



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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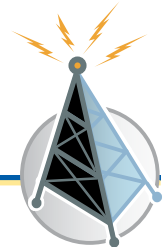
**3.3V CMOS 153.6MHz WiMAX VCXO**

**YNWMAX153**



7.0 x 5.0mm Ceramic SMD

**ASSP VCXO™ for WiMAX**



**Product Features**

- Very low Pk to Pk jitter - 40ps Max
- Low supply current - 30mA Max
- Low power standby mode
- RoHS Compliant

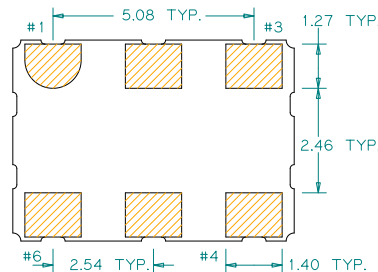
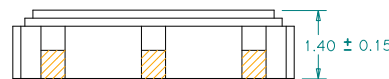
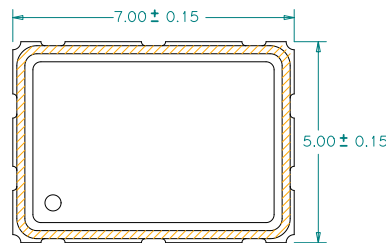
**Product Description**

This is an enhanced 3.3V, 153.6MHz with superb jitter and low operating current for providing clock references in telecom applications.

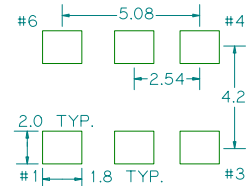
**Applications**

- E1
- CEPT1(x8)
- Modems

**Package:** (Scale: none, Dimensions are in mm)



Recommended Land Pattern:



**Pin Functions:**

Pin	Function
1	Control Voltage
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:**  
**YNWMAX153**

**Electrical Performance**

Parameter	Min.	Typ.	Max.	Units	Notes
Output Frequency		153.6		MHz	
Supply Voltage V <sub>DD</sub>	3.135	3.3	3.465	V	
Supply Current, Output Enabled			30	mA	
Frequency Stability			±35	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 RMS(1-σ)			1	ps	12kHz~20 MHz Frequency Band
Jitter, Peak to Peak (Pk-Pk)			40	ps	100.000 Random Periods
Phase Noise		-65	-55/-40	dBc/Hz	Typ./Max. at 10Hz offset
Phase Noise		-90	-85/-70	dBc/Hz	Typ./Max. at 100Hz offset
Phase Noise		-120	-115/-100	dBc/Hz	Typ./Max. at 1kHz offset
Phase Noise		-135	-133/-130	dBc/Hz	Typ./Max. at 10kHz offset

**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
Pullability	±75		±110	ppm	
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

**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/crystals-and-crystal-oscillators/assp-xo/?part=YNWMAX153>

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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