

Features

- Frequency range : 170MHz to 2100MHz
- SMD seam sealing ceramic package
- Supply voltage : 2.5V, 3.3V
- LVPECL output
- Low phase noise and phase jitter
- Tri-state function available
- External dimensions (mm)
L : 7.0 x W : 5.0 x H : 1.7
- RoHS compliant & Pb free

Applications

- Networking, Telecommunication, Data communication, Switch, Server, Storage
- Fibre channel, Ethernet, SONET, SATA, SAS, PCI-Express
- Optical module
- Microprocessor, DSP, FPGA, Clock source for ADC and DAC
- Test and measurement

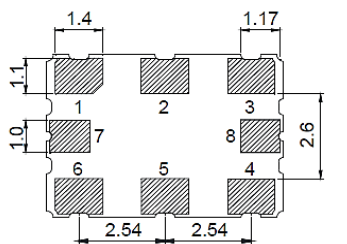
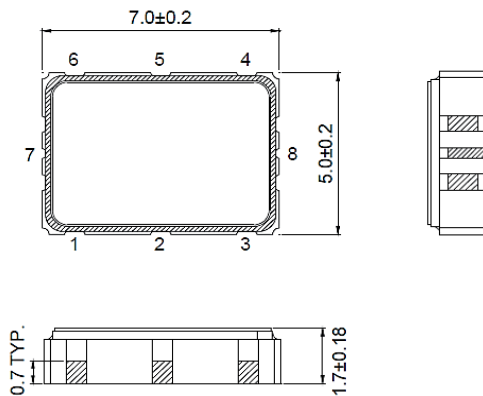
Electrical Characteristics

Item	QTM750PH	Conditions
Frequency Range (F ₀)	170MHz ~ 2100MHz	
Frequency Stability (F _{stab}) over Operating Temperature Range (T _{OTR})	±50ppm, ±25ppm	-40°C ~ +85°C, Note [1]
Operating Temperature Range (T _{OTR})	-40°C ~ +85°C	
Supply Voltage (V _{DD})	2.5V, 3.3V	V _{DD} ± 10%
Current Consumption (I _{DD})	100 mA Max.	
Output Type	LVPECL	
Output Load	50 Ω (V _{DD} - 2.0V)	
Output Voltage High (V _{OH})	V _{DD} - 1.165 Min.	
Output Voltage Low (V _{OL})	V _{DD} - 1.55 Max.	
Rise & Fall Time (T _r / T _f)	0.5 ns Max.	20% ~ 80% of output swing
Duty Cycle	45% ~ 55%	
Start-up Time	10 ms Max.	
Enable Voltage High, Logic "1"	70% V _{DD} Min.	Input to OE pin Note [2]
Enable Voltage Low, Logic "0"	30% V _{DD} Max.	
Phase Jitter (F ₀ = 622.08MHz)	150fs Typ. / 200fs Max.	12kHz ~ 20MHz, RMS
Aging (F _{aging})	±3 ppm Max.	at 25°C±3°C, first year
Storage Temperature Range (T _{STR})	-55°C ~ +125°C	

Notes:

- [1] Inclusive of frequency tolerance at 25°C, variations over temperature, supply voltage and vibration.
 [2] Output will be enabled if OE is Logic "1" or Open; Output will be disabled if OE is Logic "0".
 [3] The standard testing environment except temperature test is 25°C±5°C, 40%~70% relative humidity.

Dimensions

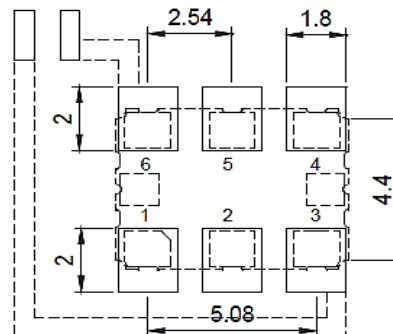


(Unit: mm)

Pin function

Pin 1	OE
Pin 2	NC
Pin 3	GND
Pin 4	OUT
Pin 5	$\overline{\text{OUT}}$
Pin 6	V _{DD}
Pin 7	NC
Pin 8	NC

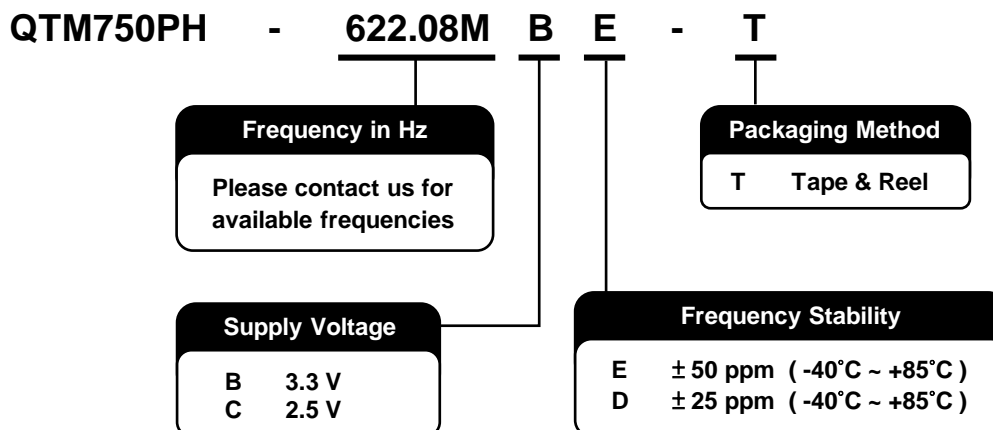
Recommended pad layout



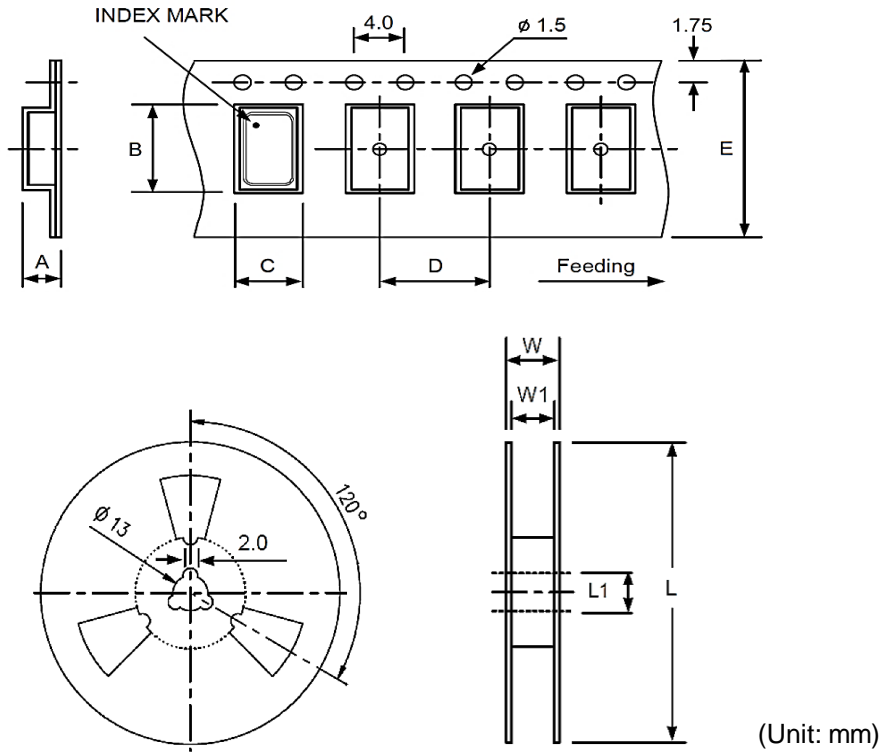
* Pad dimension tolerance is ± 0.2 mm

* Power supply decoupling capacitor is required.

Ordering Information



Packing



(Unit: mm)

DIMENSIONS	A	B	C	D	E	L	L1	W	W1
	2.00	7.90	5.45	8.00	16.0	180.0	13.0	20.5	16.0

Reflow Profile

Solder melting point : 220°C ± 10°C, 60 sec. Min., 200 sec. Max.

Peak temperature : 260°C ± 10°C, 10 sec. Min., 30 sec. Max.

