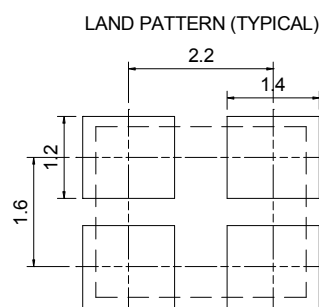
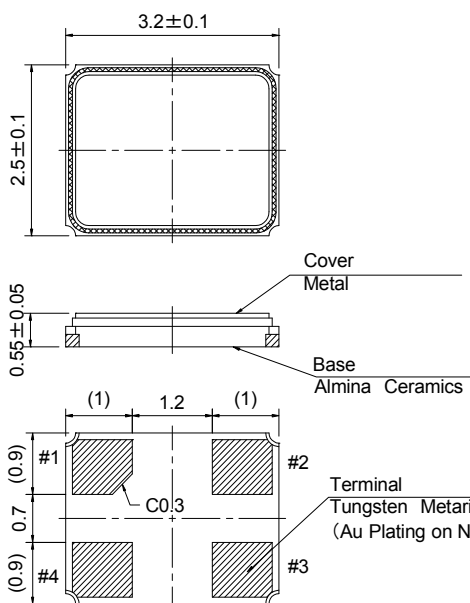


|       |                                        |                                                                                                |
|-------|----------------------------------------|------------------------------------------------------------------------------------------------|
| 1     | NDK Part Number                        | NX3225SA-32MHZ-EXS00A-CS02368                                                                  |
| 2     | Chipset Maker                          | FREESCALE                                                                                      |
| 3     | Application                            | ZigBee/RF4CE, IEEE® 802.15.4 SOC Solution<br>Sub-1 GHz (ISM Frequency Band) RF Transceiver SIP |
| 4     | Chipset Name                           | MC1323X<br>MC12311                                                                             |
| 5     | NDK Specification Number               | EXS00A-CS02368                                                                                 |
| 6     | Type                                   | NX3225SA                                                                                       |
| 7     | Electrical Characteristics             |                                                                                                |
| 7.1   | Nominal Frequency ( $f_{nom}$ )        | 32.000 MHz                                                                                     |
| 7.2   | Overtone order                         | Fundamental                                                                                    |
| 7.3   | Adjustment tolerance                   | $\pm 10 \times 10^{-6}$ max.                                                                   |
| 7.4   | Tolerance over the temperature range   | $\pm 16 \times 10^{-6}$ max. ( at -40 to +85 °C )                                              |
| 7.5   | Equivalent Series Resistance ( $R_r$ ) | 50 $\Omega$ max.                                                                               |
| 7.6   | Shunt Capacitance ( $C_0$ )            | 1.42 pF $\pm 20\%$                                                                             |
| 7.7   | Maximum Drive Level                    | 100 $\mu$ W max.                                                                               |
| 8     | Measurement Circuit                    |                                                                                                |
| 8.1   | Frequency Measurement                  |                                                                                                |
| 8.1.1 | Measuring Instrument                   | IEC $\pi$ -Network                                                                             |
| 8.1.2 | Load Capacitance ( $C_L$ )             | 9pF                                                                                            |
| 8.1.3 | Level of Drive                         | 10 $\mu$ W                                                                                     |
| 8.2   | Equivalent Resistance Measurement      |                                                                                                |
| 8.2.1 | Measuring Instrument                   | IEC $\pi$ -Network                                                                             |
| 8.2.2 | Load Capacitance ( $C_L$ )             | Series                                                                                         |
| 8.2.3 | Level of Drive                         | 10 $\mu$ W                                                                                     |
| 9     | Operating Temperature Range            | -40 to +85 °C                                                                                  |
| 10    | Storage Temperature Range              | -40 to +85 °C                                                                                  |
| 11    | Dimension                              |                                                                                                |

(Unit: mm)



[TOP VIEW]  
TERMINAL LAND CONNECTIONS

