

Texas Instruments -LAUNCHXL-CC1312R1 BOM for 868MHz/915MHz band

Rev D WCS042

Date October 10, 2018

DNM - Indicates Do Not Mount

| Item Number | Description | Vendor | Vendor Part Number | Part Reference | Value | Quantity | PCB Package | Maximum Operating Temperature | ROHS | REACH/SVHC Status |
|-------------|--|-------------------|--------------------|---|-------|----------|-------------|-------------------------------|----------------|-------------------|
| 1 | ANTENNA, NON COMPONENT, DUAL BAND OPTION - 868MHz/2440MHz, NOT APPLY | TEXAS INSTRUMENTS | DN024 | A1 | DNM | 0 | | N/A | Not Applicable | Not Applicable |
| 2 | CAPACITOR, CERAMIC COG/NPO, 12pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H120JA01D | C1 C9 C41 C88 C89 | 12pF | 5 | 0402 | +125DEGC | Compliant | Unaffected |
| 3 | CAPACITOR, CERAMIC X7R, 10nF, 25V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM155R71E103KA01D | C2 C3 C4 C7 C50 C108 C166 | 10nF | 7 | 0402 | +125DEGC | Compliant | Unaffected |
| 4 | CAPACITOR, CERAMIC X5R, 100nF, 10V, -10%/+10%, -55DEGC/+85DEGC, 0201, SMD | MURATA | GRM033R61A104KE84D | C6 C78 C79 C80 C83 C84 C87 | 100nF | 7 | 0201 | +85DEGC | Compliant | Unaffected |
| 5 | CAPACITOR, CERAMIC X7R, 0.1uF, 25V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM155R71E104KE14D | C8 C12 C14 C15 C17 C19 C20 C24 C30 C38 C39 C43 C46 C52 C70 C71 C72 C73 C74 C75 C110 C114 C115 C116 C118 C119 C120 C125 C126 C127 C139 C140 C141 C152 C154 C158 C161 C162 C164 C167 C175 | 0.1uF | 41 | 0402 | +125DEGC | Compliant | Unaffected |
| 6 | CAPACITOR, CERAMIC COG/NPO, 3.6pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H3R6CA01D | C11 C21 | 3.6pF | 2 | 0402 | +125DEGC | Compliant | Unaffected |
| 7 | CAPACITOR, CERAMIC, X5R, 22uF, 6.3V, -20%/+20%, -55DEGC/+85DEGC, 0603, SMD | MURATA | GRM188R60J226MEA0D | C16 C18 C113 C156 C168 C174 | 22uF | 6 | 0603 | +85DEGC | Compliant | Unaffected |
| 8 | CAPACITOR, CERAMIC COG/NPO, 7.5pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H7R5CA01D | C22 C23 | DNM | 0 | 0402 | +125DEGC | Compliant | Unaffected |
| 9 | CAPACITOR, CERAMIC X7R, 1nF, 50V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM155R71H102KA01D | C25 C130 | 1nF | 2 | 0402 | +125DEGC | Compliant | Unaffected |
| 10 | CAPACITOR, CERAMIC COG/NPO, 100pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H101JA01D | C31 C36 | 100pF | 2 | 0402 | +125DEGC | Compliant | Unaffected |

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|----|--|---------------------------|--------------------|--|-------|----|---------|----------|-----------|------------|
| 11 | CAPACITOR, CERAMIC COG/NP0, 2.7pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H2R7CA01D | C33 | 2.7pF | 1 | 0402 | +125DEGC | Compliant | Unaffected |
| 12 | CAPACITOR, CERAMIC COG/NP0, 6.2pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H6R2CA01D | C34 | 6.2pF | 1 | 0402 | +125DEGC | Compliant | Unaffected |
| 13 | CAPACITOR, CERAMIC COG/NP0, 3pF, 50V, -0.25pF/+0.25pF, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H3R0CA01D | C35 | 3pF | 1 | 0402 | +125DEGC | Compliant | Unaffected |
| 14 | CAPACITOR, CERAMIC COG/NP0, 100pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H101JA01D | C37 | DNM | 0 | 0402 | +125DEGC | Compliant | Unaffected |
| 15 | CAPACITOR, CERAMIC X5R, 1uF, 16V, -10%/+10%, -55DEGC/+85DEGC, 0402, SMD | MURATA | GRM155R61C105KA12D | C40 C42 C44 C53 C109 C128 C133 C136 C137 C138 C145 | 1uF | 11 | 0402 | +85DEGC | Compliant | Unaffected |
| 16 | CAPACITOR, CERAMIC X5R, 2.2uF, 25V, -10%/+10%, -55DEGC/+85DEGC, 0402, SMD | MURATA | GRM155R61E225KE11D | C45 C48 C49 C143 C144 C149 C151 C155 C157 C159 C160 C163 C171 C173 | 2.2uF | 14 | 0402 | +85DEGC | Compliant | Unaffected |
| 17 | CAPACITOR, CERAMIC COG/NP0, 15pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H150JA01D | C47 C51 C153 C172 | 15pF | 4 | 0402 | +125DEGC | Compliant | Unaffected |
| 18 | CAPACITOR, CERAMIC X5R, 4.7uF, 6.3V, -20%/+20%, -55DEGC/+85DEGC, 0402, SMD | MURATA | GRM155R60J475ME87D | C85 C86 | 4.7uF | 2 | 0402 | +85DEGC | Compliant | Unaffected |
| 19 | CAPACITOR, CERAMIC X7R, 0.1uF, 50V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM155R71H104KE14D | C106 | 0.1uF | 1 | 0402 | +125DEGC | Compliant | Unaffected |
| 20 | CAPACITOR, CERAMIC X7R, 33nF, 25V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM155R71E333KA88D | C107 | 33nF | 1 | 0402 | +125DEGC | Compliant | Unaffected |
| 21 | CAPACITOR, CERAMIC X5R, 3.3uF, 10V, -10%/+10%, -55DEGC/+85DEGC, 0603, SMD | MURATA | GRM188R61A335KE15D | C111 | 3.3uF | 1 | 0603 | +85DEGC | Compliant | Unaffected |
| 22 | CAPACITOR, TANTALUM, 220uF, 10V, -20%/+20%, -55DEGC/+125DEGC, 7343-43, SMD | AVX | TPSE227M010R0100 | C112 | 220uF | 1 | 7343-43 | +125DEGC | Compliant | Unaffected |
| 23 | CAPACITOR, CERAMIC X7R, 10uF, 16V, -10%/+10%, -55DEGC/+125DEGC, 0805, SMD | SAMSUNG ELECTRO-MECHANICS | CL21B106KOQNNNE | C117 C121 C122 C142 C147 C165 | 10uF | 6 | 0805 | +125DEGC | Compliant | Unaffected |

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|----|--|-------------------|--------------------|-------------------------------------|----------------|---|----------|----------|----------------|----------------|
| 24 | CAPACITOR, CERAMIC COG/NP0, 270pF, 50V, -1%/+1%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H271FA01D | C123 C135 | 270pF | 2 | 0402 | +125DEGC | Compliant | Unaffected |
| 25 | CAPACITOR, CERAMIC X7R, 0.1uF, 25V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM155R71E104KE14D | C124 C132 C134 C170 | DNM | 0 | 0402 | +125DEGC | Compliant | Unaffected |
| 26 | CAPACITOR, CERAMIC X7R, 470pF, 50V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM155R71H471KA01D | C129 | 470pF | 1 | 0402 | +125DEGC | Compliant | Unaffected |
| 27 | CAPACITOR, CERAMIC X7R, 22nF, 25V, -10%/+10%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM155R71E223KA61D | C131 | 22nF | 1 | 0402 | +125DEGC | Compliant | Unaffected |
| 28 | CAPACITOR, CERAMIC X5R, 47uF, 10V, -20%/+20%, -55DEGC/+85DEGC, 0805, SMD | MURATA | GRM21BR61A476ME15L | C146 | 47uF | 1 | 0805 | +85DEGC | Compliant | Unaffected |
| 29 | CAPACITOR, CERAMIC COG/NP0, 15pF, 50V, -5%/+5%, -55DEGC/+125DEGC, 0402, SMD | MURATA | GRM1555C1H150JA01D | C169 | DNM | 0 | 0402 | +125DEGC | Compliant | Unaffected |
| 30 | OPTO, LED, GREEN, 562nm, 2V, 0.02A, 0.08W, 0603, SMD | OSRAM | LP L296-J2L2-25 | CR1 CR5 | LPL296-J2L2-25 | 2 | 0603 | +100DEGC | Compliant | Unaffected |
| 31 | OPTO, LED, RED, 630nm, 2V, 0.02A, 0603, SMD | OSRAM | LS L296-P2Q2-1 | CR2 CR4 | LS L296-P2Q2-1 | 2 | 0603 | +100DEGC | Compliant | Unaffected |
| 32 | DIODE, PROTECTION, ESD ARRAY 4 CHANNELS, UNI, 6V TO 8V, -40DEGC/+85DEGC, SON6, SMD | TEXAS INSTRUMENTS | TPD4E004DRYR | CR6 | TPD4E004DRY | 1 | SON6 | +85DEGC | Compliant | Unaffected |
| 33 | DIODE, PROTECTION, ESD ARRAY 6 CHANNELS, 7V, -40DEGC/+85DEGC, QFN8, SMD | TEXAS INSTRUMENTS | TPD6E004RSER | CR7 CR8 | TPD6E004RSER | 2 | QFN8 | +85DEGC | Compliant | Unaffected |
| 34 | DIODE, ZENER, 3.9V@0.005A, 0.55W, -55DEGC/+150DEGC, SOD-323F, SMD | NEXPERIA | BZX84J-C3V9,115 | CR14 | DNM | 0 | SOD-323F | +150DEGC | Compliant | Unaffected |
| 35 | DIODE, SCHOTTKY, 1A, 30V, -65DEGC/+125DEGC, SOD-123, SMD | ON SEMICONDUCTOR | NRVB130T1G | CR15 | NRVB130T1G | 1 | SOD-123 | +125DEGC | Compliant | Unaffected |
| 36 | NON COMPONENT, FIDUCIAL MARK, ROUND 1.27MM, SMD | NON_COMPONENT | FIDUCIAL_1.27mm | FIDU1 FIDU2 FIDU3 FIDU4 FIDU5 FIDU6 | DNM | 0 | | N/A | Not Applicable | Not Applicable |
| 37 | FILTER, EMI, FERRITE BEAD, 1500@100MHz, -25%/+25%, -55DEGC/+125DEGC, 0603, SMD | MURATA | BLM18HE152SN1D | FL1 FL2 FL3 | BLM18HE152SN1 | 3 | 0603 | +125DEGC | Compliant | Unaffected |
| 38 | FILTER, EMI, FERRITE BEAD, 220@100MHz, -25%/+25%, -55DEGC/+125DEGC, 0805, SMD | MURATA | BLM21PG221SN1D | FL4 FL5 FL6 | BLM21PG221SN1 | 3 | 0805 | +125DEGC | Compliant | Unaffected |
| 39 | CONNECTOR, HEADER, FEMALE, STRAIGHT, 2 ROWS, 20 PINS, 2.54mm, PTH | SAMTEC | SSQ-110-23-L-D | J1 J2 | SSQ-110-23-L-D | 2 | | +125DEGC | Compliant | Unaffected |

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|----|--|-------------------------|---------------------------|--|-----------------------|----|------|----------|----------------|----------------|
| 40 | CONNECTOR, USB, FEMALE, RIGHT ANGLE, 1 ROW, 5 PINS, PITCH 0.65mm, SMD | MOLEX | 105164-0001 | J6 | 105164-0001 | 1 | | +85DEGC | Compliant | Unaffected |
| 41 | CONNECTOR, COAX, RF, FEMALE, STRAIGHT, 1 PIN, SMD | HUS-TSAN | SMA-10V21-TGG | J7 | SMA-10V21-TGG | 1 | | | Compliant | Unaffected |
| 42 | INDUCTOR, STANDARD, FERRITE CORE, 6.8uH, -20%/+20%, 0.11A, 55DEGC/+125DEGC, 0805, SMD | TDK | MLZ2012N6R8LT000 | L10 | 6.8uH | 1 | 0805 | +125DEGC | Compliant | Unaffected |
| 43 | INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 7.5nH, -5%/+5%, 0.3A, -55DEGC/+125DEGC, 0402, SMD | MURATA | LQG15HS7N5J02D | L11 L32 | 7.5nH | 2 | 0402 | +125DEGC | Compliant | Unaffected |
| 44 | INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 27nH, -5%/+5%, 0.3A, -55DEGC/+125DEGC, 0402, SMD | MURATA | LQG15HS27NJ02D | L12 | 27nH | 1 | 0402 | +125DEGC | Compliant | Unaffected |
| 45 | INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 6.8nH, -5%/+5%, 0.3A, -55DEGC/+125DEGC, 0402, SMD | MURATA | LQG15HS6N8J02D | L33 L34 | 6.8nH | 2 | 0402 | +125DEGC | Compliant | Unaffected |
| 46 | NON COMPONENT, LABEL, CE | NON_COMPONENT | NON_COMPONENT_LABEL_CE | LBL1 | DNM | 0 | | N/A | Not Applicable | Not Applicable |
| 47 | NON COMPONENT, LABEL, TEXAS INSTRUMENTS LOGO | NON_COMPONENT | TI_LOGO | LBL2 | DNM | 0 | | N/A | Not Applicable | Not Applicable |
| 48 | NON COMPONENT, LABEL, FOR EVALUATION ONLY, NOT FCC APPROVED FOR RESALE | NON_COMPONENT | LABEL_FOR_EVALUATOIN_ONLY | LBL4 | DNM | 0 | | N/A | Not Applicable | Not Applicable |
| 49 | NON COMPONENT, LABEL, TRASH | NON_COMPONENT | TRASH | LBL6 | DNM | 0 | | N/A | Not Applicable | Not Applicable |
| 50 | MECHANIC, SHUNT, CURRENT RATING 4.3A PER PIN, 2.54 X 5.08 X 6.1mm, BLACK | SAMTEC | SNT-100-BK-G | M1 M2 M3 M4 M5 M6 M7 M8 M9 M10 M11 M12 M13 M14 | SNT-100-BK-G | 14 | | +125DEGC | Compliant | Unaffected |
| 51 | MECHANIC, ACCESSORY, SPACER SUPPORT, PCB DIA. 3mm, NYLON 66, PTH | SUZHOU SOLY ELECTRICIAN | DCB-10 | M15 M16 M17 M18 | DCB-10 | 4 | | N/A | Compliant | Unaffected |
| 52 | NON COMPONENT, HOLE 3.2mm, PLATED HOLE, PTH | NON_COMPONENT | HOLE_3.2mm_PLATED | MH1 MH2 MH3 MH4 | DNM | 0 | | N/A | Not Applicable | Not Applicable |
| 53 | NON COMPONENT, HOLE 1.1mm, PLATED HOLE, PTH | NON_COMPONENT | HOLE_1.1mm_PLATED | MH5 | DNM | 0 | | N/A | Not Applicable | Not Applicable |
| 54 | CONNECTOR, HEADER, MALE, STRAIGHT, 1 ROW, 3 PINS, PITCH 2.54mm, PTH | GRADCONN | BB02-HC031-KB1-603000 | P1 P2 P10 | BB02-HC031-KB1-603000 | 3 | | +105DEGC | Compliant | Unaffected |
| 55 | CONNECTOR, HEADER, MALE, STRAIGHT, 2 ROWS, 22 PINS, PITCH 2.54mm, PTH | GRADCONN | BB02-HJ221-KB1-603000 | P4 | BB02-HJ221-KB1-603000 | 1 | | +105DEGC | Compliant | Unaffected |

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| 56 | CONNECTOR, HEADER, MALE, STRAIGHT, 2 ROWS, 10 PINS, PITCH 1.27mm, SMD | SAMTEC | FTSH-105-01-F-DV-K | P5 P7 | FTSH-105-01-F-DV-K | 2 | | +125DEGC | Compliant | Unaffected |
| 57 | CONNECTOR, HEADER, MALE, STRAIGHT, 2 ROWS, 4 PINS, PITCH 2.54mm, PTH | GRADCONN | BB02-HJ041-KB1-603000 | P6 | BB02-HJ041-KB1-603000 | 1 | | +105DEGC | Compliant | Unaffected |
| 58 | NON COMPONENT, CONNECTOR, CABLE, PLUG OF NAILS, 10 PINS, 2 ROWS, SMD | TAG-CONNECT | TC2050-IDC-NL | P8 | DNM | 0 | | N/A | Not Applicable | Not Applicable |
| 59 | NON COMPONENT, PCB, TEXAS INSTRUMENTS | Any | WCS042 | PCB1 | As Per Fab Drawing-WCS042 | 1 | | N/A | Compliant | Unaffected |
| 60 | RESISTOR, THICK FILM, 100k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW0402100KJNED | R1 R61 R62 R63 R65 R96 R97 R98 R105 R114 R117 R118 R119 R136 | 100k | 14 | 0402 | +155DEGC | Compliant | Unaffected |
| 61 | RESISTOR, THICK FILM, 3.3k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04023K30JNED | R2 R3 R58 | 3.3k | 3 | 0402 | +155DEGC | Compliant | Unaffected |
| 62 | RESISTOR, THICK FILM, 0, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04020000Z0ED | R5 R6 R9 R99 R100 R108 R131 | 0 | 7 | 0402 | +155DEGC | Compliant | Unaffected |
| 63 | RESISTOR, THICK FILM, 0, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04020000Z0ED | R7 R8 R106 R111 | DNM | 0 | 0402 | +155DEGC | Compliant | Unaffected |
| 64 | RESISTOR, THICK FILM, 2.2k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04022K20FKED | R11 R130 | 2.2k | 2 | 0402 | +155DEGC | Exempt | Unaffected |
| 65 | RESISTOR, THICK FILM, 220, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW0402220RJNED | R14 R25 | 220 | 2 | 0402 | +155DEGC | Exempt | Unaffected |
| 66 | RESISTOR, THICK FILM, 180, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW0402180RJNED | R15 R23 | 180 | 2 | 0402 | +155DEGC | Exempt | Unaffected |
| 67 | RESISTOR, THICK FILM, 10k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040210K0JNED | R17 | 10k | 1 | 0402 | +155DEGC | Exempt | Unaffected |
| 68 | RESISTOR, THICK FILM, 4.7k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04024K70FKED | R18 R126 R156 | 4.7k | 3 | 0402 | +155DEGC | Exempt | Unaffected |
| 69 | RESISTOR, THICK FILM, 100, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW0402100RJNED | R20 R55 R56 R57 | 100 | 4 | 0402 | +155DEGC | Exempt | Unaffected |
| 70 | RESISTOR, TBD, 0402, SMD, DNM | MANUFACTURE R SELECTION | RESISTOR_TBD_0402_DNM | R21 R59 R60 | DNM | 0 | 0402 | N/A | Not Applicable | Not Applicable |
| 71 | RESISTOR, THICK FILM, 1k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04021K00JNED | R27 R29 R30 R39 | 1k | 4 | 0402 | +155DEGC | Exempt | Unaffected |

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| 72 | RESISTOR, THICK FILM, 4.87k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04024K87FKED | R28 | 4.87k | 1 | 0402 | +155DEGC | Exempt | Unaffected |
| 73 | RESISTOR, THICK FILM, 51, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040251R0JNED | R31 | 51 | 1 | 0402 | +155DEGC | Exempt | Unaffected |
| 74 | RESISTOR, THICK FILM, 33k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040233K0FKED | R32 | 33k | 1 | 0402 | +155DEGC | Exempt | Unaffected |
| 75 | RESISTOR, THICK FILM, 51k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040251K0JNED | R33 R132 R151 | 51k | 3 | 0402 | +155DEGC | Exempt | Unaffected |
| 76 | RESISTOR, THICK FILM, 30k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040230K0JNED | R34 R133 R135 R152 | 30k | 4 | 0402 | +155DEGC | Exempt | Unaffected |
| 77 | RESISTOR, THICK FILM, 0, 0R/+0.02R, 0.1W, 75V, -55DEGC/+155DEGC, 0603, SMD | VISHAY | CRCW06030000Z0EC | R46 R47 | DNM | 0 | 0603 | +155DEGC | Exempt | Unaffected |
| 78 | RESISTOR, THICK FILM, 0, 0R/+0.02R, 0.1W, 75V, -55DEGC/+155DEGC, 0603, SMD | VISHAY | CRCW06030000Z0EC | R12 R48 R49 R51 R52 | 0 | 5 | 0603 | +155DEGC | Exempt | Unaffected |
| 79 | RESISTOR, THICK FILM, 10k, -5%/+5%, 0.05W, 30V, -55DEGC/+155DEGC, 0201, SMD | VISHAY | CRCW020110K0JNED | R82 R83 R92 | 10k | 3 | 0201 | +155DEGC | Exempt | Unaffected |
| 80 | RESISTOR, THICK FILM, 12k, -1%/+1%, 0.05W, 30V, -55DEGC/+155DEGC, 0201, SMD | VISHAY | CRCW020112K0FKED | R84 | 12k | 1 | 0201 | +155DEGC | Exempt | Unaffected |
| 81 | RESISTOR, THICK FILM, 1M, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04021M00FKED | R87 R154 | 1M | 2 | 0402 | +155DEGC | Exempt | Unaffected |
| 82 | RESISTOR, THICK FILM, 1k, -5%/+5%, 0.05W, 30V, -55DEGC/+155DEGC, 0201, SMD | VISHAY | CRCW02011K00JNED | R90 R91 | 1k | 2 | 0201 | +155DEGC | Exempt | Unaffected |
| 83 | RESISTOR, THICK FILM, 20k, -5%/+5%, 0.05W, 30V, -55DEGC/+155DEGC, 0201, SMD | VISHAY | CRCW020120K0JNED | R93 | 20k | 1 | 0201 | +155DEGC | Exempt | Unaffected |
| 84 | RESISTOR, THICK FILM, 22, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040222R0JNED | R94 | 22 | 1 | 0402 | +155DEGC | Exempt | Unaffected |
| 85 | RESISTOR, THICK FILM, 1.2k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04021K20FKED | R95 R101 R109 R120 | 1.2k | 4 | 0402 | +155DEGC | Exempt | Unaffected |
| 86 | RESISTOR, THICK FILM, 330, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040233R0FKED | R102 R110 | 330 | 2 | 0402 | +155DEGC | Exempt | Unaffected |

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| 87 | RESISTOR, THICK FILM, 4.99, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04024R99FKED | R103 R112 | 4.99 | 2 | 0402 | +155DEGC | Exempt | Unaffected |
| 88 | RESISTOR, THICK FILM, 10, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040210R0FKED | R104 R113 R153 | 10 | 3 | 0402 | +155DEGC | Exempt | Unaffected |
| 89 | RESISTOR, THICK FILM, 1, -1%/+1%, 1W, 200V, -55DEGC/+155DEGC, 1218, SMD | VISHAY | CRCW12181R00FNEK | R107 | 1 | 1 | 1218 | +155DEGC | Exempt | Unaffected |
| 90 | RESISTOR, THICK FILM, 1.2k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04021K20FKED | R115 | DNM | 0 | 0402 | +155DEGC | Exempt | Unaffected |
| 91 | RESISTOR, THICK FILM, 60.4k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040260K4FKED | R116 R134 | 60.4k | 2 | 0402 | +155DEGC | Exempt | Unaffected |
| 92 | RESISTOR, THICK FILM, 22k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040222K0JNED | R121 | 22k | 1 | 0402 | +155DEGC | Exempt | Unaffected |
| 93 | RESISTOR, THICK FILM, 0.22, -1%/+1%, 0.125W, -55DEGC/+155DEGC, 0402, SMD | VISHAY | RCWE0402R220FKEA | R122 | 0.22 | 1 | 0402 | +155DEGC | Exempt | Unaffected |
| 94 | RESISTOR, THICK FILM, 82, -1%/+1%, 0.25W, 200V, -55DEGC/+155DEGC, 1206, SMD | VISHAY | CRCW120682R0FKEA | R123 | 82 | 1 | 1206 | +155DEGC | Exempt | Unaffected |
| 95 | RESISTOR, THICK FILM, 36.5, -1%/+1%, 0.5W, 200V, -55DEGC/+155DEGC, 1210, SMD | VISHAY | CRCW121036R5FKEA | R125 | 36.5 | 1 | 1210 | +155DEGC | Exempt | Unaffected |
| 96 | RESISTOR, THICK FILM, 47k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040247K0JNED | R127 R128 R129 | 47k | 3 | 0402 | +155DEGC | Exempt | Unaffected |
| 97 | RESISTOR, THICK FILM, 2.61k, -1%/+1%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW04022K61FKED | R137 | 2.61k | 1 | 0402 | +155DEGC | Exempt | Unaffected |
| 98 | RESISTOR, THICK FILM, 51k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW040251K0JNED | R138 | DNM | 0 | 0402 | +155DEGC | Exempt | Unaffected |
| 99 | RESISTOR, THICK FILM, 390k, -5%/+5%, 0.063W, 50V, -55DEGC/+155DEGC, 0402, SMD | VISHAY | CRCW0402390KJNED | R155 | 390k | 1 | 0402 | +155DEGC | Exempt | Unaffected |
| 100 | SWITCH, TACT, 0.05A@12VDC, 0.05A@250VAC, SMD | DIPTRONICS | 1188E-1K2-V-TR | SW1 SW2 SW3 | 1188E-1K2 | 3 | | +70DEGC | Compliant | Unaffected |
| 101 | IC, MICROCONTROLLER, TEXAS INSTRUMENTS, CUSTOM, CC1312R1F3RGZ, 1.8V TO 3.8V, VQFN48, SMD | TEXAS INSTRUMENTS | CC1312R1F3RGZ | U1 | CC1312R1F3RGZ | 1 | VQFN48 | +85DEGC | Compliant | Unaffected |

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| 102 | IC, MEMORY, FLASH, SERIAL, 8Mbit, 1.65V TO 3.6V, USON8, SMD | MACRONIX | MX25R8035FZUILO | U4 | MX25R8035FZUILO | 1 | uSON8 | +85DEGC | Compliant | Unaffected |
| 103 | IC, ANALOG, PRECISION MICROPOWER SHUNT VOLTAGE REFERENCE, 2.5V, SC70-5, SMD | TEXAS INSTRUMENTS | LM4040B25IDCKR | U6 | LM4040B25IDCK | 1 | SC70-5 | +85DEGC | Compliant | Unaffected |
| 104 | IC, ANALOG, ULTRALOW-NOISE, HIGH PSRR, FAST, RF, 1A LOW-DROPOUT LINEAR REGULATORS, VIN:2.7V TO 5.5V, VOUT:1.2V TO 5.5V, SON8, SMD | TEXAS INSTRUMENTS | TPS79601DRBR | U7 U42 U46 | TPS79601DR | 3 | SON8 | +125DEGC | Compliant | Unaffected |
| 105 | IC, DIGITAL, LOGIC, 4bit DUAL-SUPPLY BUS TRANSCEIVER 3 STATE OUTPUT, 1.2V TO 3.6V, UQFN16, SMD | TEXAS INSTRUMENTS | SN74AVC4T245RSVR | U8 U9 U10 | SN74AVC4T245RSV | 3 | UQFN16 | +85DEGC | Compliant | Unaffected |
| 106 | IC, DIGITAL, INTERFACE, HI-SPEED USB HOST, 3.3V, QFN32-EP, SMD | MICROCHIP | USB3300-EZK | U15 | USB3300-EZK | 1 | QFN32-EP | +85DEGC | Compliant | Unaffected |
| 107 | IC, ANALOG, 0.3R DUAL SPDT ANALOG SWITCH DUAL-CHANNEL 2:1 MULTIPLEXER/DEMULTIPLEXER, 1.65V TO 3.6V, SON10-EP, SMD | TEXAS INSTRUMENTS | TS3A24159DRCR | U33 U38 | TS3A24159DRC | 2 | SON10-EP | +85DEGC | Compliant | Unaffected |
| 108 | IC, DIGITAL, LOGIC, D-TYPE FLIP-FLOP WITH CLEAR AND PRESET, 1.65V TO 5.5V, VSSOP8, SMD | TEXAS INSTRUMENTS | SN74LVC2G74DCUR | U34 | SN74LVC2G74DCU | 1 | VSSOP8 | +85DEGC | Compliant | Unaffected |
| 109 | IC, MIXED, 24-BIT WIDE-BANDWIDTH ANALOG TO DIGITAL CONVERTER, 2.7V TO 3.6V/1.7V TO 3.6V, TQFP32, SMD | TEXAS INSTRUMENTS | ADS127L01IPBS | U35 | ADS127L01IPBS | 1 | TQFP32 | +125DEGC | Compliant | Unaffected |
| 110 | IC, ANALOG, INSTRUMENTATION AMPLIFIER, -/+15V, SO8, SMD | TEXAS INSTRUMENTS | INA118UB | U36 | INA118UB | 1 | SO8 | +125DEGC | Compliant | Unaffected |
| 111 | IC, ANALOG, LOW NOISE, PRECISION, 150MHz, FULLY DIFFERENTIAL AMPLIFIER, 2.7V TO 5.4V, QFN10-EP, SMD | TEXAS INSTRUMENTS | THS4551IRUNR | U37 | THS4551IRUN | 1 | QFN10-EP | +125DEGC | Compliant | Unaffected |
| 112 | IC, ANALOG, 0.9R LOW-VOLTAGE SINGLE-SUPPLY QUAD SPST ANALOG SWITCH, 1.6V TO 3.6V, QFN14, SMD | TEXAS INSTRUMENTS | TS3A4751RUCR | U39 | TS3A4751RUCR | 1 | QFN14 | +85DEGC | Compliant | Unaffected |

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| 113 | IC, ANALOG, HIGH PRECISION VOLTAGE REFERENCE, VIN:3V TO 5.5V, VOUT:2.5V, VSSOP8, SMD | TEXAS INSTRUMENTS | REF6025IDGKR | U40 | REF6025IDGK | 1 | VSSOP8 | +125DEGC | Compliant | Unaffected |
| 114 | IC, ANALOG, RAIL-TO-RAIL I/O CMOS OPERATIONAL AMPLIFIER, -/+0.9V TO 5.5V, SOT23-5, SMD | TEXAS INSTRUMENTS | OPA320AIDBVT | U41 | OPA320AIDBV | 1 | SOT23-5 | +125DEGC | Compliant | Unaffected |
| 115 | IC, ANALOG, 0.25A LINEAR REGULATOR FOR RF AND ANALOG CIRCUITS-REQUIRES NO BYPASS CAPACITOR, VIN:2.2V TO 5.5V, VOUT: 1.8V, SOT23-5, SMD | TEXAS INSTRUMENTS | LP5907MFX-1.8/NOPB | U43 | LP5907MFX-1.8 | 1 | SOT23-5 | +125DEGC | Compliant | Unaffected |
| 116 | IC, ANALOG, 0.15A LOW DROPOUT REGULATOR WITH REVERSE CURRENT PROTECTION, VIN:1.7V TO 5.5V, VOUT:1.2V TO 5.5V, SOT23-5, SMD | TEXAS INSTRUMENTS | TPS73101DBVR | U44 | TPS73101DBV | 1 | SOT23-5 | +125DEGC | Compliant | Unaffected |
| 117 | IC, ANALOG, CMOS OPERATIONAL AMPLIFIER, -/+0.9V TO 5.5V, SC70-5, SMD | TEXAS INSTRUMENTS | OPA314AIDCKR | U45 | DNM | 0 | SC70-5 | +125DEGC | Compliant | Unaffected |
| 118 | IC, ANALOG, EFUSE WITH FAST OVERVOLTAGE PROTECTION, 2.7V TO 18V, WSON8-EP, SMD | TEXAS INSTRUMENTS | TPS259530DSGR | U47 | TPS259530DSG | 1 | WSON8-EP | +125DEGC | Compliant | Unaffected |
| 119 | IC, MICROCONTROLLER, TIVA C SERIES, ARM CRTEX-M4, 2.97V TO 3.63V, TQFP128, SMD | TEXAS INSTRUMENTS | TM4C1294NCPDTT3R | U5 | TM4C1294NCPDTT3R | 1 | TQFP128 | +85DEGC | Compliant | Unaffected |
| 120 | CRYSTAL, RESONATOR, 32.768kHz, -40DEGC/+85DEGC, SMD | EPSON | FC-135 32.7680KA-AG0 | Y1 | 32.768kHz | 1 | | +85DEGC | Exempt | This device contains Lead titanium trioxide, CAS# 12060-00-3, which exceeds the 0.1% SVHC limit. |
| 121 | CRYSTAL, RESONATOR, 48MHz, -20PPM/+20PPM, -40DEGC/+85DEGC, SMD | NDK | NX2016SA 48.000MHz EXS00A-CS05517 | Y2 | 48MHz | 1 | | +85DEGC | Compliant | Unaffected |
| 122 | CRYSTAL, RESONATOR, 16MHz, -30PPM/+30PPM, -40DEGC/+85DEGC, SMD | NDK | NX3225GA-16.000M-STD-CRG-1 | Y3 | 16MHz | 1 | | +85DEGC | Exempt | Unaffected |
| 123 | CRYSTAL, RESONATOR, 24MHz, -50PPM/+50PPM, -40DEGC/+85DEGC, SMD | EPSON | FA-238 24.0000MB50X-W0 | Y4 | 24MHz | 1 | | +85DEGC | Compliant | Unaffected |

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| 124 | CRYSTAL, OSCILLATOR, XO, 16.384MHz, -50PPM/+50PPM, 3.3V, -20DEGC/+70DEGC, SMD | CTS COMPONENTS | 636L3C016M38400 | Y6 | 16.384MHz | 1 | | +70DEGC | Compliant | Unaffected |
| 125 | CRYSTAL, OSCILLATOR, TCXO, 48MHz, -0.5PPM/+0.5PPM, 1.8V TO 3.3V, -40DEGC/+85DEGC, SMD | EPSON | TG2016SMN 48.000000MHz TCGNNM (X1G005441011611) | Y7 | 48MHz | 1 | | +85DEGC | Compliant | Unaffected |
| 126 | INDUCTOR, RF, CHIP, NON-MAGNETIC CORE, 3.3nH, -0.5nH/+0.5nH, 0.9A, -55DEGC/+125DEGC, 0402, SMD | MURATA | LQW15AN3N3D10D | Z60 | 3.3nH | 1 | 0402 | +125DEGC | Compliant | Unaffected |
| 127 | CAPACITOR, CERAMIC, TBD, 0402, SMD, DNM | MANUFACTURE R SELECTION | CAPACITOR_TBD_0402_DNM | Z61 | DNM | 0 | 0402 | +125DEGC | Not Applicable | Not Applicable |
| 128 | INDUCTOR, TBD, 0402, SMD, DNM | MANUFACTURE R SELECTION | INDUCTOR_TBD_0402_DNM | Z62 | DNM | 0 | 0402 | N/A | Not Applicable | Not Applicable |
| 129 | CAPACITOR, CERAMIC COG/NPO, 5.6pF, 50V, -0.1pF/+0.1pF, -55DEGC/+125DEGC, 0201, SMD | MURATA | GRM0335C1H5R6BA01J | Z63 | 5.6pF | 1 | 0201 | +125DEGC | Compliant | Unaffected |