

PRODUCT CHANGE NOTIFICATION COVERSHEET

CTS Part Number: RT1xxxxx, RT2xxxxx, RCxxxxx
and BMxxxx Part Number Formats

 Product Description: ClearONE BGA Resistor
Network
Customer: Various

 Customer Part Number: Various



Change Notification Only - No Customer Response Required



Customer Authorization Required - Please Confirm Acceptance by E-Mail

Reason for PCN: DuPont issued end of life statement for several conductive thick film pastes used in manufacturer of ClearONE resistor network product.

Description for Change: Several conductive thick film pastes currently used are extremely dated and have come to the end of their useful life. DuPont has recommended replacements that are equivalent alternatives.

| Current Material | Replacement Material |
|------------------|----------------------|
| QS171 | QR171 |
| QS170 | 5081R |

Change Instructions: Based on current conductor paste inventories and product usage, CTS plan is to transition to replacement materials by 12/1/2018. CTS can advise date code details for first lot using new conductor materials.

CTS ISR/CSR team will support issuing customer notifications for conductive change activity.

Affected CTS part numbers listed on next page. Customers should contact CTS if they have part numbers recorded that are not contained in this list.

Implementation Date: Immediate. Factory will transition to new material during months of November and be fully implemented by 12/1/2018.

Notes: Change does not affect form-fit-function of device. Qualification data is available upon request.

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CTS Approvals: CTS internal PCN w/ electronic signatures.

Platforms and Part Numbers Affected

| <u>CTS Part Number</u> | <u>CTS Part Number</u> | <u>CTS Part Number</u> | <u>CTS Part Number</u> |
|---------------------------------|------------------------|------------------------|---|
| BM000 | RT1400B7TR7 | RT1432B7 | RT2402B7 |
| BM30718 (RT1300B6 DO NOT ORDER) | RT1401B6TR7 | RT1432B7PTR7 | RT2402B7PTR7 |
| BM472 | RT1401B7TR7 | RT1432B7TR7 | RT2402B7TR13 |
| BM92054 (RC3003B6) | RT1402B6 | RT1433B6TR7 | RT2402B7TR7 |
| BM92113 (RC3004B6) | RT1402B6PTR7 | RT1435B6TR7 | RT2403B7TR7 |
| RC3002B6TR7 | RT1402B6TR7 | RT1435B7TR7 | RT2404B6TR7 |
| RC3002B7 | RT1402B7 | RT1436B6TR7 | RT2404B7 |
| RC3002B7TR13 | RT1402B7P | RT143B7PTR7 | RT2404B7PTR7 |
| RC3002B7TR7 | RT1402B7PTR7 | RT1443B7 | RT2404B7TR7 |
| RC3003B6 | RT1402B7TR13 | RT1450B6TR7 | RT2405B6TR7 |
| RC3005B6 | RT1402B7TR7 | RT1451B6TR7 | RT2405B7TR7 |
| RC3005B6TR13 | RT1403B6PTR7 | RT1452B6TR7 | RT2407B6TR7 |
| RC3005B6TR7 | RT1403B6TR7 | RT1453B6 | RT2407B7 |
| RC3007B6TR7 | RT1403B7TR7 | RT1453B6TR7 | RT2407B7TR7 |
| RC3008B7 | RT1404B6PTR7 | RT1454B6TR7 | RT2408B7 |
| RC4005B6TR7 | RT1404B6TR7 | RT1460B6TR7 | RT2408B7PTR7 |
| RT102B7TR7 | RT1404B7 | RT1460B7TR7 | RT2408B7TR7 |
| RT104B7TR7 | RT1404B7P | RT1463B6 | RT2409B7TR7 |
| RT118B7TR7 | RT1404B7PTR7 | RT1463B6TR7 | RT2410B7TR7 |
| RT1200B7 | RT1404B7TR13 | RT1463B7 | RT2415B6TR7 |
| RT1200B7P | RT1404B7TR7 | RT1463B7PTR7 | RT2415B7TR7 |
| RT1200B7TR7 | RT1405B6PTR7 | RT1463B7TR7 | RT2415B7TR7-16 |
| RT1201B7 | RT1405B6TR7 | RT1465B6TR7 | RT2416B7TR7 |
| RT1201B7P | RT1405B7 | RT1465B7 | RT2417B6TR7 |
| RT1201B7PTR7 | RT1405B7P | RT1465B7TR7 | RT2417B7TR7 |
| RT1201B7TR13 | RT1405B7PTR7 | RT1466B7TR7 | RT2418B6TR7 |
| RT1201B7TR7 | RT1405B7TR7 | RT1467B7TR7 | RT2418B7TR7 |
| RT1202B7 | RT1406B7TR7 | RT1468B7TR7 | RT2419B7TR7-16 |
| RT1202B7TR7 | RT1407B6 | RT1469B6TR7 | RT2427B6TR7 |
| RT1203B7 | RT1407B6PTR7 | RT1470B7TR7 | RT2430B7 |
| RT1203B7TR7 | RT1407B6TR7 | RT1471B7TR7 | RT2430B7TR7 |
| RT1205B7TR7 | RT1407B7 | RT1472B7TR7 | RT2432B7TR7 |
| RT1210B7 | RT1407B7PTR7 | RT1473B7TR7 | RT2435B7TR7 |
| RT1210B7TR7 | RT1407B7TR7 | RT1474B7TR7 | RT2453B6TR7 |
| RT1210WB7 | RT1408B6 | RT1476B7TR7 | RT2460B7 |
| RT1210WB7TR13 | RT1408B6PTR7 | RT1493B7TR7 | RT2460B7TR7 |
| RT1210WB7TR7 | RT1408B6TR7 | RT1500B7TR7 | RT2463B6TR7 |
| RT1211B7 | RT1408B7 | RT1505B7TR7 | RT2463B7TR7 |
| RT1211B7TR13 | RT1408B7PTR7 | RT1510B7TR7 | RT2465B6TR7 |
| RT1211B7TR7 | RT1408B7TR13 | RT1710B6PTR7 | RT2465B7TR7 |
| RT1220B7TR7 | RT1408B7TR7 | RT1710B6TR7 | RT2467B7TR7 |
| RT1230B7TR7 | RT1410B6TR7 | RT1710B7 | RT2468B7TR7 |
| RT1232B7TR7 | RT1411B6TR7 | RT1710B7PTR7 | RT2476B7TR7 |
| RT1235B7 | RT1412B6TR7 | RT1710B7TR7 | RT2710B6TR7 |
| RT1235B7TR7 | RT1412B7TR7 | RT1722B7TR7 | RT2710B7TR7 |
| RT1236B7TR7 | RT1413B7TR13 | RT2200B7TR7 | RT2722B7TR7 |
| RT1250B6TR7 | RT1413B7TR7 | RT2201B7 | RT2723B7TR7 |
| RT1250B7TR7 | RT1415B7 | RT2201B7TR7 | |
| RT1250B7TR7A | RT1415B7TR7 | RT2202B7TR7 | RT1xxxxx [generic part number format] |
| RT128B7TR7 | RT1416B7 | RT2203B7TR7 | RT2xxxxx [generic part number format] |
| RT1300B6 | RT1416B7TR7 | RT2205B7TR7 | RCxxxxx [generic part number format] |
| RT1300B6PTR7 | RT1417B6TR7 | RT2232B7TR7 | BMxxxx [generic special part number format] |
| RT1300B6TR13 | RT1417B7TR7 | RT2235B7TR7 | |
| RT1300B6TR7 | RT1418B6TR7 | RT2250B7TR7 | |
| RT130B7 | RT1418B7 | RT2300B6 | |
| RT130B7TR7 | RT1418B7TR7 | RT2300B6TR13 | |
| RT134B7TR7 | RT141B6TR7 | RT2300B6TR7 | |
| RT139B6TR7 | RT1427B6TR7 | RT230B7TR7 | |
| RT1400B6 | RT142B7TR7 | RT239B6TR7 | |
| RT1400B6PTR7 | RT1430B6 | RT2400B6TR7 | |
| RT1400B6TR7 | RT1430B6TR7 | RT2400B7TR7 | |
| RT1400B7 | RT1430B7 | RT2401B7TR7 | |
| RT1400B7P | RT1430B7TR7 | RT2402B6TR13 | |
| RT1400B7PTR7 | RT1432B6TR7 | RT2402B6TR7 | |