Specification of Quartz Crystal Controlled Oscillators



1 **NDK Part Number** NT2520SA-26M-DJA3001A

2 **NDK Specification Number** DJA3001A 3 Type NT2520SA

4 Rating

Nominal Frequency (f_{nom}) 4.1 26 MHz (2 digits marking) +2.4 V +/-0.1 V DC (-Earth) 4.2 Supply Voltage 4.3 **Current Consumption** Max. 1.1 mA (Typ. 0.9 mA)

4.4 **Output Voltage** Min. 0.8 V_{p-p} Clipped sine wave (DC-Coupling)

-30 to +75 °C 4.5 Operable Temperature Range Storage Temperature Range -40 to +85 °C 4.6 4.7 Load impedance $10 k\Omega // 10 pF$

4.8 DC-cut Capacitor DC-cut capacitor of output is not put in TCXO.

Please add DC-cut capacitor (1000 pF) in output line.

5 **Electrical specification**

5.1 Frequency Stability

Max. \pm -2.5 ppm / -30 to \pm 75 °C (Based on frequency at \pm 25 \pm -2 °C) 5.1.1 Frequency / Temperature Characteristics

5.1.2 Frequency / Voltage Coefficient Max. +/-0.2 ppm / +2.4 V +/-0.1 V

5.1.3 Frequency / Load Coefficient Max. +/-0.2 ppm / $(10 k\Omega // 10 pF)$ +/-10%

Frequency Tolerance at Control Voltage Max. +/-2.5 ppm $(V_{cont} = +1.2 V DC)$

(at +25 +/-2 °C, after two reflows, based on nominal frequency)

5.1.5 Long-term Frequency Stability Max. +/-2.0 ppm / 5 years

5.2 **External Adjustment**

5.2.1 Control Voltage (V_{cont}) +1.2 V +/-1.0 V DC

5.2.2 Frequency control range based on +/-9.0 to +/-15.0 ppm frequency at V_{cont} = +1.2 V DC

5.2.3 Frequency Change Polarity

Positive 5.3 Stabilization Time Max. 4.0 ms

> (+/-0.1 ppm of final frequency final frequency is the frequency after 10 s from the point when supply voltage is reached at+2.4 V. Measurement is done while the

control voltage is kept at its typical value at +25 +/-2 °C)

40 to 60 % (Based on GND. The output signal after DC cut capacitor passage) 5.4 Symmetry

Harmonic Distortion Max. -5 dBc

Max. -130 dBc/Hz (@1 kHz offset) 5.6 Phase Noise

6 **Dimension**

5.5

(Unit: mm)



