

东晶电子金华有限公司

JINHUA EAST CRYSTAL ELECTRONIC CO.,LTD

地址：中国浙江省金华市宾虹路555号

ADD: No.555, Binhong Road (W) ,Jinhua, Zhejiang
Province, P.R.C

电话 (TEL) : +86-579-89186666

业务直线 (SALES) :+86-579-89186787

传真 (FAX) :+86-579-89186677

电子信箱 (E-mail) : ecec@ecec.com.cn

网址 (Website) : <http://www.ecec.com.cn>

深圳办事处：深圳市福田区车公庙泰然工业区205栋西座707

电话 (TEL) : +86-755-88299802

传真 (FAX) : +86-755-88299855

ECEC



東晶電子

JINHUA EAST CRYSTAL
ELECTRONIC CO.,LTD

企业简介

ENTERPRISE BRIEF INTRODUCTION



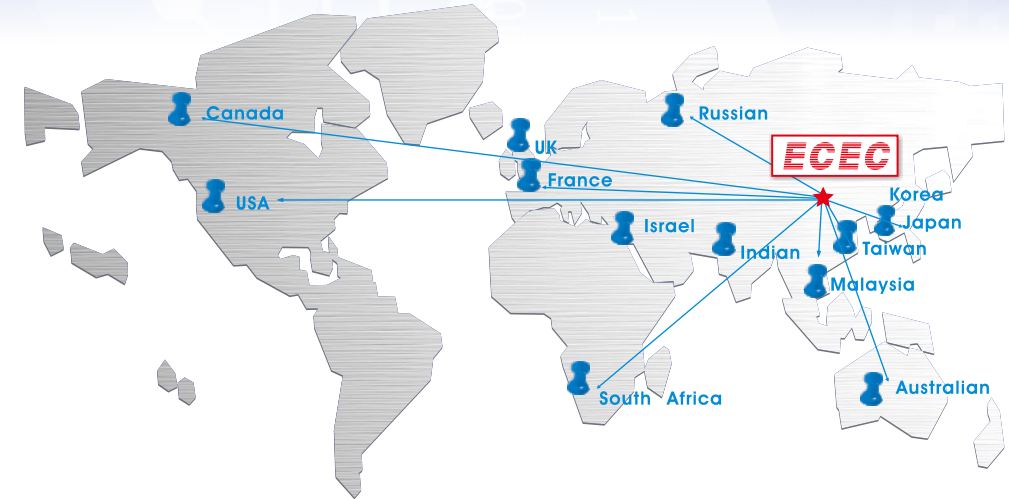
東晶電子專業從事石英晶體元器件產品的研發、設計、生產與銷售，是面向全球通訊、資訊、汽車電子、移動互聯網、智能控制、家用電器、安防智能化和航天與軍用產品提供電子元器件的一家專業化公司，公司致力於在新型電子元器件壓電晶體行業中成為最強的專業化服務公司，公司是國家重點高新技術企業、中國電子元件百強企業、國務院研究發展中心重點調研單位、浙江省金華市政府重點扶持優勢工業企業、浙江省工商企業AAA級重合同守信用單位。擁有專業的研發團隊，在石英晶體元器件領域擁有33項專利，建立了省級“院士專家工作站”、“博士後工作站”、“企業研發中心”為主陣地的優良科技平臺。

公司擁有完善的管理體系，管理科學，運作規範，生產高效，經驗豐富的高素質管理團隊，引導公司向更高的目標前進。堅持技術創新與人才引進，以科技進步為動力，力爭成為全球領先的石英晶體元器件供應商。本着：自主創新、重點跨越、持續發展、引領未來的經營宗旨，努力創造一個專注晶體行業、具有國際化領先水平的專業化服務公司。

公司具有國內從事高精度、高穩定、高品質石英晶體元器件系列產品研發、設計與生產的豐富經驗，是國內行業的領導者。擁有國際最先進的全自動生產綫40條，主要產品石英晶體諧振器，年生產能力達10億只，規模、產品質量名列國內同行業前茅。我們緊緊圍繞客戶的需求持續創新，結合客戶現狀，為客戶提供個性化定制方案以及一系列有競爭力的產品，通過自主創新和技術改造，不斷推進產品向微型化、功能化、高精度方向發展，靈活滿足日益增長的智能手機、便捷電腦、智能電視、汽車電子等市場客戶需求。

國際市場連續多年全國同行出口領先，批量出口到歐洲、中東、東南亞、北美、南美、澳大利亞、南非等地區。

公司與松下、佳能、索尼、东芝、华为及小米等國內外領先的終端產品廠商建立廣泛深入的合作關係，通過優化產品結構，為客戶定制優質的產品，形成多方共贏的合作關係。



The East Crystal Electronics Ltd. is a global leading company that specializes in the research and development, design, production, and sales of quartz crystal components, and provides electronic products for global communication, information technology, automotive electronics, mobile Internet, intelligent control, household appliances, security intelligent, as well as aerospace and military industries.

The company is committed to become one of the leading companies in the field of new electronic and quartz crystal component development and manufacturing. The company is a company that is among the National Key High-Tech companies, China's top 100 electronic component companies, the State Council Research and Development Center Key Research Units. It is a company in highly prioritized industries that receives the support from the Government of Jinhua City, Zhejiang province. The company is also rated as AAA industrial and commercial enterprises in Zhejiang province. The East Crystal Electronics Ltd. has a professional R & D team, with 33 patents in the field of quartz crystal components, as well as the provincial "Academic Expert Center," "Post-Doctoral Center," "Corporate R & D Center" as the excellent technology platform.

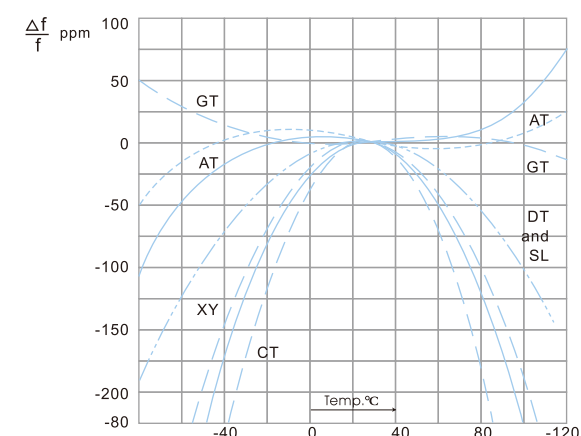
East Crystal Electronics is a domestic industry leader in the development, design, and production of high precision, stability, and quality quartz crystal components with rich experience.

The company has 40 most advanced automated production lines in the industry. The main products include quartz crystal resonator, with annual production capacity of 1 billion insize. The product qualities are ranked as top of the domestic industry. We continue to improve and innovate based on the customer demands, and provide customers with customized programs and competitive products, through intellectual innovation and technology advance. We continuously promote the products to the miniaturization, functional, high-precision direction, to meet the growing customer demands for smart phones, convenience computers, smart TVs, automotive electronics, and other markets.

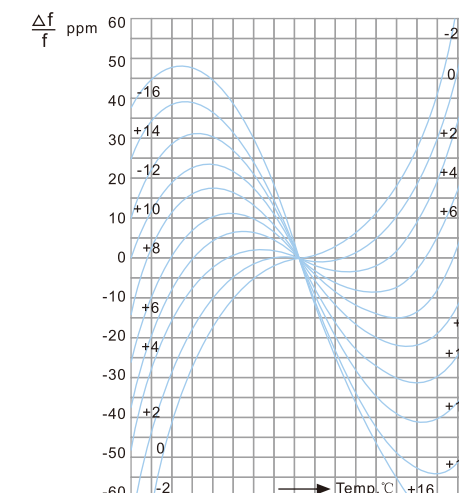
The company has established extensive and cooperative win-win relations with the Panasonic, Canon, Sony, Toshiba, Huawei, Millet, and other leading domestic and foreign end products manufacturers, through the product structure optimization, high-quality product customization.



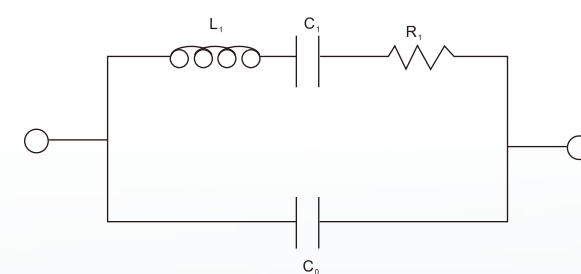
石英晶體特性曲線圖



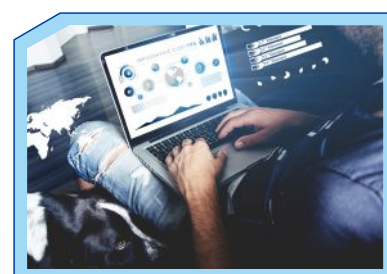
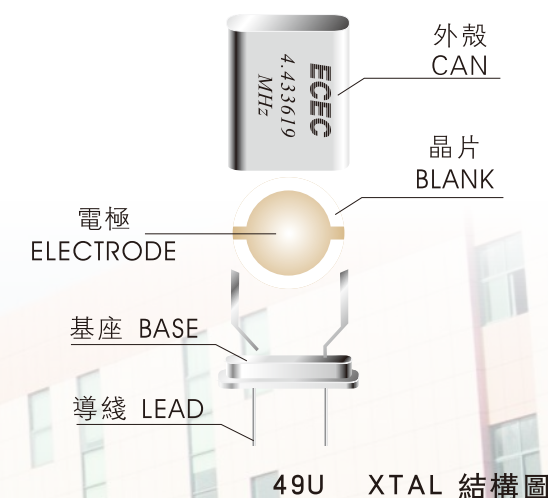
常用切型的頻率溫度特性曲線
Temperature Characteristics



AT切晶體頻率溫度特性曲線
Temperature Characteristics AT Cut



晶體等效電路
Crystal Equivalent Circuits



諧振器

藍牙，手機，無線網絡，平板電腦，視頻/音頻，數字無線電話，無線局域網，電腦外圍設備。

普通振蕩器

手機，高清電視，數字線路，機頂盒，藍牙，平板電腦，筆記本。

壓控振蕩器

基站通信，高清電視，無線局域網，衛星通信。

溫補振蕩器

GPS, WiMAX, 蜂窩網絡通信無線通信

熱敏晶體

智能無線產品、通信產品自動化設備、全球定位系統和無線網絡應用

DIP 晶體諧振器

●特點

金屬封裝、高信賴性、
金屬基座、3引綫插脚、
引綫插脚

●應用範圍

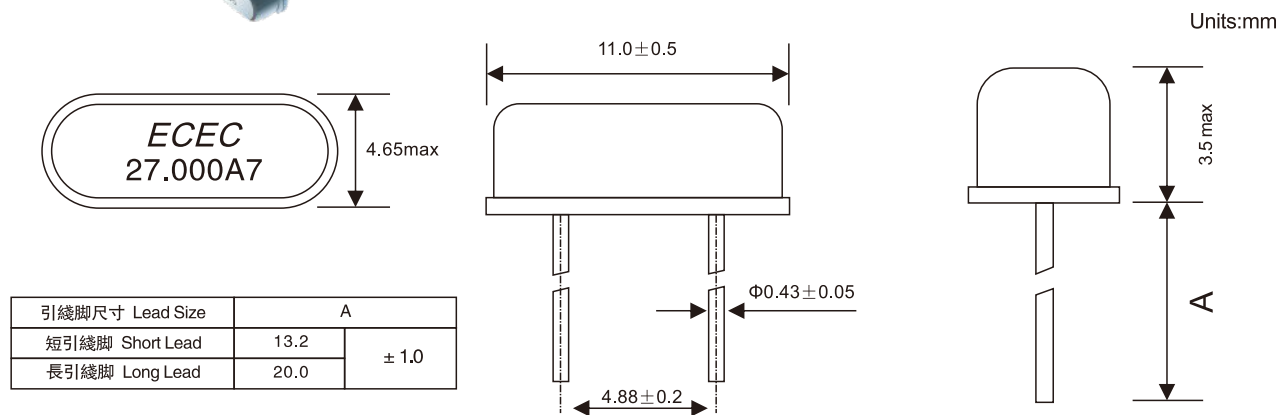
應用于電腦、調制解調器、機頂盒、
無線系統

49S B Series-2Pin



* Package (規格尺寸)
11.5*4.7*3.68mm

* Ferq.Range (頻率範圍)
3.2MHz~90MHz



DIP 晶體諧振器

●特點

金屬封裝、高信賴性

●應用範圍

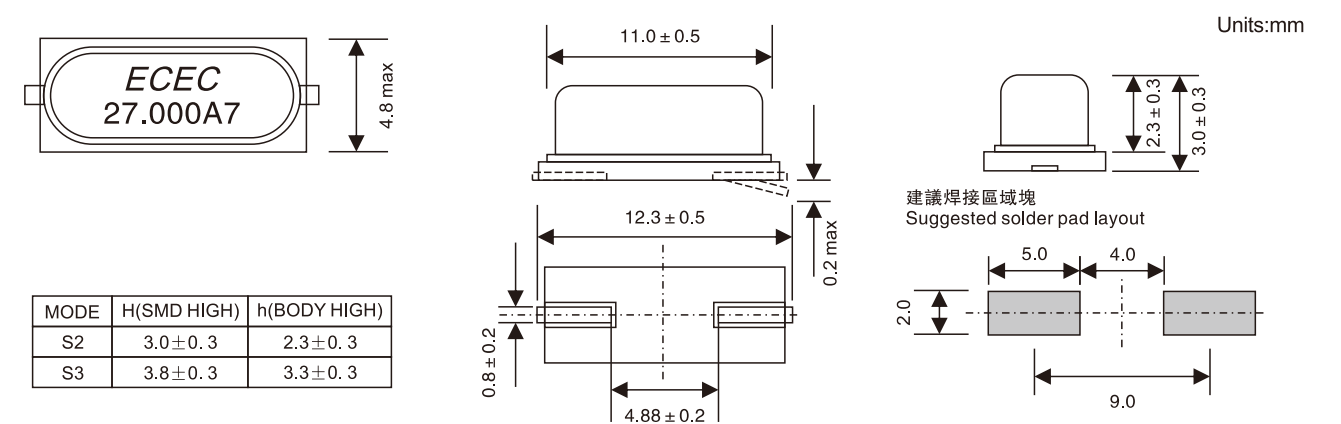
應用于電腦、調制解調器、機頂盒、
無線系統

49S/SMD C Series-2Pin



* Package (規格尺寸)
13.88*4.9*4.1mm

* Ferq.Range (頻率範圍)
3.2MHz~90MHz

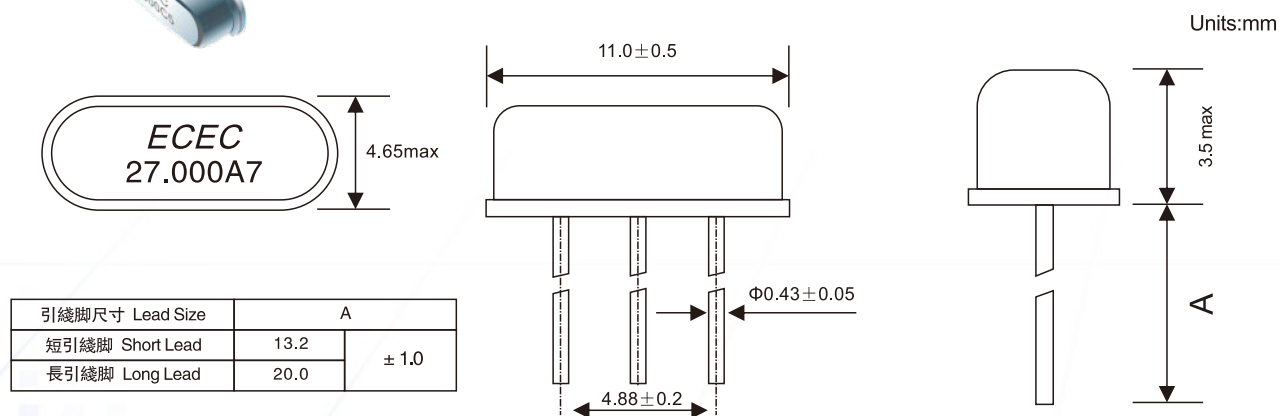


49S B Series-3Pin



* Package (規格尺寸)
11.5*4.7*3.68mm

* Ferq.Range (頻率範圍)
3.2MHz~90MHz

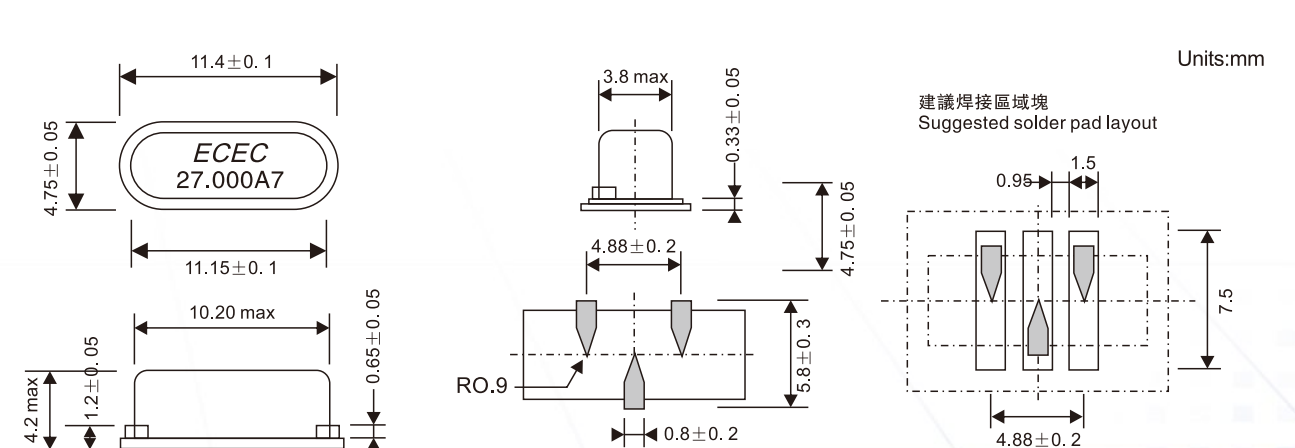


49S/SMD C Series-3Pin 同側

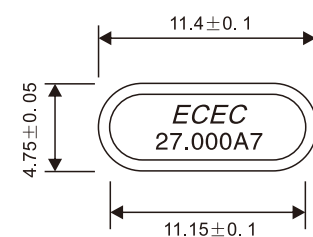


* Package (規格尺寸)
11.5*4.8*4.2mm

* Ferq.Range (頻率範圍)
3.2MHz~90MHz

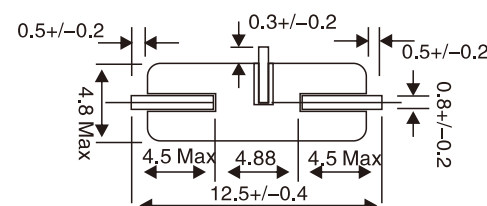
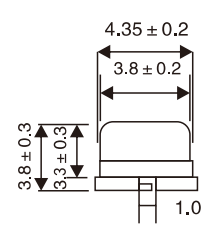
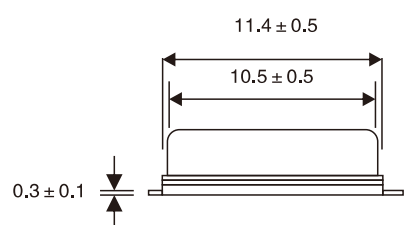


49S/SMD C Series-3Pin 异侧



* Package (规格尺寸)
11.7*5.0*4.1mm

* Ferq.Range (频率范围)
3.2MHz~90MHz



SMD 晶体谐振器

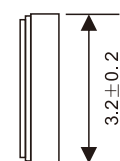
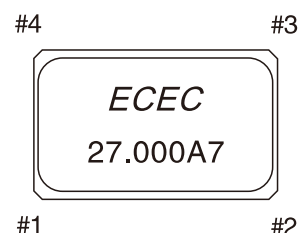
●特点

金属封装、高信赖性

●应用范围

应用于蓝牙、手机、无线局域网、
视频/音频、硬盘、显示器、电视液
晶屏、电脑外围设备

XS-5032

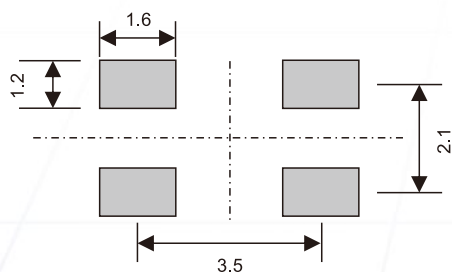
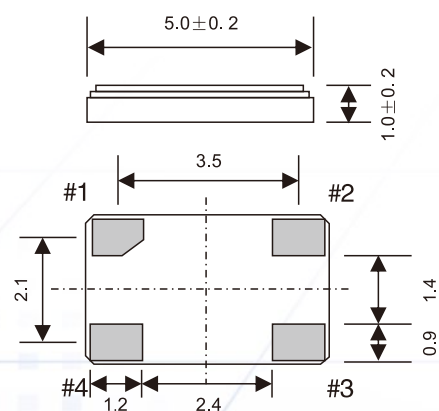


* Package (规格尺寸)
5.0*3.2*0.9mm typ

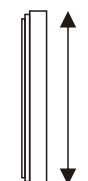
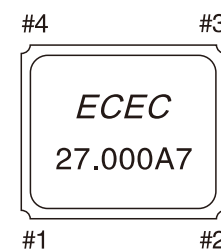
* Ferq.Range (频率范围)
8MHz~80MHz

#1, #3 连接石英晶体 connected to quartz element
#2, #4 连接接地 connected to the cover

建议焊接区域块 Suggested solder pad layout



XS-3225



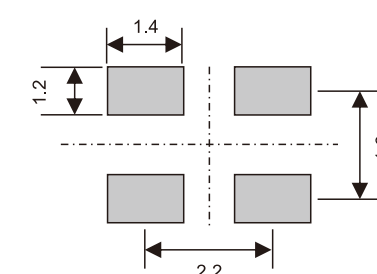
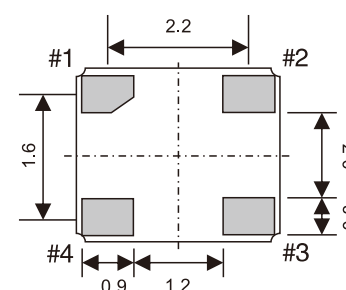
* Package (规格尺寸)
3.2*2.5*0.7mm typ

* Ferq.Range (频率范围)
8MHz~64MHz

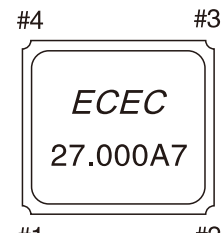


#1, #3 连接石英晶体 connected to quartz element
#2, #4 连接接地 connected to the cover

建议焊接区域块 Suggested solder pad layout



XS-2520



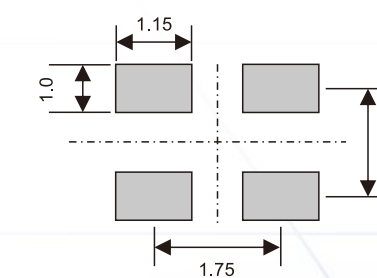
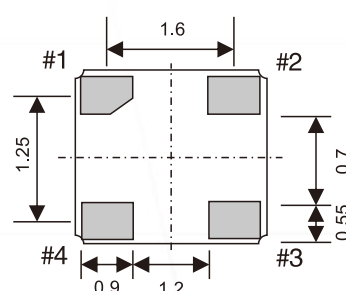
* Package (规格尺寸)
2.55*2.05*0.55mm typ

* Ferq.Range (频率范围)
12MHz~54MHz

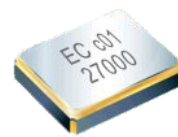
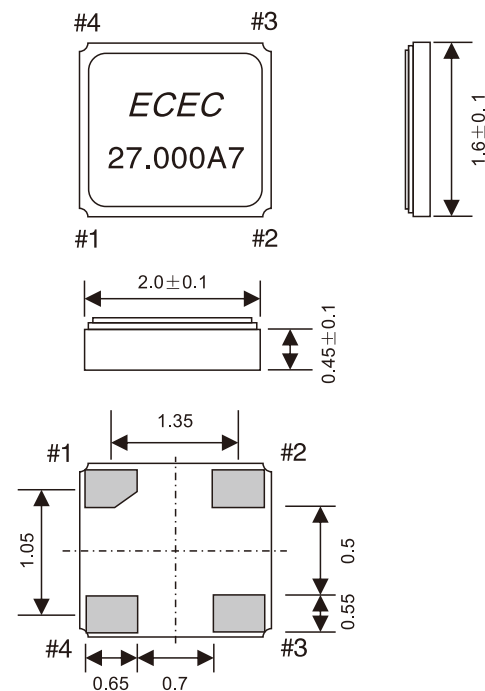


#1, #3 连接石英晶体 connected to quartz element
#2, #4 连接接地 connected to the cover

建议焊接区域块 Suggested solder pad layout



XS-2016



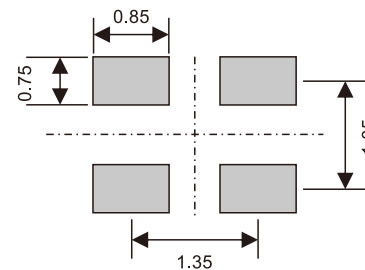
* Package (規格尺寸)
2.0*1.6*0.5mm typ

* Ferq.Range (頻率範圍)
16MHz ~ 54MHz



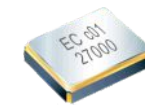
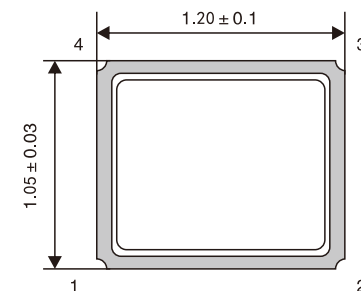
#1, #3 連接石英晶體 connected to quartz element
#2, #4 連接接地 connected to the cover

建議焊接區域塊 Suggested solder pad layout



XS-1210

Units:mm



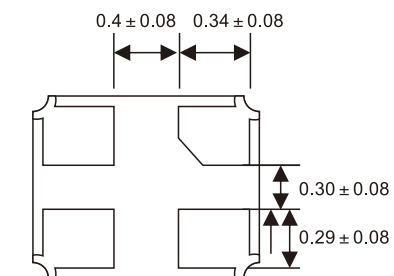
* Package (規格尺寸)
1.2*1.0*0.30mm typ

* Ferq.Range (頻率範圍)
24MHz ~ 54MHz

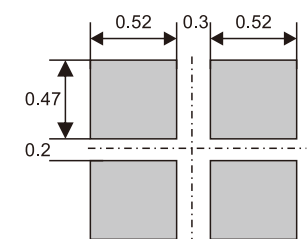


#1, #3 連接石英晶體 connected to quartz element
#2, #4 連接接地 connected to the cover

建議焊接區域塊 Suggested solder pad layout



Recommended Land Pattern

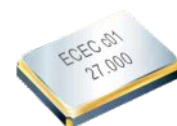
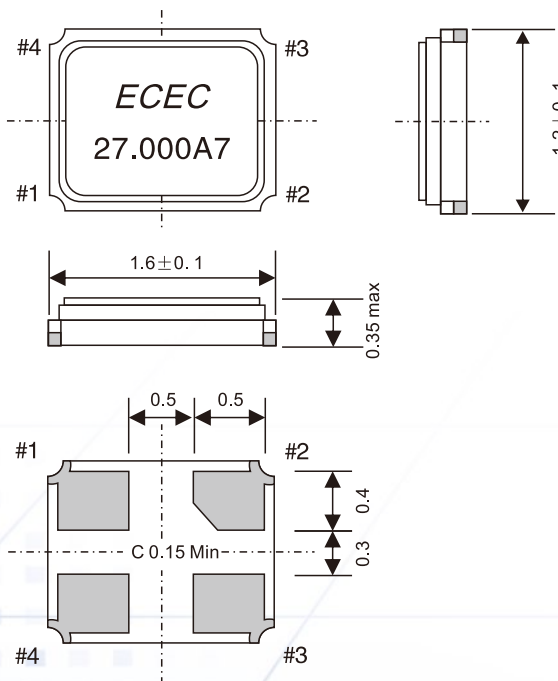


SMD 晶體諧振器

●特點
SMD 陶瓷封裝

●應用範圍
應用于掌上電腦、無線局域網、數字無線電話、電腦外圍設備、手提電腦、硬盤、MP3播放器、音頻/視頻、電腦外圍設備

XS-1612



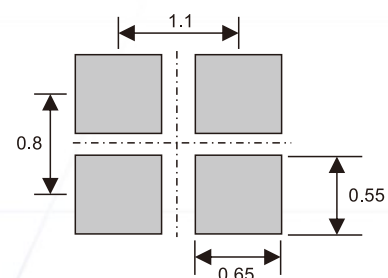
* Package (規格尺寸)
1.6*1.2*0.35mm typ

* Ferq.Range (頻率範圍)
24MHz ~ 54MHz

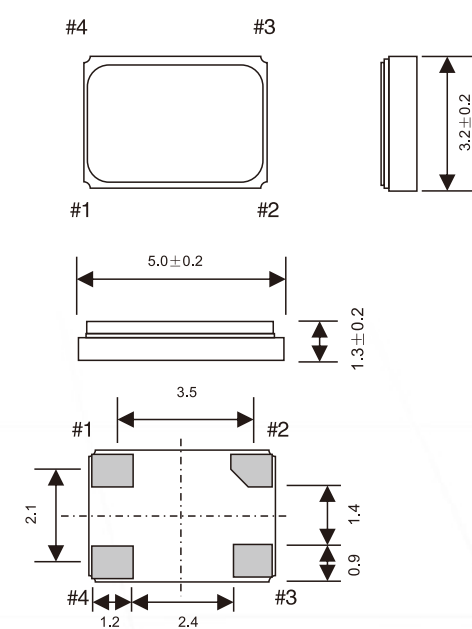


#1, #3 連接石英晶體 connected to quartz element
#2, #4 連接接地 connected to the cover

建議焊接區域塊 Suggested solder pad layout



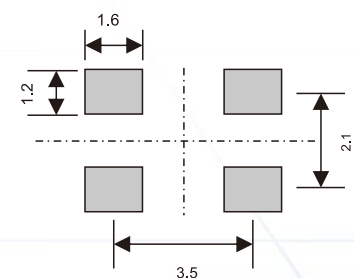
XG-5032 4pads



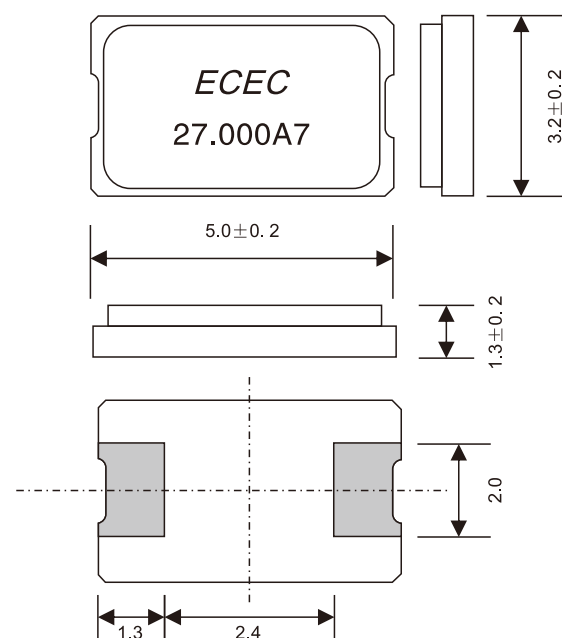
* Package (規格尺寸)
5.0*3.2*1.2mm typ

* Ferq.Range (頻率範圍)
8MHz ~ 80MHz

建議焊接區域塊 Suggested solder pad layout



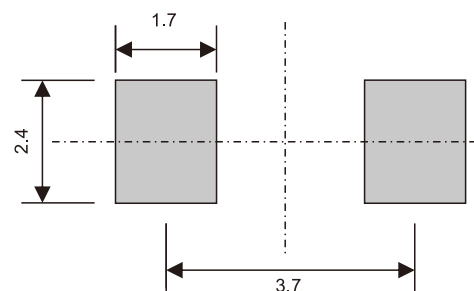
XG-5032 2pads



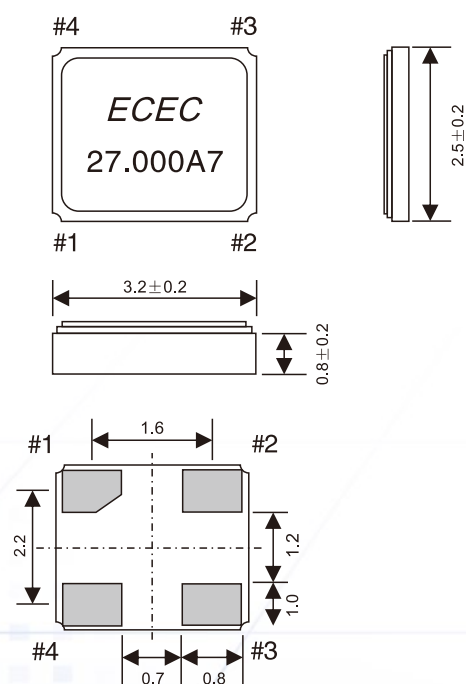
* Package (規格尺寸)
5.0*3.2*1.2mm typ

* Ferq.Range (頻率範圍)
8MHz ~ 54MHz

建議焊接區域塊
Suggested solder pad layout



XG-3225

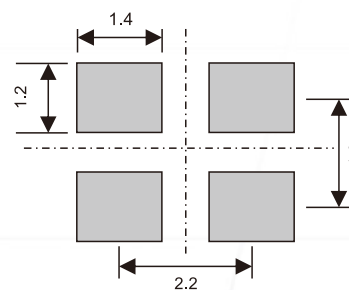


* Package (規格尺寸)
3.2*2.5*0.8mm typ

* Ferq.Range (頻率範圍)
10 MHz ~ 54 MHz

#1, #3 連接石英晶體 connected to quartz element
#2, #4 連接接地 connected to the cover

建議焊接區域塊 Suggested solder pad layout



SMD 普通晶體振蕩器

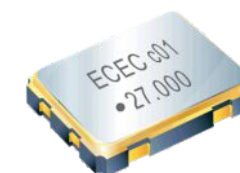
●特點

金屬封裝、高信賴性、
低功耗，具備三態功能

●應用範圍

應用于掌上電腦、PC、PDA、手機、
無線局域網、藍牙、高清電視、
筆記本、VGA卡、數字用戶線路、
機頂盒

SPXO-7050 RS Series



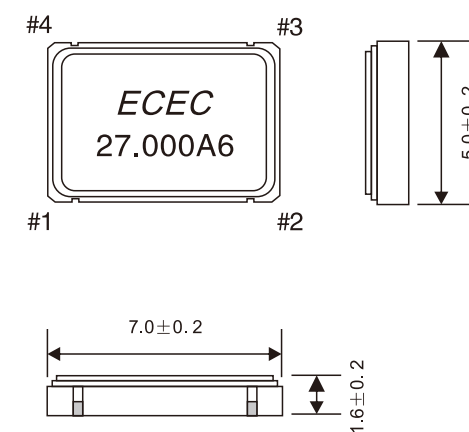
* Package (規格尺寸)
7.0*5.0*1.3mm typ

* Ferq.Range (頻率範圍)
1MHz ~ 125MHz

* Output (輸出)
CMOS

* Supply Voltage (電源電壓)
1.8V~5.0V

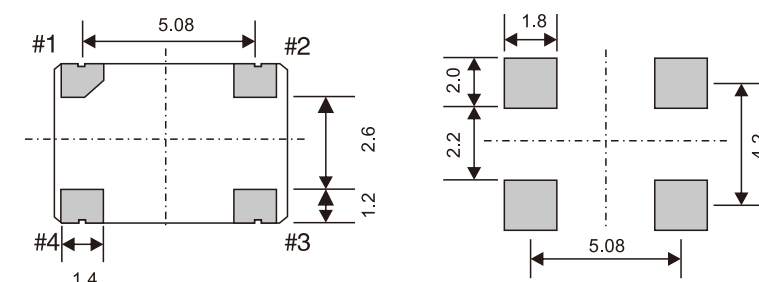
Units:mm



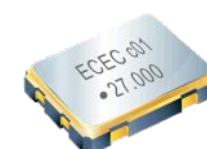
腳位功能 Pin map

Pin	Connection
#1	OE(STAND-BY)
#2	GND
#3	OUT
#4	Vdd

建議焊接區域塊
Suggested solder pad layout



SPXO-5032 SS Series



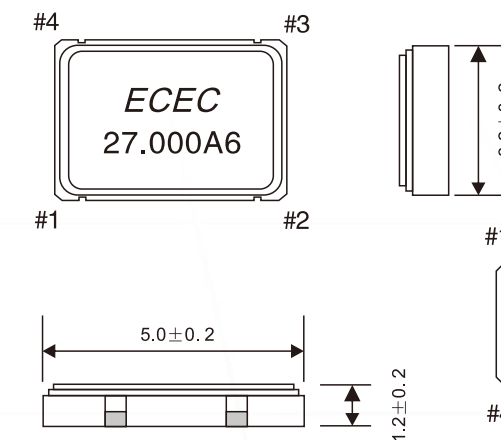
* Package (規格尺寸)
5.0*3.2*1.2mm typ

* Ferq.Range (頻率範圍)
1MHz ~ 125MHz

* Output (輸出)
CMOS

* Supply Voltage (電源電壓)
1.8V~5.0V

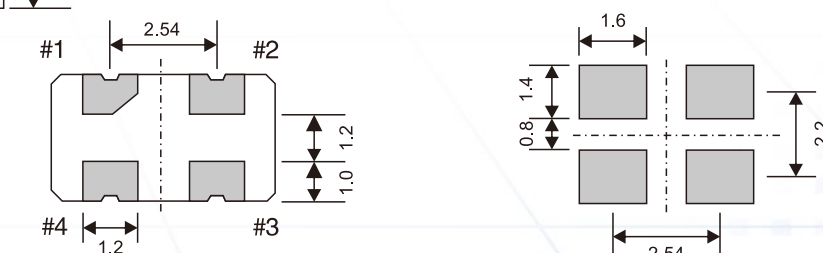
Units:mm



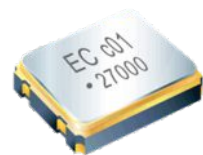
腳位功能 Pin map

Pin	Connection
#1	OE(STAND-BY)
#2	GND
#3	OUT
#4	Vdd

建議焊接區域塊
Suggested solder pad layout



SPXO-3225 TS Series

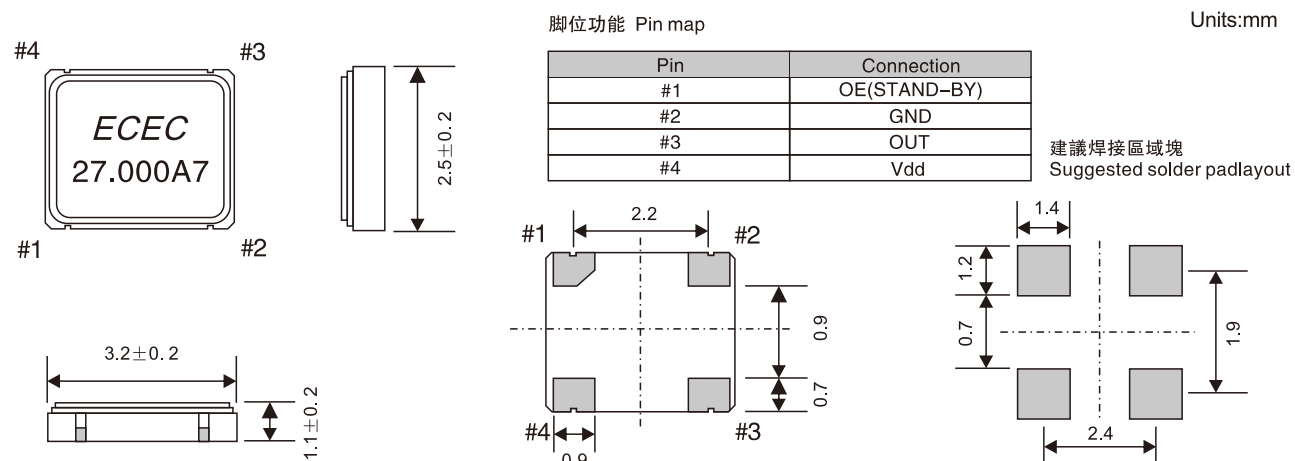


* Package (規格尺寸)
3.2*2.5*1.0mm typ

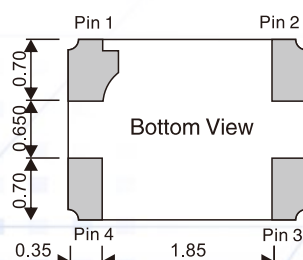
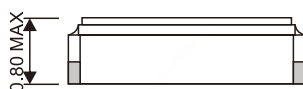
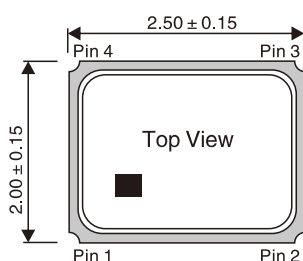
* Output (輸出)
CMOS

* Ferq.Range (頻率範圍)
1MHz ~ 100MHz

* Supply Voltage (電源電壓)
1.8V~5.0V



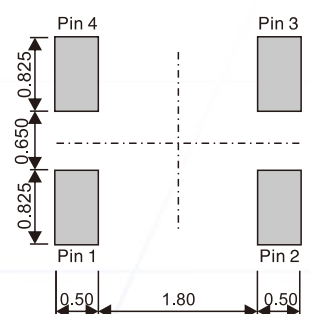
SPXO-2520 DS Series



Pin Connection

Name	Function
Pin 1	GND
Pin 2	GND
Pin 3	OUTPUT
Pin 4	VCC

Recommended Land Pattern



* Package (規格尺寸)
2.5*2.0*0.8mm typ

* Output (輸出)
CMOS

* Ferq.Range (頻率範圍)
1MHz ~ 54MHz

* Supply Voltage (電源電壓)
1.8V~5.0V



SMD 實時時鐘晶體振蕩器

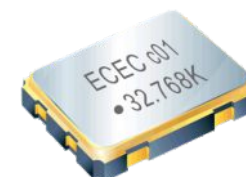
●特點

SMD 金屬封裝 實時
時鐘晶體振蕩器，
具體三態功能可省電、
低功耗

●應用範圍

通常用于實時時鐘的應用

RTC-7050 RS Series

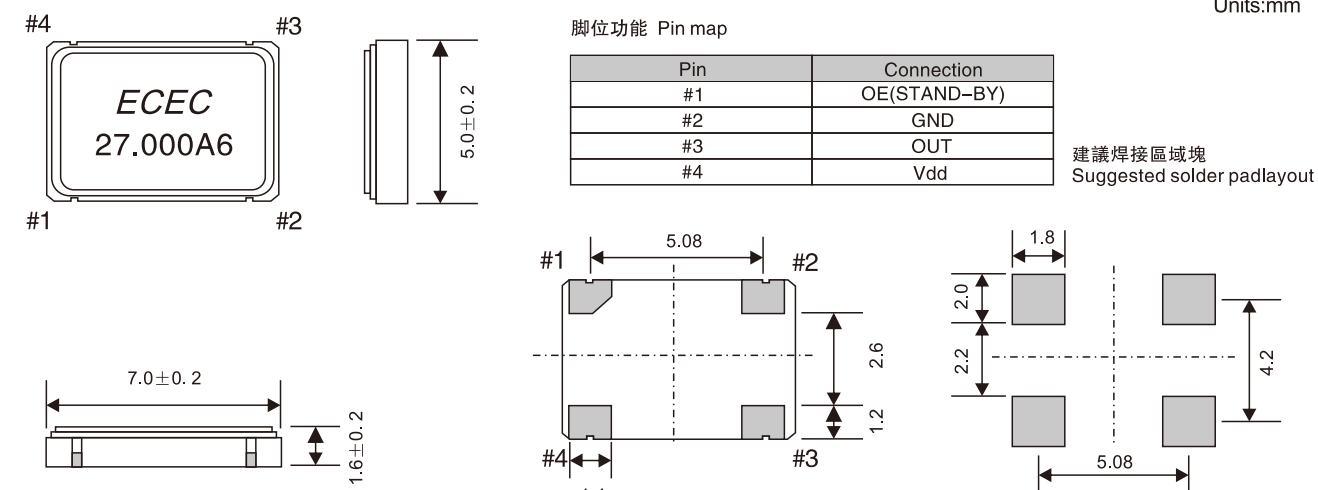


* Package (規格尺寸)
7.0*5.0*1.3mm typ

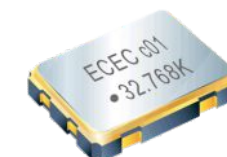
* Output (輸出)
CMOS

* Ferq.Range (頻率範圍)
32.768KHz

* Supply Voltage (電源電壓)
1.8V~5.0V



RTC-5032 SS Series

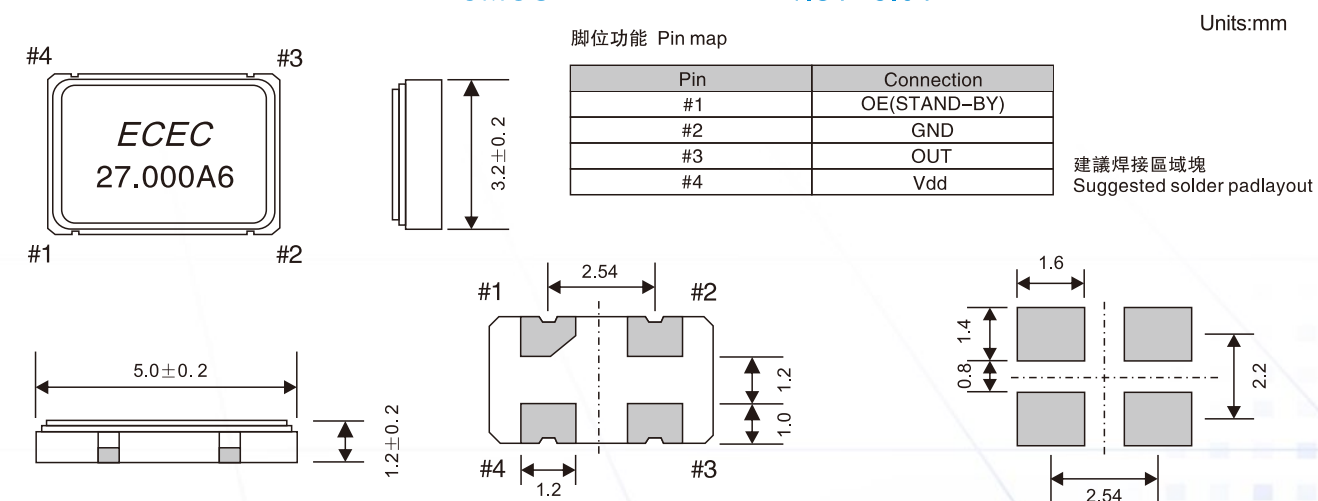


* Package (規格尺寸)
5.0*3.2*1.2mm typ

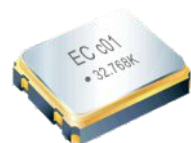
* Output (輸出)
CMOS

* Ferq.Range (頻率範圍)
32.768KHz

* Supply Voltage (電源電壓)
1.8V~5.0V



RTC-3225 TS Series

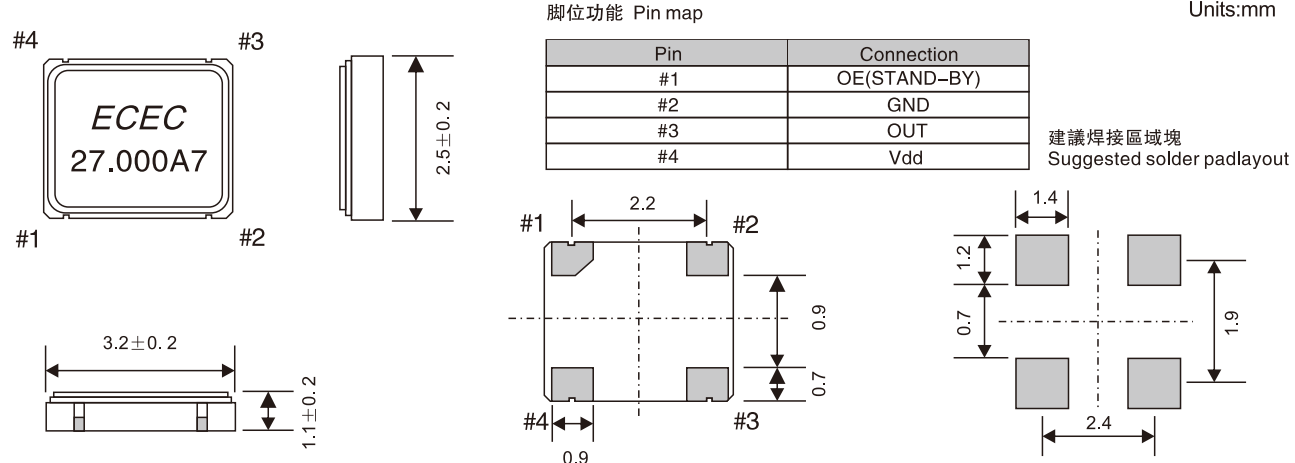


* Package (規格尺寸)
3.2*2.5*1.0mm typ

* Ferq.Range (頻率範圍)
32.768KHz

* Output (輸出)
CMOS

* Supply Voltage (電源電壓)
1.8V~5.0V

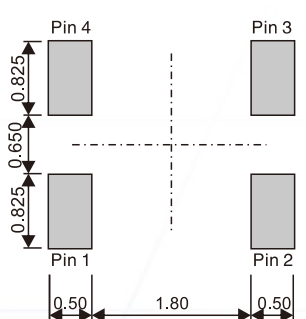


RTC-2520 DS Series

Pin Connection

Name	Function
Pin 1	GND
Pin 2	GND
Pin 3	OUTPUT
Pin 4	VCC

Recommended Land Pattern

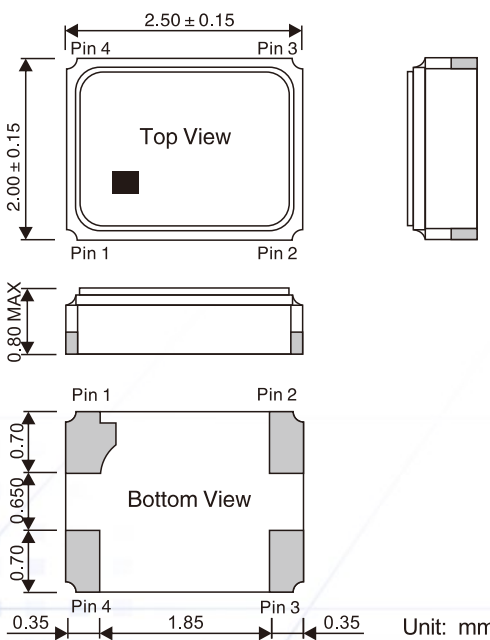


* Package (規格尺寸)
2.5*2.0*0.8mm typ

* Output (輸出)
CMOS

* Ferq.Range (頻率範圍)
32.768KHz

* Supply Voltage (電源電壓)
1.8V~3.3V



SMD 壓控晶體振蕩器

●特點

金屬封裝、高信賴性、
低功耗，寬拖動範圍
和良好的綫性度

●應用範圍

應用于數字用戶綫褲/IP電話、
無線局域網、高清電視、
機頂盒

VCXO-7050 6Pads RV Series

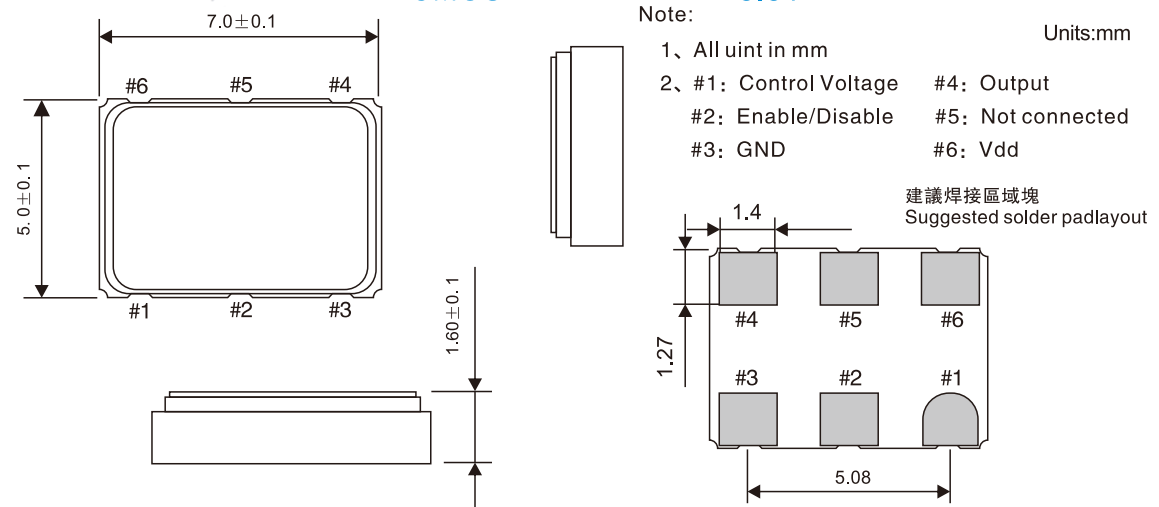


* Package (規格尺寸)
7.0*5.0*1.6mm typ

* Ferq.Range (頻率範圍)
1MHz~126MHz

* Output (輸出)
CMOS

* Supply Voltage (電源電壓)
3.3V



VCXO-7050 4Pads RV Series

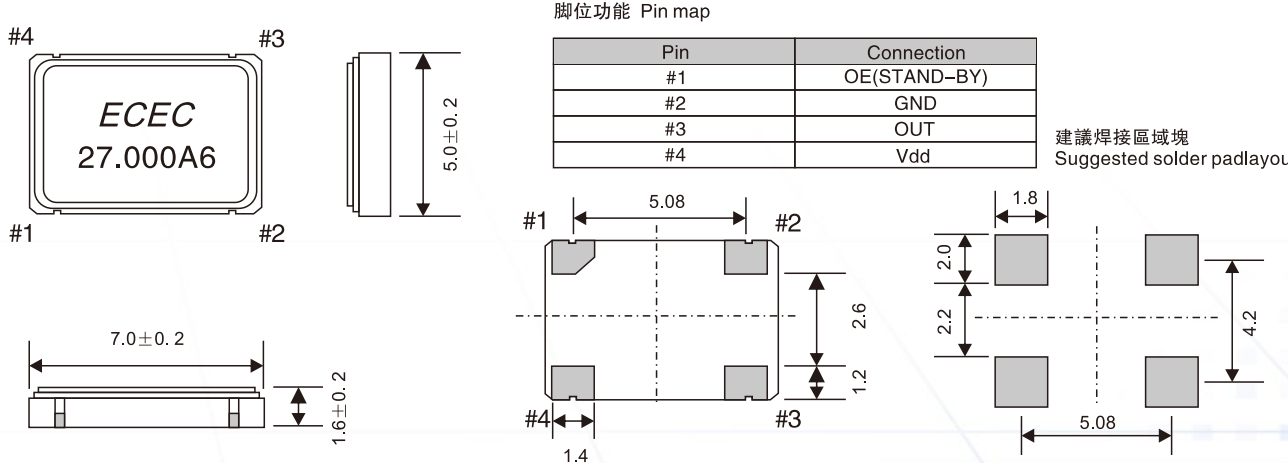
* Package (規格尺寸)
7.0*5.0*1.3mm typ

* Ferq.Range (頻率範圍)
1MHz~126MHz

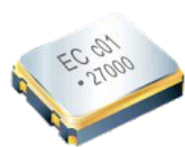
* Output (輸出)
CMOS

* Supply Voltage (電源電壓)
3.3V

Units:mm



VCXO-3225 4Pads TV Series

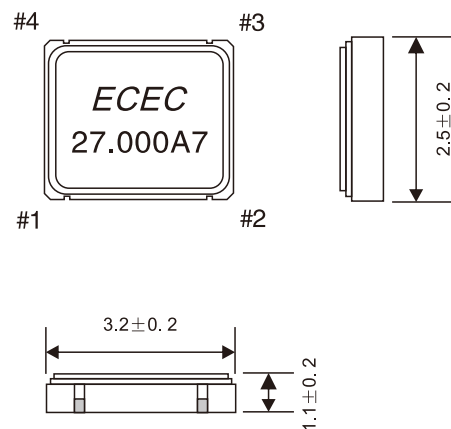


* Package (規格尺寸) 3.2*2.5*1.0mm typ
* Ferq.Range (頻率範圍) 1MHz~62MHz

* Output (輸出) CMOS
* Supply Voltage (電源電壓) 3.3V



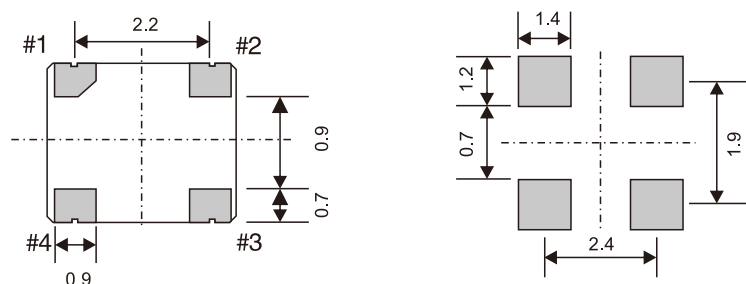
Units:mm



脚位功能 Pin map

Pin	Connection
#1	OE(STAND-BY)
#2	GND
#3	OUT
#4	Vdd

建議焊接區域塊
Suggested solder pad layout



SMD 溫補晶體振蕩器

●特點

金屬封裝、高信賴性、
低功耗，寬拖動範圍
和良好的綫度性

●應用範圍

GPS,WiMAX,蜂窩網絡通信
無線通信

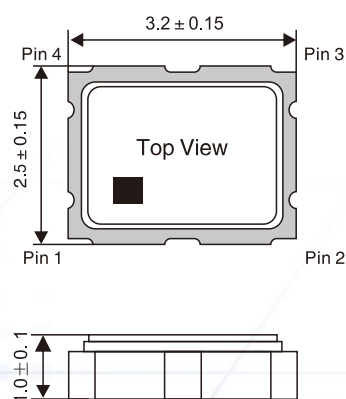
TCXO-3225 4Pads 7Q Series



* Package (規格尺寸) 3.2*2.5*1.0mm typ
* Ferq.Range (頻率範圍) 13 MHz~52 MHz

* Output (輸出) Clipped Sinewave
* Supply Voltage (電源電壓) 1.8V~3.3V

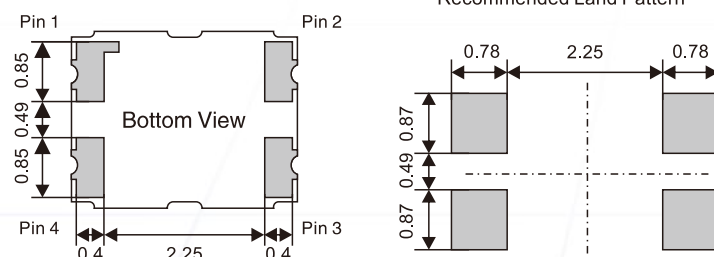
Units:mm



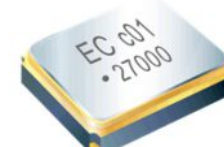
Pin Connection

Name	Connection
Pin 1	AFC or GND
Pin 2	GND
Pin 3	OUTPUT
Pin 4	VCC

Recommended Land Pattern



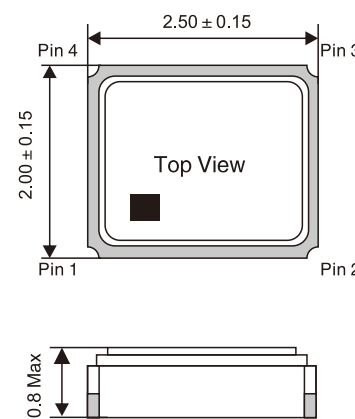
TCXO-2520 4Pads 7L Series



* Package (規格尺寸) 2.5*2.0*0.8mm typ
* Ferq.Range (頻率範圍) 13 MHz~52 MHz

* Output (輸出) Clipped Sinewave
* Supply Voltage (電源電壓) 1.8V~3.3V

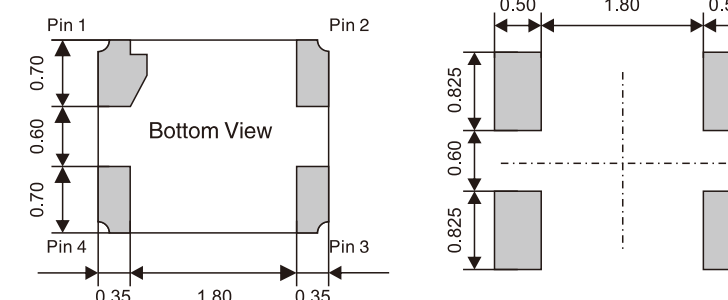
Units:mm



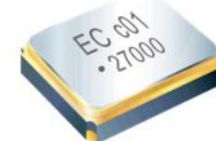
Pin Connection

Name	Connection
Pin 1	AFC or GND
Pin 2	GND
Pin 3	OUTPUT
Pin 4	VCC

Recommended Land Pattern



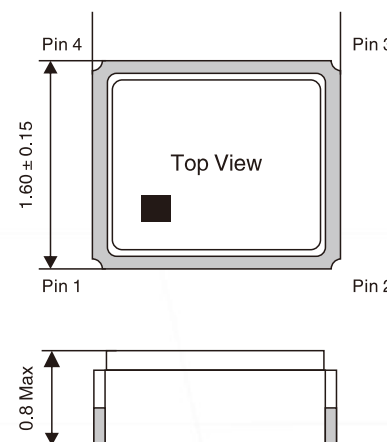
TCXO-2016 4Pads 8P Series



* Package (規格尺寸) 2.0*1.6*0.75mm typ
* Ferq.Range (頻率範圍) 26 MHz~52 MHz

* Output (輸出) Clipped Sinewave
* Supply Voltage (電源電壓) 1.8V~3.3V

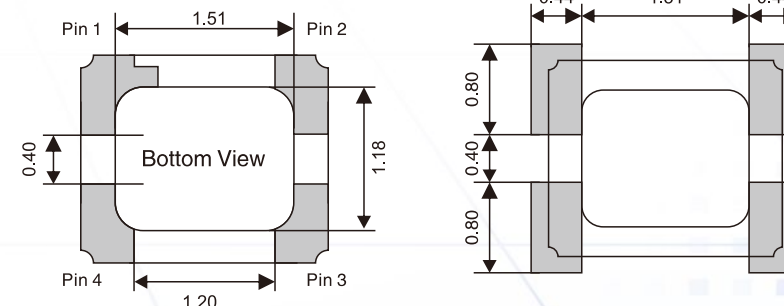
Units:mm



Pin Connection

Name	Connection
Pin 1	AFC or GND
Pin 2	GND
Pin 3	OUTPUT
Pin 4	VCC

Recommended Land Pattern

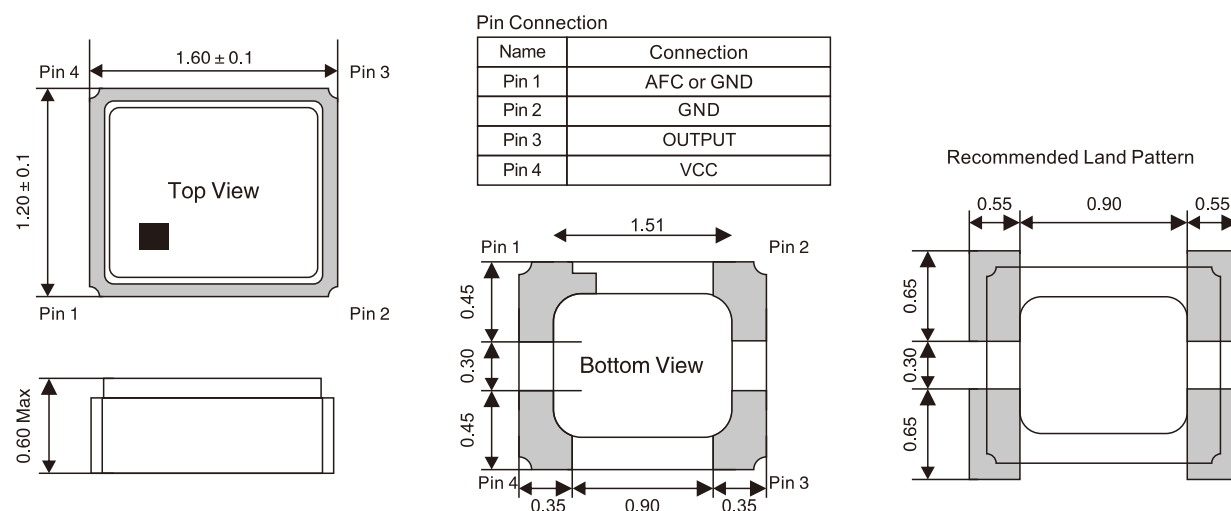


TCXO-1612 4Pads 8P Series



- * Package (規格尺寸) 1.6*1.2*0.6mm typ
- * Ferq.Range (頻率範圍) 26 MHz~52 MHz
- * Output (輸出) Clipped Sinewave
- * Supply Voltage (電源電壓) 1.8V~3.3V

Units:mm



熱敏晶體

●特點

金屬封裝、高信賴性、
熱耦合溫度傳感

●應用範圍

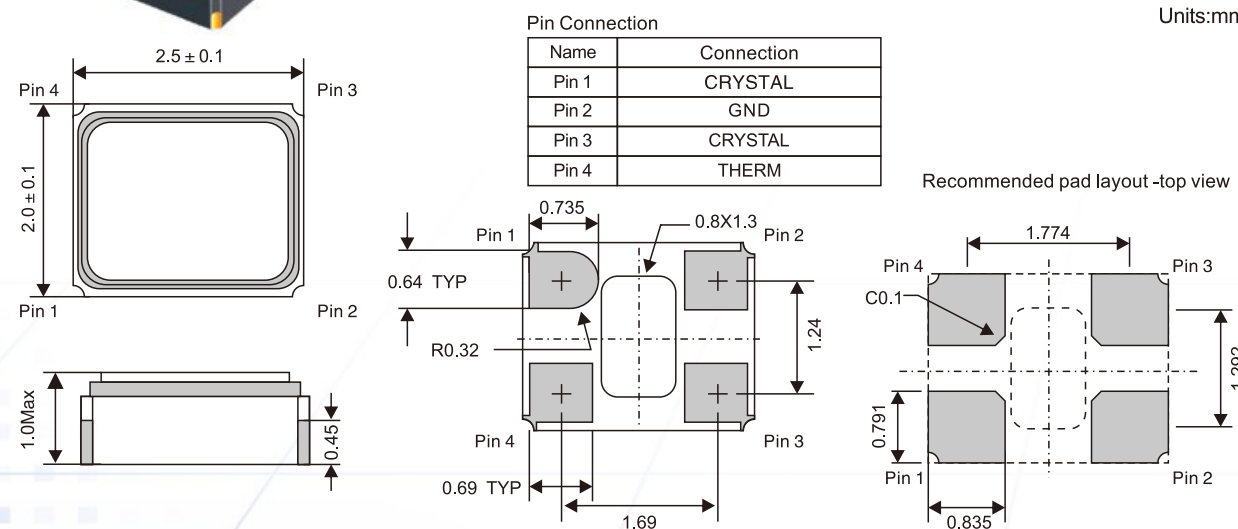
智能無線產品、通信產品
自動化設備、全球定位系統
和無線網絡應用

RXT2520AT



- * Package (規格尺寸) 2.5*2.0*0.8mm typ
- * Ferq.Range (頻率範圍) 16.368 MHz ~ 52 MHz
- * Resistance (Ro) 10kΩ~100 kΩ
- * Resistance tolerance ±1 max %

Units:mm

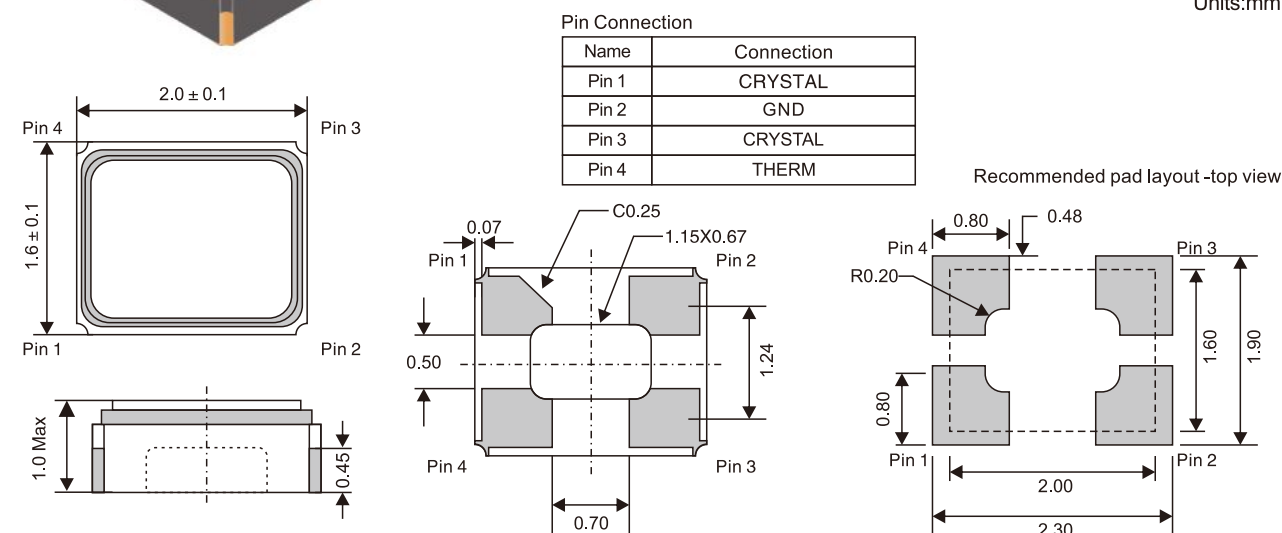


RXT2016AT



- * Package (規格尺寸) 2.0*1.6*0.75mm typ
- * Ferq.Range (頻率範圍) 19.2 MHz ~ 52 MHz
- * Resistance (Ro) 10 kΩ~100 kΩ
- * Resistance tolerance ±1 max %

Units:mm

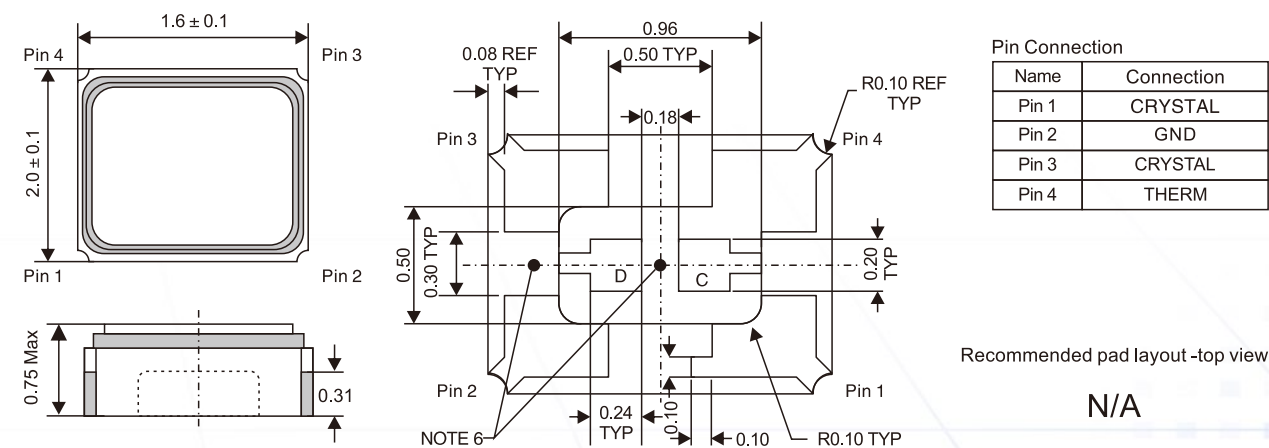


RXT1612AT



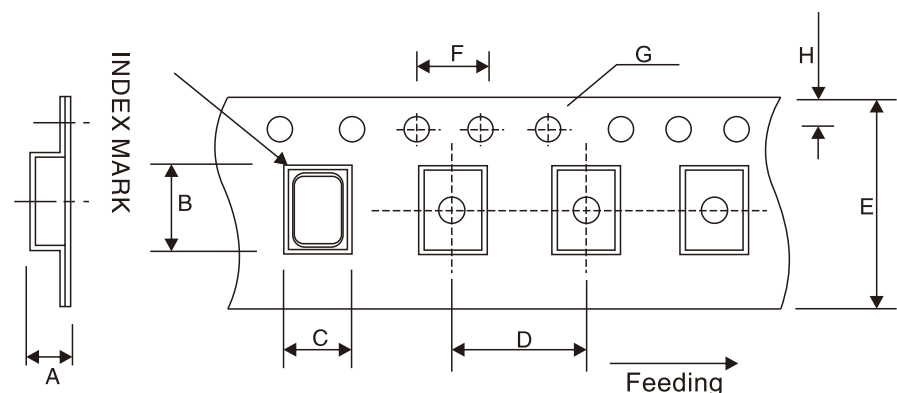
- * Package (規格尺寸) 1.6*1.2*0.6mm typ
- * Ferq.Range (頻率範圍) 26 MHz ~ 52 MHz
- * Resistance (Ro) 10 kΩ~100 kΩ
- * Resistance tolerance ±1 max %

Units:mm



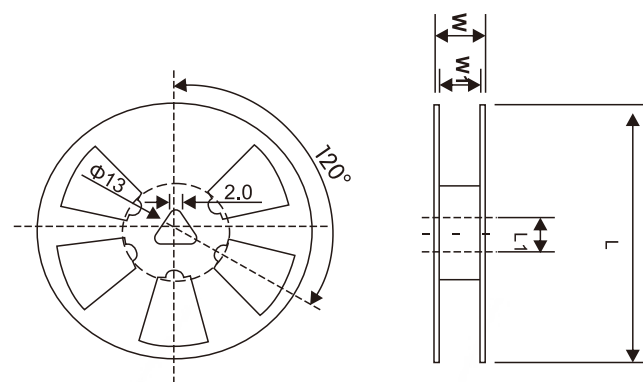
编带尺寸

PACKING



	A	B	C	D	E	F	G	H	TYPE
DIMENSIONS unit : mm	0.50 ± 0.2	1.80 ± 0.2	1.45 ± 0.2	4.00	8.00	4.00	1.55	1.75	XS-1612
	0.65 ± 0.1	2.30 ± 0.1	1.90 ± 0.1	4.00	8.00	4.00	1.55	1.75	XS-2016
	0.80 ± 0.2	2.70 ± 0.2	2.25 ± 0.2	4.00	8.00	4.00	1.55	1.75	XS-2520
	1.00 ± 0.2	3.40 ± 0.2	2.70 ± 0.2	4.00	8.00	4.00	1.55	1.75	XS-3225
	1.40 ± 0.2	5.30 ± 0.2	3.50 ± 0.2	8.00	12.00	4.00	1.55	1.75	XS-5032
	1.40 ± 0.2	5.30 ± 0.2	3.50 ± 0.2	8.00	12.00	4.00	1.55	1.75	XG-5032
	1.80 ± 0.2	7.90 ± 0.2	5.40 ± 0.2	8.00	16.00	4.00	1.55	1.75	XS-7050
	2.00 ± 0.2	7.90 ± 0.2	5.40 ± 0.2	8.00	16.00	4.00	1.55	1.75	XS-7050
	4.35 ± 0.2	15.00 ± 0.2	5.00 ± 0.2	12.00/8.00	24.00	4.00	1.55	1.75	HC-49S/SMD

STANDARD SPECIFICATION 标准规格



	L	L1	W	W1	TYPE	pcs/reel
DIMENSIONS unit : mm	330 ± 2	13.50 ± 0.5	30.0 ± 1	24.40 ± 2	HC-49S/SMD	1,000pcs/reel (standard)
	178 ± 1	13.50 ± 0.3	21.50 ± 1	17.50 ± 1	XG-8045 XS-7050	
	178 ± 1	13.50 ± 0.3	17.50 ± 1	13.50 ± 1	XS-6035 XG-5032 XG-5032	
	178 ± 1	13.50 ± 0.3	13.10 ± 1	9.50 ± 1	XS-3225 XG-3225 XS-2520 XS-2016	3,000pcs/reel
	178 ± 1	13.50 ± 0.3	12.50 ± 1	8.50 ± 1	XS-1612	

CREATE
WIN
共创 · 共赢 · 共荣
CO-PROSPERITY

