

VOLTAGE CONTROLLED CRYSTAL OSCILLATOR UNIT WITH HCMOS OUTPUT IN METAL CAN DIP-8 PACKAGE, SIZE 13 X 13MM WITH 4 PINS.

VC2



PRODUCT FEATURES

- VCXO IN DIP-8 PACKAGE SIZE 13 X 13 X 6MM WITH 4 PINS.
- FREQUENCY RANGE 1 TO 200MHZ.
- FREQUENCY PULLING RANGES ± 80 MINIMUM.
- MODERATE JITTER AND PHASE NOISE.

APPLICATIONS

- SONET / ATM
- SET-TOP BOXES
- AUDIO & VIDEO EQUIPMENT

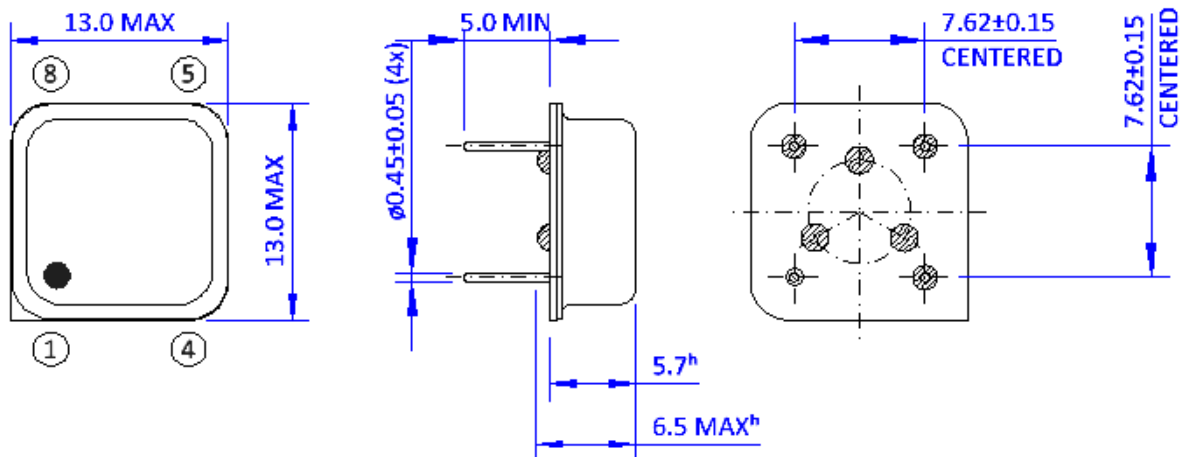
PRODUCT SPECIFICATIONS

PARAMETER	SYMBOL	PARAMETER VALUES / LIMITS	CONDITIONS / REMARKS
NOMINAL FREQUENCY	F_N	1 ~ 60MHZ / 50 ~ 200MHZ	FUNDAMENTAL / PLL DESIGN
SUPPLY VOLTAGE RANGE	V_{DD}	3.3V _{DC} / 5.0V _{DC}	—
SUPPLY CURRENT CONSUMPTION	I_{DD}	<50mA	SEE NOTE 1
OVERALL FREQUENCY STABILITY	$\Delta f/F_N$	± 25 PPM, ± 50 PPM, ± 100 PPM	SEE NOTE 2, OTHERS AVAILABLE
AGING FIRST YEAR	$(\Delta f/F_N)y1$	± 3 PPM	@+25°C
CONTROL VOLTAGE RANGE	V_C	0.3~3.0V / 0.5~4.5V	ON PIN 1 @ $V_{DD}=3.3V$ / @ $V_{DD}=5V$
FREQUENCY PULLING RANGE	$\Delta f/V_C$	± 80 PPM / ± 100 PPM	MIN FOR FUNDAMENTAL / PLL DESIGN
OPERATING TEMPERATURE RANGE	T_{OP}	-10°C ~ +70°C / -40°C ~ +85°C	TYPICALLY USED, OTHERS REQUEST
OUTPUT WAVEFORM / LOAD	— / C_L	HCMOS & LVCMOS / 15 OR 30PF	@ HIGHER SUPPLY VOLTAGES HIGHER LOADS
OUTPUT VOLTAGE LEVELS	V_{OH}/V_{OL}	$\geq 90\%V_{DD}$ / $\leq 10\%V_{DD}$	—
RISE AND FALL TIMES	t_R AND t_F	1 ~ 6ns	@20%~80% OF WAVEFORM
OUTPUT SYMMETRY (DUTY CYCLE)	DC	50 \pm 10% OR 50 \pm 5%	@50% V_{DD}
PHASE JITTER (12kHz \leq F \leq 20MHZ)	J_{RMS}	4.0ps MAX	FOR 155.520MHZ
PHASE NOISE (TYPICAL)	$\mathcal{L}(\Delta f)$	-65 / -95 / -120 / -128 / -122dBc	155.52MHZ @10HZ,100HZ,1kHz,10kHz,100kHz

NOTE 1: CURRENT CONSUMPTION IS TYPICAL FOR 3.3V, AT LOWER SUPPLY VOLTAGES LESS CONSUMPTION APPLIES., PLL DESIGNS REQUIRE SLIGHTLY HIGHER POWER.

NOTE 2: OVERALL FREQUENCY STABILITY INCLUDES TOLERANCE @+25°C, DEVIATIONS OVER OPERATING TEMPERATURE RANGE, DEVIATIONS DUE TO OUTPUT LOAD VARIATIONS AND SUPPLY VOLTAGE FLUCTUATIONS.

MECHANICAL DIMENSIONS



PIN	FUNCTION
1	CONTROL VOLTAGE [Vc]
7	GROUND [GND]
8	RF OUTPUT [CLK]
14	SUPPLY VOLTAGE [Vdd]

Notes:
 The metal case is connected to pin 4 and therefore grounded (GND).
^h The package height may vary depending on design, check specification sheet for information.

Metal can DIP-8 VCXO package 13x13mm with 4 pins	
DIP8VC-P4	2017-09 C
	No scale Unit: mm

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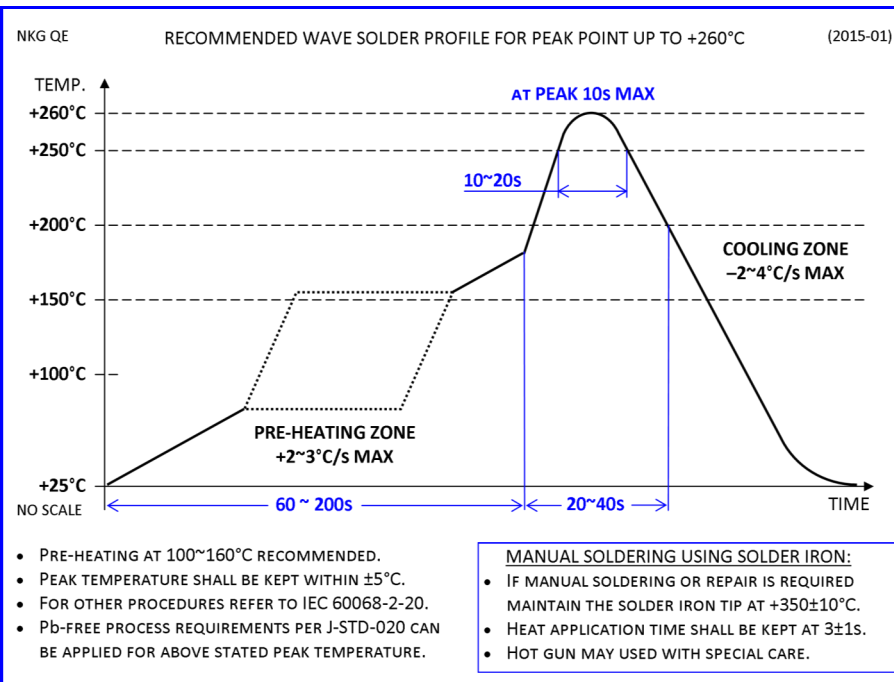
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ENVIRONMENTAL COMPLIANCE INFORMATION

- ROHS 6/6 COMPLIANT (DIRECTIVE 2011/65/EC).
- COMPLIANT TO ROHS 2 (DIRECTIVE 2015/863) (ALSO CALLED ROHS 10).
- PRODUCT DOES NOT CONTAIN PVC (POLYVINYL CHLORIDE).
- PRODUCT DOES NOT CONTAIN PFOS/PFOA NOR BEING SAME USED TO MANUFACTURE THE COMPONENTS OF THIS PRODUCT.
- MOISTURE SENSITIVITY LEVEL (MSL) 1 PER J-STD-020C.



SOLDERING RECOMMENDATIONS



PACKAGING INFORMATION

- PACKAGING IN ANTISTATIC TUBES.
- QTY PER TUBE: 40PCS
- ALTERNATE PACKAGING IN PLASTIC TRAYS AND FOAM TRAY IS AVAILABLE

PART NUMBER SYNTAX

PART NUMBER FAMILY (REPRESENTS MODEL'S PACKAGE SIZE WITH HCMOS OUTPUT)

SUPPLY VOLTAGE DESIGNATOR (I.E. 2= 5.0V, 5= 3.3V)

FREQUENCY STABILITY CODE (I.E. A= ±25PPM, B= ±50PPM, C= ±100PPM, D= ±30PPM)

NOMINAL FREQUENCY (IN MHZ WITH AT LEAST THREE DIGITS AFTER DECIMAL POINT)

OPERATING TEMPERATURE RANGE CODE (I.E. M= -10~70°C, W= -40~85°C)

OUTPUT SYMMETRY INDICATOR (N= 50±10%, T= 50±5%)

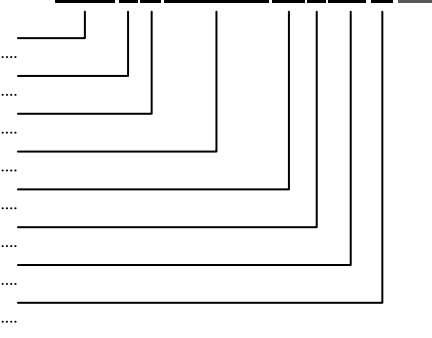
FREQUENCY PULLING RANGE (VALUE IN PPM I.E. 50= ±50PPM, 100= ±100PPM)

FREQUENCY PULLING MODE (BLANK FOR STANDARD, A= ABSOLUTE PULLING RANGE APR)

PART NUMBER EXTENSION (ONLY FOR NON-STANDARD OR CUSTOMIZED PARTS)

IF THERE IS A LARGE NUMBER OF CODES IN USE THE TABLE ABOVE MAY ONLY SHOW A FEW EXAMPLES.

VC2 5 B 20.480 MT80 A -EXT



FOR MORE INFORMATION PLEASE CONTACT US.

HONG KONG:

NAKAGAWA ELECTRONICS LIMITED

+852 2389 9201 sales@nkg.com.hk
+852 2341 0001 www.nkg.com.hk

China Shenzhen office:

深圳中川晶体电子有限公司

+86(0)755 2598 2648 sales_sz@nkg.cn
+86(0)755 2598 2390 www.nkg.com.hk

China Suzhou office:

苏州纳美电子有限公司

+86(0)512 8818 7890 sales_nm@nkg.cn
+86(0)512 8818 7889 www.nkg.com.hk