



INTERQUIP ELECTRONICS CO., LIMITED

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Crystal Resonator Specification and Approval Sheet

Customer: APEX Electronics Ltd

Project Name: N/A

Applications: N/A

Contact Person: Donald

Customer Part Number: N/A

1. Scope:

1.1 This specification applies to quartz crystal unit with a frequency of 13.000000MHz, which will be used in crystal oscillator applications.

2. Construction:

2.1 Type of Holder: SMCE-6035 (RoHS Compliant)

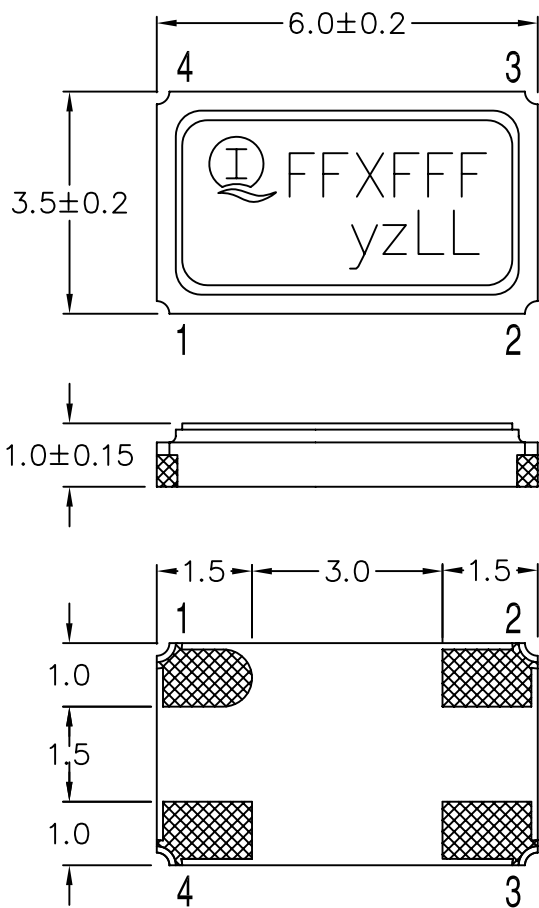
2.2 Enclosure Seal: Seam welding

3. Characteristics:

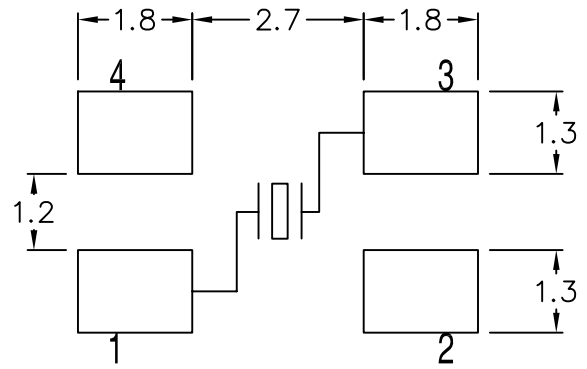
3.1	Nominal Frequency	(f)	13.000000MHz
3.2	Mode of Vibration		Fundamental
3.3	Load Capacitance	(C _L)	10pF
3.4	Frequency Tolerance at 25 °C±3 °C	(Δ f/f)	±30ppm
3.5	Resonance Resistance	(Ω)	60 Ohm Max.
3.6	Shunt Capacitance	(C ₀)	7pF Max.
3.7	Drive Level	(D _L)	0.1mW
3.8	Frequency Deviation with Temperature	(Δ f/f)	±30ppm
3.9	Operating Temperature Range	(T _{OPR})	-40°C to 85°C
3.10	Storage Temperature Range	(T _{STG})	-55°C to 125°C
3.11	Insulation Resistance	(SR)	500M Ω or More
3.12	Aging	(Δ f _A)	± 3 ppm per Year Max.

				TITLE CRYSTAL RESONATOR		DWG.	M Zhao
						DATE	13-01-24
				PART NO	5VAA13000103TF60Q3	TOLERANCE	CHKD. J Mok
				MODEL	SMCE-6035	X± X.X±	DATE 13-01-24
				REMARK		X.XX± ANGULAR±	APPD. XM Sun
						DATE	13-01-24
DATE	MODIFY DESCRIPTION	BY	SALESMAN : Gary Chan	SHEET 1/2		REV	0

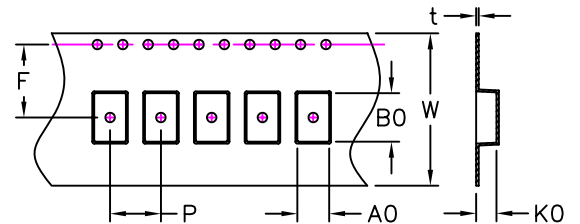
EXTERNAL DIMENSIONS



RECOMMENDED SOLDERING PATTERN

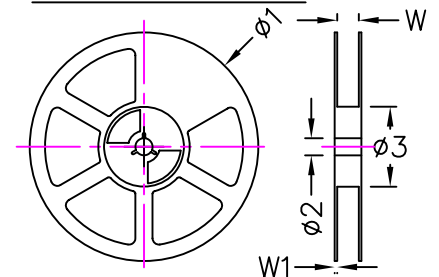


EMBOSSED TYPE DIMENSIONS



SERIES	W±0.3	A0±0.1	B0±0.1	K0±0.1	P±0.1	F±0.1	t±0.05
16mm	16.0	3.9	6.4	1.5	8.0	7.5	0.30
12mm	12.0	3.9	6.4	1.5	8.0	7.5	0.30

REEL DIMENSIONS



SERIES	Ø1±0.5	Ø2±0.25	Ø3±0.3	W±0.2	W1±0.25
16mm	178	13.2	62.5	16.4	2.0
12mm	178	13.2	62.5	12.4	2.0

MARKING SPECIFICATIONS



— COMPANY'S LOGO

FF FFF — REPRESENT FREQUENCY (MHz)

X — REPRESENT PRODUCTION LINE CODE

YZ — REPRESENT MONTH & YEAR CODE RESPECTIVELY

" Y " :

MONTH	Jan	Feb	Mar	Apr.	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MARK	A	B	C	D	E	F	G	H	J	K	L	M

" Z " CODE IS THE LAST NUMBER OF PRODUCTION YEAR
FOR INSTANCE:

YEAR	2008	2009	2010	2011	2012
MARK	8	9	0	1	2

LL — REPRESENT LOT CODE (AA-ZZ)

2. DO NOT SCALE DRAWING

NOTES: 1. ALL DIMENSIONS ARE IN MM



Interquip Electronics Co., Ltd

DATE			MODIFY DESCRIPTION			BY			DWG.NO. 004-06177-000			REV. 5		
TITLE									SMD RESONATOR			DWN. M Zhao		
PART NO.												DATE 2009.2.26		
MODEL									SMCE-6035			CHKD Johnson Mok		
REMARK												DATE 2009.2.26		
												APPD. XM Sun		
												DATE 2009.2.26		