

## 4 Pad Version - 5.0 x 3.2 x 0.9mm

### • Features

Small size

Tight tolerance and Stability

RoHS compliant

#### General Specification

Туре	SMD 5.0 x 3.2 - 4 Pads
Frequency Range	10.000MHz to 50.000MHz
Frequency Tolerance at 25C	<u>+</u> 30ppm *
Frequency Stability	<u>+</u> 30ppm *
Operating Temperature	-10°C to +60°C *
Load Capacitance	8pF to 32pF / Series
Shunt Capacitance	7pF max *
Storage Temperature	-40°C to +85°C *
Drive Level	100µW *
Aging	<u>+</u> 5ppm max first year *

\* Can be changed according to Customer's requirement.

## • Drive Level Codes (µW)

A = 100	B = 200	D = 50	E = 300	G = 500	I =10

## Load Capacitance Codes

12pF = A	12.5pF = B	14pF = C	16pF = D	17 pF = E	18 pF = F
20 pF = G	25pF = H	30pF= I	32pF = J	33 pF = K	Series = L
13 pF = M	27 pF = N	$50 \mathrm{pF} = \mathrm{O}$	10 pF = P	15pF = Q	22pF = R
15.8pF = S	8.5pF = T	8.2pF = U	$40 \mathrm{pF} = \mathrm{V}$	9pF = W	11 pF = X
13.8pF = Y	19.6pF = Z	6pF = a	$7\mathrm{pF} = \mathrm{d}$	8pF = e	19pF = f

## • Operating Temperature Codes(°C)

A = -10  to  +60 $B = -20  to  +70$ $C = -10  to  +70$	I = -40  to  +85	X = -30 to $+80$	W = -10  to  +50
--	------------------	------------------	------------------

Pls contact us for the parameters you could not find in these tables.

## • Frequency Tolerance & Frequency Stability Codes (ppm)

D 10	G ( ) 30	T . 20	TT - 50	11 100	
P = + 10	S = +20	T = +30	U = +50	V = +100	W = +5
—	—	_		_	

### • Frequency Stability vs. Operating Temperature

	<u>+</u> 10ppm	<u>+</u> 20ppm	<u>+</u> 30ppm	<u>+</u> 50ppm	<u>+</u> 100ppm
-10℃- +60℃	$\odot$	$\odot$	•	$\odot$	$\odot$
-10°C-+70°C	$\odot$	$\odot$	•	$\odot$	$\odot$
-20℃- +70℃	$\odot$	$\odot$	•	•	$\odot$
-40°C-+85℃			$\odot$	•	$\odot$

⊙ Available • Standard

## ESR (Series Resistance Rs) vs Standard Frequency, Vibration Mode & Codes

Frequency Range	ESR Max	Code	Vibration Mode	Code
(MHz)	(Ω)			
10.000 - 13.999	80	0	AT Fund	А
14.000 - 19.999	60	1	AT Fund	А
20.000 - 29.999	50	2	AT Fund	А
30.000 - 50.000	40	4	AT Fund	А

#### • Marking

#### $Frequency + M (MHz) + Date \ code \ ( \ Year \ Code + Month \ Code \ )$

#### NEWXTAL (Company Brand)

Year Code:

20	01	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
]	1	2	3	4	5	6	7	8	9	10	11	12

Month Code:

Jan	Feb.	Mar	April	May	June	July	Aug.	Sept	Oct	Nov	Dec
А	В	С	D	Е	F	G	Н	Ι	J	K	L

#### For Example:

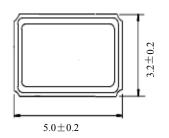


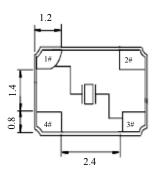
### Ordering Information

SMD	Terminal	Size	Drive Level	Load Capacitance	Operating Temperature	Frequency Tolerance	Frequency Stability	ESR	Vibration Mode	Frequency	Lead-free	Packing
			(µW)	(pF)	(°C)	(ppm)	(ppm)	(Ω)		(MHz)		
SMD Crystal	0=2 Pads 1=4 Pads	C=5.0x3.2					xx.xxxM	LF	TR			
			100	16	-10 to +60	<u>+</u> 10	<u>+</u> 10	80	AT Fund		Lead-free	Tape & reel
S	1	С	A	D	A	Р	Р	0	A		LF	TR

For Example: S1CADAPP0A-12.000MLF/TR

#### • Dimensions



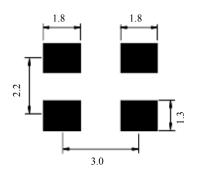


Bottom view

Pin Connection

- 1# Crystal
- 2# Connected with a cover
- 3# Crystal
- 4# Connected with a cover





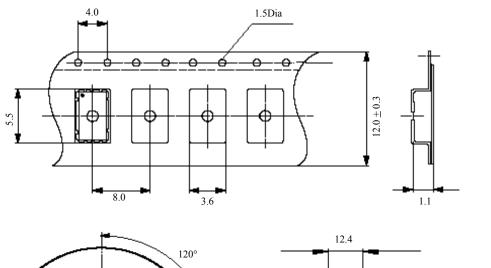
Pad layout

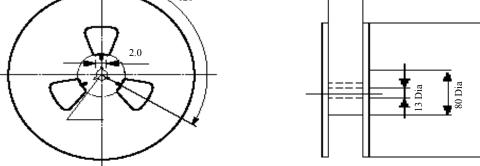


Side view

in mm

## • Taping Specification



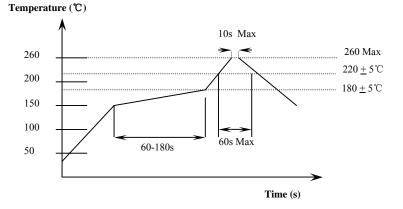


\* Reel Quantity: 1,000pcs

in mm

180 Dia

## • Reflow Soldering Profile



NEWXTAL - New Crystal World Website: www.newxtal.com Email: hkcrystal@incnets.com