

9X14 PECL J-LEADED VCXO ****ROHS COMPLIANT***
(SEE PAGE TWO FOR PART NUMBERING SCHEME)

■ ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Frequency, nom	fo	-	70.000~207.000	MHz
Supply voltage, nom.	Vcc	Vcc±5%	3.3VDC 5.0VDC	V
Supply current, max.	Is	Vcc=+3.3V/Vc=+1.65V OR +5.0V/Vc=+2.5V Ta=+25°C, 50Ω to Vcc-2.0VDC load	135.0	mA
PECL output level	VOH / VOL	Vcc=+3.3VDC, load=50Ω to Vcc-2.0VDC	2.275 / 1.68 3.975/3.38	V
Duty cycle	DC	load=50Ω to Vcc-2.0VDC / @50%Vcc, Ta=+25°C	40...60 OR 45...55	%
Rise- / fall time, max.	tr / tf	20%~80% Vout, 80%~20% Vout, max	0.330...1.0 (see note A)	ns
Jitter, rms, max.	J	1σ, Fj=12KHz...20MHz	1.0	ps
Overall freq. stability, max.	Δf/fc	Including operating temp., ±5% load & supply variations, calibration @+25°C, and 10 year aging	SEE PART NUMBER GENERATION TABLE	ppm
Control voltage range	Vc	DC	0...+3.3 +0.5...+4.5	V
Pullability min	APR	Vc= 0~3.3V (at Vcc=3.3V) Vc=0.5~4.5V (at Vcc=5.0V)	SEE PART NUMBER GENERATION TABLE	ppm
Linearity, max.	Δf/V	-	10	%
Input impedance, min.	Zin	-	10.0	KΩ
Modulation freq. bandwidth, min.	MBW (-3dB)	Vcc=+3.3V/Vc=+1.65V OR +5.0V/Vc=+2.5V Ta=+25°C, 50Ω to Vcc-2.0VDC load	10.0	KHz
Enable option	En	Pin 2=Low, Vcc-1.620 (max.)	Enabled	-
Disable option	Dis	Pin 2=High, Vcc-1.025 (min.)	Pin 5 will assume a fixed level of logic "0", and pin 4 will assume a fixed level of logic "1"	-
Operating temperature range	Ta	-	SEE PART NUMBER GENERATION TABLE	°C
Storage temperature range	T(stg)	-	-55...+90	°C
Absolute voltage ranges	Vcc, Vc(abs)	Non-destructive, DC	-0.5...+7.0	V

NOTE A: RISE AND FALL TIME VALUES (tr/tf) ARE FREQUENCY DEPENDENT.

■ MECHANICAL SPECIFICATION

6 pin Version	4 pin Version	OUTLINE TOLERANCE: ±0.015" / 0.4mm (Unless otherwise specified)
		<p>PIN FUNCTIONS (6 pins): [1] VOLTAGE CONTROL [2] EN / DIS OR NC [3] CASE / GROUND [4] OUTPUT [5] COMP. OUTPUT OR NC [6] SUPPLY VOLTAGE</p> <p>PIN FUNCTIONS (4 pins): [1] VOLTAGE CONTROL [2] CASE / GROUND [3] OUTPUT [4] SUPPLY VOLTAGE</p> <p>MARKING (EXAMPLE): VE9960A-LZ 155.520-T-C-EL R/D/C</p>

中國 • 香港 • 九龍官塘開源道 55 號 開聯工業中心 7 字樓 A 座 1-2 號
Block A, Flat 1-2, 7/F, Hoi Yuen Road, Kwun Tong, Kln, Hong Kong, China

Tel: 852-23899201 Fax: 852-23410001 E-mail: info@nkg.com.hk

MECHANICAL SPECIFICATION

		<p>OUTLINE TOLERANCE: ±0.015" / 0.4mm (unless otherwise specified)</p> <p>6 PIN FUNCTIONS: [1] CONTROL VOLTAGE [2] N/C or ENABLE / DISABLE [3] CASE/GROUND [4] OUTPUT [5] NO CONNECT [6] SUPPLY VOLTAGE</p> <p>4 PIN FUNCTIONS: [1] CONTROL VOLTAGE [2] CASE/GROUND [3] OUTPUT [4] SUPPLY VOLTAGE</p> <p>MARKING EXAMPLE: VC8450A-LZ -100-FREQ.-T-4 R D/C</p>
--	--	---

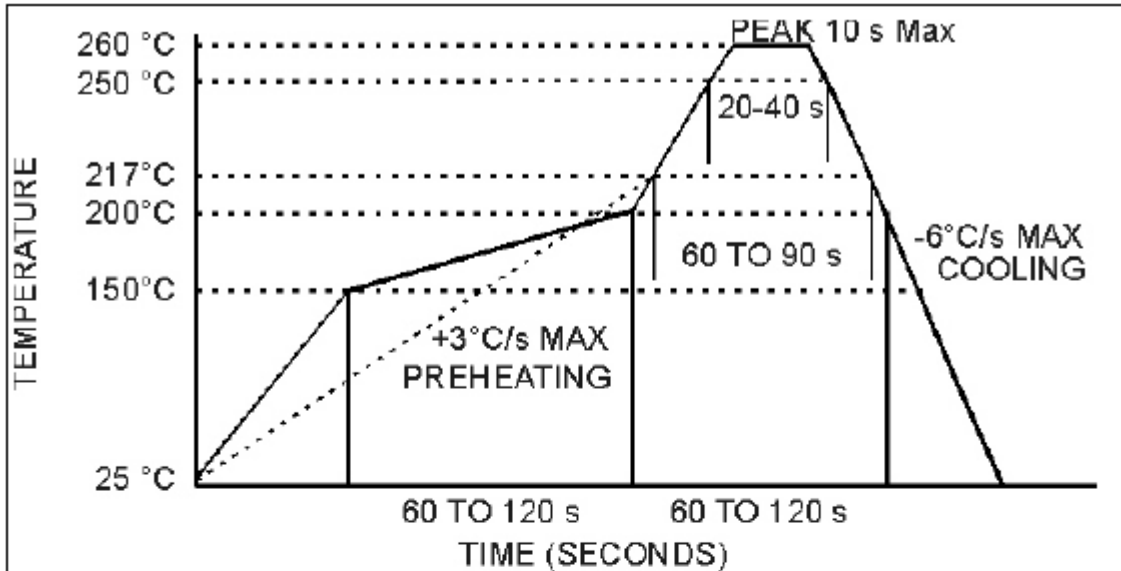
ELECTRICAL SPECIFICATION

PARAMETER	SYMBOL	CONDITIONS	VALUE	UNIT
Frequency, nom	fo	-	1.000-77.760	MHz
Supply voltage, nom.	Vcc	Vcc±5%	+3.3 +5.0	V
Supply current, max.	Is	Vcc=+3.3/+5.0VDC, Ta=+25°C, load=15pF	25.0...35.0	mA
HCMOS/TTL compatible output	VOH / VOL	Vcc=+3.3/+5.0VDC, load=15pF	2.97 / 0.33 4.5 / 0.5	V
Duty cycle	DC	load=15pF / @50%Vcc, Ta=+25°C	40...60 OR 45...55	%
Rise- / fall time, max.	tr / tf	20%~80% Vout, 80%~20% Vout	3.0...10.0	ns
Overall freq. stability, max.	Δf/fc	Including operating temperature, ±5% load & supply variations, 10 year aging, and calibration @+25°C (note 2)	±25.0...±100.0	ppm
Control voltage range	Vc	DC	0...+3.3 +0.5...+4.5	V
Pullability	Δf/fc(vc)	Vcc=+3.3V/Vc=0...3.3 OR +5.0V/Vc=+0.5...4.5V, 15pF load	SEE PART NUMBER GENERATION TABLE	PPM
Linearity, max.	Δf/V	-	10	%
Input impedance, min.	Zin	-	10.0	KΩ
Modulation freq. bandwidth, min.	MBW (-3dB)	Vcc=+3.3V/Vc=+1.65V OR +5.0V/Vc=+2.5V Ta=+25°C, 15pF load	10.0	KHz
Enable option (pin 2)	En	High or open (min.)	+2.4	V
Disable option (pin 2)	Dis	Ground (output pin high impedance) (max.)	+0.4	V
Operating temperature range	Ta	-	0...+70 TO -40...+85	°C
Storage temperature range	T(stg)	-	-55...+125	°C
Absolute voltage range	Vcc(abs)	Non-destructive, DC	-0.5...+7.0	V

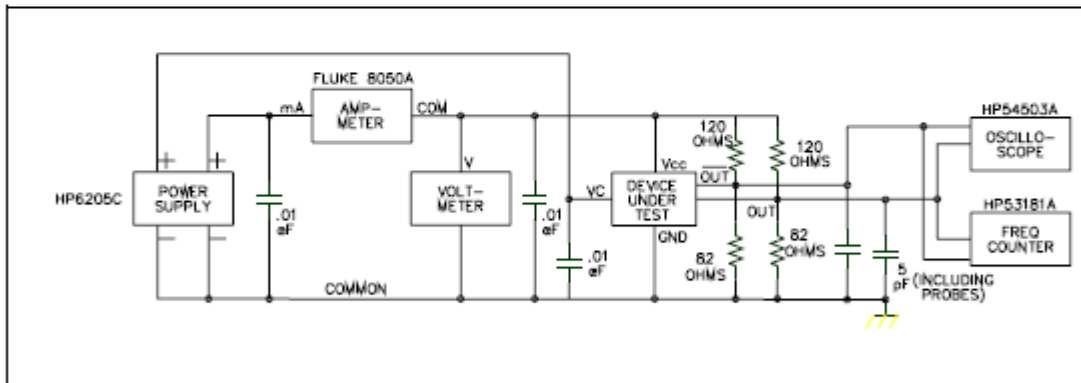
中國 • 香港 • 九龍官塘開源道 55 號 開聯工業中心 7 字樓 A 座 1-2 號
Block A, Flat 1-2, 7/F, Hoi Yuen Road, Kwun Tong, Kln, Hong Kong, China

Tel: 852-23899201 Fax: 852-23410001 E-mail: info@nkg.com.hk

■ REFLOW SOLDER



■ ELECTRICAL TEST DIAGRAM



■ PART NUMBER GENERATION

SERIES	OVERALL STABILITY	REV	TEMP. RANGE (°C)	PULLABILITY (PPM)	FREQUENCY (MHz)	OPTIONS	SUFFIX
VC88: 5.0V PECL, NO E/D VC89: 3.3V PECL, NO E/D VE88: 5.0V PECL, E/D VE89: 3.3V PECL, E/D	50: ±50ppm 00: ±100ppm	A	LV: 0...+50 LZ: 0...+70 HZ: -20...+70 D3: -40...+85	25±25 ppm 30±30 ppm 50±50 ppm 80±80 ppm 100±100 ppm 150±150 ppm	70.000...207.000	C: COMP. OUTPUT T: 45...55 DUTY	EL (See note 2)

NOTE:

- Variations from standard specification are available, please contact factory.
- EL is added at the end of the part number for all PECL vxco's with enable/disable option.

EXAMPLE: VE8950A-LZ-100-155.520-T-C-EL

3/902/katng-rfq, vxco

中國 • 香港 • 九龍官塘開源道 55 號 開聯工業中心 7 字樓 A 座 1-2 號
Block A, Flat 1-2, 7/F, Hoi Yuen Road, Kwun Tong, Kln, Hong Kong, China

Tel: 852-23899201 Fax: 852-23410001 E-mail: info@nkg.com.hk