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## TIDA-00648 REV E1 Bill of Material

PCB1	1 0 0 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 0 0 1	.01uF .2uF .01uF .47uF .1uF .1uF .22uF .000pF .47uF .000V .00V .00V .00V .00V .00V .00V .0	Printed Circuit Board  CAP, CERM, 0.01 μF, 10 V, +/- 10%, X5R, 0402  CAP, CERM, 0.01 μF, 10 V, +/- 10%, X5R, 0402  CAP, CERM, 0.01 μF, 100 V, +/- 10%, X7R, 0603  CAP, CERM, 0.1 μF, 100 V, +/- 10%, X7R, 0805  CAP, CERM, 0.1 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.1 μF, 100 V, +/- 10%, X5R, 0402  CAP, CERM, 0.1 μF, 100 V, +/- 10%, X7R, 1206  CAP, CERM, 0.39 μF, 10 V, +/- 10%, X5R, 0402  CAP, CERM, 0.39 μF, 10 V, +/- 10%, X5R, 0402  CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.02 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X7R, 0603  CAP, CERM, 0.1 μF, 10 V, +/- 10%, X7R, 0805  CAP, CERM, 0.1 μF, 10 V, +/- 10%, X7R, 0805  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Zener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferritte Bead, 600 ohm @ 100 MHz, 1.5 A, 1206  Ferritte Bead, 600 ohm @ 100 MHz, 1.5 A, 1206  Ferritte Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0402 0402 0402 0402 0402 1206 1206 1206 0402 0402 0402 0402 0402 0402 0603 0805 0402 0603 0805 0402 LED_0603 LE	TIDA-0648 GRM155R61A103KA01 D C1005X5R1C225K050B C C1608X7R2A103K GRM21BR72A474KA73 L C1005X5R0J104K 12061C104JAT2A GRM31CR72A105KA01 L GRM155R61A394KE15 D GRM155R60J102KA01D GRM155R70J102KA01D GRM155R70J102KA01D GRM155R70J102KA01D GRM155R70J102KA01D GRM15A01D GRM	MuRata MuRata MuRata MuRata MuRata MuRata MxP Semiconductor Comchip Technology STMicroelectronics ON Semiconductor Wurth Elektronik Wurth Elektronik Wurth Elektronik Wurth Elektronik Son-Shore Technology Wurth Elektronik Sullins Connector Solutions		
C2, C6 2  C3 1  C4 1  C7, C8 2  C9 1  C10 1  C11 1  C12 1  C14 1  C15 1  C16, C18, 3  C20  C17, C19, 2  D1, D5 2  D2, D4 2  D3 1  D7 1  D8 1  J1, J6 2  J2 1  J3, J4, J5 3  J7 1  J8, J9 2  L1, L2  L3, L4 2  Q1, Q3 2  Q2 1  R1, R6 2  R2 R2 1  R1, R6 2  R2 R2 1  R1, R1, R12, R14  R5, R14 R15, R24 2  R16, R17, R18  R18  R19 1  R20 1  R21 1	2 2 2 1 1 0 0 1 1 0 0 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1 1 0 1	.2uF .01uF .47uF .1uF .1uF .39uF .22uF 000pF .47uF 00V 0V 9V .9V	CAP, CERM, 0.2 μF, 16 V, +/- 10%, X5R, 0402  CAP, CERM, 0.01 μF, 100 V, +/- 10%, X7R, 0603  CAP, CERM, 0.47 μF, 100 V, +/- 10%, X7R, 0805  CAP, CERM, 0.1 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.1 μF, 100 V, +/- 10%, X7R, 1206  CAP, CERM, 1 μF, 100 V, +/- 10%, X7R, 1206  CAP, CERM, 0.39 μF, 10 V, +/- 10%, X5R, 0402  CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 10 μF, 16 V, +/- 10%, X5R, 0402  CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.1 μF, 10 V, +/- 10%, X5R, 0402  Diode, Schottiky, 100 V, 0.25 A, SOD-323F  Diode, Schottiky, 100 V, 0.25 A, SOD-523F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Zener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header, 2.54 mm, 3x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0402 0603 0805 0402 1206 1206 1206 0402 0402 0402 0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 Header, 2.54mm, 2x1, TH TO, 2x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	D C1005X5R1C225K050B C C1608X7R2A103K GRM21BR72A474KA73 L C1005X5R0J104K 12061C104JAT2A GRM31CR72A105KA01 L GRM155R61A394KE15 D GRM155R60J224KE01D GRM155R60J102KA01D GRM155R60J102KA01D GRM155R60J102KA01D GRM155R71A104KA01 D GRM155R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMSZ4686T1G 150060S575000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	TDK  MuRata  TDK  AVX  MuRata		
C3 1 C4 1 C7, C8 2 C9 1 C10 1 C11 1 C11 1 C12 1 C14 1 C15 1 C16, C18, 3 C20 C17, C19, 3 C21 D1, D5 2 D2, D4 2 D3 1 D7 1 D8 1 D9 1 J1, J6 2 J2 1 J3, J4, J5 3 J7 1 J8, J9 2 L1, L2 2 L3, L4 2 C01, O3 2 C02 1 R1, R6 2 R2 1 R4 1 R7 1 R8 1 R9, R10, 5 R1, R12, R14 R15, R24 2 R16, R17, R18 R19 1 R20 1 R20 1 R20 1 R20 1	1 0 0 0 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 0 0 1	.01uF .47uF .1uF .39uF .22uF .000pF .47uF .00V .9V	CAP, CERM, 0.01 μF, 100 V, +/- 10%, X7R, 0603 CAP, CERM, 0.47 μF, 100 V, +/- 10%, X5R, 0402 CAP, CERM, 0.1 μF, 6.3 V, +/- 10%, X5R, 0402 CAP, CERM, 0.1 μF, 100 V, +/- 10%, X7R, 1206 CAP, CERM, 1 μF, 100 V, +/- 10%, X7R, 1206 CAP, CERM, 1 μF, 100 V, +/- 10%, X7R, 1206 CAP, CERM, 0.39 μF, 10 V, +/- 10%, X5R, 0402 CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402 CAP, CERM, 1000 μF, 6.3 V, +/- 10%, X5R, 0402 CAP, CERM, 1000 μF, 6.3 V, +/- 10%, X7R, 0603 CAP, CERM, 10 μF, 16 V, +/- 10%, X7R, 0603 CAP, CERM, 10 μF, 16 V, +/- 10%, X7R, 0402 Diode, Schottky, 100 V, 0.25 A, SOD-323F Diode, Switching, 90 V, 0.1 A, SOD-523F Diode, Zener, 3.9 V, 500 mW, SMB Diode, Zener, 3.9 V, 500 mW, SOD-123 LED, Green, SMD Header, 2.54 mm, 2x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header, 2.54 mm, 3x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0603 0805 0402 1206 1206 0402 0402 0402 0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 LED_0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	C C1608X7R2A103K GRM21BR72A474KA73 L C1005X5R0J104K 12061C104JAT2A GRM31CR72A105KA01 L GRM155R60J224KE01D GRM155R60J224KE01D GRM155R60J102KA01D GRM18BR70J474KA01D GRM21BR61C106KE15 L GRM155R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMS24886T1G 150060VS75000 150060SS75000 150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	TDK MuRata  TDK AVX MuRata  Mu		
C4         1           C7, C8         2           C9         1           C10         1           C11         1           C12         1           C14         1           C15         1           C16, C18, C20         3           C17, C19, C20         3           C21         D1, D5         2           D2, D4         2           D3         1           D8         1           J03         1           J1, J6         2           J2         1           J3, J4, J5         3           J7         1           J8, J9         2           L1, L2         2           L3, L4         2           Q1, Q3         2           Q2         1           R1, R6         2           R2         1           R7         1           R9, R10,         5           R11, R12,         R14           R15, R24         2           R16, R17,         3           R18         R19           R2         1 <t< td=""><td>1 0.0 2 0.1 1 0.0 1 1 11 1 0.0 1 1 0.0 1 1 11 1 1 0.0 1 1 1 16 1 1 0.0 1 1 1 16 1 1 0.0 1 1 1 16 1 1 0.0 1 1 1 16 1 1 0.0 1 1 1 16 1 1 0.0 1 1 1 16 1 1 1 16 1 1 1 16 1 1 1 16 1 1 1 16 1 1 1 16 1 1 1 1</td><td>.47uF .1uF .1uF .1uF .39uF .22uF .000pF .47uF .00V .0V .9V .9V .9V .een .uper Red</td><td>CAP, CERM, 0.47 μF, 100 V, +/- 10%, X7R, 0805  CAP, CERM, 0.1 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.1 μF, 100 V, +/- 5%, X7R, 1206  CAP, CERM, 1 μF, 100 V, +/- 10%, X5R, 0402  CAP, CERM, 0.39 μF, 10 V, +/- 10%, X5R, 0402  CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 10 μF, 16 V, +/- 10%, X7R, 0603  CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X7R, 0603  CAP, CERM, 0.1 μF, 16 V, +/- 10%, X7R, 0402  Diode, Schottky, 100 V, 0.25 A, SOD-323F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Zener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  LED, Super Red, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206</td><td>0805  0402 1206 1206 1206 0402 0402 0402 0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED 0603 Header, 2.54mm, 2x1, TH TH Header, 2.54mm, 3x1, TH Header, 2.54mm, 7x2, R/A, TH 10x2 Receptacle</td><td>GRM21BR72A474KA73 L C1005X5R0J104K 12061C104JA72A GRM31CR72A105KA01 L GRM155R61A394KE15 D GRM155R60J102KA01D GRM188R70J474KA01D GRM21BR61C106KE15 L GRM155R60J102KA01D GRM21BR61C106KE15 L GRM55R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMS24686T1G 150060VS75000 150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK</td><td>MuRata  TDK  AVX  MuRata  Murate  Mura</td><td></td><td></td></t<>	1 0.0 2 0.1 1 0.0 1 1 11 1 0.0 1 1 0.0 1 1 11 1 1 0.0 1 1 1 16 1 1 0.0 1 1 1 16 1 1 0.0 1 1 1 16 1 1 0.0 1 1 1 16 1 1 0.0 1 1 1 16 1 1 0.0 1 1 1 16 1 1 1 16 1 1 1 16 1 1 1 16 1 1 1 16 1 1 1 16 1 1 1 1	.47uF .1uF .1uF .1uF .39uF .22uF .000pF .47uF .00V .0V .9V .9V .9V .een .uper Red	CAP, CERM, 0.47 μF, 100 V, +/- 10%, X7R, 0805  CAP, CERM, 0.1 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.1 μF, 100 V, +/- 5%, X7R, 1206  CAP, CERM, 1 μF, 100 V, +/- 10%, X5R, 0402  CAP, CERM, 0.39 μF, 10 V, +/- 10%, X5R, 0402  CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 10 μF, 16 V, +/- 10%, X7R, 0603  CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X7R, 0603  CAP, CERM, 0.1 μF, 16 V, +/- 10%, X7R, 0402  Diode, Schottky, 100 V, 0.25 A, SOD-323F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Zener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  LED, Super Red, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0805  0402 1206 1206 1206 0402 0402 0402 0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED 0603 Header, 2.54mm, 2x1, TH TH Header, 2.54mm, 3x1, TH Header, 2.54mm, 7x2, R/A, TH 10x2 Receptacle	GRM21BR72A474KA73 L C1005X5R0J104K 12061C104JA72A GRM31CR72A105KA01 L GRM155R61A394KE15 D GRM155R60J102KA01D GRM188R70J474KA01D GRM21BR61C106KE15 L GRM155R60J102KA01D GRM21BR61C106KE15 L GRM55R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMS24686T1G 150060VS75000 150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	MuRata  TDK  AVX  MuRata  Murate  Mura		
C7, C8 2 C9 1 C10 1 C11 1 C11 1 C12 1 C14 1 C15 1 C16, C18, 3 C20 C17, C19, 3 C21 D1, D5 2 D2, D4 2 D3 1 D7 1 D8 1 D9 1 J1, J6 2 J2 1 J3, J4, J5 3 J7 1 J8, J9 2 L1, L2 2 L3, L4 2 Q1, Q3 2 Q2 1 R1, R6 2 R2 1 R5 1 R7 1 R8 1 R9, R10, S1, R14 R15, R24 2 R16, R17, R18 R19 1 R20 1	2 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.1uF .1uF .1uF .39uF .22uF .000pF .47uF .0uF .1uF .00V .9V .9v .9v .9v .9v .9v .9v .9v .9v .9v .9v .9v .9v .9v .9v	CAP, CERM, 0.1 μF, 6.3 V, +/- 10%, X5R, 0402 CAP, CERM, 0.1 μF, 100 V, +/- 5%, X7R, 1206 CAP, CERM, 1 μF, 100 V, +/- 10%, X7R, 1206 CAP, CERM, 1 μF, 100 V, +/- 10%, X7R, 1206 CAP, CERM, 0.39 μF, 10 V, +/- 10%, X5R, 0402 CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402 CAP, CERM, 1000 μF, 6.3 V, +/- 10%, X5R, 0402 CAP, CERM, 10μF, 16 V, +/- 10%, X7R, 0603 CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X7R, 0603 CAP, CERM, 0.1 μF, 16 V, +/- 10%, X7R, 0402 Diode, Schottky, 100 V, 0.25 A, SOD-323F Diode, Schottky, 100 V, 0.25 A, SOD-523F Diode, Switching, 90 V, 0.1 A, SOD-523F Diode, TVS, Bi, 39 V, 600 W, SMB Diode, Zener, 3.9 V, 500 mW, SOD-123 LED, Green, SMD Header, 2.54 mm, 2x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header, 2.54 mm, 3x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0402 1206 1206 1206 0402 0402 0402 0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 LED_0603 Header, 2.54mm, 2x1, TH Theader, 2.54mm, 3x1, TH Header, 2.54mm, 7x2, R/A, TH 10x2 Receptacle	L C1005X5R0J104K 12061C104JATZA GRM31CR72A105KA01 L GRM155R61A394KE15 D GRM155R60J102KA01D GRM155R60J102KA01D GRM188R70J474KA01D GRM21BR61C106KE15 L GRM155R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMSZ4886T1G 150060VS75000 150060S75000 150060S75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	TDK AVX MuRata M		
C9         1           C10         1           C11         1           C12         1           C14         1           C15         1           C16, C18, C20         3           C27, C19, C21         3           D1, D5         2           D2, D4         2           D3         1           D7         1           D8         1           J1, J6         2           J2         1           J3, J4, J5         3           J7         1           J8, J9         2           L1, L2         2           L3, L4         2           Q1, Q3         2           Q2         1           R1, R6         2           R2         1           R7         1           R8         1           R9, R10, R1         5           R11, R12, R14, R15, R24         2           R14, R17, R18, R18         R19         1           R20         1         R21         1	1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.1uF uF .39uF .39uF .22uF .000pF .47uF .00uF .1uF .00V .0V .9V .9V .9v .een .super Red	CAP, CERM, 0.1 μF, 100 V, +/- 5%, X7R, 1206 CAP, CERM, 1 μF, 100 V, +/- 10%, X7R, 1206 CAP, CERM, 1 μF, 100 V, +/- 10%, X5R, 0402 CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402 CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402 CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X7R, 0603 CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X7R, 0603 CAP, CERM, 10 μF, 16 V, +/- 10%, X7R, 0402 Diode, Schottky, 100 V, 0.25 A, SOD-323F Diode, Switching, 90 V, 0.1 A, SOD-523F Diode, Switching, 90 V, 0.1 A, SOD-523F Diode, Zener, 3.9 V, 500 mW, SOD-123 LED, Green, SMD LED, Super Red, SMD Header, 2.54 mm, 2x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	1206 1206 0402 0402 0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 Header, 2.54mm, 2x1, TH TH Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	12061C104JAT2A GRM31CR72A105KA01 L GRM155R61A394KE15 D GRM155R60J102KA01D GRM155R60J102KA01D GRM188R70J474KA01D GRM21BR61C106KE15 L GRM155R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMS24686T1G 150060VS75000 150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	AVX MuRata MuRate MuRata MuRate Murat		
C9         1           C10         1           C11         1           C12         1           C14         1           C15         1           C16, C18, C20         3           C27, C19, C21         3           D1, D5         2           D2, D4         2           D3         1           D7         1           D8         1           J1, J6         2           J2         1           J3, J4, J5         3           J7         1           J8, J9         2           L1, L2         2           L3, L4         2           Q1, Q3         2           Q2         1           R1, R6         2           R2         1           R7         1           R8         1           R9, R10, R1         5           R11, R12, R14, R15, R24         2           R14, R17, R18, R18         R19         1           R20         1         R21         1	1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.1uF uF .39uF .39uF .22uF .000pF .47uF .00uF .1uF .00V .0V .9V .9V .9v .een .super Red	CAP, CERM, 0.1 μF, 100 V, +/- 5%, X7R, 1206 CAP, CERM, 1 μF, 100 V, +/- 10%, X7R, 1206 CAP, CERM, 1 μF, 100 V, +/- 10%, X5R, 0402 CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402 CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402 CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X7R, 0603 CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X7R, 0603 CAP, CERM, 10 μF, 16 V, +/- 10%, X7R, 0402 Diode, Schottky, 100 V, 0.25 A, SOD-323F Diode, Switching, 90 V, 0.1 A, SOD-523F Diode, Switching, 90 V, 0.1 A, SOD-523F Diode, Zener, 3.9 V, 500 mW, SOD-123 LED, Green, SMD LED, Super Red, SMD Header, 2.54 mm, 2x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	1206 1206 0402 0402 0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 Header, 2.54mm, 2x1, TH TH Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	12061C104JAT2A GRM31CR72A105KA01 L GRM155R61A394KE15 D GRM155R60J102KA01D GRM155R60J102KA01D GRM188R70J474KA01D GRM21BR61C106KE15 L GRM155R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMS24686T1G 150060VS75000 150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	AVX MuRata MuRate MuRata MuRate Murat		
C10 1  C11 1  C12 1  C12 1  C14 1  C15 1  C16, C18, 3  C20  C17, C19, 3  C21  D1, D5 2  D2, D4 2  D3 1  D7 1  D8 1  D9 1  J1, J6 2  J2 1  J3, J4, J5 3  J7 1  J8, J9 2  L1, L2 2  Q1, Q3 2  C1, L3, L4 2  Q1, Q3 2  C2, Q2 1  R1, R6 2  R2 1  R5 1  R7 1  R8 1  R9, R10, 814  R9, R10, 5  R11, R12, R14  R15, R24 2  R16, R17, 3  R18  R19 1  R20 1  R21 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	uF .39uF .39uF .22uF .000pF .47uF .0uF .1uF .00V .0V .9V .9v .9v .een .uuper Red .00 ohm .00 ohm	CAP, CERM, 1 μF, 100 V, +/- 10%, X7R, 1206  CAP, CERM, 0.39 μF, 10 V, +/- 10%, X5R, 0402  CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X7R, 0603  CAP, CERM, 0.1 μF, 16 V, +/- 10%, X5R, 0805  CAP, CERM, 0.1 μF, 10 V, +/- 10%, X7R, 0402  Diode, Schottky, 100 V, 0.25 A, SOD-323F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Zener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  LED, Super Red, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	1206 0402 0402 0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 LED_0603 Header, 2.54mm, 2x1, TH Theader, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	GRM31CR72A105KA01 L GRM155R61A394KE15 D GRM155R60J224KE01D GRM155R60J102KA01D GRM188R70J474KA01D GRM21BR61C106KE15 L GRM155R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMSZ4686T1G 150060VS75000 150060VS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	MuRata  MuRate  Murate		
C11 1  C12 1  C14 1  C15 1  C16, C18, 3  C20  C17, C19, 3  C21  D1, D5 2  D2, D4 2  D3 1  D7 1  D8 1  D9 1  J1, J6 2  J2 1  J3, J4, J5 3  J7 1  J8, J9 2  L1, L2 2  L1, L2 2  L1, L2 2  C1, Q3 2  Q2 1  R4 2  Q1, Q3 2  Q2 1  R4, R6 2  R2 1  R4, R6 1  R7 1  R8 1  R9, R10, 5  R11, R12, R14  R15, R24 2  R16, R17, R18  R19 1  R20 1  R21 1	1 0 0 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1	.39uF .22uF .22uF .000pF .47uF .1uF .00V .0V .9V .9V .reen .uper Red .00 ohm	CAP, CERM, 0.39 μF, 10 V, +/- 10%, X5R, 0402  CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 10 μF, 16 V, +/- 10%, X5R, 0805  CAP, CERM, 10 μF, 16 V, +/- 10%, X5R, 0805  CAP, CERM, 0.1 μF, 10 V, +/- 10%, X7R, 0402  Diode, Schottky, 100 V, 0.25 A, SOD-323F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Zener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  LED, Super Red, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0402 0402 0402 0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 LED_0603 Header, 2.54mm, 2x1, TH T-,0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	L GRM155R61A394KE15 D GRM155R60J224KE01D GRM155R60J224KE01D GRM155R60J102KA01D GRM188R70J474KA01D GRM21BR61C106KE15 L GRM155R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMSZ4686T1G 150060SS75000 150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	MuRata MuRata MuRata MuRata MuRata MuRata MuRata MuRata MuRata NXP Semiconductor Comchip Technology STMicroelectronics ON Semiconductor Wurth Elektronik Wurth Elektronik Wurth Elektronik On-Shore Technology Wurth Elektronik Sullins Connector Solutions		
C12 1  C14 1  C15 1  C16, C18, 3  C20  C17, C19, 3  C21  D1, D5 2  D2, D4 2  D3 1  D7 1  D8 1  J1, J6 2  J2 1  J3, J4, J5 3  J7 1  J8, J9 2  L1, L2  L3, L4 2  Q1, Q3 2  Q2 11, L3, L4 2  Q1, Q3 2  R1, R6 2  R2 1  R5 1  R7 1  R8 1  R9, R10, 5  R11, R12, R14  R15, R24 2  R16, R77, 3  R18  R19 1  R20 1  R20 1  R20 1  R20 1  R20 1  R20 1  R1, R12, R14  R15, R24 2  R16, R77, 3  R18  R19 1  R20 1  R20 1  R20 1	1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.22uF 000pF .47uF 0uF .1uF 00V 9V 9V .9V Green upper Red 00 ohm	CAP, CERM, 0.22 μF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X7R, 0603  CAP, CERM, 10 μF, 16 V, +/- 10%, X5R, 0805  CAP, CERM, 0.1 μF, 10 V, +/- 10%, X7R, 0402  Diode, Schottky, 100 V, 0.25 A, SOD-323F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Zener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  LED, Super Red, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header, 2.54 mm, 3x1, Gold, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0402 0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 LED_0603 Header, 2.54mm, 2x1, TH T-0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	D GRM155R60J224KE01D GRM155R60J102KA01D GRM188R70J474KA01D GRM21BR61C106KE15 L GRM21BR61C106KE15 L GRM55R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMSZ4686T1G 150060VS75000 150060VS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	MuRata MuRata MuRata MuRata MuRata MuRata MuRata MuRata MuRata MuRate Mu		
C14 1  C15 1  C16, C18, C20  C17, C19, 3  C21  D1, D5 2  D2, D4 2  D3 1  D7 1  D8 1  D9 1  J1, J6 2  J2 1  J3, J4, J5 3  J7 1  J8, J9 2  L1, L2 2  L3, L4 2  Q1, Q3 2  R1, R6 2  R2 1  R1, R6 2  R2 1  R1, R6 1  R7 1  R8 1  R9, R10, S1, R14  R15, R24 2  R16, R17, R18  R19 1  R20 1  R20 1  R1, R20 1  R1, R20 1  R1, R12, R14  R15, R24 2  R16, R17, R18  R19 1  R20 1  R21 1	1 11 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1	000pF .47uF 0uF .1uF 00V 0V 9V .9V serven super Red 00 ohm 000 ohm	CAP, CERM, 1000 pF, 6.3 V, +/- 10%, X5R, 0402  CAP, CERM, 0.47 µF, 6.3 V, +/- 10%, X7R, 0603  CAP, CERM, 10 µF, 16 V, +/- 10%, X5R, 0805  CAP, CERM, 0.1 µF, 10 V, +/- 10%, X5R, 0805  CAP, CERM, 0.1 µF, 10 V, +/- 10%, X7R, 0402  Diode, Schottky, 100 V, 0.25 A, SOD-323F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Zener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  LED, Super Red, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header, 2.54 mm, 3x1, Gold, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0402 0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 LED_0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	GRM155R60J102KA01D GRM188R70J474KA01D GRM21BR61C106KE15 L GRM155R71A104KA01 DBAT46WJ,115 CDSU101A SM6T39CA MMS24686T1G 150060VS75000 150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	MuRata MuRata MuRata MuRata MuRata MuRata MxP Semiconductor Comchip Technology STMicroelectronics ON Semiconductor Wurth Elektronik Wurth Elektronik Wurth Elektronik Wurth Elektronik Son-Shore Technology Wurth Elektronik Sullins Connector Solutions		
C15 1  C16, C18, 3  C20  C17, C19, 3  C21  D1, D5 2  D2, D4 2  D3 1  D8 1  D9 1  J1, J6 2  J2 1  J3, J4, J5 3  J7 1  J8, J9 2  L1, L2 2  L3, L4 2  Q1, Q3 2  Q2 1  R4 2  R1, R6 2  R2 1  R7, R8 1  R9, R10, R14, R12, R14  R15, R24 2  R16, R17, R18  R19 1  R20 1  R21 1	1 0. 3 10 3 0. 2 11 2 99 1 33 1 0. 2 15 2 10 2 10 2 10 2 10 2 10 2 10 2 10 2 10	.47uF  0uF  .1uF  00V  0V  9V  -9V  -reen  uper Red  00 ohm  000 ohm	CAP, CERM, 0.47 μF, 6.3 V, +/- 10%, X7R, 0603  CAP, CERM, 10 μF, 16 V, +/- 10%, X5R, 0805  CAP, CERM, 0.1 μF, 10 V, +/- 10%, X7R, 0402  Diode, Schottky, 100 V, 0.25 A, SOD-323F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Evener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  LED, Super Red, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header, 2.54 mm, 3x1, Gold, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0603 0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	GRM188R70J474KA01D  GRM21BR61C106KE15 L  GRM155R71A104KA01 D  BAT46WJ,115 CDSU101A SM6T39CA MMS24686T1G 150060VS75000 150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	MuRata  MuRata  MuRata  MuRata  MxP Semiconductor  Comchip Technology STMicroelectronics  ON Semiconductor  Wurth Elektronik  Wurth Elektronik  Wurth Elektronik  On-Shore Technology  Wurth Elektronik  Sullins Connector Solutions		
C16, C18, 3 C20 C17, C19, 3 C21 D1, D5 2 D2, D4 2 D3 1 D7 1 D8 1 J1, J6 2 J2 1 J3, J4, J5 3 J7 1 J8, J9 2 L1, L2 2 L3, L4 2 Q1, Q3 2 Q2 1 R4 2 R1, R6 2 R2 1 R7 1 R8 1 R9, R10, 5 R11, R12, R14 R15, R24 2 R16, R17, 3 R18 R19 1 R20 1 R21 1	3 11 3 0. 2 11 2 99 1 33 1 3. 1 5 2 1 2 60 2 11 2 60 1 81	0uF .1uF 00V 0V 9V 9V .9V reen upper Red 00 ohm 000 ohm	CAP, CERM, 10 µF, 16 V, +/- 10%, X5R, 0805  CAP, CERM, 0.1 µF, 10 V, +/- 10%, X7R, 0402  Diode, Schottky, 100 V, 0.25 A, SOD-323F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Zener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  LED, Super Red, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0805 0402 SOD-323F SOD-523F SMB SOD-123 LED_0603 LED_0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	GRM21BR61C106KE15 L. GRM155R71A104KA01 D BAT46WJ,115 CDSU1011A SM6T39CA MMS24686T1G 150060VS75000 150060VS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	MuRata  MuRata  NXP Semiconductor Comchip Technology STMicroelectronics ON Semiconductor Wurth Elektronik Wurth Elektronik Wurth Elektronik On-Shore Technology Wurth Elektronik Sullins Connector Solutions		
C20 C17, C19, 3 C21 D1, D5 2 D2, D4 2 D3 1 D7 1 D8 1 D9 1 J1, J6 2  J2 1 J3, J4, J5 3  J7 1  J8, J9 2 L1, L2 2 L3, L4 2 Q1, Q3 2 Q1 1 R1, R6 2 R2 1 R4 1 R5 1 R7 1 R8 1 R9, R10, S1, R14 R15, R24 2 R16, R17, R18 R19 1 R20 1	3 0. 2 111 2 99 1 33 1 S 2 1 S 2 1 S 2 1 S 2 1 S 2 1 S 3 3 S 1 S 2 S 1 S 2 S 1 S 2 S 1 S 2 S 1 S 3 S 1 S 2 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 1 S 3 S 3 S 3 S 3 S 3 S 3 S 3 S 3 S 3 S 3	.1uF 00V 0V 9V 9V .9v ireen upper Red 00 ohm 000 ohm	CAP, CERM, 0.1 µF, 10 V, +/- 10%, X7R, 0402  Diode, Schottky, 100 V, 0.25 A, SOD-323F  Diode, Switching, 90 V, 0.1 A, SOD-523F  Diode, TVS, Bi, 39 V, 600 W, SMB  Diode, Zener, 3.9 V, 500 mW, SOD-123  LED, Green, SMD  LED, Super Red, SMD  Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header, 2.54 mm, 3x1, Gold, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	0402  SOD-323F  SOD-523F  SMB  SOD-123  LED_0603  LED_0603  Header, 2.54mm, 2x1, TH, 7.0x8.2x6.5mm  Header, 2.54mm, 3x1, TH  Header (Shrouded), 2.54 mm, 7x2, R/A, TH  10x2 Receptacle	L GRM155R71A104KA01 D BAT46WJ,115 CDSU101A SM6T39CA MMS24886T1G 150060VS75000 150060VS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	MuRata  NXP Semiconductor  Comchip Technology  STMicroelectronics  ON Semiconductor  Wurth Elektronik  Wurth Elektronik  On-Shore Technology  Wurth Elektronik  Sullins Connector Solutions		
C17, C19, C21  D1, D5 2  D2, D4 2  D3 1  D7 1  D8 1  J1, J6 2  J2 1  J3, J4, J5 3  J7 1  J8, J9 2  L1, L2 2  L3, L4 2  Q1, Q3 2  Q2 1  R4 2  Q1, Q3 2  R2 1  R5 1  R7 1  R8 1  R9, R10, S1  R1, R12, R14  R15, R24 2  R16, R17, R18  R19 1  R20 1  R21 1	2 99 1 33 1 33 1 S 2 1 1 3 3 1 1 S 2 1 2 66 2 10 2 66 1 88	00V 0V 9V .9V :reen super Red	Diode, Schottky, 100 V, 0.25 A, SOD-323F Diode, Switching, 90 V, 0.1 A, SOD-523F Diode, TVS, Bi, 39 V, 600 W, SMB Diode, Zener, 3.9 V, 500 mW, SOD-123 LED, Green, SMD LED, Super Red, SMD Header, 2.54 mm, 2x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header, 2.54 mm, 3x1, Gold, TH Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	SOD-323F SOD-523F SMB SOD-123 LED_0603 LED_0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	D BAT46WJ,115 CDSU101A SM6T39CA MMS24686T1G 150060VS75000 150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	NXP Semiconductor Comchip Technology STMicroelectronics ON Semiconductor Wurth Elektronik Wurth Elektronik Wurth Elektronik On-Shore Technology Wurth Elektronik Sullins Connector Solutions		
D1, D5   2   D2, D4   2   D3   1   D7   1   D8   1   D9   1   J1, J6   2   J2   J3, J4, J5   3   J7   1   J8, J9   2   L1, L2   L3, L4   2   Q1, Q3   2   L3, L4   2   Q1, Q3   2   L3, L4   2   Q1, R4   1   R5   1   R7   L8   L8   L8   L8   L8   L8   L8   L	2 99 1 33 1 3 1 G 1 S 2 1 1 3 2 2 6 6 2 1 1 8 1 8	OV 99V 99V 99V 99V 99V 99V 99V 99V 99V 9	Diode, Switching, 90 V, 0.1 A, SOD-523F Diode, TVS, Bi, 39 V, 600 W, SMB Diode, Zener, 3.9 V, 500 mW, SOD-123 LED, Green, SMD LED, Super Red, SMD Header, 2.54 mm, 2x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header, 2.54 mm, 3x1, Gold, TH Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	SOD-523F SMB SOD-123 LED 0603 LED 0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	CDSU101A SM6T39CA MMSZ4886T1G 150060VS75000 150060VS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	Comchip Technology STMicroelectronics ON Semiconductor Wurth Elektronik Wurth Elektronik Wurth Elektronik On-Shore Technology Wurth Elektronik Sullins Connector Solutions		
D2, D4 2 D3 1 D7 1 D8 1 D9 1 J1, J6 2 J2 1 J3, J4, J5 3 J7 1 J8, J9 2 L1, L2 2 L3, L4 2 Q1, Q3 2 Q2 1 R4 1 R7 1 R7 1 R8 1 R9, R10, R14, R12, R14 R15, R24 2 R16, R17, R18 R19 1 R20 1 R21 1	2 99 1 33 1 3 1 G 1 S 2 1 1 3 2 2 6 6 2 1 1 8 1 8	OV 99V 99V 99V 99V 99V 99V 99V 99V 99V 9	Diode, Switching, 90 V, 0.1 A, SOD-523F Diode, TVS, Bi, 39 V, 600 W, SMB Diode, Zener, 3.9 V, 500 mW, SOD-123 LED, Green, SMD LED, Super Red, SMD Header, 2.54 mm, 2x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header, 2.54 mm, 3x1, Gold, TH Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	SOD-523F SMB SOD-123 LED 0603 LED 0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	CDSU101A SM6T39CA MMSZ4886T1G 150060VS75000 150060VS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	Comchip Technology STMicroelectronics ON Semiconductor Wurth Elektronik Wurth Elektronik Wurth Elektronik On-Shore Technology Wurth Elektronik Sullins Connector Solutions		
D3 1 D7 1 D8 1 D9 1 J1, J6 2 J2 1 J3, J4, J5 3  J7 1  J8, J9 2 L1, L2 2 L3, L4 2 Q1, Q3 2 Q2 1 R1, R6 2 R2 1 R1, R6 1 R5 1 R7 1 R8 1 R9, R10, 5 R11, R12, R14 R15, R24 2 R16, R17, R18 R18 R19 1 R20 1	1 33 1 3.1 1 G 1 S 2 1 1 3 3 1 2 2 60 2 10 2 60 1 80	9V .9V ireen iuper Red	Diode, TVS, Bi, 39 V, 600 W, SMB Diode, Zener, 3.9 V, 500 mW, SOD-123 LED, Green, SMD LED, Super Red, SMD Header, 2.54 mm, 2x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header, 2.54 mm, 3x1, Gold, TH Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	SMB SOD-123 LED_0603 LED_0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	SM6T39CA MMSZ4686T1G 150060VS75000 150060VS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	STMicroelectronics ON Semiconductor Wurth Elektronik Wurth Elektronik Wurth Elektronik On-Shore Technology Wurth Elektronik Sullins Connector Solutions		
D7 1 D8 1 D9 1 J1, J6 2  J2 1 J3, J4, J5 3  J7 1  J8, J9 2 L1, L2 L3, L4 2 Q1, Q3 2 Q2 1 R1, R6 2 R2 1 R4 1 R5 1 R7 1 R8 1 R9, R10, R11, R12, R14 R15, R24 2 R16, R17, R18 R19 1 R20 1 R20 1	1 3.1 G 1 S 2 11 3 3 1 1	.9V Green Juper Red 00 ohm 000 ohm	Diode, Zener, 3.9 V, 500 mW, SOD-123 LED, Green, SMD LED, Super Red, SMD Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header, 2.54 mm, 3x1, Gold, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	SOD-123 LED_0603 LED 0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	MMSZ4696T1G 150060VS75000 150060VS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	ON Semiconductor Wurth Elektronik Wurth Elektronik Wurth Elektronik On-Shore Technology Wurth Elektronik Sullins Connector Solutions		
D8 1 D9 1 J1, J6 2  J2 1 J3, J4, J5 3  J7 1  J8, J9 2 L1, L2 2 L3, L4 2 Q1, Q3 2 Q2 1 R1, R6 2 R2 1 R4 1 R5 1 R7 1 R8 1 R9, R10, 5 R11, R12, R14 R15, R24 2 R16, R17, R18 R18 R19 1 R20 1 R20 1 R20 1	1 G 1 S 2 S 1 3 S 1 S 2 S 1 S 2 S 1 S 2 S 1 S 2 S 1 S 2 S 3 S 3 S 5 S 5 S 6 S 7 S 7 S 7 S 7 S 7 S 8 S 7 S 8 S 7 S 8 S 7 S 8 S 7 S 8	Green Luper Red  OO ohm OO ohm	LED, Green, SMD LED, Super Red, SMD Header, 2.54 mm, 2x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header, 2.54 mm, 3x1, Gold, TH Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	LED_0603 LED_0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	150060VS75000 150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	Wurth Elektronik Wurth Elektronik Wurth Elektronik On-Shore Technology Wurth Elektronik Sullins Connector Solutions		
D9 1 J1, J6 2  J2 1 J3, J4, J5 3  J7 1  J8, J9 2 L1, L2 2 L3, L4 2 Q1, Q3 2 R2 1 R1, R6 2 R2 1 R5 1 R7 1 R8 1 R9, R10, S1, R14, R12, R14 R15, R24 2 R16, R17, R18 R19 1 R20 1 R20 1	1 S 2 1 1 3 1 2 2 60 2 10 2 60 1 80	00 ohm	LED, Super Red, SMD Header, 2.54 mm, 2x1, Gold, TH Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH Header, 2.54 mm, 3x1, Gold, TH Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	LED 0603 Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	150060SS75000 61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	Wurth Elektronik Wurth Elektronik On-Shore Technology Wurth Elektronik Sullins Connector Solutions		
J1, J6 2  J2 1  J3, J4, J5 3  J7 1  J8, J9 2  L1, L2 2  L3, L4 2  Q1, Q3 2  Q2 1  R4 6  R7 1  R8 1  R9, R10, R14, R12, R14  R15, R24 2  R16, R17, R18  R18  R19 1  R20 1  R20 1  R20 1	2 1 3 1 2 2 60 2 10 2 60 1 80	00 ohm	Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header, 2.54 mm, 3x1, Gold, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	Wurth Elektronik  On-Shore Technology  Wurth Elektronik  Sullins Connector Solutions		
J1, J6 2  J2 1  J3, J4, J5 3  J7 1  J8, J9 2  L1, L2 2  L3, L4 2  Q1, Q3 2  Q2 1  R4 6  R7 1  R8 1  R9, R10, R14, R12, R14  R15, R24 2  R16, R17, R18  R18  R19 1  R20 1  R20 1  R20 1	1 3 1 2 6 6 2 1 1 8 6 1 1 8 8 6	000 ohm	Header, 2.54 mm, 2x1, Gold, TH  Terminal Block, 6A, 3.5mm Pitch, 2-Pos, TH  Header, 2.54 mm, 3x1, Gold, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	Header, 2.54mm, 2x1, TH 7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	61300211121 ED555/2DS 61300311121 SBH11-PBPC-D07-RA-BK	Wurth Elektronik  On-Shore Technology  Wurth Elektronik  Sullins Connector Solutions		
J3, J4, J5 3  J7 1  J8, J9 2  L1, L2 2  L3, L4 2  Q1, Q3 2  Q2 1  R4 1  R5 1  R7 1  R8 1  R9, R10, S1  R1, R12, R14  R15, R24 2  R16, R17, R18  R18  R19 1  R20 1  R20 1	1 2 2 60 2 10 2 60 1 80	000 ohm	Header, 2.54 mm, 3x1, Gold, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	7.0x8.2x6.5mm Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	61300311121 SBH11-PBPC-D07-RA- BK	Wurth Elektronik Sullins Connector Solutions		
J3, J4, J5 3  J7 1  J8, J9 2  L1, L2 2  L3, L4 2  Q1, Q3 2  Q2 1  R4 1  R5 1  R7 1  R8 1  R9, R10, S1  R1, R12, R14  R15, R24 2  R16, R17, R18  R18  R19 1  R20 1  R20 1	1 2 2 60 2 10 2 60 1 80	000 ohm	Header, 2.54 mm, 3x1, Gold, TH  Header (Shrouded), 2.54 mm, 7x2, Gold, R/A, TH  Connector, Receptacle, 100mil, 10x2, Gold plated, TH  Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	Header, 2.54mm, 3x1, TH Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	61300311121 SBH11-PBPC-D07-RA- BK	Wurth Elektronik Sullins Connector Solutions		
J8, J9 2 L1, L2 2 L3, L4 2 Q1, Q3 2 Q2 1 R1, R6 2 R2 1 R4 1 R5 1 R7 1 R8 1 R9, R10, 5 R11, R12, R14 R15, R24 2 R16, R17, R18 R19 1 R20 1 R20 1	2 2 60 2 10 2 60 1 80	000 ohm	Connector, Receptacle, 100mil, 10x2, Gold plated, TH Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	Header (Shrouded), 2.54 mm, 7x2, R/A, TH 10x2 Receptacle	вк			
L1, L2 2 L3, L4 2 Q1, Q3 2 Q2 1 R1, R6 2 R2 1 R4 1 R5 1 R7 1 R8 1 R9, R10, 5 R11, R12, R14 R15, R24 2 R16, R17, R18 R19 1 R20 1 R20 1	2 60 2 10 2 60 1 80	000 ohm	Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206	TH 10x2 Receptacle				
L1, L2 2 L3, L4 2 Q1, Q3 2 Q2 1 R1, R6 2 R2 1 R4 1 R5 1 R7 1 R8 1 R9, R10, 5 R11, R12, R14 R15, R24 2 R16, R17, R18 R19 1 R20 1 R20 1	2 60 2 10 2 60 1 80	000 ohm	Ferrite Bead, 600 ohm @ 100 MHz, 1.5 A, 1206		SSW-110-23-F-D			
L3, L4 2 Q1, Q3 2 Q2 1 R1, R6 2 R2 1 R5 1 R7 1 R8 1 R9, R10, 5 R11, R12, R14 R15, R24 2 R16, R17, 3 R18 R19 1 R20 1	2 10 2 60 1 80	000 ohm		1206		Samtec		
Q1, Q3 2 Q2 1 R1, R6 2 R2 1 R4 1 R5 1 R7 1 R8 1 R9, R10, S1, R14, R15, R24 2 R16, R17, 3 R18 R19 1 R20 1	2 10 2 60 1 80	000 ohm	Ferrite Bead, 1000 ohm @ 100 MHz 0 25 A 0402		MI1206K601R-10	Laird-Signal Integrity Products	5	
O1, O3 2 O2 1 R1, R6 2 R2 1 R4 1 R5 1 R7 1 R8 1 R9, R10, S R11, R12, R14 R15, R24 2 R16, R17, 3 R18 R19 1 R20 1	2 60 1 80			0402	BLM15HG102SN1D	MuRata		
Q2         1           R1, R6         2           R2         1           R4         1           R5         1           R7         1           R8         1           R9, R10,         5           R11, R12,         R14           R16, R17,         3           R18         R19           R20         1           R21         1	1 80	0 V	Transistor, NPN, 60 V, 1 A, AEC-Q101, SOT1061	SOT1061	BC55-16PA.115	NXP Semiconductor		
R1, R6 2 R2 1 R4 1 R5 1 R7 1 R8 1 R9, R10, 5 R11, R12, R14 R15, R24 2 R16, R17, 3 R18 R19 1 R20 1		0 V	Transistor, NPN, 80 V, 0.5 A, SOT-323	SOT-323	MMSTA06-7-F	Diodes Inc.		
R2 1 R4 1 R5 1 R7 1 R8 1 R9,R10, 5 R11,R12, R14 R15,R24 2 R16,R17, 3 R18 R19 1 R20 1 R21 1	2 0		RES, 0, 5%, 0.1 W, 0603	0603	CRCW06030000Z0EA	Vishay-Dale		
R4 1 R5 1 R7 1 R8 1 R9,R10, 5 R11, R12, R14 2 R15, R24 2 R16,R17, 3 R18 R19 1 R20 1		00	RES, 200, 1%, 0.25 W, 1206	1206	CRCW1206200RFKEA	Vishay-Dale		
R5 1 R7 1 R8 1 R9, R10, 5 R11, R12, R14 R15, R24 2 R16, R17, 3 R18 R19 1 R20 1			RES, 2.00 M, 1%, 0.063 W, 0402	0402	CRCW04022M00FKED			
R7 1 R8 1 R9, R10, 5 R11, R12, R14 R15, R24 2 R16, R17, 3 R18 R19 1 R20 1 R21 1		.00Meg				Vishay-Dale		
R8 1 R9, R10, 5 R11, R12, 814 R15, R24 2 R16, R17, 3 R18 R19 1 R20 1 R21 1		.13Meg	RES, 1.13 M, 1%, 0.063 W, 0402	0402	CRCW04021M13FKED	Vishay-Dale		
R9, R10, R11, R12, R14 R15, R24 2 R16, R17, R18 R19 1 R20 1 R21 1		0.0	RES, 20.0, 1%, 0.1 W, 0603	0603	CRCW060320R0FKEA	Vishay-Dale		
R11, R12, R14 R15, R24 2 R16, R17, 3 R18 R19 1 R20 1 R21 1		.0Meg	RES, 1.0 M, 5%, 0.063 W, 0402	0402	CRCW04021M00JNED	Vishay-Dale		
R15, R24 2 R16, R17, 3 R18 R19 1 R20 1 R21 1	5 0		RES, 0, 5%, 0.063 W, 0402	0402	CRCW04020000Z0ED	Vishay-Dale		
R16, R17, R18 R19 1 R20 1 R21 1		70	DEC 470 50/ 0 000 W 0400	0.400	000000000000000000000000000000000000000	Vielen Dele		
R18 R19 1 R20 1 R21 1		70	RES, 470, 5%, 0.063 W, 0402	0402	CRCW0402470RJNED	Vishay-Dale		
R19 1 R20 1 R21 1	3 10	0.0	RES, 10.0, 1%, 0.1 W, 0603	0603	CRCW060310R0FKEA	Vishay-Dale		
R20 1 R21 1	1 4	7k	RES, 47 k, 5%, 0.063 W, 0402	0402	CRCW040247K0JNED	Vishay-Dale		
R21 1		4.9k	RES, 24.9 k, 1%, 0.1 W, 0603	0603	CRCW060324K9FKEA	Vishay-Dale		
		9.9	RES, 49.9, 1%, 0.25 W, 1206	1206	CRCW120649R9FKEA	Vishay-Dale Vishay-Dale		
		00	RES, 100, 1%, 0.1 W, 0603	0603	CRCW0603100RFKEA	Vishay-Dale Vishay-Dale		
S1 1			Switch, Tactile, SPST, 12 V, SMD	SMD, 6x3.9mm	434121025816	Wurth Elektronik		
SH-J1, SH- 5		x2	Shunt, 100mil, Gold plated, Black	Shunt	969102-0000-DA	3M	SNT-100-BK-G	Samtec
J2, SH-J3, SH-J4, SH- J5	3  1	ΧZ	Shark, Toomii, Gold plated, Black	Shunt	909102-0000-DA	SIVI	SINT-TOU-BR-G	Samet
U1 1	1		60-V, 5-µA IQ, 100-mA, Low-Dropout Voltage Regulator with Enable and Power-Good, DRB0008B	DRB0008B	TPS7A1601DRBR	Texas Instruments	TPS7A1601DRBT	Texas Instruments
U2 1	1		16-bit SPI Programmable DAC for 4-20mA Loops, RGH0016A	RGH0016A	DAC161S997RGHR	Texas Instruments	DAC161S997RGHT	Texas Instruments
U3 1	1		25 MHz Mixed Signal Microcontroller with 32 KB Flash, 2048 B SRAM and 29 GPIOs, -40 to 85 degC, 40-pin QFN (RSB), Green (RoHS & no Sb/Br)	RSB0040B	MSP430F5172IRSBR	Texas Instruments	Equivalent	Texas Instruments
C5 0	0 0.	.1uF	CAP, CERM, 0.1 μF, 10 V, +/- 10%, X5R, 0402	0402	GRM155R61A104KA01 D	MuRata		
C13 0	0 68	800pF	CAP, CERM, 6800 pF, 25 V, +/- 10%, X7R, 0402	0402	GRM155R71E682KA01 D	MuRata		
C22 0	0 2	200pF	CAP, CERM, 2200 pF, 6.3 V, +/- 10%, X7R, 0402	0402	GRM155R70J222KA01D	MuRata		
FID1, FID2, 0 FID3	0		Fiducial mark. There is nothing to buy or mount.	N/A	N/A	N/A		
LBL1 0			Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650"H x 0.200"W	THT-14-423-10	Brady		
R3 0			RES, 1.0 M, 5%, 0.063 W, 0402	0402	CRCW04021M00JNED	Vishay-Dale		
R13 0	0	.0Mea	RES, 0, 5%, 0.063 W, 0402	0402	CRCW04021W003NED	Vishay-Dale Vishay-Dale		
R23, R25 0	0 1.	.0Meg	RES, 0, 5%, 0.003 W, 0402	0603	CRCW04020000Z0EB	Vishay-Dale Vishay-Dale		

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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