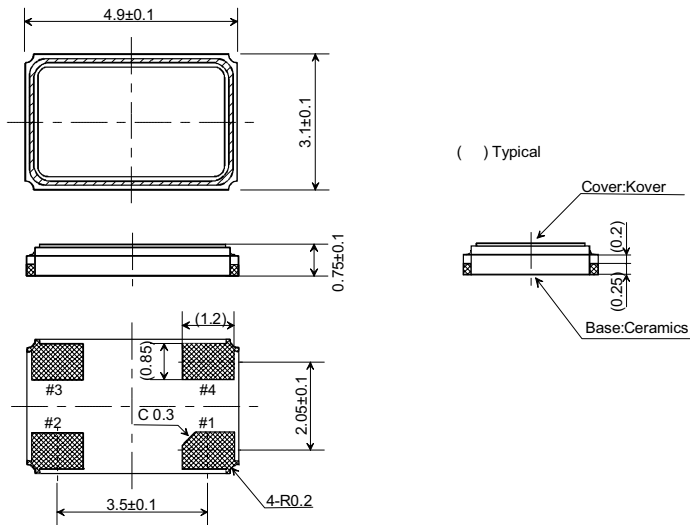


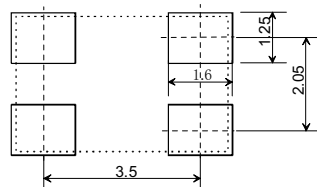
## Specification of Crystal Unit

|       |                                      |  |
|-------|--------------------------------------|--|
| 1     | NDK PART NUMBER                      | NX5032SA-13.000000MHZ-G1   |
| 2     | CHIPSET MAKER                        | ATHEROS  |
| 3     | APPLICATION                          | GSM (GPRS, EDGE)   |
| 4     | CHIPSET NAME                         | AERO   |
| 5     | Type                                 | NX4025DA   |
| 6     | Electrical characteristics           |  |
| 6.1   | Nominal frequency(F0)                | 13.000MHz  |
| 6.2   | Overtone order                       | Fundamental  |
| 6.3   | Adjustment tolerance                 | $\pm 10 \times 10^{-6}$ max. (+25 °C)  |
| 6.4   | Tolerance over the temperature range | $\pm 10 \times 10^{-6}$ max. (-20~+85 °C) The reference temperature shall be +25 °C. |
| 6.5   | Equivalent resistance (R1)           | 40Ω max. (-20~+85 °C)  |
| 6.6   | Shunt Capacitance (C0)               | 1.55pF+/-10%   |
| 6.7   | Motional Capacitance (C1)            | 5.07fF+/-15%   |
| 7     | Measurement circuit                  |  |
| 7.2   | Frequency measurement                |  |
| 7.1.1 | Measuring instrument                 | $\pi$ circuit  |
| 7.1.2 | Load capacitance(CL)                 | 8pF  |
| 7.1.3 | Level of drive                       | 10μW   |
| 7.2   | Equivalent resistance measurement    |  |
| 7.2.1 | Measuring instrument                 | $\pi$ circuit  |
| 7.2.2 | Load capacitance(CL)                 | Series   |
| 7.2.3 | Level of drive                       | 10μW   |

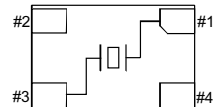
## 8 Dimension



LAND PATTERN (TYPICAL)



TOP VIEW PIN CONNECTION



### TERMINAL

#1, #3: Crystal  
OTHERS: CONNECTION WITH COVER