

PRODUCT CHANGE NOTIFICATION (PCN)

(According to JEDEC standard JESD046)

PCN number: GC243157 **Date:** 15-October-2024

Title: Ink to Laser Mark Conversion for Microprocessors

Product identification: All P2020 series, All PC8378 series

Generation	Platform	Number of Cores	Derivative	Temperature Range	Encryption	Package Type	CPU Frequency	DDR Speed	Die Revision
P(X) = 45 nm	2	01 = Single core 02 = Dual core	0 - 9	F: -40/125 M: -55/125	E = SEC Present N = SEC Not Present	4 = TEPBGA2 Pb 2 = TEPBGA2 Pb free	H = 800 MHz K = 1000 MHz M = 1200 MHz N = 1333 MHz	F = 667 MHz H = 800 MHz	C = 2.1

and the related space grade versions P2020ME4KHC-X1, P2020ME4KHC-N1,2,3 and P2020ME4MHCEQM

Product Code	Part Identifier	Encryption Acceleration	Temperature Range	Package		e300 core Frequency	DDR Data Rate	Revision Level
PC(X)	8378	Blank = Not included E = included	F = -40°C (Ta) to 125°C (Tj) M = -55°C (Ta) to 125°C (Tj)	ZQ = 689 TePBGA II	Y = RoHS Blank = Leaded	AN = 800 MHz AL = 667 MHz	G = 400 MHz	A = GlobalFoundries fab

Reason for change:

- Design
 Material
 Processing
 Other:

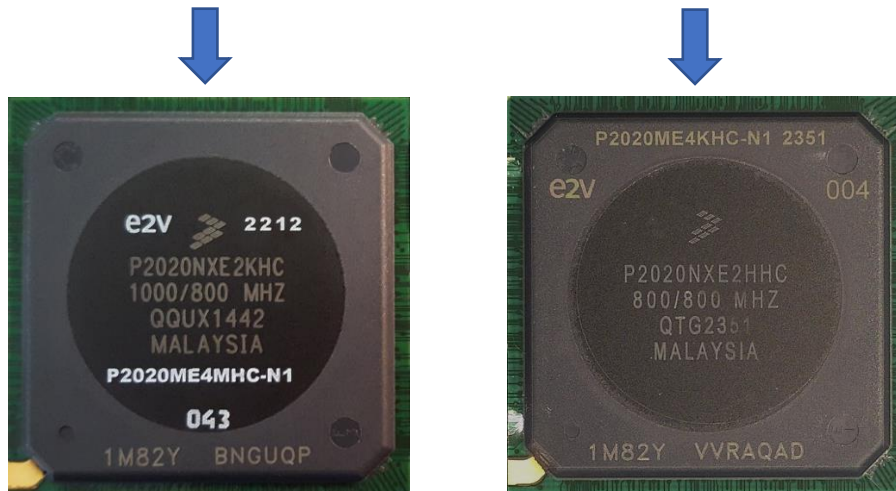
 Logistics
 Manufacturing Location
 Quality/Reliability

Change description: Teledyne e2v will be converting the package marking from ink to a laser marking. The industry trend is to eliminate ink markings in favor of laser markings. This aligns with the supplier direction and industry environmental initiatives. It will also further improve the marking permanency.

The marking's characters of the component, the content of information will remain similar.

Except the marking nature itself, no other changes will be brought in form, fit, or function.

See below evolution between previous ink (left) and new laser marking (right):



Identification method to distinguish change: See above Change description section.		
Qualification data: <input checked="" type="checkbox"/> Already available <input type="checkbox"/> Will be available in <input type="checkbox"/> Not applicable		
Qualification samples: <input type="checkbox"/> Already available <input type="checkbox"/> Will be available in <input checked="" type="checkbox"/> Not applicable		
TRB reference (Technical Review Board):		
Quantifiable impact & reliability: No impact on reliability is expected.		
Implementation date: October 2024		
<i>The Estimated Implementation Date is the forecasted date that a customer may expect to receive changed product. This is determined by the estimated date of inventory depletion on the PCN issue date. This may be affected by fluctuations in supply and demand. Consequently, although customers should be prepared to receive changed product on this date, Teledyne will continue to ship pre-changed product until a time in which inventory has been depleted. This may result in pre-changed product being shipped to customers after this forecasted date.</i>		
Teledyne contact: semiconductors.MKT@teledyne.com For technical questions: HOTLINE-STD@teledyne.com		
Approved by:	Quality Manager Name: M. Ball	Marketing Manager Name: L.GIRY
<i>Teledyne will deem this change accepted unless specific conditions of acceptance are provided in writing within 30 days from the date of this notice. All correspondence must be sent to the contact e-mail addresses indicated above.</i>		
<i>Teledyne assumes no responsibility for any errors that may appear in this document.</i>		
<i>The supply of products will be subject to Teledyne general terms and conditions of sale or any specific contractual terms agreed between the parties.</i>		