RPi Expansion

J1
HDR_20X2_SMT_N2_10mm

3P3V_PI
3V3
GPIOX_17/I2C2_SDA
GPIOX_18/I2C2_SCL
GPIOA_13/SPDIF_OUT
GND
GPIOX_3/PWM_D
GPIOX_4
GPIOX_7/PWM_B/PWM_F
3V3
GPIOX_8/SPIA_MOSI
GPIOX_9/SPIA_MISO
GPIOX_11/SPIA_SCLK
GND
GPIOA_14/I2C3_SDA
GPIOX_14/CTS1
GPIOX_15/RTS1
GPIOX_5/PWM_C
GPIOX_6/PWM_D
ADC.AIN3
GND

5V0
5V0
GND
GPIOX_12/TXD1
GPIOX_13/RXD1
GPIOX_16/PWM_E
GND
GPIOX_0
GPIOX_1
GND
GPIOX_2
GPIOX_10/SPIA_SS0
GPIOA_4
GPIOA_15/I2C3_SCL
GND
GPIOA_12
GND
GPIOX_19/PWM_B
VDDIO_AO1V8
ADC.AIN2

5P0V
3P3V
R10
10K
1%

JMP4
1x2_0.100_vert_JMP - DNI
Build = DNI
ADDR

JUMPER FOR LOCAL/STANDALONE
REMOVE JUMPER FOR REMOTE

RPI CONNECTION AUTO
SWITCHES ADDRS

REM_DRDY_IRQn
LCL_DRDY_IRQn
PROM_SDA
PROM_SCL

R4
4K7
1%
R5
4K7
1%

LOCAL/STND ADR: 0x22
REMOTE ADR: 0x23

J5
HDR_RM3100_1_7
J6
HDR_RM3100_8_14

SCL
SA1
SDA
SA0
DRDY
NC
AVSS
DVSS
AVDD
DVDD
NC
I2C_EN
NC
NC

LCL_DRDY

C11
100nF
16V

PNI-RM3100MAG

JUMPER 1-2 FOR LOCAL
JUMPER 2-3 FOR REMOTE
NO JUMPER FOR STANDALONE

JMP3
1x3_0.100_vert_JMP
LOC / RMT

R1
100R
0.5W
1%

U3
74LVC1G07

U2
74LVC1G06

Q1
IRLML6244TRPbF

R7
3K9
1%
R8
3K9
1%

U5
CAT24C32WI-GT3

SCL
SDA
A0
A1
A2
WP
VSS
VCC

R9
1K
1%
C9
100nF
16V

WREN
JMP5
1x2_0.100_vert_JMP

J13
Grove_1x4_0.100_vert - DNI
Build = DNI
GROVE DIGITAL

J11
QWIIC_1x4_1mm_ra - DNI
Build = DNI
QUIIC

J12
QWIIC_1x4_1mm_ra - DNI
Build = DNI
QUIIC

SCL
SDA
3V_QUIIC

U4
PNI-MAGI2C_13156 - DNI
Build = DNI

C17
100nF - DNI
16V
Build = DNI
C18
10uF - DNI
6.3V
Build = DNI

DVDD
DVDD
AVDD
MISO/SA1
I2CEN
SCLK/SCL
MOSI/SDA
SSN/SA0
DRDY
REXT
NC21
NC24
GND
AVSS
DVSS
GND
PAD

XINP
XDRVP
XDRVN
XINN
YINP
YDRVP
YDRVN
YINN
ZINP
ZDRVP
ZDRVN
ZINN

R17
33K - DNI
1%
Build = DNI

R18 121R - DNI 1% Build = DNI
R19 121R - DNI 1% Build = DNI
R20 121R - DNI 1% Build = DNI
R21 121R - DNI 1% Build = DNI
R22 121R - DNI 1% Build = DNI
R23 121R - DNI 1% Build = DNI

L2
SEN_XY-f_13104 - DNI
Build = DNI
L3
SEN_XY-f_13104 - DNI
Build = DNI
L4
SEN-Z-f 13101 - DNI
Build = DNI

U1
TLV70333DBVR

IN
OUT
EN
NC
GND

C1
100nF
16V
C2
1uF
16V
C3
100nF
16V
C4
10uF
6.3V

J8
1x2_0.100_vert_ramp - DNI
EXT 5V

J10
Conn_HDR_RA_PMOD - DNI
Build = DNI
PMOD

REM_DRDY_IRQn
LCL_DRDY_IRQn
SCL
SDA

U6
MCP9808T-E/MS

SCL
SDA
A0
A1
A2
ALERT
GND
VDD

LOCALn

C10
100nF
16V

LOCAL/STND ADR: 0x18
REMOTE ADR: 0x19

U7
PCA9615DPJ

VDDA
EN
SCL
SDA
VSS
VDDB
DSCLP
DSCLM
DSDAP
DSDAM

C12
100nF
16V
C13
100nF
16V

R11
390R
1%
R12
390R
1%
R13
100R
0.5W
1%
R15
390R
1%
R16
390R
1%
R14
100R
0.5W
1%

R6
0R - DNI
Build = DNI

REMOTE CABLE
J9
RJ45_SH-RA-NoLED

DSCL+
DSCL-
DSDA+
LD_TRIGn
CAB_5V
DSDA-
SH

JMP6
1x2_0.100_vert_JMP
SH GND

FB2
MMZ2012R601ATD25
PTC1
100mA
60V

C14
100nF
16V
C15
1nF
16V
C16
22uF
10V

MH3
2.75mm
MH4
2.75mm

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Design by Scotty Cowling WA2DFI

Zephyr Engineering Inc.

Title: TangerineSDR MagnetoPiHat

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