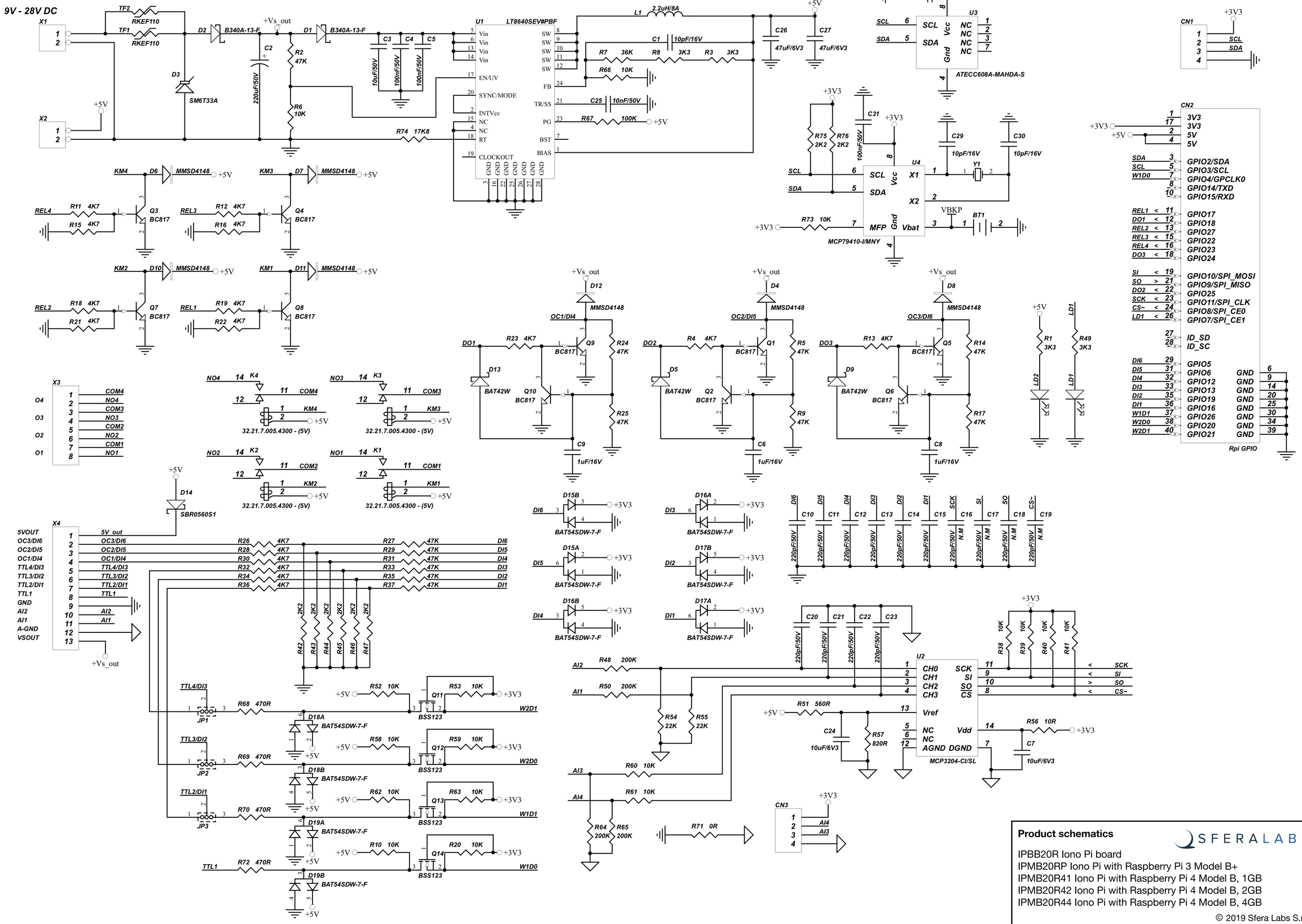

9V - 28V DC
X1
X2
TF1 RKEF110
TF2 RKEF110
D1 B340A-13-F
D2 B340A-13-F
D3 SM6T33A
+Vs_out
C2 220uF/50V
R2 47K
R6 10K
C3 10uF/50V
C4 100nF/50V
C5 100nF/50V
U1 LT8640SEV#PBF
Vin
EN/UV
SYNC/MODE
INTVcc
NC
RT
CLOCKOUT
SW
FB
TR/SS
PG
BST
BIAS
GND
L1 2.2uH/8A
C1 10pF/16V
R7 36K
R8 3K3
R3 3K3
R66 10K
C25 10nF/50V
R67 100K
R74 17K8
C26 47uF/6V3
C27 47uF/6V3
+5V
+3V3
U3 ATECC608A-MAHDA-S
SCL
SDA
Vcc
Gnd
NC
C28 100nF/50V
CN1
C31 100nF/50V
R75 2K2
R76 2K2
U4 MCP79410-I/MNY
X1
X2
MFP
Vbat
VBKP
BT1
R73 10K
C29 10pF/16V
C30 10pF/16V
Y1
CN2 Rpi GPIO
3V3
5V
GPIO2/SDA
GPIO3/SCL
GPIO4/GPCLK0
GPIO14/TXD
GPIO15/RXD
GPIO17
GPIO18
GPIO27
GPIO22
GPIO23
GPIO24
GPIO10/SPI_MOSI
GPIO9/SPI_MISO
GPIO25
GPIO11/SPI_CLK
GPIO8/SPI_CE0
GPIO7/SPI_CE1
ID_SD
ID_SC
GPIO5
GPIO6
GPIO12
GPIO13
GPIO19
GPIO16
GPIO26
GPIO20
GPIO21
GND
KM4 D6 MMSD4148
KM3 D7 MMSD4148
KM2 D10 MMSD4148
KM1 D11 MMSD4148
REL4 R11 4K7 R15 4K7 Q3 BC817
REL3 R12 4K7 R16 4K7 Q4 BC817
REL2 R18 4K7 R21 4K7 Q7 BC817
REL1 R19 4K7 R22 4K7 Q8 BC817
X3
O4 O3 O2 O1
COM4 NO4 COM3 NO3 COM2 NO2 COM1 NO1
NO4 K4 COM4 KM4
NO3 K3 COM3 KM3
NO2 K2 COM2 KM2
NO1 K1 COM1 KM1
32.21.7.005.4300 - (5V)
D14 SBR0560S1
X4
5VOUT
5V_out
OC3/DI6
OC2/DI5
OC1/DI4
TTL4/DI3
TTL3/DI2
TTL2/DI1
TTL1
GND
AI2
AI1
A-GND
VSOUT
R26 4K7
R28 4K7
R30 4K7
R32 4K7
R34 4K7
R36 4K7
R27 47K
R29 47K
R31 47K
R33 47K
R35 47K
R37 47K
2K2
R42 R43 R44 R45 R46 R47
JP1 JP2 JP3
R68 470R
R69 470R
R70 470R
R72 470R
D18A D18B D19A D19B BAT54SDW-7-F
R52 10K
R58 10K
R62 10K
R10 10K
Q11 Q12 Q13 Q14 BSS123
R53 10K
R59 10K
R63 10K
R20 10K
W2D1 W2D0 W1D1 W1D0
D12 D4 D8 MMSD4148
OC1/DI4 OC2/DI5 OC3/DI6
DO1 DO2 DO3
R23 4K7 R4 4K7 R13 4K7
Q9 Q1 Q5 BC817
Q10 Q2 Q6 BC817
D13 D5 D9 BAT42W
R24 47K R5 47K R14 47K
R25 47K R9 47K R17 47K
C9 C6 C8 1uF/16V
D15B D16A D15A D17B D16B D17A
DI6 DI3 DI5 DI2 DI4 DI1
BAT54SDW-7-F
C10 C11 C12 C13 C14 C15 C16 C17 C18 C19
220pF/50V
N.M
SCK SI SO CS~
U2 MCP3204-CI/SL
CH0 CH1 CH2 CH3 Vref NC NC AGND SCK SI SO CS DGND Vdd
C20 C21 C22 C23
R38 R39 R40 R41 10K
AI2 AI1 AI3 AI4
R48 200K
R50 200K
R54 22K
R55 22K
R60 10K
R61 10K
R64 200K
R65 200K
R71 0R
R51 560R
C24 10uF/6V3
R57 820R
R56 10R
C7 10uF/6V3
CN3
R1 3K3
R49 3K3
LD1 LD2
Product schematics
SFERALABS
IPBB20R Iono Pi board
IPMB20RP Iono Pi with Raspberry Pi 3 Model B+
IPMB20R41 Iono Pi with Raspberry Pi 4 Model B, 1GB
IPMB20R42 Iono Pi with Raspberry Pi 4 Model B, 2GB
IPMB20R44 Iono Pi with Raspberry Pi 4 Model B, 4GB
© 2019 Sfera Labs S.r.l.