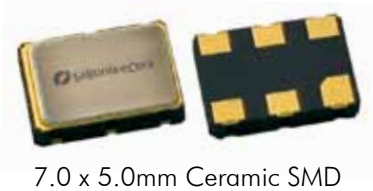


## 3.3V CMOS 125.000MHz Ethernet VCXO

## YNETHE125



7.0 x 5.0mm Ceramic SMD

## ASSP VCXO™ for Ethernet



### Product Features

- Very low Pk to Pk jitter - 40ps Max
- Low supply current - 20mA Max
- Low power standby mode
- RoHS Compliant

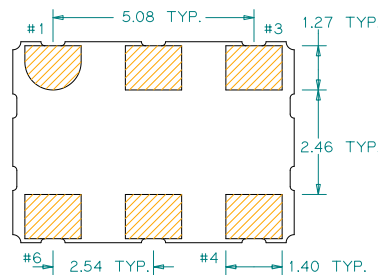
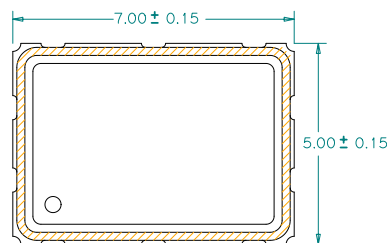
### Product Description

This is an enhanced 3.3V, 25.000MHz with superb jitter and low operating current for providing clock references in Ethernet applications.

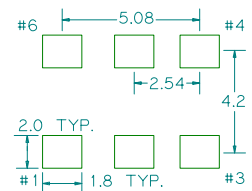
### Applications

- Ethernet

### Package:



### Recommended Land Pattern:



### Pin Functions:

Pin	Function
1	Voltage Control
2	Enable/Disable
3	Ground
4	Output
5	N/C
6	V <sub>DD</sub>

\*Extended high frequency power decoupling is recommended (see test circuit for minimum recommendation). To ensure optimal performance, do not route RF traces beneath the package.

### Part Ordering Information:

YNETHE125

**Electrical Performance**

Parameter	Min.	Typ.	Max.	Units	Notes
Output Frequency		125.000		MHz	
Supply Voltage V <sub>DD</sub>	3.135	3.3	3.465	V	
Supply Current, Output Enabled			20	mA	
Frequency Stability			±50	ppm	See Note 1 below
Operating Temperature Range	-40		+85	°C	
Output Logic 0, V <sub>OL</sub>			10% V <sub>DD</sub>	V	
Output Logic 1, V <sub>OH</sub>	90% V <sub>DD</sub>			V	
Output Load			15	pF	
Duty Cycle	45		55	%	Measured 50% V <sub>DD</sub>
Rise and Fall Time			5	ns	Measured 20/80% of waveform
Jitter, Phase			1	ps, RMS(1-σ)	12kHz~20 MHz Frequency Band
Jitter, Peak to Peak			40	ps, Pk-Pk	100.000 Random Periods

**Notes:**

- Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance (25°C), aging (10 years at +40°C average effective ambient temperature), shock and vibration.
- For specifications other than those listed, please contact sales.

**Voltage Control Function**

Parameter	Min.	Typ.	Max.	Units	Notes
Absolute Pull Range (APR)	±50			ppm	See 1 below
Control Voltage Range	0.3		3.0	V	As rated
Center Control Voltage		1.65		V	For RMT Nominal Frequency
Monotonic Linearity			10	%	Positive Transfer Slope
Input Impedance	130			kΩ	Control Voltage Pin

**Notes:**

- APR is relative to the nominal output frequency; APR is inclusive of frequency deviation due to stability.

**Output Enable / Disable Function**

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (pin 2), Output Enable	3.0			V	or open
Input Voltage (pin 2), Output Disable (low power standby)			0.3	V	Output is Hi-Z

**Absolute Maximum Ratings**

Parameter	Min.	Typ.	Max.	Units	Notes
Storage Temperature	-55		+125	°C	

**For the latest product information visit:** <http://www.pericom.com/products/timing/oscillators/YNETHE125/>

**For test circuit go to:** [http://www.pericom.com/pdf/sre/tc\\_vc6cmos.pdf](http://www.pericom.com/pdf/sre/tc_vc6cmos.pdf)

**For soldering reflow profile and reliability test ratings go to:** <http://www.pericom.com/pdf/sre/reflow.pdf>

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