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TPS53819A

| Designator  | Quantity | Value       | Description  | PackageReference     | PartNumber        | Manufacturer        | Alternate PartNumber | Alternate Manufacturer |
|-------------|----------|-------------|--|----------------------|-------------------|---------------------|----------------------|------------------------|
| C1, C2, C3, | 4        | 22uF        | CAP, CERM, 22 µF, 35 V, +/- 20%, X5R, 0805             | 0805                 | C2012X5R1V226M125 | TDK                 |                      |                        |
| C4          |          |             |  |                      | AC                |                     |                      |                        |
| C5          | 1        | 0.1uF       | CAP, CERM, 0.1 µF, 25 V, +/- 5%, X7R, 0603             | 0603                 | 06033C104JAT2A    | AVX                 |                      |                        |
| C7          | 1        | 0.1uF       | CAP, CERM, 0.1 µF, 25 V, +/- 10%, X5R, 0402            | 0402                 | GRM155R61E104KA87 | MuRata              |                      |                        |
|             |          |             |  |                      | D                 |                     |                      |                        |
| C10, C11,   | 4        | 1000uF      | CAP, TA, 1000 µF, 2.5 V, +/- 20%, 0.005 ohm, SMD       | Molded, 2-Leads,     | ETPF1000M5H       | Panasonic           |                      |                        |
| C12, C13    |          |             |  | Body 7.3x4.3mm,      |                   |                     |                      |                        |
|             |          |             |  | Height 4mm           |                   |                     |                      |                        |
| C14, C15,   | 3        | 100uF       | CAP, CERM, 100 µF, 6.3 V, +/- 20%, X5R, 1210           | 1210                 | GRM32ER60J107ME20 | MuRata              |                      |                        |
| C16         |          |             |  |                      | L                 |                     |                      |                        |
| C20         | 1        | 1uF         | CAP, CERM, 1 µF, 25 V, +/- 10%, X5R, 0805              | 0805                 | 08053D105KAT2A    | AVX                 |                      |                        |
| C21         | 1        | 1uF         | CAP, CERM, 1 µF, 10 V, +/- 10%, X5R, 0603              | 0603                 | C0603C105K8PACTU  | Kemet               |                      |                        |
| C22         | 1        | 1000pF      | CAP, CERM, 1000 pF, 25 V, +/- 10%, X5R, 0402           | 0402                 | GRM155R61E102KA01 | MuRata              |                      |                        |
|             |          |             |  |                      | D                 |                     |                      |                        |
| J1          | 1        |             | TERMINAL BLOCK 5.08MM VERT 2POS, TH                    | TERM_BLK, 2pos,      | ED120/2DS         | On-Shore Technology |                      |                        |
|             |          |             |  | 5.08mm               |                   |                     |                      |                        |
| J2          | 1        |             | Header (shrouded), 100mil, 5x2, Gold, TH               | 5x2 Shrouded header  |                   | TE Connectivity     |                      |                        |
| J3          | 1        |             | Header, 100mil, 2x1, Tin, TH                           | Header, 2x1, 100mil, | 5-146278-2        | TE Connectivity     |                      |                        |
|             |          |             |  | TH                   |                   |                     |                      |                        |
| L1          | 1        | 470nH       | Inductor, Shielded, Powdered Iron, 470 nH, 30 A,       | IHLP-4040DZ          | IHLP4040DZERR47M1 | Vishay-Dale         |                      |                        |
|             |          |             | 0.00168 ohm, SMD                                       |                      | 1                 |                     |                      |                        |
| R1, R2,     | 4        | 100k        | RES, 100 k, 1%, 0.063 W, 0402                          | 0402                 | CRCW0402100KFKED  | Vishay-Dale         |                      |                        |
| R14, R15    |          |             |  |                      |                   |                     |                      |                        |
| R3          |          | 300k        | RES, 300 k, 5%, 0.063 W, 0402                          | 0402                 | CRCW0402300KJNED  | Vishay-Dale         |                      |                        |
| R4          |          | 1.00k       | RES, 1.00 k, 1%, 0.063 W, 0402                         | 0402                 | CRCW04021K00FKED  | Vishay-Dale         |                      |                        |
| R5, R6      |          | 4.7         | RES, 4.7, 5%, 0.063 W, 0402                            | 0402                 | CRCW04024R70JNED  | Vishay-Dale         |                      |                        |
| R10         |          | 39.2k       | RES, 39.2 k, 1%, 0.063 W, 0402                         | 0402                 | CRCW040239K2FKED  | Vishay-Dale         |                      |                        |
| R17         | 1        | 10.0k       | RES, 10.0 k, 0.1%, 0.1 W, 0603                         | 0603                 | RT0603BRD0710KL   | Yageo America       |                      |                        |
| R18         | 1        | 15.0k       | RES, 15.0 k, 0.1%, 0.1 W, 0603                         | 0603                 | RG1608P-153-B-T5  | Susumu Co Ltd       |                      |                        |
| R19         |          | 0           | RES, 0, 5%, 0.063 W, 0402                              | 0402                 | MCR01MZPJ000      | Rohm                |                      |                        |
| T1, T2      |          | 50A         | Terminal 50A Lug                                       | CB35-36-CY           | CB35-36-CY        | Panduit             |                      |                        |
| TP1, TP3,   | 4        | Red         | Test Point, Miniature, Red, TH                         | Red Miniature        | 5000              | Keystone            |                      |                        |
| TP4, TP5    |          |             |  | Testpoint            |                   |                     |                      |                        |
| TP2, TP6    | 2        | Black       | Test Point, Miniature, Black, TH                       | Black Miniature      | 5001              | Keystone            | 1                    |                        |
|             |          |             |  | Testpoint            |                   |                     |                      |                        |
| U1          | 1        | TPS53819RGT | IC, Single Synchronous Step-Down Controller with PMBus | QFN-16               | TPS53819RGT       | TI                  |                      | None                   |
| U2          | 1        |             | Synchronous Buck NexFET Power Block, DQY0008A          | DQY0008A             | CSD87350Q5D       | Texas Instruments   |                      | Texas Instruments      |

Notes:

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

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