

Bill of Materials

MIC2128 High Power Evaluation Board

Document Number: 02-11061
 Board Number: 04-11061
 Part Number: ADM01006
 Revision: 1
 Engineer: Victor Uzum
 Drawn By: Cristian Papuc

Creation Date: 10/2/2019
 Creation Time: 5:16 PM



| Quantity | Designator | Description_ | Manufacturer 1 | Manufacturer Part Number 1 | Supplier 1 | Supplier Part Number 1 |
|--|------------------------|---|------------------------------|----------------------------|------------|------------------------|
| 1 | C1 | CAP ALU 220uF 100V 20% SMD K16 | Panasonic | EEV-FK2A221M | Digi-Key | PCE3500CT-ND |
| 6 | C2, C3, C4, C5, C6, C7 | CAP CER 10uF 100V 20% X7S SMD 2220 | TDK | C5750X7S2A106M | Digi-Key | 445-5212-1-ND |
| 2 | C8, C11 | CAP CER 0.1uF 100V 10% X7R SMD 0805 | Kyocera AVX | 08051C104K4T2A2K | Digi-Key | 478-4525-1-ND |
| 1 | C9 | CAP CER 10uF 25V 10% X5R SMD 0805 | TDK | C2012X5R1E106K125AB | Digi-Key | 445-5984-1-ND |
| 1 | C10 | CAP CER 4.7uF 25V 10% X7R SMD 0805 AEC-Q200 | TDK | CGA4J1X7R1E475K125AC | Digi-Key | 445-6967-1-ND |
| 1 | C12 | CAP CER 0.1uF 50V 10% X7R SMD 0805 | KEMET | C0805C104K5RACTU | Digi-Key | 399-1170-1-ND |
| 1 | C13 | CAP ALU 220uF 25V 20% SMD F | Panasonic | ECE-V1EA221UP | Digi-Key | PCE3187TR-ND |
| 4 | C14, C15, C16, C17 | CAP CER 47uF 25V 20% X5R SMD 1206 | TDK | C3216X5R1E476M160AC | Digi-Key | 445-8047-1-ND |
| 1 | C19 | CAP CER 4700pF 50V 10% X7R SMD 0805 | Johanson | 500R15W472KV4T | Digi-Key | 709-1194-1-ND |
| 1 | C20 | CAP CER 0.010uF 25V 10% X7R SMD 0603 | Yageo | CC0603KRX7R8BB103 | Digi-Key | 311-1360-1-ND |
| 1 | C21 | CAP CER 1uF 25V 20% Y5V SMD 0805 | KEMET | C0805C105Z3VACTU | Digi-Key | 399-1293-1-ND |
| 4 | J1, J2, J4, J5 | CON TERMINAL 30A Female 1x1 TH VERT | Keystone Electronics | 8197 | Digi-Key | 36-8197-ND |
| 1 | J3 | CON HDR-2.54 Male 1x2 Gold 5.84MH TH VERT | Würth Electronics | 61300211121 | Digi-Key | 732-5315-ND |
| 1 | JP1 | CON HDR-2.54 Male 1x2 Tin 6.75MH TH VERT | Molex | 90120-0122 | Digi-Key | WM8072-ND |
| 1 | L1 | INDUCTOR 10uH 15A 20% SMD L18.2W18.2H8.9 | Würth Electronics | 74435561100 | Digi-Key | 732-2167-1-ND |
| 2 | Q1, Q2 | TRANS FET N-CH FDMS86183 100V 51A 63W POWER56-8 | ON Semiconductor / Fairchild | FDMS86183 | Digi-Key | FDMS86183CT-ND |
| 1 | R1 | RES TF 2.21R 0.1% 1/16W SMD 0603 | Stackpole Electronics | RNCF0603BKC2R21 | Digi-Key | RNCF0603BKC2R21CT-ND |
| 1 | R3 | RES TKF 6.8k 1% 1/10W SMD 0603 | Yageo | RC0603FR-076K8L | Digi-Key | 311-6.80KHRTR-ND |
| 1 | R4 | RES TKF 14k 1% 1/10W SMD 0603 AEC-Q200 | Panasonic | ERJ-3EKF1402V | Digi-Key | P14.0KHCT-ND |
| 1 | R5 | RES TKF 200k 1% 1/10W SMD 0603 | Vishay | CRCW0603200KFKEA | Digi-Key | 541-200KHCT-ND |
| 1 | R6 | RES TKF 590k 1% 1/10W SMD 0603 | Panasonic | ERJ-3EKF5903V | Digi-Key | P590KHCT-ND |
| 1 | R7 | RES TKF 1.91k 1% 1/10W SMD 0603 | Panasonic | ERJ-3EKF1911V | Digi-Key | P1.91KHCT-ND |
| 1 | R8 | RES TKF 1.2k 1% 1/10W SMD 0603 | SEI | RMCF0603FT1K20 | Digi-Key | RMCF0603FT1K20CT-ND |
| 2 | R9, R10 | RES TKF 0R 1/8W SMD 0805 | Panasonic | ERJ-6GEY0R00V | Digi-Key | P0.0ACT-ND |
| 2 | R18, R31 | RES TF 100k 1% 1/8W SMD 0603 | Vishay Beyschlag | MCT06030C1003FP500 | Digi-Key | MCT0603-100K-CFTR-ND |
| 3 | TP1, TP2, TP3 | MISC, TEST POINT MULTI PURPOSE MINI WHITE | Permatbond | 5002 | Digi-Key | 36-5002-ND |
| Microchip Parts listed below | | | | | | |
| 1 | U1 | MCHP ANALOG SWITCHER Buck 0.6V to 30V MIC2128YML QFN-16 | Microchip | MIC2128YML | Microchip | MIC2128YML |
| Mechanical Parts to be added in the package | | | | | | |
| 2 | JP2, JP3 | MECH HW JUMPER 2.54mm 1x2 w/ Handle | TE Connectivity | 880584-4 | Digi-Key | A122487-ND |
| 4 | PAD1, PAD2, PAD3, PAD4 | MECH HW RUBBER PAD CYLINDRICAL D7.9 H5.3 BLACK | 3M | 70006431483 | Digi-Key | SJ5747-0-ND |
| Do Not Populate Parts listed below | | | | | | |
| 0 | R2 | RES TKF 1.37k 1% 1/10W SMD 0603 | Yageo | RC0603FR-071K37L | Digi-Key | 311-1.37KHRCT-ND |