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ADVANCE PRODUCT CHANGE NOTIFICATION

APCN: APCN181801B

Date: June 19, 2019

Subject: Addendum to APCN181801A - Planned Qualification of TeraProbe, Inc. Japan as an Additional Wafer Test (Sort) Site for GL-S Product Family

To: PHILIP MAILLET
FUTURE
pcn.system2@future.ca

Description of Change:

The purpose of this addendum is to communicate the new schedule for the planned qualification of Tera Probe, Inc. as an additional wafer test sort site for GL-S products.

Cypress announced the planned qualification of TeraProbe, Inc. Japan (Kyushu Operation Center, 1580-1 Yunoura, Ashikita-machi, Ashikita-gun, Kumamoto) as an additional wafer-level test (Sort) site for the GL-S products. These products are currently being tested at Test 25 in Austin, Texas. Tera Probe, Inc. uses the next generation Advantest 5830 for testing. There will be no changes to the test program coverage or test methodologies.

This qualification will allow Cypress to leverage TeraProbe's manufacturing expertise and quality focus. This in turn also provides the means for Cypress to continue to meet its customers' IC testing needs as well as delivery commitments in dynamic, changing market conditions. Tera Probe, Inc. is certified on several international quality standards: ISO / TS16949, ISO 9001, ISO 14001 and OHSAS 18001. Tera Probe's certificates can be viewed on their corporate web site: <http://www.teraprobe.com/english/corporate/iso.html>

Cypress qualification is in compliance with JEDEC and AEC standards. To help expedite the implementation of this site, please share any additional customer specific qualification and test requirements at the earliest.

Benefit of Change:

Cypress will have the added capability to meet varying market demand, and to ensure consistent and reliable delivery performance to customers.

Part Numbers Affected: 391

See the attached 'Affected Parts List' file for a list of all part numbers affected by this change.

Qualification Status:

Estimated completion dates for internal qualification and sample availability dates are provided in the table below.

| Estimated Cypress Qualification | Estimated PCN Publication Date | Estimated Implementation Date |
|---------------------------------|--------------------------------|-------------------------------|
| Q4'2019 | Q4'2019 | Q4'2019 |

Approximate Implementation Date:

The estimated implementation date is provided in table above.

Anticipated Impact:

No impact is expected to form, fit, function, datasheet parameters, package composition or package pin-out.

Method of Identification:

Cypress maintains traceability of product to wafer level, including wafer fabrication location, through the date code marked on the package.

Response Required:

Please share any additional qualification and test requirements if needed.

For additional information regarding this change, contact your local sales representative or contact the PCN Administrator at pcn_adm@cypress.com.

Sincerely,

Cypress PCN Administration

| Item | Marketing Part Number |
|------|-----------------------|
| 1 | 00002331896 |
| 2 | 00002444259 |
| 3 | 00003302 68 |
| 4 | 00003302 6 |
| 5 | 051GL01GS11DHV020 |
| 6 | 051GL256S90TFI010 |
| | 051GL512S10TFI010 |
| 8 | 0 910 4549RFU00 |
| 9 | 0 910 5319RFU00 |
| 10 | 0 910 6509RFU00 |
| 11 | 0 910 399RQA00 |
| 12 | 10324-02440 |
| 13 | 10324-04890 |
| 14 | 110 8 |
| 15 | 1218 |
| 16 | 122046 |
| 1 | 156 39-1A |
| 18 | 16-3636-01-P |
| 19 | 16-40 2-01A |
| 20 | 16-40 2-01A-T |
| 21 | 16-4186-01 |
| 22 | 16-4369-01 |
| 23 | 16-4369-01-T |
| 24 | 1 0-0121-000 |
| 25 | 1 0-015 -000 |
| 26 | 1 0-015 -000A |
| 2 | 1 0-015 -000D |
| 28 | 2325090 |
| 29 | 243 530 |
| 30 | 2600595 |
| 31 | 26035 1 |
| 32 | 26035 2 |
| 33 | 26 5454 |
| 34 | 28319201 A |
| 35 | 2832616 A |
| 36 | 28328261 A |
| 3 | 28329184 A |
| 38 | 28333513 A |
| 39 | 28335081 A |
| 40 | 28335081 B |
| 41 | 283 0621 A |
| 42 | 283 399 A |
| 43 | 28384698 A |
| 44 | 28443 6 A |
| 45 | 28456 81 A |
| 46 | 284 1162 A |
| 4 | 2IO2912ABTA-R |
| 48 | 315-0825-000 |
| 49 | 315-0825-000AAA |
| 50 | 40060325 |

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| 58 | 40060430 |
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| 60 | 40060493 |
| 61 | 40060542 |
| 62 | 40060912 |
| 63 | 45 80-8510 |
| 64 | 45 80-8520 |
| 65 | 462 91-08 0 |
| 66 | 51-02204V01-A |
| 6 | 51-22113 01-A |
| 68 | 51-22808 01-A |
| 69 | 51-22809 01-A |
| 0 | 51-285 1 01-A |
| 1 | 51-32094 01-A |
| 2 | 51-32240 01-A |
| 3 | 629 68800A |
| 4 | 63483 200A |
| 5 | 910 6509RFU00 |
| 6 | 93.560-00 |
| | GA6Y0090M0 |
| 8 | GA6Y0216F0 |
| 9 | 8 611 200 138 |
| 80 | 8 611 200 891 |
| 81 | 8 611 200 914 |
| 82 | 8 611 200 915 |
| 83 | 8 611 200 948 |
| 84 | 8 611 200 9 5 |
| 85 | 8 611 200 9 6 |
| 86 | 8 611 200 9 |
| 8 | 8 611 200 989 |
| 88 | 811600-693 08 0 |
| 89 | 811600- 14808 0 |
| 90 | 811600- 80308 0 |
| 91 | 811600- 92408 0 |
| 92 | 811600- 92508 0 |
| 93 | 811600-813008 0 |
| 94 | 8611200160 |
| 95 | 86112001 1 |
| 96 | 86112002 |
| 9 | 86112002 8 |
| 98 | 8611200999 |
| 99 | 890900358 |
| 100 | 8909005100 |
| 101 | 94958 -98 0 |

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| 103 | 94958 -99 |
| 104 | 94958 -99 0 |
| 105 | 949588-0020 |
| 106 | 949588-0080 |
| 10 | 949588-04 0 |
| 108 | 955153-0002 |
| 109 | 99326-00904 |
| 110 | 99326-01329 |
| 111 | 99326-1241 |
| 112 | 99326-E1241 |
| 113 | 99326-E12 0 |
| 114 | 99326-E12 0-A |
| 115 | A2C00641800 A |
| 116 | A2C00 13500 A |
| 11 | A2C00949500 A |
| 118 | A2C01206600 A |
| 119 | A2C01 43000 A |
| 120 | A2C02695 00 A |
| 121 | A2C03281500 A |
| 122 | A2C03283100 A |
| 123 | A2C03292100 A |
| 124 | C3FBRY000049 |
| 125 | DK280319 |
| 126 | DK280531 |
| 12 | DK281535 |
| 128 | DK289831 |
| 129 | DK298 5 |
| 130 | E3203006919 |
| 131 | E3203008668 |
| 132 | E32030093 5 |
| 133 | EAN62691 01 |
| 134 | EAN641 1801 |
| 135 | EE3203008668 |
| 136 | F020068611 |
| 13 | GE410199-1 |
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| 144 | P 0011CF9C000 |
| 145 | P 0011C-F9C000 |
| 146 | P 0011CF9C006 |
| 14 | P 0011CF9C353 |
| 148 | P 0011C-F9C353 |
| 149 | P 0011CF9C3 5 |
| 150 | P 0011C-F9C3 5 |
| 151 | P 0011CF9C9 5 |
| 152 | P 0011C-F9C9 5 |

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| 153 | P 0011CF9CA 6 |
| 154 | P 0011C-F9CA 6 |
| 155 | P 0012CF9C000 |
| 156 | P 0012C-F9C000 |
| 15 | P 0013CF9C000 |
| 158 | P 001 0F9C000 |
| 159 | P 001 0-F9C000 |
| 160 | P 0019CF8C000 |
| 161 | P 0019CF8C002 |
| 162 | P 0019DF8C003 |
| 163 | P 0020C-F5C000 |
| 164 | P 0021DF9C000 |
| 165 | P 0021D-F9C000 |
| 166 | P 0023CF0C000 |
| 16 | P 00280F0C000 |
| 168 | P 0028CF0C000 |
| 169 | P 0032CF0C000 |
| 1 0 | P 0032CF0C001 |
| 1 1 | P 0032DF0C01 |
| 1 2 | P 0035DF90000 |
| 1 3 | P 0035D-F90000 |
| 1 4 | P 0038DF5C000 |
| 1 5 | P 0038D-F5C000 |
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| 182 | S29GL01GS10DHI010 |
| 183 | S29GL01GS10DHI010A |
| 184 | S29GL01GS10DHI020 |
| 185 | S29GL01GS10DHI023 |
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| 188 | S29GL01GS10TFIO10 |
| 189 | S29GL01GS10TFIO10A |
| 190 | S29GL01GS10TFIO10D |
| 191 | S29GL01GS10TFIO20 |
| 192 | S29GL01GS10TFIO20A |
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| 194 | S29GL01GS11DHB013 |
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| 196 | S29GL01GS11DHIV10A |
| 19 | S29GL01GS11DHIV20 |
| 198 | S29GL01GS11DHIV20A |
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| 200 | S29GL01GS11DHV020 |
| 201 | S29GL01GS11DHV023 |
| 202 | S29GL01GS11FHIV10 |
| 203 | S29GL01GS11FHIV13 |

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| 205 | S29GL01GS11TFIV10 |
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| 315 | S29GL512S10TFI010A |
| 316 | S29GL512S10TFI010D |
| 31 | S29GL512S10TFI010Y |
| 318 | S29GL512S10TFI013 |
| 319 | S29GL512S10TFI020 |
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| 321 | S29GL512S10TFI020D |
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| 324 | S29GL512S11DHA023 |
| 325 | S29GL512S11DHAV23 |
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| 356 | S29GL512S11TFV020D |

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| 366 | S99-50336 P |
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| 386 | S99GL512S01 0 |
| 38 | S99GL512S0180 |
| 388 | S99GL512S0190P |
| 389 | TN45 80-8520 |
| 390 | TN94958 -99 0 |
| 391 | TN949588-0080 |