



Product Change Notification

108053 - 01

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Should you have any issues with the timeline or content of this change, please contact the Intel Representative(s) for your geographic location listed below. No response from customers will be deemed as acceptance of the change and the change will be implemented pursuant to the key milestones set forth in this attached PCN.

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Product Change Notification

Change Notification #: 108053 - 01
Change Title: Intel® Tunable Laser, TTX19900, PCN 108053-01, Product Design, Packaging Material and Order Code Change, Reason for Revision: Improvement in Standoff Configuration
Date of Publication: April 07, 2008

Key Characteristics of the Change:

Product Design

Forecasted Key Milestones:

Date of Samples Availability:	Nov 09, 2007
Date of Qualification Data Availability:	Feb 10, 2008
Date Customer Must be Ready to Receive Post-Conversion Material:	Jun 30, 2008
Date of First Availability of Post-Conversion Material:	Feb 01, 2008

The date of "First Availability of Post-Conversion Material" is the projected date that a customer may expect to receive the Post-Conversion Materials. This date is determined by the projected depletion of inventory at the time of the PCN publication. The depletion of inventory may be impacted by fluctuating supply and demand, therefore, although customers should be prepared to receive the Post-Converted Materials on this date, Intel will continue to ship and customers may continue to receive the pre-converted materials until the inventory has been depleted.

Description of Change to the Customer:

Reason for Revision: Improvement in standoff configuration see#5

As part of the continued evolution of the Intel tunable laser product line, Intel will be revising the ITLA product to include the TTx2 (next generation) tunable laser. The new revision of this product is intended to be form-fit-function compatible with the existing generation. Although the basic design of both the control electronics and the laser remain are very similar to the current generation product, multiple changes have been made at the laser level which requires changes to the control electronics, firmware and printed circuit board layout. High level changes are listed below, for further information; please contact your local Intel sales representative.

1. The cavity end mirror will change from LiNbO (Lithium Niobate) based to a Piezo-transducer architecture.
2. The butterfly package has been modified to add an additional lead for a case thermistor.
3. Several minor mechanical changes have been made to the optical assembly design for simplification and ease of manufacturing.
4. Second source manufactures are being added at the optical sub-component level.
5. The butterfly mounting clamps have been redesigned so that the height of the PCB is fixed. Similar to the current design, metal standoffs are used for the four butterfly mounting screws, held captive by plastic

tear-off strips that are to be removed during installation. The other two screws are held captive by plastic stand-offs.

6. The SBSS dither frequency has been changed to 20.8 kHz due to the end mirror change to a PZT.
 7. The Laser control circuit has been changed from cavity locking based on the signal derived from the laser gain medium voltage to using the signal from the photodiode
 8. Several ICs have been changed, including TEC driver, digital to analog converters, TEC monitor amplifier.
 9. The -5.2 V circuit has been modified to increase product robustness.
 10. Capacitors in the cavity locking circuit have been changed to COG type for higher stability.
 11. The Layout of the PCB has been modified to accommodate the electronics changes as listed above.
 12. The Firmware will be revised to incorporate changes required for the laser and electronics listed above.
- In addition, several minor changes have been made to improve product robustness.

Customer Impact of Change and Recommended Action:

This product is intended to be form-fit-function compatible with the previous generation, with the exception of the SBSS frequency change to 20.8 kHz. However it is expected that customers may require a re-qualification of the product due to the nature of the design changes.

Products Affected / Intel Ordering Codes:

Affected Product Code	Pre-change MM#	New Product Code	Post Change MM#
TTX199375900N00	882061	TTX199475900N00	892917
TTX199375900N02	882062	TTX199475900N02	892915
TTX199375900N10	888082	TTX199475900N00	892917
TTX199375900NJ3	887082	TTX199475900NJ3	892920
TTX1993759AAN00	882058	TTX1994759AAN00	892914
TTX1993759AAN02	882059	TTX1994759AAN02	892916
TTX1993759AANL0	882060	TTX1994759AAN00	892914
TTX1993759X0N00	882063	TTX199475900N00	892917
TTX199375H00N00	886428	TTX199475H00NN0	895530
TTX199375HAAN00	886979	TTX199475HAAN00	895531

Reference Documents / Attachments:

Document: _____ **Location #:** _____

PCN Revision History:

Date of Revision:	Revision Number:	Reason:
November 2, 2007	00	Originally Published PCN
April 7, 2008	01	Improvement in Standoff Configuration