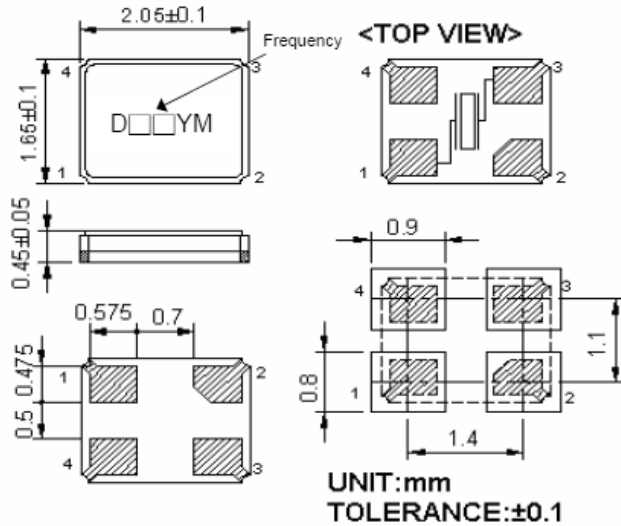


SPECIFICATION OF SURFACE MOUNT TYPE

1 .TYPE	DSX211SH
2 .NOMINAL FREQUENCY	48.000000 MHz
3 .LOAD CAPACITANCE(CL)	7.0 pF
4 .DRIVE LEVEL	0.01 ~ 100 uW max.
5 .FREQUENCY TOLERANCE	+/- 10 x 10 ⁻⁶ at 25 deg.C +/- 3 deg.C
6 .SERIES RESISTANCE	22 ohms max. / CL = SERIES
7 .FREQUENCY CHARACTERISTICS OVER TEMPERATURE	+/- 12 x 10 ⁻⁶ / -30 deg.C to +85 deg.C (ref. +25 deg.C)
8 .OPERATING TEMPERATURE RANGE	-30 deg.C to +85 deg.C
9 .STORAGE TEMPERATURE RANGE	-40 deg.C to +105 deg.C
10 .SHUNT CAPACITANCE(C0)	0.5 pF min. / 0.7 pF typ. / 1.5 pF max.
11 .MOTIONAL CAPACITANCE(C1)	2 fF min. / 4 fF typ. / 5 fF max.
12 .MOTIONAL INDUCTANCE(L1)	4 mH max.
13 .AGING	+/- 5 x 10 ⁻⁶ / 7 years
14 FREQUENCY PERTURBATIONS	+/- 1 x 10 ⁻⁶
15 FREQUENCY DRIFT AFTER REFLOW	+/- 2 x 10 ⁻⁶ after two reflows
16 SPRIIOUS MODE SERIES RESISTANCE	1100 ohms min. (F0 +/- 700 kHz)
17 .INSULATION RESISTANCE	500 Mohms min. at 100V DC
18 .OVERTONE ORDER	Fundamental
19 .DIMENSIONS	Refer to Fig-1



(Fig.-1)

1ZZNAE48000AB0A : Made in THAILAND
1ZZHAE48000AB0A : Made in TAIWAN

Marking is Laser Marking:

*Marking should be printed as following:

Logo, Nominal Frequency, Manufactured year & month

*Nominal frequency = Mark two digits from upper (ex. 48.000000 MHz --> 48)

*Manufacturing Lot No.

(Y : year) ex. 2011 shall be marked as ' 0 ' (The last digit of the year)
(M : month) ex. December shall be marked as ' M ' (As shown in Table-1.)

(Table-1)

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