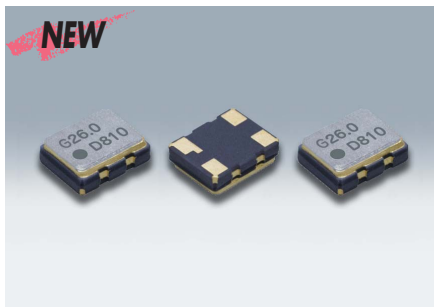


Ultra miniature and High-precision SMD VC-TCXO

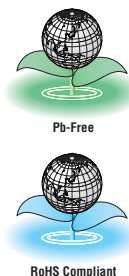
DSA221SDA for Mobile communications



Actual size

■ Features

- 2520 size, 0.8mm high. Ultra miniature and high-precision SMD VC-TCXO (0.0045cc·0.02g)
- Low voltage. Supply voltage up to +1.7~+3.6V.
- Low phase noise
- Single packaged structure
- Prevention of moisture packing is unnecessary
Moisture Sensitivity Level: LEVEL 1 (IPC/ JEDEC J-STD-033)



■ Applications

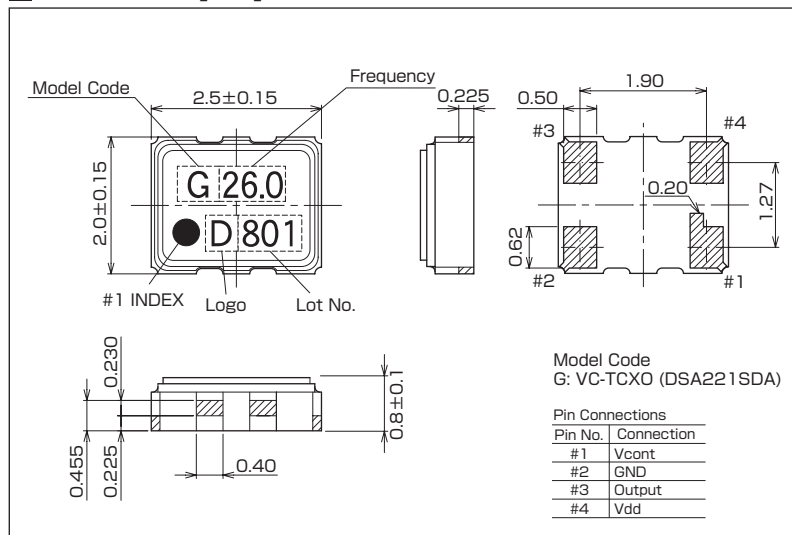
- Mobile phones(W-CDMA HSPA) and Industrial radio systems

■ Standard Specification

Item	Type	DSA221SDA (VC-TCXO)															
Output Frequency Range		9.6 to 52 MHz															
Standard Frequency		16.3676/ 16.367667/ 16.368/ 16.369/ 16.8/ 19.2/ 26/ 33.6 MHz															
Supply Voltage (Vdd)		+1.8V/ +2.6V / +2.8 V / +3.0V / +3.3V															
Current Consumption		+1.5 mA max. (9.6<f≤26MHz) / +2.0 mA max. (f>26MHz)															
Output Voltage		0.8 Vp-p min. (Clipped Sinewave / DC-coupled)															
Output Load		10 kΩ//10 pF															
Frequency Stability Tolerance		±1.5×10 ⁻⁶ max.(After 2 reflows)															
vs. Temperature		±1.0×10 ⁻⁶ max. / -30 to +85 deg C ±0.5×10 ⁻⁶ max. / -30 to +85 deg C (Option)															
vs. Supply Voltage		±0.2×10 ⁻⁶ max. (Vdd ±5%)															
vs. Load Variation		±0.2×10 ⁻⁶ max. (10 kΩ//10 pF ±10%)															
vs. Aging		±1.0×10 ⁻⁶ max. /year															
Start Up Time		2.0 msec. max.															
Frequency Control Control Sensitivity		±3.0×10 ⁻⁶ to ±5.0×10 ⁻⁶ / Vcont=+1.4±1V @Vdd≥+2.6V ±3.0×10 ⁻⁶ to ±5.0×10 ⁻⁶ / Vcont=+0.9±0.6V @Vdd=+1.8V															
Response Slope		Positive															
SSB Phase Noise		<table border="1"> <thead> <tr> <th>[f ≤ 15MHz]</th> <th>[15 < f ≤ 26MHz]</th> <th>[26 < f ≤ 40MHz]</th> </tr> </thead> <tbody> <tr> <td>-115 dBc/Hz (Offset 100Hz)</td> <td>-110 dBc/Hz (Offset 100Hz)</td> <td>-105 dBc/Hz (Offset 100Hz)</td> </tr> <tr> <td>-135 dBc/Hz (Offset 1kHz)</td> <td>-130 dBc/Hz (Offset 1kHz)</td> <td>-125 dBc/Hz (Offset 1kHz)</td> </tr> <tr> <td>-145 dBc/Hz (Offset 10kHz)</td> <td>-140 dBc/Hz (Offset 10kHz)</td> <td>-135 dBc/Hz (Offset 10kHz)</td> </tr> <tr> <td>-145 dBc/Hz (Offset 100kHz)</td> <td>-145 dBc/Hz (Offset 100kHz)</td> <td>-145 dBc/Hz (Offset 100kHz)</td> </tr> </tbody> </table>	[f ≤ 15MHz]	[15 < f ≤ 26MHz]	[26 < f ≤ 40MHz]	-115 dBc/Hz (Offset 100Hz)	-110 dBc/Hz (Offset 100Hz)	-105 dBc/Hz (Offset 100Hz)	-135 dBc/Hz (Offset 1kHz)	-130 dBc/Hz (Offset 1kHz)	-125 dBc/Hz (Offset 1kHz)	-145 dBc/Hz (Offset 10kHz)	-140 dBc/Hz (Offset 10kHz)	-135 dBc/Hz (Offset 10kHz)	-145 dBc/Hz (Offset 100kHz)	-145 dBc/Hz (Offset 100kHz)	-145 dBc/Hz (Offset 100kHz)
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-145 dBc/Hz (Offset 100kHz)	-145 dBc/Hz (Offset 100kHz)	-145 dBc/Hz (Offset 100kHz)															
Packing Unit		2000pcs./reel (φ 180)															

Consult our sales representative for other specifications.

■ Dimensions[mm]



■ Recommended Land Pattern [mm]

