1.50M≤F0<30M	5 Max	4 Max	3 Max
		30M≤F0<80M	10 Max	8 Max	6 Max
Standby Consumption		E/D=GND	10 μ A Max		
Output Waveform			CMOS		
Output Load			15pF		
E/D Control Function			N:Fixed Frequency, No E/D Control		
Output Symmetry		1.4V or 1/2VDD	45%~55%		
Rise time/Fall time			10nS Max.		
Jitter		12KHz~20MHz	3.0pS Max.		
Output Level	“0”		10% Supply voltage		
	“1”		90%Supply voltage		
Start−Up Time			5mS Max		
Frequency Aging		25° C ± 3° C	± 3 × 10ˆ−6 /Year Max.		
Storage Temperature			−55° C~+125° C		

Drawing



Pin	Function
#1	E/D Dangling
#2	Ground
#3	Output
#4	Power

E/D Function	
#1	#3
High Level (70%VDD Min.) Or Open Circuit	Start Up
Low Level (30%VDD Max.) Or Ground	High Resistivity State

TC7050

Features

- Low Jitter ± 10x10–6
- Frequency Stability ± 0.5x10–6
- Compact size
- Dribbling packaging
- Environmentally friendly product

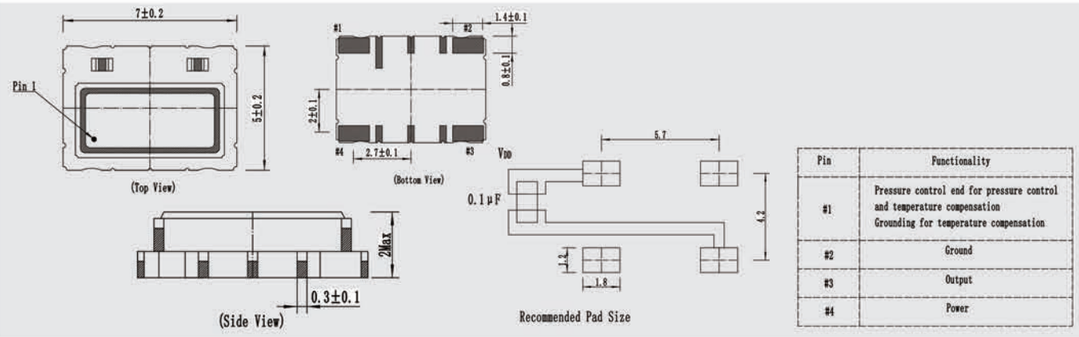
Application

- Military Radio
- PCS Base Station
- Automotive electronic
- Measuring equipment

Electrical Specification

Model		Condition	TC7050	
Frequency Range			32.768KHz~125.000MHz	
Nominal Frequency (MHz)			10 12.8 13 19.2 20 26 40 50	
Frequency Tolerance		At 25℃	≤ ± 2.0 ppm	
Supply Voltage (V)			A:+3.3 VDC ± 10% B:+5.0VDC ± 10%	
Supply Current (mA)		10M≤F0<15M	1.5mA Max.	5.0mA Max.
		15M≤F0<26M	2.0mA Max.	6.0mA Max.
		26M≤F0≤50M	2.5mA Max.	8.0mA Max.
Output Waveform			H: Peak clipping sine	CMOS
Output Load			10KΩ//10pF ± 10%	15pF
Output Level	"0"		0.8V (P–P) Min.	10% Supply voltage
	"1"		90%Supply voltage	
Low Jitter		10MHz		
Frequency Stability relative to	Working voltage	± 5%	± 0.2 × 10^–6 Max.	
	Load	± 10%	± 0.2 × 10^–6 Max.	
	Frequency Aging		± 1 × 10^–6 /Year Max.	
VcInput Impedance			1.0MΩ.	
Start–Up Time			2mS Max.	
Storage Temperature			–55° C~+125° C	

Drawing



TC5032

Features

- Low Jitter ± 10x10–6
- Frequency Stability ± 0.5x10–6
- Compact size
- Dribbling packaging
- Environmentally friendly product

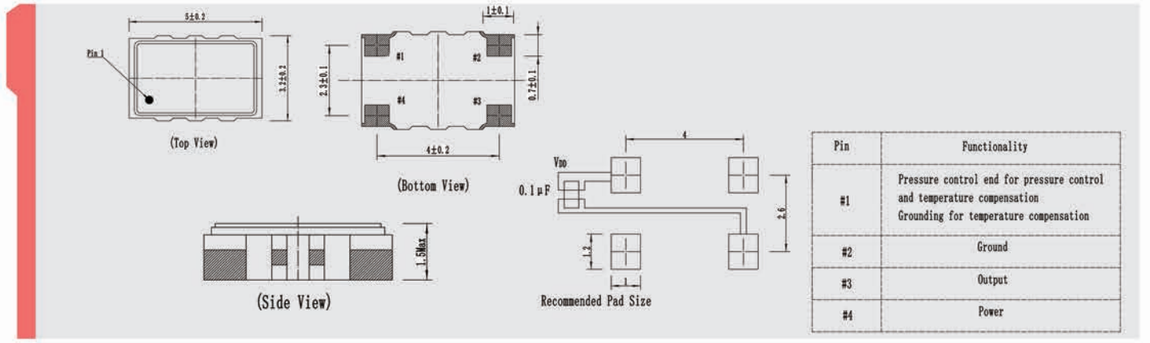
Application

- Military Radio
- PCS Base Station
- Measuring equipment

Electrical Specification

Model		Condition	TC5032	
Frequency Range			10.000MHz~50.000MHz	
Nominal Frequency (MHz)			10 12.8 13 19.2 20 26 25	
Frequency Tolerance		At 25℃	≤ ± 2.0 ppm	
Supply Voltage (V)			A:+3.3 VDC ± 10% B:+5.0VDC ± 10%	
Supply Current (mA)		10M≤F0<15M	1.5mA Max.	5.0mA Max.
		15M≤F0<26M	2.0mA Max.	6.0mA Max.
		26M≤F0≤50M	2.5mA Max.	8.0mA Max.
Output Waveform			H: Peak clipping sine	CMOS
Output Load			10KΩ//10pF ± 10%	15pF
Output Level	"0"		0.8V (P–P) Min.	10% Supply voltage
	"1"			90%Supply voltage
Low Jitter				
Phase noise		Below 10MHz	100Hz	1KHz / 10KHz
			–115dBc/Hz	–135dBc/Hz / –148dBc/Hz
Frequency Stability relative to	Working voltage	± 5%	± 0.2 × 10^–6 Max.	
	Load	± 10%	± 0.2 × 10^–6 Max.	
	Frequency Aging		± 1 × 10^–6 /Year Max.	
VcInput Impedance			1.0MΩ.	
Start–Up Time			2mS Max.	
Storage Temperature			–55° C~+125° C	

Drawing



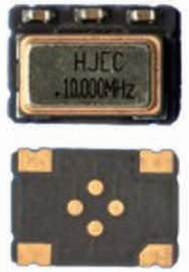
TC3225

Features

- Low Jitter ±5x10−6
- Frequency Stability ±0.5x10−6
- Compact size
- Dribbling packaging
- Environmentally friendly product

Application

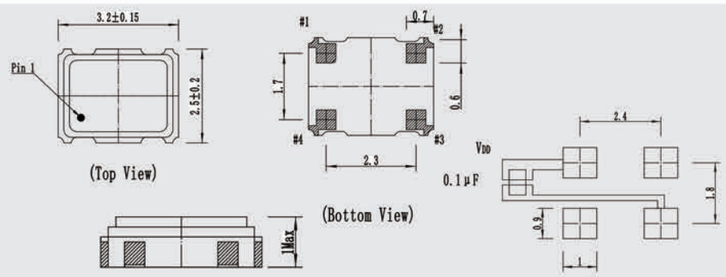
- Military Radio
- PCS Base Station
- Measuring equipment
- GPS Equipment



Electrical Specification

Model		Condition	TC3225		
Frequency Range			10.000MHz~50.000MHz		
Nominal Frequency (MHz)			10 13 19.2 19.68 26		
Frequency Tolerance		At 25℃	≤ ±2.0 ppm		
Supply Voltage (V)			A:+3.3 VDC ± 10% D:+2.5VDC ± 10% E:+1.8 VDC ± 10% D:+2.8VDC ± 10%		
Supply Current (mA)		10M≤F0<15M	1.5mA Max.		
		15M≤F0<26M	2.0mA Max.		
		26M≤F0≤50M	2.5mA Max.		
Output Waveform			H: Peak clipping sine	CMOS	
Output Load			10KΩ//10pF ± 10%	15pF	
Output Level	"0"		0.8V (P−P) Min.	10% Supply voltage	
	"1"			90%Supply voltage	
Low Jitter					
Phase noise		Below 10MHz	100Hz	1KHz	10KHz
			−115dBc/Hz	−135dBc/Hz	−148dBc/Hz
Frequency Stability relative to	Working voltage	± 5%	± 0.2 × 10ˆ−6 Max.		
	Load	± 10%	± 0.2 × 10ˆ−6 Max.		
	Frequency Aging		± 1 × 10ˆ−6 /Year Max.		
VcInput Impedance			1.0MΩ.		
Start−Up Time			2mS Max.		
Storage Temperature			−55° C~+125° C		

Drawing



Pin	Functionality
#1	Pressure control end for pressure control and temperature compensation Grounding for temperature compensation
#2	Ground
#3	Output
#4	Power

OC1420

Features

- Low Aging rate
- AT Cut or SC Cut
- Compact size
- Environmentally friendly product

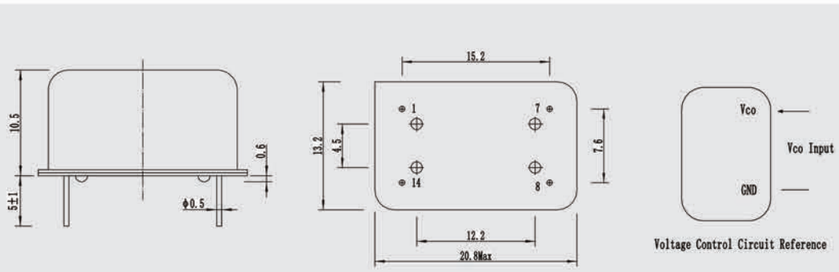
Application

- Communication Network
- Clock Synchronization
- Signal Acquisition and Monitoring
- Military Equipment

Electrical Specification

Model		OC1420		
Frequency Range		1.000MHz~100.000MHz		
Nominal Frequency (MHz)		10 16.384 20 25 50 100		
Frequency Tolerance		< ± 0.2PPM (Relative center control voltage) at 25° C		
Supply Voltage (V)		A:+3.3VDC ± 10%; B:+5.0VDC ± 10%; C:+12.0VDC ± 10%		
Supply Consumption	Warm−up	2W Max.		
	Steady State	1W Max. (at 25° C)		
Output Waveform		A: TTL 15pF B: TTL 50pF	C: CMOS 15pF D: CMOS 50pF	G: Sine Wave
Output Symmetry		45%~55%		
Low Jitter				
Frequency Stability relative to	Input Voltage	< ± 2 × 10ˆ−8(VDD ± 5%).		
	Load	< ± 2 × 10ˆ−8 Max. (Load ± 5%)		
	Start−Up Time	<7min(Fluctuation Not Exceeding ± 10−8 × F0,F0 Is Frequency After One Hour Work).		
Rise time/Fall time		10nS Max.		
Output Level	"0"	0.4V Max.	10%VDD	>0dBm//50Ω
	"1"	2.4V Min	90%VDD	
Storage Temperature		−40° C~+100° C		
Frequency Aging (After 30 days at +25℃)		A: ± 5 × 10ˆ−9/Day / ± 1 × 10ˆ−6/ Year B: ± 5 × 10ˆ−9/Day / ± 5 × 10ˆ−7/ Year		
Phase noise		10Hz	100Hz	1KHz	10KHz
		−100dBc/Hz	−120dBc/Hz	−140dBc/Hz	−150dBc/Hz
Slope / Linearity		Just		

Drawing



Pin	Functionality
#1	Control voltage / suspension
#7	Ground
#8	Output
#14	Power

OC2020

Features

- Low Aging rate
- AT Cut or SC Cut
- Compact size
- Environmentally friendly product

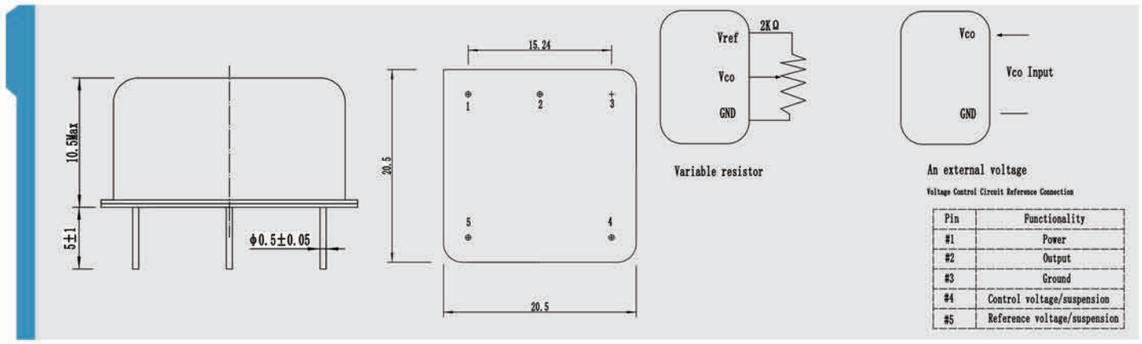
Application

- Communication Network
- Clock Synchronization
- Signal Acquisition and Monitoring
- Military Equipment

Electrical Specification

Model		OC2020		
Frequency Range		1.000MHz~100.000MHz		
Nominal Frequency (MHz)		4.096 5 8.192 10 16.384 20		
Frequency Tolerance		< ± 0.1PPM (Relative center control voltage) at 25° C		
Supply Voltage (V)		A:+3.3VDC ± 10%; B:+5.0VDC ± 10%; C:+12.0VDC ± 10%		
Supply	Warm–up	3.6W Max.		
Consumption	Steady State	1.5W Max. (at 25° C)		
Output Waveform		A: TTL 15pF B: TTL 50pF	C: CMOS 15pF D: CMOS 50pF	G: Sine Wave
Output Symmetry		45%~55%		
Low Jitter				
Frequency	Input Voltage	< ± 9 × 10^–9(VDD ± 5%).		
Stability	Load	< ± 5 × 10^–9Max. (Load ± 5%)		
relative to	Start–Up Time	<7min(Fluctuation Not Exceeding ± 10–8 × F0,F0 Is Frequency After One Hour Work).		
Rise time/Fall time		10nS Max.		
Output Level	"0"	0.4V Max.	10%VDD	>0dBm//50Ω
	"1"	2.4V Min	90%VDD	
Storage Temperature		–40° C~+100° C		
Frequency Aging (After 30 days at +25℃)		B: ± 5 × 10^–9/Day / ± 5 × 10^–7 / Year C: ± 1 × 10^–9 /Day / ± 1 × 10^–7/ Year		
Phase noise		100Hz	1KHz	10KHz
		–120dBc/Hz	–145dBc/Hz	–155dBc/Hz
Internal Reference Voltage		4V ± 0.08(VDD=5V)	8V ± 0.16(VDD=12V)	
Slope / Linearity		Just/ ± 10%		

Drawing



OC2626

Features

- Low Aging rate
- AT Cut or SC Cut
- Compact size
- Environmentally friendly product

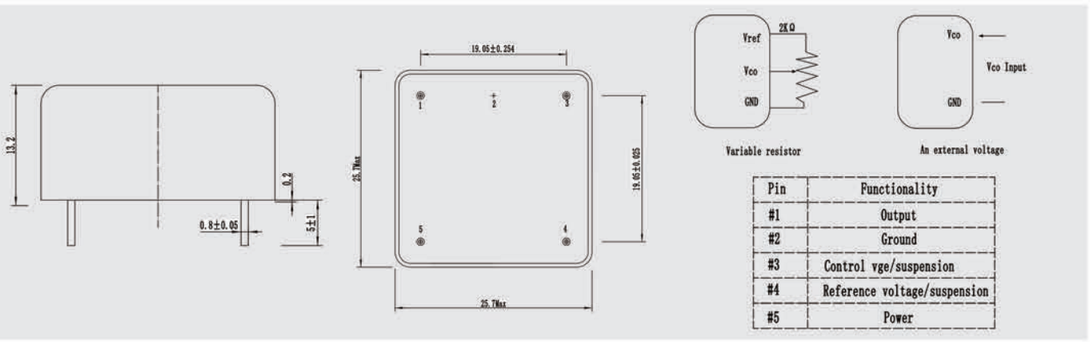
Application

- Communication Network
- Clock Synchronization
- Signal Acquisition and Monitoring
- Rf Microwave
- Military Equipment

Electrical Specification

Model		OC2626		
Frequency Range		1.000MHz~100.000MHz		
Nominal Frequency (MHz)		4.096 5 8.192 10 16.384 20		
Frequency Tolerance		< ± 0.05PPM (Relative center control voltage) at 25° C		
Supply Voltage (V)		A:+3.3VDC ± 10%; B:+5.0VDC ± 10%; C:+12.0VDC ± 10%		
Supply	Warm–up	3.6W Max.		
Consumption	Steady State	1.5W Max. (at 25° C)		
Output Waveform		A: TTL 15pF	C: CMOS 15pF	G: Sine Wave
Output Symmetry				
Low Jitter		45%~55%		
Frequency Stability relative to	Temperature			
	Input Voltage	< ± 1 × 10^–9(VDD ± 5%)		
	Load	< ± 5 × 10^–9Max. (Load ± 5%)		
	Start–Up Time	<7min(Fluctuation Not Exceeding ± 10–8 × F0, F0 Is Frequency After One Hour Work).		
Rise time/Fall time		10nS Max.		
Output Level	"0"	0.4V Max.	10%VDD	>0dBm//50Ω
	"1"	2.4V Min	90%VDD	
Storage Temperature		–40° C~+100° C		
Frequency Aging (After 30 days at +25℃)		C: ± 1 × 10^–9/Day / ± 1 × 10^–7/ Year D: ± 5 × 10^–9/Day / ± 5 × 10^–7/ Year		
Phase noise		100Hz	1KHz	10KHz
		–120dBc/Hz	–145dBc/Hz	–155dBc/Hz
Internal Reference Voltage		4V ± 0.08(VDD=5V)	8V ± 0.16(VDD=12V)	
Slope / Linearity		Just/ ± 10%		

Drawing



OC3627

Features

- Low Aging rate
- AT Cut or SC Cut
- Compact size
- Environmentally friendly product

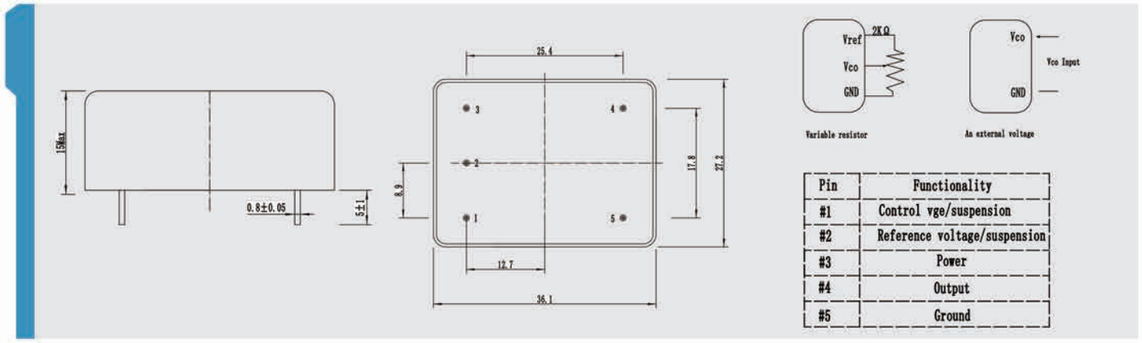
Application

- Communication Network
- Clock Synchronization
- Signal Acquisition and Monitoring
- Rf Microwave
- Military Equipment

Electrical Specification

Model		OC3627		
Frequency Range		1.000MHz~210.000MHz		
Nominal Frequency (MHz)		4.096 5 8.192 10 16.384 20		
Frequency Tolerance		< ± 0.05PPM (Relative center control voltage) at 25° C		
Supply Voltage (V)		A:+3.3VDC ± 10%; B:+5.0VDC ± 10%; C:+12.0VDC ± 10%		
Supply Consumption	Warm–up	3.6W Max.		
	Steady State	1.5W Max. (at 25° C)		
Output Waveform		A: TTL 15pF	C: CMOS 15pF	G: Sine Wave
Output Symmetry		45%~55%		
Low Jitter				
Frequency Stability relative to	Temperature			
	Input Voltage	< ± 1 × 10ˆ–9(VDD ± 5%)		
	Load	< ± 1 × 10ˆ–9Max. (Load ± 5%)		
	Start–Up Time	<7min(Fluctuation Not Exceeding ± 10–8 × F0, F0 Is Frequency After One Hour Work).		
Rise time/Fall time		10nS Max.		
Output Level	"0"	0.4V Max.	10%VDD	>0dBm//50 Ω
	"1"	2.4V Min	90%VDD	
Storage Temperature		–40° C~+100° C		
Frequency Aging (After 30 days at +25℃)		B: ± 5 × 10ˆ–9/Day / ± 5 × 10ˆ–7/ Year C: ± 1 × 10ˆ–9/Day / ± 1 × 10ˆ–7/ Year		D: ± 5 × 10ˆ–10/Day / ± 5 × 10ˆ–8 / Year
Phase noise		100Hz	1KHz	10KHz
		–120dBc/Hz	–145dBc/Hz	–155dBc/Hz
Internal Reference Voltage		4V ± 0.08(VDD=5V)	8V ± 0.16(VDD=12V)	
Slope / Linearity		Just/ ± 10%		

Drawing



OC5050

Features

- Low Aging rate
- SC Cut
- Compact size
- Environmentally friendly product

Application

- Communication Network
- Clock Synchronization
- Signal Acquisition and Monitoring
- Rf Microwave
- Military Equipment

Electrical Specification

Model		OC5050		
Frequency Range		1.000MHz~160.000MHz		
Nominal Frequency (MHz)		4.096 5 8.192 10 16.384 20		
Frequency Tolerance		< ± 0.03PPM (Relative center control voltage) at 25° C		
Supply Voltage (V)		A:+3.3VDC ± 10%; B:+5.0VDC ± 10%; C:+12.0VDC ± 10%		
Supply Consumption	Warm–up	5W Max.		
	Steady State	2W Max. (at 25° C)		
Output Waveform		A: TTL 15pF B: TTL 50pF	C: CMOS 15pF C: CMOS 50pF	G: Sine Wave
Output Symmetry		45%~55%		
Low Jitter				
Frequency Stability relative to	Temperature			
	Input Voltage	< ± 1 × 10ˆ–9 (VDD ± 5%)		
	Load	< ± 1 × 10ˆ–9Max. (Load ± 5%)		
	Start–Up Time	<7min(Fluctuation Not Exceeding ± 10–8 × F0, F0 Is Frequency After One Hour Work).		
Rise time/Fall time		10nS Max.		
Output Level	"0"	0.4V Max.	10%VDD	>0dBm//50 Ω
	"1"	2.4V Min	90%VDD	
Storage Temperature		–40° C~+100° C		
Frequency Aging (After 30 days at +25℃)		B: ± 5 × 1010ˆ–9 /Day / ± 5 × 1010ˆ–7/ Year C: ± 1 × 1010ˆ–9/Day / ± 1 × 1010ˆ–7/ Year		D: ± 5 × 1010ˆ–10/Day / ± 5 × 1010ˆ–8/ Year
Phase noise		100Hz	1KHz	10KHz
		–120dBc/Hz	–145dBc/Hz	–155dBc/Hz
Internal Reference Voltage		4V ± 0.08(VDD=5V)	8V ± 0.16(VDD=12V)	
Slope / Linearity		Just/ ± 10%		

Drawing