



# Temexpress- XO

## 5 mm x 7.5 mm x 1.4 mm Ceramic SMD packaged

### QEN101

QEN101\_B  
29-03-2001

**Frequency Range :** 1.8 MHz to 100 MHz

**Features:**

Operating Temperature (1)	See TABLE I Below
Stability (1)(2)	See TABLE I Below
Supply Voltage $\pm 10\%$	+5 V, +3.3 V
Input Current	See TABLE II Below
Output	HCMOS 15pF / 10 LS-TTL HCMOS 50pF / 50 LS-TTL(4)
Duty Cycle	45/55% (3)
Rise/Fall Time	10 ns max. (5V - 15pF) 5 ns max. (5V - 50pF) 6 ns max. (3.3 V version)
Storage Temperature	-55°C~+125°C

- (1) For other temperature ranges and stability, please consult us.
- (2) Inclusive of 25°C tolerance, operating temperature range, power supply change, load change, aging, shock and vibration.
- (3) Available, except for frequency range upper than 50 Mhz in 3.3V version for which the duty cycle is 40/60%.
- (4) Not available with 3.3 V supply voltage.

**TABLE I - Available Temperature & Stability.**

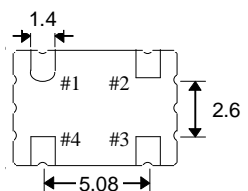
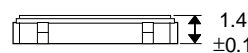
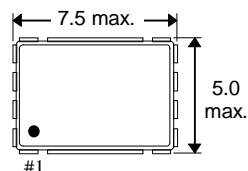
Supply Voltage	Operating Temperature	Frequency Range	Stability
+5 V	-10°C ~ +70°C	1.8 ~ 50	$\pm 25, \pm 50, \pm 100$ ppm
		50 <sup>+</sup> ~ 80	$\pm 50, \pm 100$ ppm
	-40°C ~ +85°C	1.8 ~ 80	$\pm 25, \pm 50, \pm 100$ ppm
		50 <sup>+</sup> ~ 80	$\pm 50, \pm 100$ ppm
+3.3 V	-10°C ~ +70°C	1.8 ~ 50	$\pm 25, \pm 50, \pm 100$ ppm
		50 <sup>+</sup> ~ 80	$\pm 50, \pm 100$ ppm
		80 <sup>+</sup> ~ 100	$\pm 100$ ppm
	-40°C ~ +85°C	1.8 ~ 50	$\pm 25, \pm 50, \pm 100$ ppm
		50 <sup>+</sup> ~ 80	$\pm 50, \pm 100$ ppm
		80 <sup>+</sup> ~ 100	$\pm 50, \pm 100$ ppm

**TABLE II - Input Current.**

Frequency Range (Mhz)	V <sub>CC</sub> = 3.3V C <sub>L</sub> =15pF	V <sub>CC</sub> = 5V C <sub>L</sub> =15pF	V <sub>CC</sub> = 5V C <sub>L</sub> =50pF
1.8 ~ 25	10 mA	13 mA	25 mA
25 <sup>+</sup> ~ 32	10 mA	24 mA	40 mA
32 <sup>+</sup> ~ 50	15 mA	24 mA	40 mA
50 <sup>+</sup> ~ 67	18 mA	-	60 mA
67 <sup>+</sup> ~ 80	30 mA	-	73 mA
80 <sup>+</sup> ~ 100	30 mA	-	-

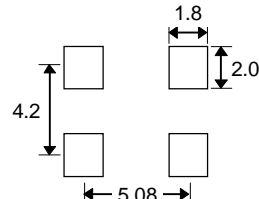
Marking: .production code + A0 + stability + supply+voltage  
.output frequency  
example for QEN101 AAA 10.000MHz: \*A0AAA  
10.000

**Package Size (mm)**



PIN CONNECTIONS	
1	Tri State
2	GND
3	OUTPUT
4	+Vcc

**RECOMMENDED SOLDER PAD LAYOUT**



**Minimum Ordering Information Requirement**

(See TABLE I for available combinations).

**QEN101 A A B 10MHz TR1**

**Temperature/Stability**

See Table III

**Supply Voltage**

A: +5 V

D: +3.3 V

**Output**

A: HCMOS 15pF / 10 LS-TTL

B: HCMOS 50pF / 10 N-TTL (available only in 5V)

**Frequency in MHz**

**Delivery Option**

TR1: delivery on tape & reel by multiple of 1K pieces

**TABLE III - Stability codes (see note (1))**

	$\pm 25$ ppm	$\pm 50$ ppm	$\pm 100$ ppm
-10°C ~ +70°C	C	B	A
-40°C ~ +85°C	G	F	D

**Tri state function**

Pin#1	Output (pin#3)
Open	Active
« 1 »	Active
« 0 »	High Z

Specifications are subject to change without notice

For more information, visit our WEB site at : <http://www.temexpress.com>