



<b>PRODUCT/PROCESS CHANGE NOTICE (PCN)</b>					
<p>PCN Number: <b>PCN 20015</b></p> <p>Date Issued: <b>10/26/2020</b></p> <p>Product(s) Affected:</p> <table border="1" style="margin-left: 40px;"> <tr> <td style="padding: 2px;">SP213ECA-L/TR</td> <td style="padding: 2px;">SP213EHCA-L/TR</td> </tr> <tr> <td style="padding: 2px;">SP213EEA-L/TR</td> <td style="padding: 2px;">SP213EHEA-L/TR</td> </tr> </table> <p>Manufacturing Location Affected: Foundry FROM: <b>Silan, China</b>          Foundry TO: <b>TSMC Fab 10, Shanghai</b>          Assembly FROM: <b>JCET, China</b>          Assembly TO: <b>Greatek, Taiwan</b></p> <p>Date Effective (90 day window): <b>October 26, 2020</b></p> <p>Date Issued +90 days: <b>January 26, 2021</b></p>	SP213ECA-L/TR	SP213EHCA-L/TR	SP213EEA-L/TR	SP213EHEA-L/TR	<p>Means of Distinguishing Changed Devices:</p> <p>Product Mark:</p> <p><input type="checkbox"/> Back Mark</p> <p><input type="checkbox"/> Date Code</p> <p><input checked="" type="checkbox"/> Lot number</p>
SP213ECA-L/TR	SP213EHCA-L/TR				
SP213EEA-L/TR	SP213EHEA-L/TR				
<p>Contact: Your local MaxLinear Marketing Representative or          or contact our Customer Support team by creating a Support Ticket at  <a href="http://www.maxlinear.com/support/createcase">http://www.maxlinear.com/support/createcase</a></p> <p>Phone: <b>1-760-692-0711</b></p>	<p>Attachment: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Samples: Request from MaxLinear Marketing Representatives</p>				
<p>Description and Purpose of Change:</p> <p>MaxLinear has qualified TSMC Fab 10 wafer foundry in Shanghai in order to facilitate long term support of the product line. The wafer process is 0.25um CMOS High Voltage Mixed Signal. The process has been optimized to produce very similar product characteristics as the currently shipping devices from Silan foundry and will meet existing datasheet specifications with the below exceptions.</p> <ul style="list-style-type: none"> <li>• Abs. Max Rx Input voltage range (RIN) changes from ±20V to ±25V</li> <li>• RS-232 Output voltage swing changes from Typical = ±7V to ±8.7V</li> <li>• RS-232 input Voltage range changes from Min=-15V, Max = +15V to Min = -25V to Max = +25V</li> <li>• Icc no load changes from max = 6mA to 8mA</li> <li>• Icc RL = 3kΩ changes from typical = 15mA to 23mA</li> <li>• SP213EH max data rate changes from 460kbps to 1Mbps</li> </ul> <p>MaxLinear has also qualified Greatek, Taiwan, as an alternate assembly site for the products listed above.</p> <p>There are no changes in device reliability.</p> <p>Note: Users who rely on DC, diode characteristics during ICT testing should take caution certain I/O characteristics may appear changed due to the proprietary I/O structures employed by TSMC. These DC / diode characteristic differences are not guaranteed nor required to ensure full design functionality per datasheet. Adjustments at ICT testing may be required to prevent false failures.</p>	<p><input checked="" type="checkbox"/> Die Technology</p> <p><input checked="" type="checkbox"/> Wafer Fabrication</p> <p><input type="checkbox"/> Assembly Process</p> <p><input type="checkbox"/> Equipment</p> <p><input type="checkbox"/> Material</p> <p><input type="checkbox"/> Testing</p> <p><input checked="" type="checkbox"/> Manufacturing Sites</p> <p><input checked="" type="checkbox"/> Data Sheet</p> <p><input type="checkbox"/> Yield Enhancement</p> <p><input type="checkbox"/> Other:</p>				
<p>Reliability/Qualification Summary: Reliability reports available upon request.</p>					



Customer Acknowledgement of Receipt within 30 days of issue. Lack of acknowledgement within 30 days constitutes acceptance of change.

Please fax or email this form to the contact above after completing the following information:

Customer: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

E-Mail: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Approval for shipments prior to effective date

Customer Comments (Optional):