open hardware

Prism Linux board v1
HiLink module
Mastro Gippo 2019

Power supply section

C12 100u C9 100n C1 10u C23 10u

R10 4.7k

Q5 BSS138
SWDIO
R15 1k
GND

VIN SW
EN   NC
GND FB

U$9 NEW2.2U +3V3

R30 453k
R31 100k

C24 6.8pF C2 10u C3 100n C4 100n C5 10u
C13 100u

GND

USB section

F1 0 +5V
VBUS
GND C10 10u
D-
D+
ID
GND
USB MT11 GND

BTN1
1-CS
2-CS
3-DI
4-VDD
5-CK
6-VSS
7-DO
8
CD
G1 G2 G3 G4
G G1 G2 G3
GND

Main module

+3V3
GND
P$57 P$58 P$59

GND
3.3V1
3.3V2
GND1
SPI_CS0
GPIO38-REF_CLK0
GPIO36-PERST_N
GPIO37-WPS_LED
GPIO39
GPIO40
GPIO41
GPIO42
GPIO43
PORST_N
GPIO45-TX1
GPIO46-RX1
GPIO0
GPIO1
GPIO2
GPIO3
GND2
ANT
GND3

P$1
P$2
P$3
P$4
P$5
P$6
P$7
P$8
P$9
P$10
P$11
P$12
P$13
P$14
P$15
P$16
P$17
P$18
P$19
P$20
P$21
P$22
P$23

GND4
USB_D-
USB_D+
GPIO27-MMC_D2
GPIO29-MMC_D3
GPIO28-MMC_CMD
GPIO26-MMC_CK
GPIO25-MMC_D0
GPIO24-MMC_D1
GPIO23-MMC_CD
GPIO22-MMC_WP
GPIO21-RX2
GPIO20-TX2
GPIO19
GPIO18
GPIO17
GPIO16
GPIO15
GPIO14
ETH0_TN
ETH0_TP
ETH0_RN
ETH0_RP

P$56
P$55
P$54
P$53
P$52
P$51
P$50
P$49
P$48
P$47
P$46
P$45
P$44
P$43
P$42
P$41
P$40
P$39
P$38
P$37
P$36
P$35
P$34

GPIO4-I2C_CK
GPIO5-I2C-SD
GPIO6-SPI_CS1
GPIO7-SPI_CLK
GPIO9-SPI_MISO
GPIO8-SPI_MOSI
GPIO11/0
GPIO12-TX0
GPIO13-RX0
GPIO44
P$24 P$25 P$26 P$27 P$28 P$29 P$30 P$31 P$32 P$33

R18 4.7k
+3V3 GND
S2
R22
SPI2_SCK
LED4
LED3
LED1
R11
S3
GND
U1_RX
R12
U1_TX
R13
LED2
R14
RST
R6
BOOT0
R5
1k

R19
R20
R16
4.7k
+3V3

Y1 32.768kHz
U1 DS1307Z
X1 VCC
X2 SQW
VBATT SCL
GND SDA
+5V +3V3

C11 100n
R1220 BT1
GND

C8 100n
GND
+3V3

Ethernet / RJ45

TD+ TD+
TD- TD-
P4 P4
P5 P5
RD+ RD+
RD- RD-
C6 10n C7 10n
SHIELD0 SHIELD1
SHIELD1 SHIELD2 GND
Y- Y- LED2
Y+ Y+
G- G- LED1
G+ G+
GND GND
NC NC

SV3
3
2
1
GND

Aux section

SV2
3 +5V
2
1

AUX3
AUX2 R17 1k AUX2R Q1 BSS138 R21 1k AUX3R Q2 BSS138
RCD R... 1k
R7 100k R8 100k
BSS138 BSS138
R9 100k
GND

+3V3
R13 1k R14 1k
D3 D4
LED3 LED4

GND
SPI2_SCK
SPI2_MISO
AUX2
U1_TX
U1_RX
BOOT0
SWDIO
SPI2_MOSI
RCD
AUX3
RST
SV5

SV4 +5V
4 +5V
3
2
1
GND GND