

RoHS Compliant

APPROVAL SHEET

Issued No. : _____

DESCRIPTION : SMD 5032 CRYSTAL

NOMINAL FREQ. : 8.000000 MHz

TAITIEN P/N : _____

TAITIEN MODEL : XVHBBBCNANF-8.000000MHz

REVISION : 1

DATE : 06/10/2019

QA	Checked	Prepared

CUSTOMER : _____

CUSTOMER P/N : _____

Customer Signature
Approved:
Date:

REVISION HISTORY

[illegible]

Please note that placing order with Taitien constitutes acknowledgement that you have read and agree to Taitien's Terms and Conditions. Please refer to our website for more details. Thank you for choosing Taitien!

Remedies and Limitation of Liability: BUYER'S SOLE AND EXCLUSIVE REMEDY AND TAITIEN'S SOLE LIABILITY, WITH RESPECT TO ANY BREACH OF WARRANTY, SHALL BE AT TAITIEN'S OPTION: (A) REPAIR OR REPLACEMENT OF THE DEFECTIVE OR NONCONFORMING CRYSTALS OR (B) REFUND OF BUYER'S PURCHASE PRICE FOR THE DEFECTIVE OR NONCONFORMING CRYSTALS.

IN NO EVENT SHALL TAITIEN'S TOTAL LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES ARISING OUT OF ANY CAUSE (INCLUDING, BUT NOT LIMITED TO, CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER TORT) EXCEED THE PURCHASE COST OF THE CRYSTALS. IN NO EVENT SHALL TAITIEN BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES.

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ELECTRICAL SPECIFICATIONS

	Parameter	Min.	Typ.	Max.	Units	Test Condition
1-1	Nominal Frequency	8.000000			MHz	
1-2	Frequency Tolerance.	-10		+20	ppm	at 25°C +/-2°C
1-3	Operating Temperature range	-20		+70	°C	
1-4	Storage Temperature range	-40		+125	°C	
1-5	Temperature Characteristics	-10		+10	ppm	-20°C to +70 °C
1-6	Nominal Load Capacitance	20			pF	
1-7	Series Resistance			120	Ω	
1-8	Shunt Capacitance			5	pF	
1-9	Motion Capacitance				fF	
1-10	Motion Inductance				mH	
1-11	Q factor				K	
1-12	Spurious Response				dB	
1-13	Frequency Pull ability				ppm/pF	
1-14	C0/C1 Ratio					
1-15	Aging	-3		+3	ppm/year	
1-16	Insulation Resistance	500MΩ Min. @ DC100V				
1-17	Nominal Drive Level	10			μ W	into 30Ω
1-18	Dependency Condition				μ W	
1-19	Drive Level Dependency Resistance Max. Minus Min.				Ω	
1-20	Drive Level Dependency Frequency Max. Minus Min.				ppm	
1-21	Drive Level Dependency Resistance Max.				Ω	

■ CUSTOMER SPECIAL REQUIREMENT

2	PIN 1PAD ADD POINT
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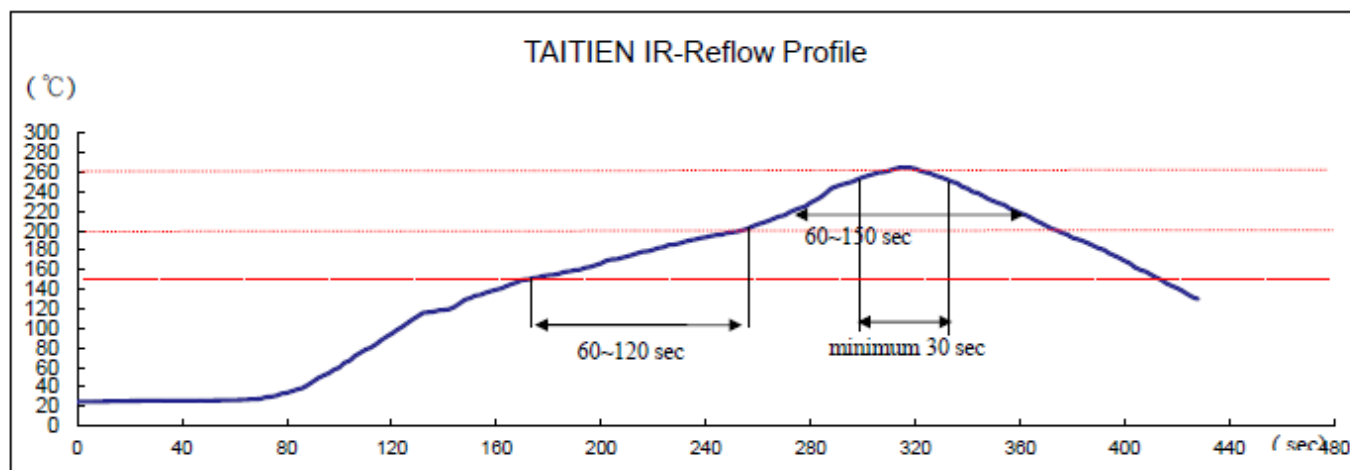
■ ENVIRONMENTAL

	Parameter	Reference Std.	Test Condition
3-1	Vibration Test	MIL-STD-883 2007 Condition A	10~2000Hz, 1.52mm, 20g, each axis for 4 hrs
		JESD22-B103 Condition 1	
3-2	Thermal Shock	MIL-STD-883 1010 Condition B	-55℃, 125℃; soak time is 10 mins, with total 200 cycles
		JESD22-A104 Condition B	
3-3	Mechanical Shock	MIL-STD-883 2002 Condition B	1500G, half-sine, 0.5ms, each axis for 3 times.
		JESD22-B104 Condition B	

■ RECOMMENDED IR REFLOW PROFILE

- IR REFLOW PROFILE OF CERAMIC SMD PRODUCTS FOR Pb FREE PROCESS

TAITIEN ELECTRONICS CO., LTD.



Reference Standard: JEDEC-STD 020

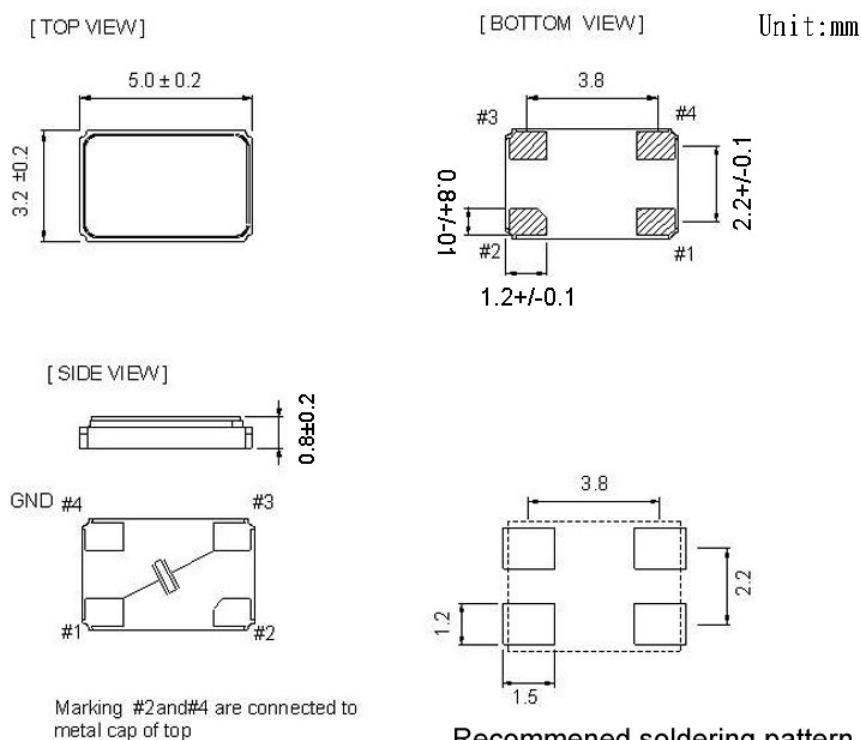
Test conditions: Pre-heating : 150°C to 200°C, 60~120secs.

Heating : 217°C, 60~150sec.

Peak temperature at least : 260°C, The time above 255 °C : minimum 30sec.

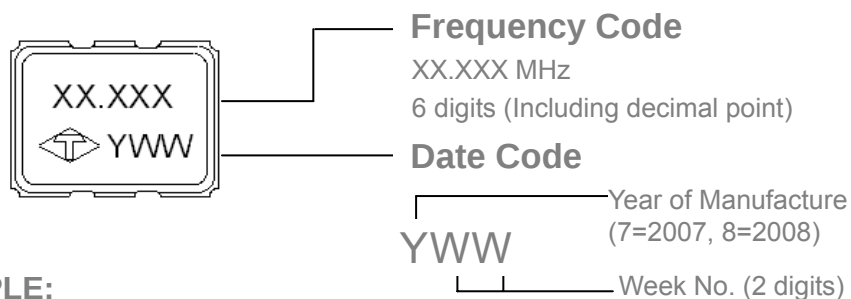
■ PRODUCT DIMENSIONS

➤ DIMENSIONS

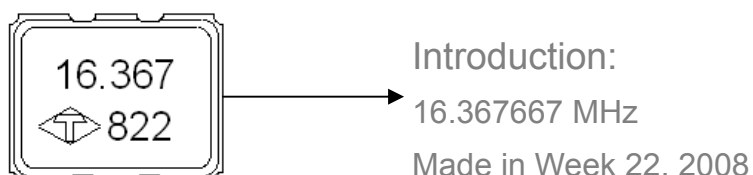


■ PRODUCT IDENTIFICATION (MARKING)

➤ PROCEDURE: LASER

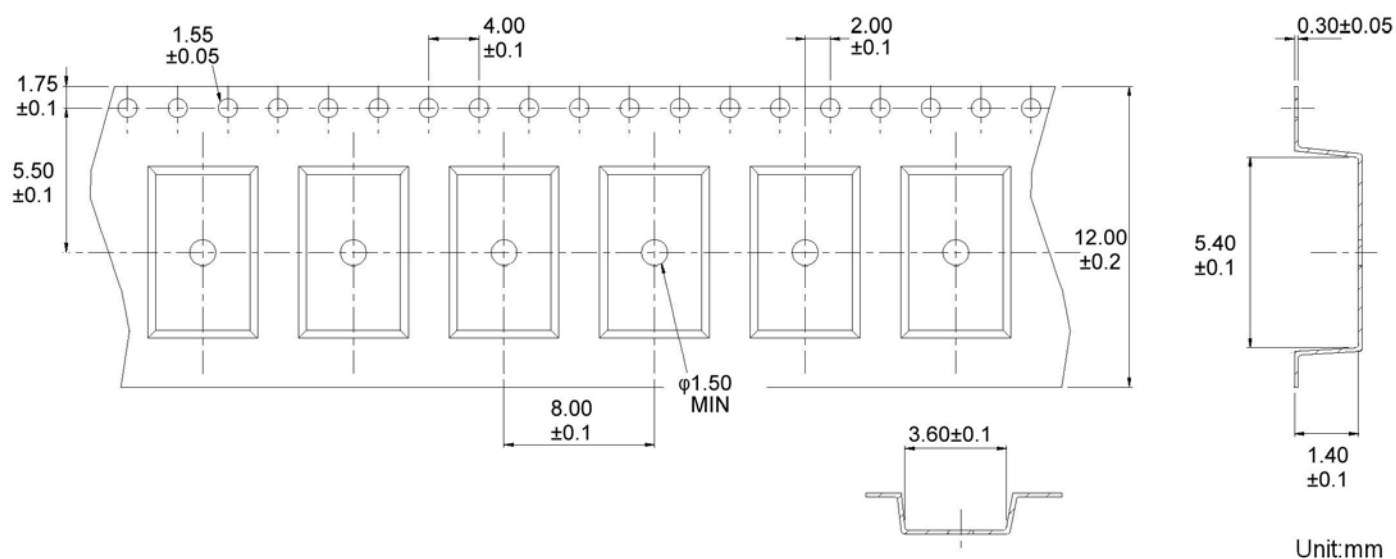


➤ FOR EXAMPLE:

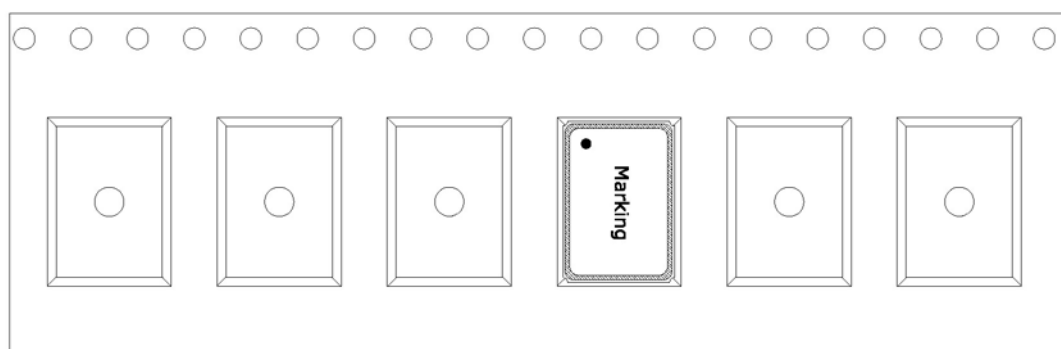


■ PACKAGE INFORMATION

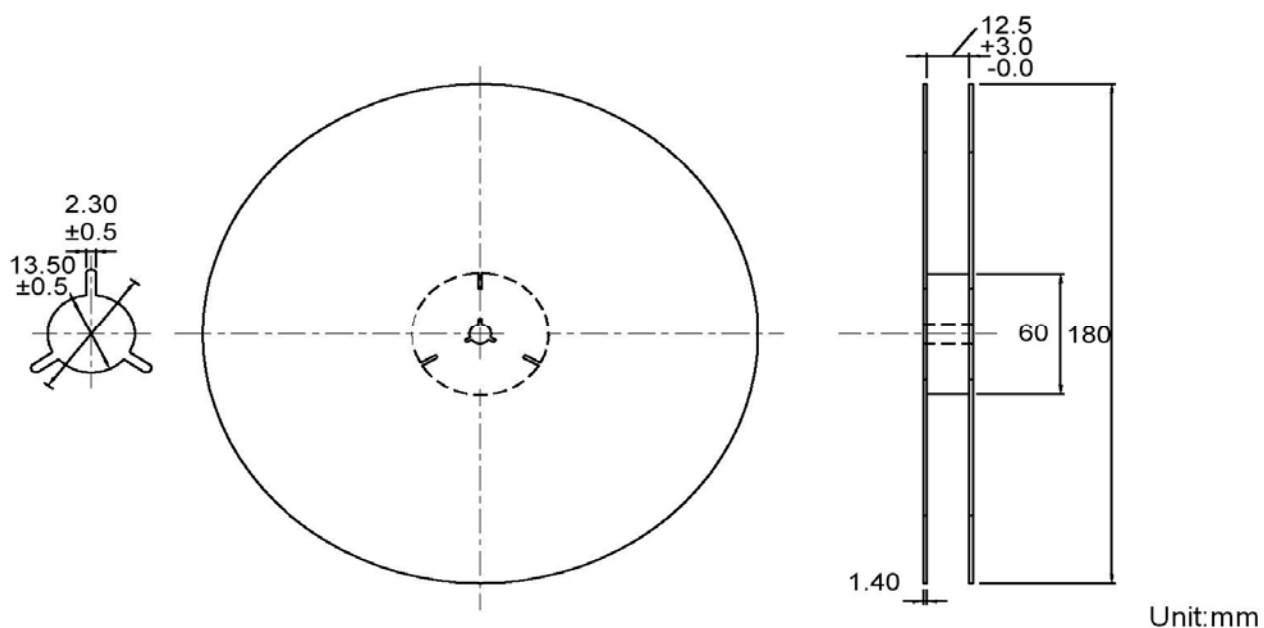
➤ TAPE (CARRIER) DIMENSIONS



➤ THE DIRECTION OF PACKING



➤ REEL DIMENSIONS



■ ATTACHMENT

➤ SUBSTANCE ANALYSIS LIST OF RAW MATERIAL

TAITIEN ELECTRONICS (NANJING) CO.,LTD.

物料實成分解表(Hazardous Substance Analysis List of Raw Material)

型號(Model): XV Type

weight: 45.389mg ±20%

序号 No.	部件名稱 Name of Part	均质物料 Homogeneous Materials	均质材料質量 Material Mass (mg)	化學成份 (Chemical element)	化學成份質量 Element weight (mg/pc)	化學成份 PPM Element (%)	CAS No.	均质材料供应 商 Materials Supplier	检测机构 Test institution	检测報告編號 Test report No.	送檢日期 Test date	有毒有害物质或元素的含量 Hazardous substances content (ppm)								
												ROHS								
												Cd	Pb	Hg	Cr6+	PBBs	PBDEs	Halogen	PFOS	
1	BLANK	Quartz	1.193	SiO ₂	1.193	100.00	14808-60-7	匯隆晶片技術有限公司	SGS	NGBML1600802901	3/17/2016	ND	ND	ND	ND	ND	ND	ND	ND	
2	Electrode	Cr target	0.0001	Cr	0.0001	100.00	7440-47-3	SOLAR CHEMICAL APPLIED	SGS	SHAEC1618180301	8/20/2016	ND	ND	ND	ND	ND	ND	ND	ND	
		Ag target	0.006	Ag	0.006	100.00	7440-22-4	SOLAR CHEMICAL APPLIED	SGS	SHAEC1618180302	8/20/2016	ND	ND	ND	ND	ND	ND	ND	ND	
3	Base	Ceramics	30.069	Al ₂ O ₃	27.062	90.00	1344-28-1	KYOCERA CORPORATION	SGS	SHAEC1608832705	5/11/2016	ND	ND	ND	ND	ND	ND	ND	ND	
				SiO ₂	1.804	6.00	14808-60-7													
				Cr ₂ O ₃	0.601	2.00	1308-38-9													
				Mo	0.601	2.00	7439-98-7													
		Kovar ring	1.378	Fe	0.730	53.00	7439-89-6		SGS	SHAEC1608832711	5/11/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
				Ni	0.400	29.00	7440-02-0													
				Co	0.248	18.00	7440-48-4													
		Plate	1.662	Au	0.083	5.00	7440-57-5		SGS	SHAEC1608832703	5/11/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
				Ni	1.579	95.00	7440-02-0													
		Metallizing	1.345	W	1.345	100.00	7440-33-7		SGS	SHAEC1608832709	5/11/2016	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ag	0.947			71.00	7440-22-4															
4	Lid	Kovar	8.115	Cu	0.387	29.00	7440-50-8	福建南平市三金電子有限公司	SGS	XMNML1600253703	3/22/2016	ND	ND	ND	ND	ND	ND	ND	ND	
				Fe	4.341	53.50	7439-89-6													
				Ni	2.353	29.00	7440-02-0													
				Co	1.379	17.00	7440-48-4													
5	Adhesive	Metal	0.233	Mn	0.041	0.50	7439-96-5	三健化工有限公司	SGS	SHAEC1618082601	7/25/2016	ND	ND	ND	ND	ND	ND	ND	ND	
				Ag	0.233	100.00	7440-22-4													
		Polymer	0.057	CH ₃ (CH ₂) ₃ CH ₃	0.014	24.57	1120-21-4													
				CH ₃ (CH ₂) ₁₀ C ₆ H ₅	0.014	24.57	112-40-3													
				Silicone resin	0.029	50.86	67763-03-5													