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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SaRonix-eCera™

ASSP XO™

Application Specific Crystal Oscillator 7.0 x 5.0mm

3.3V CMOS Low-Jitter 155.52 MHz GPON XO SXGPON155

7.0 x 5.0mm Ceramic SMD

ASSP XO™ for Networking

Product Features

- Very low phase jitter - 0.5ps RMS
- Thicker crystal for improved reliability
- Low output current - 20mA max.
- Industrial Temperature Range
- Pb-free & RoHS compliant

Product Description

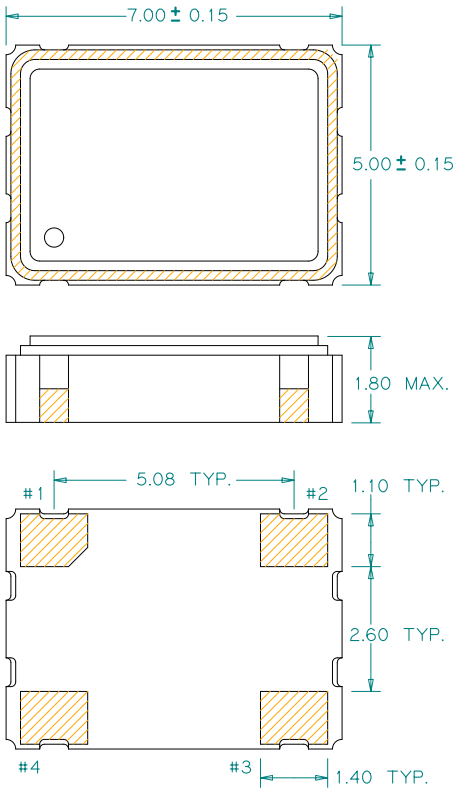
This is an enhanced high-frequency 3.3V, 155.52MHz crystal clock oscillator with superb jitter and low operating current for Gigabit Passive Optical Network (GPON) applications.

The output clock signal, generated internally with a patented oscillator design, is compatible with LVCMOS logic levels.

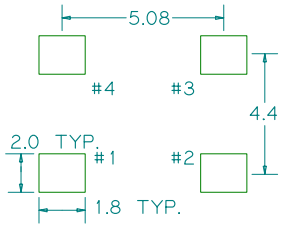
Applications

- GPON Optical Network Unit (ONU)
- GPON Optical Line Termination (OLT)
- GPON Gateway

Package:



Recommended Land Pattern:



Pin Functions:

Pin	Function
1	OE Function
2	Ground
3	Clock Output
4	V_{DD}

*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:

SXGPON155

Electrical Performance

Parameter	Min.	Typ.	Max.	Units	Notes
Output Frequency		155.52		MHz	
Supply Voltage	2.97	3.3	3.63	V	
Supply Current, Output Enabled			20	mA	
Supply Current, Output Disabled			10	mA	Output Hi-Z
Frequency Stability			±50	ppm	See Note 1 below
Operating Temperature Range	-40		+85	°C	Industrial
Output Logic 0, V_{OL}			10% V_{DD}	V	
Output Logic 1, V_{OH}	90% V_{DD}			V	
Output Load			15	pF	
Duty Cycle	45		55	%	Measured 50% V_{DD}
Rise and Fall Time			2	ns	Measured 20/80% of waveform
Jitter, Phase RMS (1-σ)		0.25	0.5	ps	12kHz to 20 MHz frequency band
Jitter, pk-pk		30	40	ps	100.000 random periods

Notes:
1. Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance (25°C), aging (1 year at 25°C average effective ambient temperature), shock and vibration.
2. For specifications othere than those listed, please contact sales.

Output Enable / Disable Function

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (pin 1), Output Enable	2.2			V	or open
Input Voltage (pin 1), Output Disable (low power standby)			0.8	V	Output is Hi-Z
Internal Pullup Resistance	50			kΩ	
Output Disable Delay			100	ns	
Output Enable Delay			1	ms	

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/SXGPON155/

For test circuit go to: http://www.pericom.com/pdf/sre/tc_hcmos.pdf

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

For typical phase noise go to: http://www.pericom.com/pdf/sre/pn_SXGPON155.pdf

For tape and reel information go to: http://www.pericom.com/pdf/sre/tr_7050.pdf