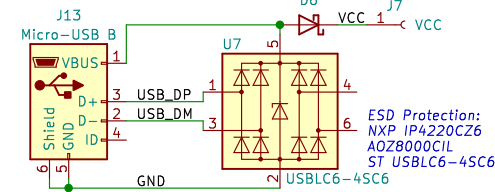


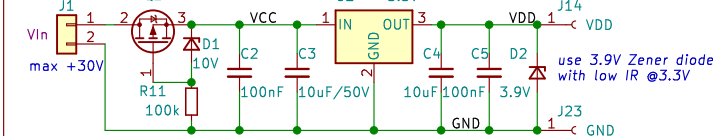
Socket Micro-USB B:
Amphenol 10103594-0001LF
Molex 105017-0001
GCT USB3076-30-A



High-voltage (>30V) SOT-223-3 LDO:
-MIC5239-3.3YS
-MIC5233-3.3YS (36V)
-LT1129CST-3.3
-LT1121CST-3.3
-SPX2954M3-1-3-3
-NCV4274AST33T3G (40V)
-NCV4264-2CST33T3G (45V)
-MCP1790-3302E
-MCP1799-3302H (45V)
U2 3.3V

reverse current protection

any P-CH SOT-223-3 Mosfet with Vgs(th)max<2V,
Vds>30V, Id>5A, low Rds(on)
-ZXMP4A16GTA

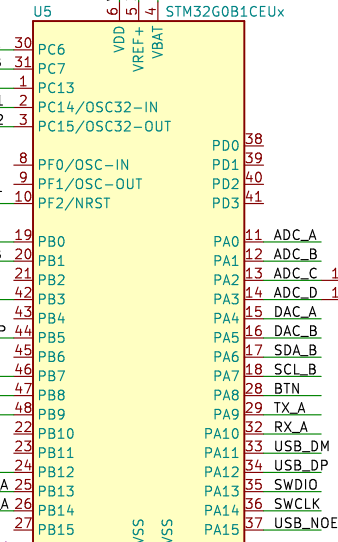
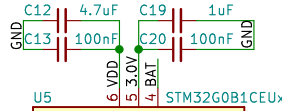
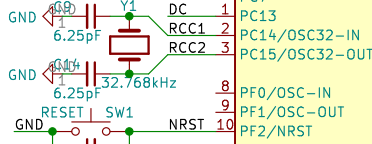


fixed terminal blocks:
CUI TB002-500-02BE
TE 1776244-2, 1776266-2, 1776504-2, 1776269-2
Degson DG301-5.0

alternative, pin-compatible MPUs, min 64k flash, 44-10:

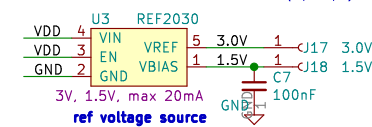
STM32G031C8Tx/Ux
STM32G041C8Tx/Ux
STM32G051C8Tx/Ux
STM32G061C8Tx/Ux
STM32G071C8Tx/Ux
STM32G071C8Tx/Ux (128k)
STM32G081C8Tx/Ux (128k)
STM32G081C8Tx/Ux (128k)
STM32G081C8Tx/Ux (128k)
STM32G081C8Tx/Ux (256k)
STM32G081C8Tx/Ux (512k)

Note: the required crystal capacitance is combined capacitance of two capacitors



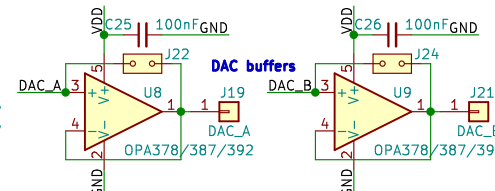
Package_DFN_QFN:QFN-48-1EP_7x7mm_P0.5mm_EP5.6x5.6mm
Package_QFP:LQFP-48-7x7mm_P0.5mm

Instead of REF2030 internal MPU 2.5V VREFBUF can be used with divider and buffers (OpAmps)

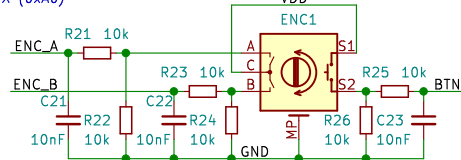


low-offset (<0.1mV) OpAmp with low output swing headroom to negative supply (<10mV):

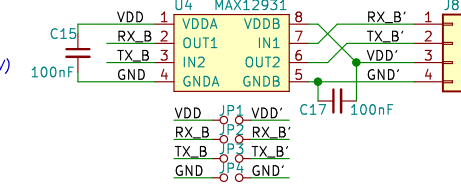
- OPA387 (SOT23-5, VSSOP-8 double, TSOP-14 quad)
- OPA378 (SOT23-5, SC70-5, SOT23-8 double)
- OPA391, 396 (SC70-5 only)
- OPA320
- OPA392 (SOT23-5, SC70-5, higher swing headroom to negative supply (-20mV))



Note: Bourns encoders are preferred. Unlike most ALPS encodes (besides EC12D), Bourns encoders have dent stability position between signal edges.



optoisolators: MAX12931, MAX2246, Si8422/26, ADuM1281/86, ISO7021, ISO6720?, ISO7720, iLE612-3E, ADuM1201AR



C101 100nF

Vref buffer

reverse current protection

any low-offset (<0.1mV), high output current OpAmp

any P-CH Mosfet with Vgs(th)max<2V, low Rds(on)

-PMV100EPAR

-NXV90EPR

-Si2343CDS-T1-GE3

-Si2307CDS-T1-E3

-CPH3351-TL-W

22-53Q (21-450°C)

for WSP80 use socket Amphenol T 3437 000

Wheatstone Bridge Amplifier

R1-R10 high grade 0.1% resistors

recommended: INA118, 333, *823* (best option)

optional: INA122, 126 (two op-amp architecture, limited common-mode voltage range)

U1 INA823

0.511+2.65V

ADC_A



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