



# INTERQUIP ELECTRONICS CO., LIMITED

Flat A, 9th Floor, On Shing Industrial Building, 2-16 Wo Liu Hang Road,

Fotan, New Territories, Hong Kong

Tel: (852) 2413 5515 Fax: (852) 2413 7053

Web site: <http://www.interquip.com> Email: [igl@interquip.com](mailto:igl@interquip.com)

## Crystal Resonator Specification and Approval Sheet

**Customer:** Apex Electronics Ltd.

**Project Name:** N/A

**Contact Person:** N/A

**Applications:** N/A

**Customer Part Number:** N/A

### 1. Scope:

1.1 This specification applies to quartz crystal unit with a frequency of 19.660800MHz, which will be used in crystal oscillator applications.

### 2. Construction:

2.1 Type of Holder: SMCE-5032 (RoHS Compliant)

2.2 Enclosure Seal: Seam Weld

### 3. Characteristics:

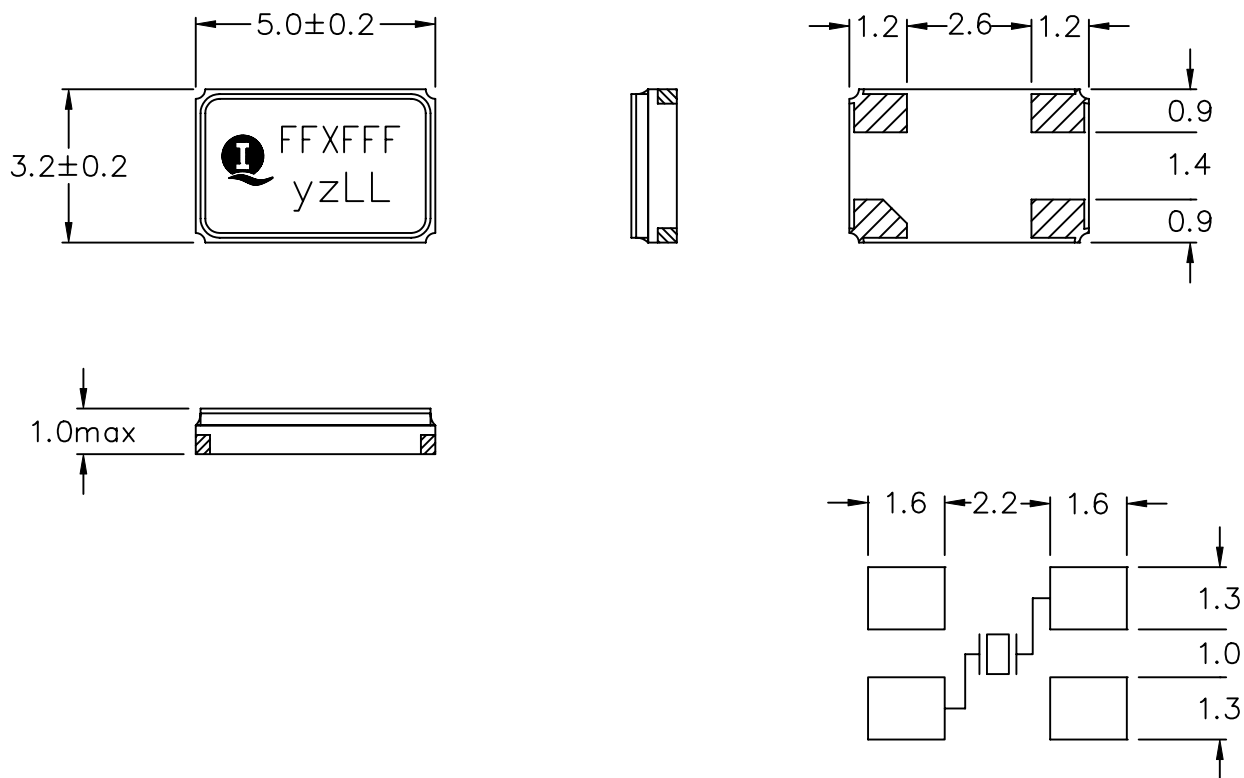
3.1	Nominal Frequency	(f)	19.660800MHz
3.2	Mode of Vibration		Fundamental
3.3	Load Capacitance	(C <sub>L</sub> )	18pF
3.4	Frequency Tolerance at 25°C±3°C	(Δf/f)	±30 ppm
3.5	Resonance Resistance	(Ω)	50 Ohm Max.
3.6	Shunt Capacitance	(C <sub>0</sub> )	7.0pF Max.
3.7	Drive Level	(D <sub>L</sub> )	100uW
3.8	Frequency Deviation with Temperature	(Δf/f)	±30 ppm
3.9	Operating Temperature Range	(T <sub>OPR</sub> )	-10°C to +70°C
3.10	Storage Temperature Range	(T <sub>STG</sub> )	-55°C to +125°C
3.11	Insulation Resistance	(SR)	500MΩ or more
3.11	Aging	(Δf/f)	±5ppm per year Max.

### 4. Special Requirements:

No special requirement is needed

				TITLE <b>CRYSTAL RESONATOR</b>		DWG.	M Zhao
						DATE	07-03-10
				PART NO	5X19660183SIAF50Q3	CHKD.	J Mok
				MODEL	SMCE-5032	DATE	07-03-10
				REMARK		APPD.	XM Sun
						DATE	07-03-10
DATE	MODIFY DESCRIPTION	BY	SALESMAN	Raymond Chan	SHEET	1/2	REV 0

## EXTERNAL DIMENSIONS



## RECOMMENDED SOLDERING PATTERN

## 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	2000	2001	2002	2003	2004
MARK	0	1	2	3	4

LL — REPRESENT LOT CODE (AA-ZZ)

2. DO NOT SCALE DRAWING

NOTES: 1. ALL DIMENSIONS ARE IN MM



## Interquip Electronics Co., Ltd

				TITLE SMD RESONATOR		DWN.	M Zhao
						DATE	2004.2.10
				PART NO.		CHKD	Johnson Mok
				MODEL	SMCE-5032	DATE	2004.2.10
				REMARK		APPD.	XM.Sun
						DATE	2004.2.10
DATE	MODIFY DESCRIPTION	BY		DWG.NO.	004-06187-000	REV.	2