EOS S3

IC1
EOS-S3-QFN

BANK A / BANK B

FBIO_8 and FBIO_9 are bootstrap pins for HS oscillator.
They should be pulled-down for internal HSO
FBIO_19 and FPIO_20 are bootstrap pins for SPI flash boot.
They must be pulled low

Maximum power consumption for A and B rails:
LDO mode: 65mA (VCCIOA) 114mA (VCCIOB)
LDO bypass mode: 77mA (VCCIOA) 269mA (VCCIOB)

Mount R23 for debug mode, otherwise R22

X1 ECS-_327-12_5-34B-TR
C6 12p C7 12p
C14 4u7 C16 4u7
R6 10k
R9 1k5 R7 22R R11 22R

C12 100n C13 100n C15 100n C17 100n

Flash memory (16Mbit)

U3 GD25Q16CWIGR
R10 10k R8 10k
C8 100n
R23 10k R31 10k R22 10k R21 10k

operating current max. 20 mA

This flash can be replaced with a 64Mbit one (GD25Q64CWIGR)

Buttons, LEDs

S2 KMR2
D4 ASMB-MTB1-0A3A2 Blue Green Red
R24 100R R26 100R R25 220R
Q2 2N7002PV Q3 2N7002PV

Headers

J6 FTSH-105-01-L-DV-K
R32 10k R34 10k
C18 100n D6 SD05C.CT
SWD_IO SWD_CLK SYS_RST

D11 TPD2EUSB30DRTR
D5 TPD2EUSB30DRTR

J3 1x16_pinhead DNP
R28 22R R29 22R
R30 EXB2HV220JV

J2 1x12_pinhead DNP
R38 22R R39 22R R40 22R
R41 EXB2HV220JV

J8 2x8_pinhead
R33 EXB2HV220JV R42 EXB2HV220JV

Battery charger and battery voltage measurement

U2 MCP73831T-2ACI_OT
212mA charge current
R2 4k7 R3 1k5
D2 LG_L29K-G2J1-24-Z
C2 4u7
Q1 NX3008CBKV
Q4 DMG1012T-7
C19 1u
R12 100k R37 10k R16 200k R17 100k

USB

J5 0473460001
D3 TPD2EUSB30DRTR
R36 10k DNP C5 4u7

Supply

D1 MBR0520LT1G
U1 TPS62821DLCR
L1 DFE201610E-R47M=P2
C1 4u7 R1 1M5
C3 100p R4 453k R5 100k C4 22u
J4 S2B-PH-SM4-TB_LF_SN_

Microphone

MIC1 IM69D130
R13 100R
C9 100n

Pressure sensor

U4 DPS310
C10 100n
I2C slave addr: 0x77

Accelerometer

U5 MC3635
R18 4k7 R19 10k R20 4k7
C11 100n
operating current for 1V8 supply max. 36mA
low-power mode: max. 2.8mA
I2C slave addr: 0x4C

M1 mounting_pad
M2 mounting_pad
M3 mounting_pad
M4 mounting_pad

N1 oshw_logo N2 qL_logo

open source hardware
antmicro
QuickLogic

Antmicro Ltd.
www.antmicro.com
Sheet: /
File: quick-feather-board.sch
Title: Quick Feather Development Kit
Size: A3   Rev: 1.1
KiCad E.D.A. eeschema 5.1.5-52549c584ubuntu18.04.1   Id: 1/1