QEN62

14 x 9.8 mm, 4 pin Plastic J Lead SMD package

Pb FREE

RoHS COMPLIANT

Frequency and Electrical Characteristics

Parameter	Min.	Typ.	Max.	Unit	Test condition / Description
Nominal frequency (Fn)	1		125	MHz	
Operating temperature range		0 to +70	-40 to +85	°C	See 'Order Part Example'
Storage temperature range	-55		+125	°C	
Frequency stability over temperature[1]	±25	±50	±100	ppm	See 'Order Part Example'
Long-term stability (Ageing)			±3	ppm	Frequency drift over 1 year at 25°C
Power supply voltage(V_{CC}) 3.3V (BH option) 5.0V (H option)	 3.135 4.750	 3.3 5.0	 3.465 5.250	V_{DC}	See 'Order Part Example'
Duty cycle	40	50	60	%	
Rise & fall time 1.000 to 30.000MHz 30.001 to 70.00MHz 70.001 to 125.0MHz			 7 5 4	ns	From 10% Vcc to 90% Vcc. Vcc = 3.3V or 5V
Start-up time			5	ms	
Output logic levels Output logic high (V_{OH}) Output logic low (V_{OL})	 90%Vcc		 10%Vcc	V_{DC}	
Output load HCMOS TTL load	 15 1		 30 10	 pF LS-TTL	

Input current (C_L = 15pF)

Frequency range	Frequency	V_{CC} = 5V	V_{CC} = 3.3V	Mode
1.000 to 23.999 MHz	1 MHz 8 MHz 20 MHz	3 mA 5 mA 7 mA	2 mA 3 mA 5 mA	1/16 1/2 Fundermental
24.00 to 49.999 MHz	32 MHz 48 MHz	10 mA 20 mA	7 mA 15 mA	Fundermental 3rd overtone
50.00 to 79.999 MHz	51.84 MHz 60 MHz 66 MHz	27 mA	18 mA	3rd overtone
80.0 to 125.000 MHz	100 MHz	30 mA	20 mA	3rd overtone

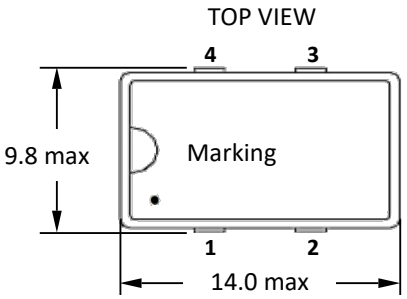
[1] Include 25°C tolerance, operating temperature range, input voltage change (V_{CC} ±5%), load change (15pF ±10%), first year ageing, shock and vibration.

Order Part Example – QEN62AAB / 3.6864MHZ

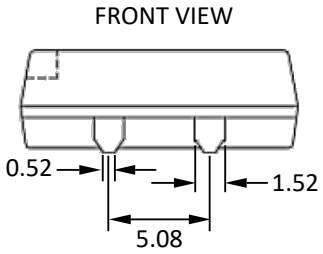
Parameter	Product family and package	Frequency stability (FvT)	Supply voltage (Vcc)	Output	Nominal Frenquency (Fn. MHz)
Code	QEN62	A	A	B	3.6864MHZ
Decode	QEN = XO 62 = Plastic J Lead SMD	A = ±100ppm vs -10 to +70°C B = ±50ppm vs -10 to +70°C C = ±25ppm vs -10 to +70°C D = ±100ppm vs -40 to +85°C F = ±50ppm vs -40 to +85°C G = ±25ppm vs -40 to +85°C	A = 5.0V D = 3.3V	A = HCMOS, 15pF B = ±HCMOS, 30pF*	Please enter Fn

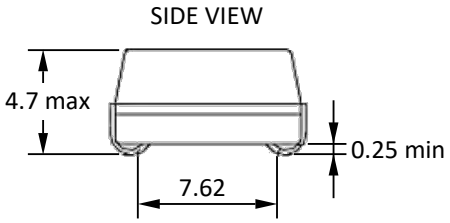
* Load 30pF is not available with all combinations. Please contact our sales representatives for solutions.

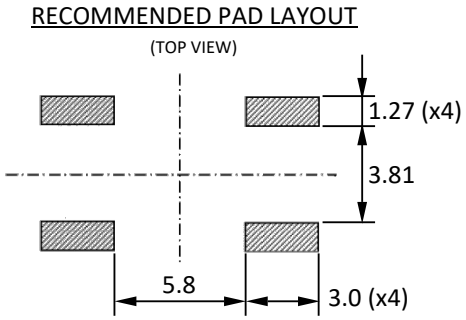
Model Outline, Recommended Pad Layout and Marking



Marking		Note
Line 1	QEN62AAB	Product code: See order example
Line 2	3.6864	Frequency in MHz (6 digits)
Line 3	2440-N	Year code (YY): 24 = 2024, Week code (WW): 40 = Week 40 of the year, N = Manufacturing code







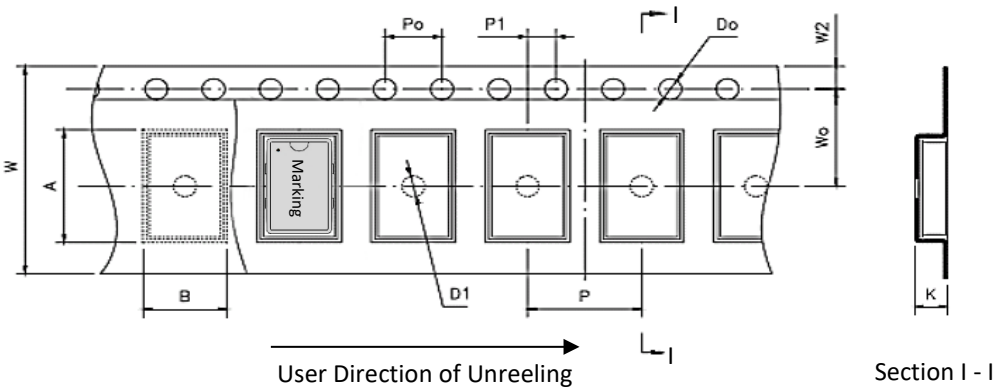
Pin	Connections
1	NC / Tri-state Open = Active, 1 = Active, 0 = High Z
2	GND
3	Output
4	V_{CC}

NOTE:

- Dimension unit is in millimetre.

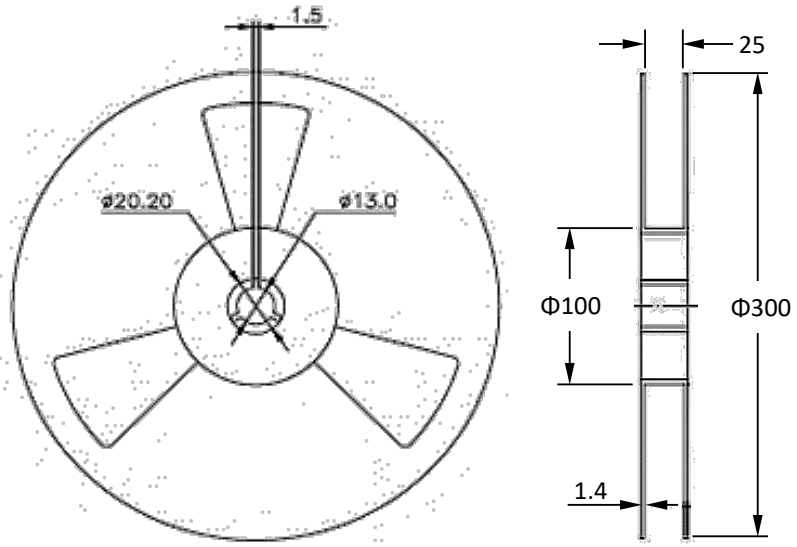
Packaging

TAPRE DETAILS:



Parameter	Code	Dimension	Tolerance
Pitch of components	P	12	± 0.1
Pitch of sprocket hole	P_0	4.0	± 0.1
Length from hole center to component center	P_1	2.0	± 0.1
Width of carrier tape	W	24.0	±0.3
Width of adhesive tape	W_0	11.5	± 0.1
Height of component pocket	A	14.65	± 0.1
Width of component pocket	B	9.60	± 0.1
Gap of hold down tape and carrier tape	W_2	1.75	± 0.1
Diameter of sprocket hole	D_0	Φ 1.55	± 0.05
Diameter of feed hole	D_1	Φ 1.55	± 0.25
Total of tape thickness	K	5.6	± 0.1

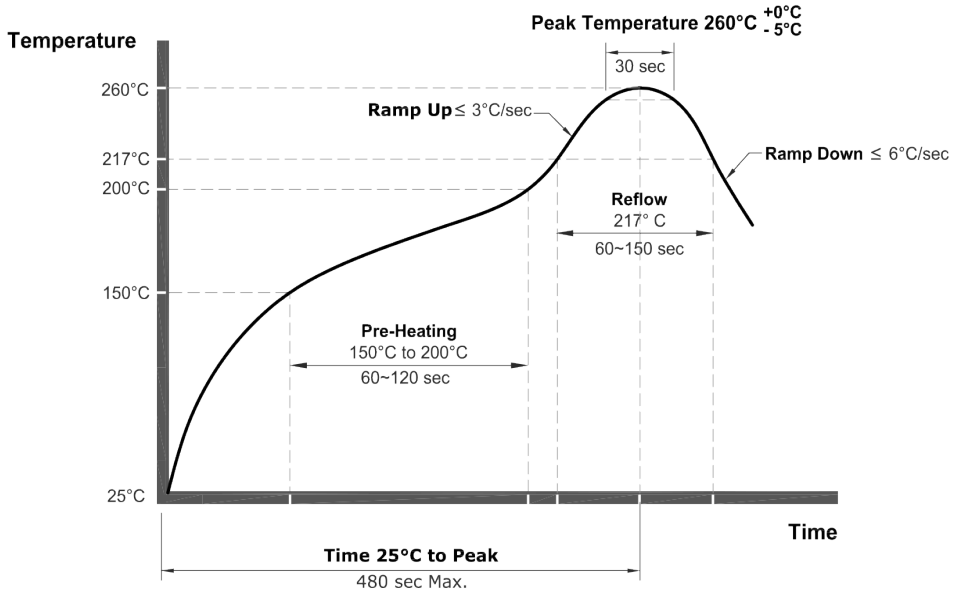
REEL DETAILS



NOTE:

- Standard Packing Quantity (SPQ): 1000 pcs/reel
- Unit: mm

Reflow soldering Profile



Referred to JEDEC J-STD-020