QEN4

12.6 x 12.6 mm, 8 pin DIL package

Frequency and Electrical Characteristics

Parameter	Min.	Min. Typ.		1	Max.	Unit		Test condition / Description		
Nominal frequency (Fn)	0.5			1	150	MHz				
Operating temperature range			0 to +70	-	-40 to +85	°C		See 'Or	der Part Exam	ple'
Storage temperature range	-55				+125	°C				
Frequency stability over temperature ¹				=	±15 to ±100	ppm		See 'Or	der Part Exam	ple'
Long-term stability (Ageing)				1	±5	ppm		Freque	ncy 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 'Or	der Part Exam	ple'
Duty cycle	40		50	0 6		%				
Rise & fall time				10		ns		From 10% V_{cc} to 90% V_{cc}		
Start-up time				1	10	ms				
Output load										
HCMOS TTL load			15 5			pF LS-TTL		With 15pF HCMOS load		
Maximum output load										
		Frequency			V _{CC} = 5V	V _{CC} = 3.3V		_		
		Up to Up to Up to	Jp to 50.000MHz Jp to 70.000MHz Jp to 150.00MHz		50 pF 30 pF 15 pF	30 pF 20 pF 15 pF				
Input current							1			
	Loa	Load	capacitance		requency		Vcc	= 5V	V _{CC} = 3.3V	
	$C_L = 2$		5 pF	0.500 24.00 50.00 70.0		MHz MHz MHz MHz	20 r 30 r 40 r 60 r	nA nA nA nA	15 mA 20 mA 30 mA 45 mA	

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¹ Include 25°C tolerance, operating temperature range, input voltage change (V_{CC}±5%), load change (15pF ±10%), first year ageing, shock and vibration. Issue: E, 30 September 2024



Parameter	Product family and package	Su Vo	pply Itage (V _{cc})	Option		Operating temperature range		Frequency stability** (FvT)		Nominal Frequency (Fn. MHz)	
Code	QEN4	н		J		LQ			25		10.000MHz
Decode	QEN = XO 4 = 8 pin, Half size DIL	H = 5.0V BH = 3.3V		J = Tri-state R = Duty cy 45/55%	e Ircle	LQ = JQ = HQ = DT =	0 to 70°C -10 to 70°C :-20 to 70°C -40 to 85°C		15 = ±15ppm 25 = ±25ppm 50 = ±50ppm 100 = ±100ppm		Please enter Fn
** Maximum	deviation:		Operating temperature	e range	±15pp Yes	m	±25ppm	±5 Ve	50ppm	±100ppm	
		-10 to 70 -20 to 70 -40 to 85		10 to 70°C 20 to 70°C 40 to 85°C	- - -		Yes Yes Yes Yes		25 25 25 25	Yes Yes Yes	

Order Part Example – QEN4HJ LQ25 / 10.000MHZ

Model Outline, Recommended Pad Layout, Marking and Packaging



Marking		Note					
Line 1	QEN4HJ LQ25	Product code: See order example					
Line 2	10.000	Frequency in MHz (6 digits)					
Line 3	2439-N	Year code (YY): 24 = 2024, Week code (WW): 39 = Week 39 of the year, N = Manufacturing code					

Pin	Connections
1	NC, or Tri-state (Open = Active, 1 = Active, 0 = High)
2	GND
3	Output
4	Vcc
OTE	

NOTE:

- Packaging: ESD carton box
- Dimension unit is in millimetre.