## PRODUCT/PROCESS CHANGE NOTICE (PCN)

**PCN #:** W1903-01(R1)  
**DATE:** 5-Apr-2019

### MEANS OF DISTINGUISHING CHANGED DEVICES:
- [ ] Product Mark
- [ ] Back Mark
- [ ] Date Code
- [ ] Other

Traceability to the Fab location is provided through the 2 digit sequential lot code on the date code line of the top mark.

**Product Affected:**
- P9221-R7AHGI
- P9221-R7AHGI8

**Date Effective:** 13-Jun-2019

**Contact:** IDT PCN DESK  
**E-mail:** pcndesk@idt.com

**Attachment:** [ ] Yes  
**Samples:** Please contact your local sales representative for sample request.

## DESCRIPTION AND PURPOSE OF CHANGE:

- [ ] Die Technology
- [ ] Wafer Fabrication Process
- [ ] Assembly Process
- [ ] Equipment
- [ ] Material
- [ ] Testing
- [ ] Manufacturing Site
- [ ] Data Sheet
- [ ] Other

**Revision 1:** This revised PCN notice is to add the qualification report, which has been inadvertently missed out in the original PCN notice. PCN effective date remains unchanged.

This notification is to advise our customers that IDT has qualified TSMC Fab 6 as an alternate Foundry for the products listed on this notice. This is to provide additional manufacturing capacity for these products. There is no change to the product design or process technology as the existing qualified Foundry, TSMC Fab 8.

There is also no change to the package, backend manufacturing process or the data sheet.

Refer to page 2 for the qualification report.

## RELIABILITY/QUALIFICATION SUMMARY:

Based on wafer and component level qualification to date and characterization tests, there is no change to the performance or reliability of the product.

## CUSTOMER ACKNOWLEDGMENT OF RECEIPT:

IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.

IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

**Customer:** ___________________________  
**Name/Date:** ___________________________  
**E-Mail Address:** ________________

**Title:** ___________________________  
**Phone# /Fax# :** ________________

**CUSTOMER COMMENTS:** ________________________________________________________________

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**IDT ACKNOWLEDGMENT OF RECEIPT:**

RECD. BY: ________________________  DATE: ________________________
# Qualification Report

**Product Type:** IDTP9221S-0 (Wireless Power Receiver/Transmitter) – Fab 6

<table>
<thead>
<tr>
<th>Device Family:</th>
<th>AW694T</th>
<th>Process Technology:</th>
<th>CM018BCD, 1P4M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package Type:</td>
<td>AHG52 (WLCSP52)</td>
<td>Fab Location:</td>
<td>TSMC Fab 6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Standard Description</th>
<th>Test Conditions</th>
<th>Sample Size</th>
<th>Reject</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device Characterization</td>
<td>IDT’s datasheet condition</td>
<td></td>
<td>80</td>
<td>0</td>
<td>Pass</td>
</tr>
<tr>
<td>ESD: Human Body Model</td>
<td>JESD22-A114 (JS-001) Classification – 1B</td>
<td>1 KV</td>
<td>3</td>
<td>0</td>
<td>Pass 1KV</td>
</tr>
<tr>
<td>ESD: Charged Device Model</td>
<td>JESD22-C101 Classification – C1</td>
<td>500 V</td>
<td>3</td>
<td>0</td>
<td>Pass 500V</td>
</tr>
<tr>
<td>Latch-Up</td>
<td>JESD78</td>
<td>+/-100mA I/O and 1.5x Vcc OV stress, Class II (85°C)</td>
<td>3</td>
<td>0</td>
<td>Pass</td>
</tr>
<tr>
<td>Early Life Failure Rate (ELFR)</td>
<td>JESD22-A108, JESD74</td>
<td>48 hrs. @ 125 °C, Vcc = 11V</td>
<td>3 x 834</td>
<td>0</td>
<td>Pass</td>
</tr>
<tr>
<td>High Temperature Operating Life (HTOL)</td>
<td>JESD22-A108, +125°C, Vcc-max</td>
<td>1,000 hrs. @ 125 °C, Vcc =11V</td>
<td>3 x 77</td>
<td>0</td>
<td>Pass</td>
</tr>
<tr>
<td>High Temperature Storage (HTS)</td>
<td>JESD22-A103</td>
<td>150°C, 1000 hrs</td>
<td>3 x 77</td>
<td>0</td>
<td>Pass</td>
</tr>
<tr>
<td>Temperature Cycling (TC)</td>
<td>JESD22-A113, JESD22-A104</td>
<td>Cond. B. -55°C to 125°C, 700 cyc</td>
<td>3 x 77</td>
<td>0</td>
<td>Pass</td>
</tr>
<tr>
<td>Unbiased Highly Accelerated Stress Test (UHAST)</td>
<td>JESD22-A113, JESD22-A118</td>
<td>Unbiased, 130°C/85%</td>
<td>3 x 77</td>
<td>0</td>
<td>Pass</td>
</tr>
</tbody>
</table>