FREQUENCY

TEMEX

QEN62

Plastic J LEAD SMD XO – Communications Equipment Application

Specification (Rev-F)

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February 06th, 2006

Electrical Characteristics

Electrical Parameters		Unit	Minimum	Typical	Maximum	Test conditions
Frequency range		MHz	1		66.667	
Output logic		HCMOS / TTL Output				
Operating temperature range (see table 1)		°C		-10 to +70	-40 to +85	Refer to Ordering Information
Storage temperature range		°C	-55		+125	
Power supply voltage (Vcc)		V	+3.3		+5.0	Refer to Ordering Information
Frequency Stability (see note 1)		± ppm		50	100	Refer to Ordering Information
Aging (First Year)		± ppm			5	Ref at 25°C
Input current (see table 2)		mA				
Output load	**HCMOS load**	pF	15		30	Refer to Ordering Information
	TTL load	LS-TTL	1		10	
Duty cycle		%		40/60		
Rise & Fall time		ns			8	From 10% Vcc to 90% Vcc
Start-up time		ns			10	From 10% Vcc to 90% Vcc

Note 1: Include 25°C tolerance, operating temperature range, input voltage change (±5%), load change (±10%), first year aging, shock and vibration.

Table 1 : Stability Codes		
	± 50ppm	± 100ppm
-10 to +70°C	B	A
- 40 to +85°C	F	D

Table 2 : Input Current		
Frequency range (MHz)	Vcc=5V Cl=15 pF	Vcc=3.3V Cl=15pF
1.000 to 23.99	20 mA	15 mA
24.00 to 49.99	30 mA	20 mA
50.00 to 66.667	40 mA	30 mA

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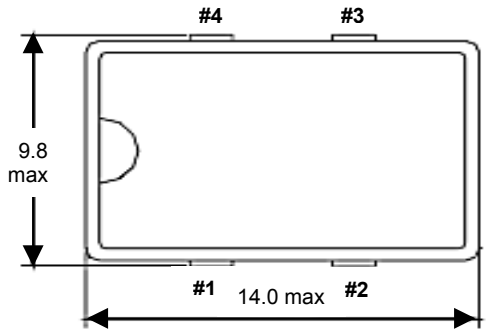
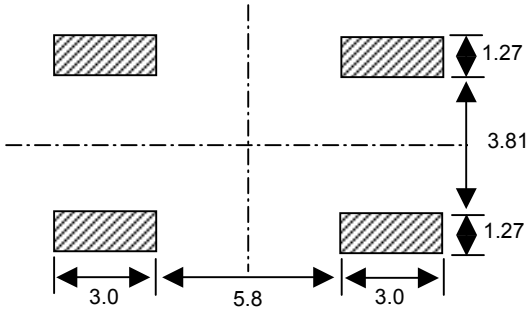
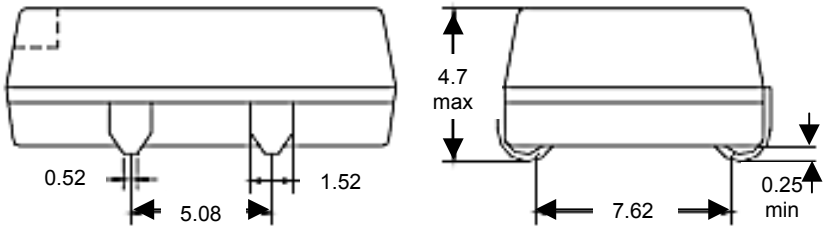
Mechanical Characteristics

BOTTOM VIEW



SUGGESTED PAD





Pin connections	
#1	Tri state
#2	Ground
#3	Output
#4	+Vcc

Tri state function	
Pin #1	Output (Pin #3)
Open	Active
"1"	Active
"0"	High Z

Marking	
Line 1	QEN62 + stability/supply voltage/output code
Line 2	Frequency in MHz (6 digits)
Line 3	Date code (YYWW)+Manugacturing code

Example for QEN62AAB / 3.6864MHz

- ⇨ Line 1 : QEN62AAB
- ⇨ Line 2 : 3.6864
- ⇨ Line 3 : 0547-N

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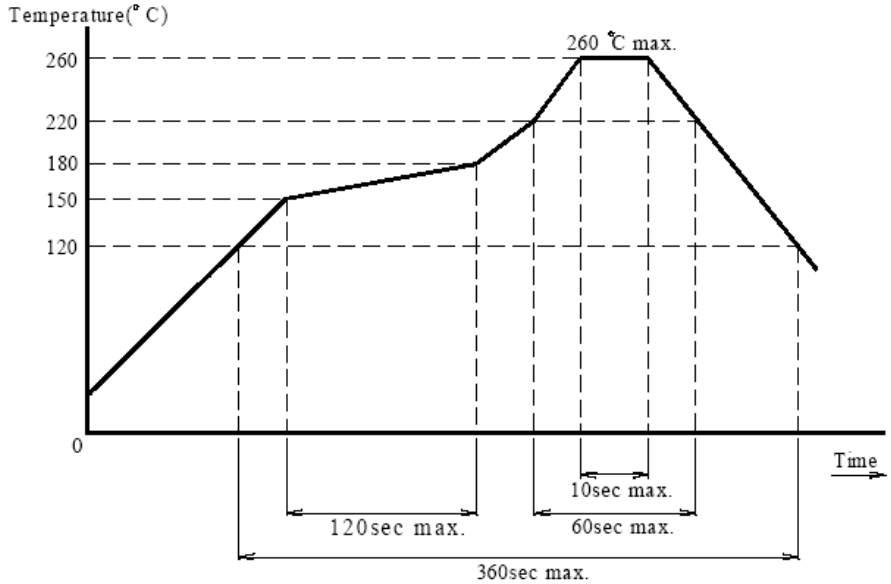
Ordering Information

Part numbering system				
QEN62	A	A	B	3.6864MHZ
↓	↓	↓	↓	↓
Package type	**Temperature Stability**	**Supply Voltage**	**Output**	**Nominal Frequency (MHz)**
SMD Package **QEN62 :** Plastic J Lead SMD	**A** : ± 100ppm vs -10 to +70°C **B** : ± 50ppm vs -10 to +70°C **D** : ± 100ppm vs -40 to +85°C **F** : ± 50ppm vs -40 to +85°C	**A** : + 5.0V **D** : +3.3V	**A** : HCMOS 15pF **B** : HCMOS 30pF	Please enter the nominal frequency

Suggested Reflow Soldering Profile



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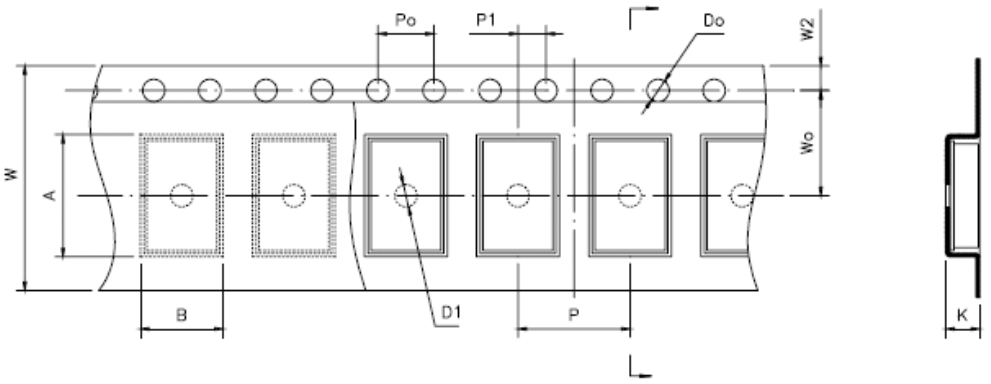
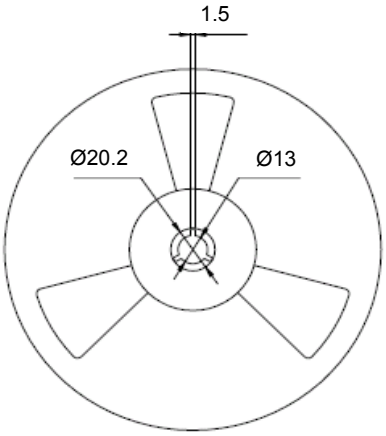
Tape Drawing



Item	Code	Dimension	Tolerance
Pitch of components	P	12	± 0.1
Pitch of sprocket hole	Po	4.0	± 0.1
Length from hole center to component center	P1	2.0	± 0.1
Width of carrier tape	W	24.0	± 0.3
Width of adhesive tape	W0	11.5	± 0.1
Height of component hole	A	14.65	± 0.1
Width of component hole	B	9.60	± 0.1
Gap of hold down tape and carrier tape	W2	1.75	± 0.1
Diameter of sprocket hole	Do	∅ 1.55	± 0.05
Diameter of feed hole	D1	∅ 1.55	± 0.25
Total of tape thickness	K	5.60	± 0.1

Reel Drawing



Multiple : 1Kpcs per Reel

Unit : mm