

MAX32620 Evaluation Kit

Evaluates: MAX32620, MAX32621

General Description

The MAX32620 evaluation kit (EV kit) provides a convenient platform for evaluating the capabilities of the MAX32620/MAX32621 microcontrollers. The EV kit also provides a complete, functional system ideal for developing and debugging applications. This EV kit supports both the MAX32620 and the MAX32621 (TPU enabled).

EV Kit Contents

- EV Kit Board with MAX32620 (or MAX32621) Microcontroller
- Olimex ARM-USB-TINY-H JTAG Debugger with JTAG Ribbon Cable (for Connecting from Debugger to EV Kit Header J1) and USB Standard A-to-B cable (for Connecting from PC to Debugger)
- Standard A-to-B Micro-USB Cable (for Connecting from PC or Stand-Alone USB Power Supply to EV Kit Micro-USB Type-B Connector CN2) Allows Connection from PC USB Host to MAX32620/21 USB Device Controller Peripheral
- Standard A-to-B Micro-USB Cable (for Connecting PC to EV Kit USB Connector CN1) Allows Virtual COM Port Interface to MAX32620/21 UART 0 or UART 1 via USB/UART Bridge

Ordering Information appears at end of data sheet.

Benefits and Features

- Easily Load and Debug Code Using the Supplied Olimex ARM-USB-TINY-H JTAG Debugger Connected via a Standard 20-Pin ARM JTAG Header
- Selectable Power Sources for PMIC Include USB Power via CN2, External Battery Through J2 Connector, or Bench Supply Through Test Points TP12 and TP13
- Selectable Power Source for On-Board Peripherals (Switches, LEDs, OLED Display, Bluetooth® LE Transceiver)
- Headers for Accessing MAX32620/21 I/O Pins and Analog Front End (AFE) Input Signals
- Micro-USB Type-B Connection to MAX32620/21 USB Device Controller
- Micro-USB Type-B Connection to USB-UART Bridge Selectable Between MAX32620/21 Internal UART 0 and UART 1
- MAX32620/21 Internal Real-Time Clock (RTC)
- On-Board Bluetooth 4.0 BLE Transceiver with Chip Antenna
- General-Purpose Pushbutton Switches and Indicator LEDs (All Connected to GPIOs) for User I/O
- Prototyping Matrix (0.1in Grid) with Integrated Power Rails for Customer Circuitry

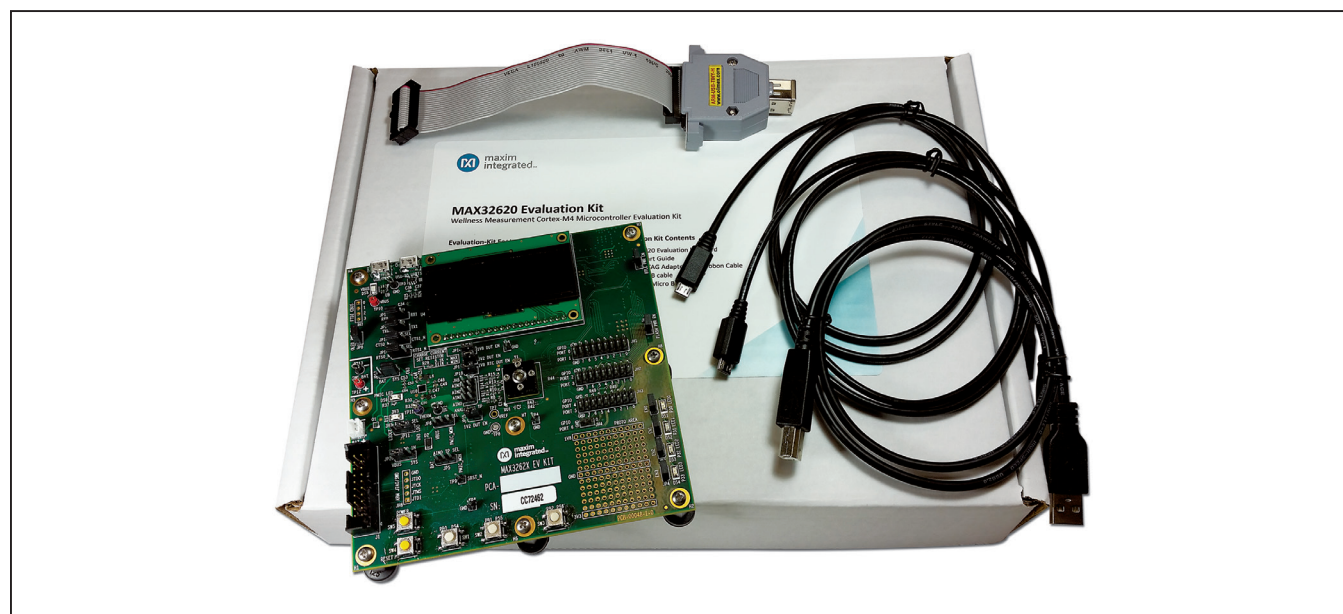


Figure 1. MAX32620 EV Kit Contents in Box

Bluetooth is a registered trademark of Bluetooth SIG, Inc.



Getting Started

- 1) While observing safe ESD practices, carefully remove the EV kit board out of its packaging. Quickly inspect the board to make sure that no damage occurred during shipment. Jumpers/shunts were pre-installed prior to testing and packaging. By default, they select the USB interface as the source of power for the EV kit board. See [Table 1](#) and [Figure 4](#) for the default jumper settings and descriptions.
- 2) The MAX32620/21 was preprogrammed with a demo program. To power up the board and run the demo, simply connect the Micro-USB cable to the Micro-USB jack found at the top left of the EV kit PCB. The jack is labeled **CN2**. The other end of the Micro-USB cable can be connected either to a computer **or** to a USB wall charger in order to get +5V power. No data is sent over USB in this demo.

- 3) Once power is applied, the demo will run. The demo displays text and graphics on the OLED display.
- 4) If the OLED display does not show a graphics screen, then verify that the USB port is supplying +5V.
- 5) Do not connect any of the additional USB cables or Olimex JTAG adapter until after the tool chain/drivers are installed.

If the demo ran as expected, then the next step is to download and run the installer as described in the Quick Start (separate document). The installer is a small application that allows users to select which components they would like to download and install including tools, drivers, and documentation. A description of each component and the hard drive size required for each can be seen by clicking on each component.

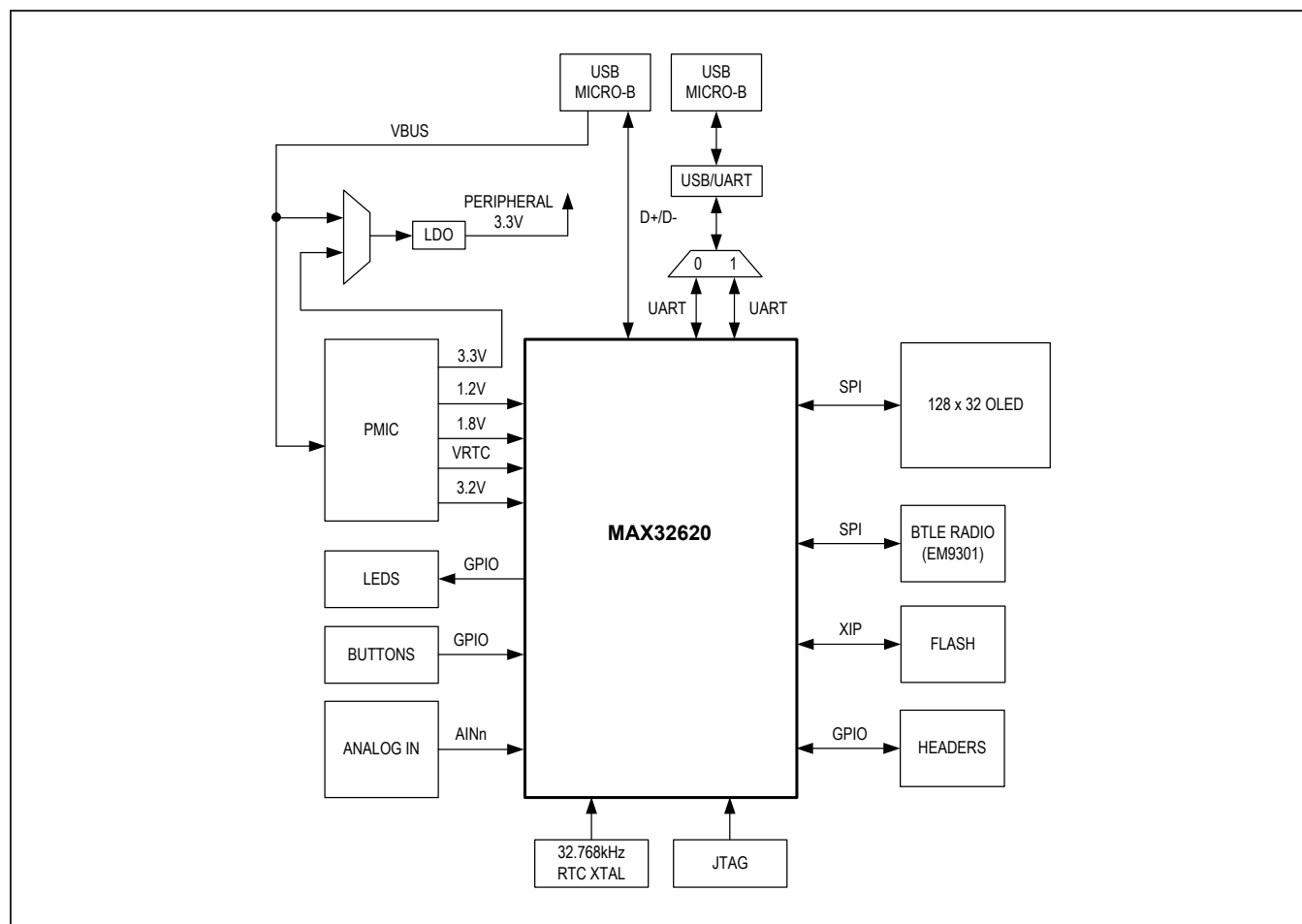


Figure 2. MAX32620 EV Kit Block Diagram

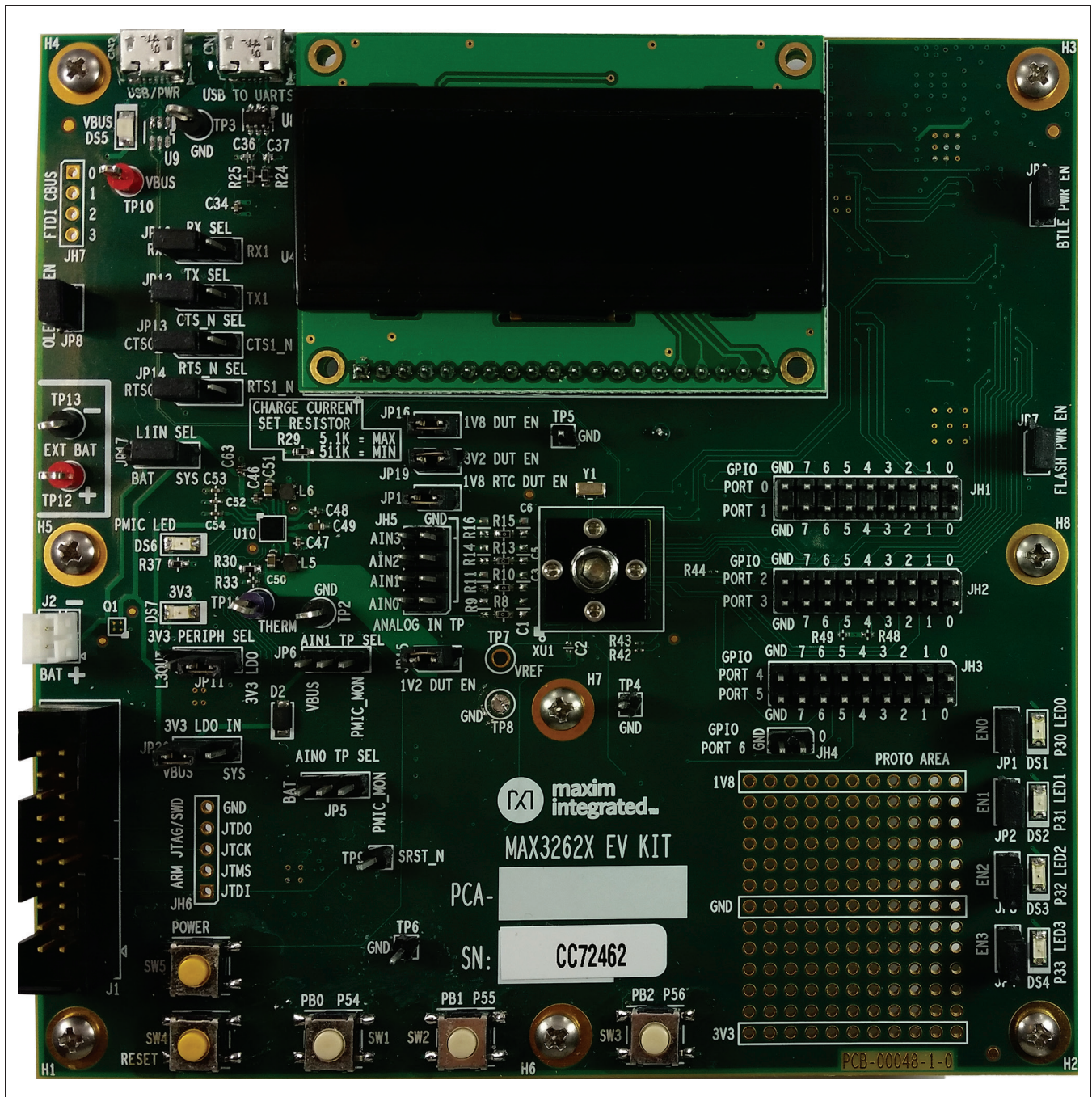


Figure 3. MAX32620 EV Kit Board

Detailed Description of Hardware

This section describes each major function or component on the MAX32620 EV kit. This EV kit is general-purpose in nature and provides many user-selectable options, which are described in the following sections. Each jumper setting is described and its default setting illustrated.

Board Power

The EV kit's main power-supply input is +5V, made available through Micro-USB type-B connector CN2. This is the default power source.

Current Monitoring

Jumpers JP15, JP16, JP18, and JP19 provide convenient current monitoring points for VDD12 (JP15), VRTC (JP18), VDDDB (JP19), and VDDA+VDD18 (JP16).

Pushbuttons

Pushbuttons (normally open) SW1, SW2, and SW3 can be used to generate a logic 0 signal on their corresponding GPIO port pins. Firmware defines the action taken on switch closure.

Pushbutton SW4 provides a global POR reset function for the MAX32620/21 by asserting the RSTN input.

Pushbutton SW5 controls the PFN1 input of the PMIC. The function of the PFN1 input is configurable. Refer to the MAX14690 IC data sheet for complete information.

USB

The MAX32620/21 provides an integrated USB2.0 full-speed interface (12Mbps). This interface is accessed through the Micro-USB type-B connector, CN2. This interface is also the default power source for the EV kit.

USB-UART Bridge

The EV kit board provides a USB-to-UART bridge chip, FTDI FT230X. This bridge eliminates the requirement for a physical RS-232 COM port. Instead, MAX32620/21 UART access is through the Micro-USB type-B connector, CN1. Virtual COM port drivers and guides for installing Windows® drivers are available at www.ftdichip.com. Default parameters are 115,200 baud, 8 bits, no parity, 1 stop bit, no flow control.

The USB-to-UART bridge can be connected to UART 0 or UART 1 of the MAX32620/21 with jumpers JP10 (RX), JP12 (TX), JP13 (CTS), and JP14 (RTS).

LEDs

The EV kit board has four LEDs with series current-limiting resistors. LEDs DS1 (red), DS2 (green), DS3

(red), and DS4 (green) are connected to MAX32620/21 GPIO pins P3.0, P3.1, P3.2, and P3.3, respectively. LED GPIOs should be configured as open drain due to 3.3V LED source voltages. An LED is illuminated when the appropriate GPIO pin is driven low.

Bluetooth Low-Energy (BLE) Controller

The EV kit board has a low-power Bluetooth controller, EM9301. Communication with the MAX32620/21 is through SPI 2B. This particular SPI port was selected due to the additional flow control signals that it features. The EM9301 controller is Bluetooth specification V4.0 compliant. Refer to the EM Microelectronic EM9301 data sheet for additional details.

Clocking

The MAX32620/21 operate from an internal 96MHz relaxation oscillator. The internal oscillator is adequate to run the core digital logic and peripherals. The accuracy of the internal oscillator is not suitable for accurate RTC timekeeping or USB operation. The external 32.768kHz crystal, Y1, provides the RTC with an accurate time base and is also used to calibrate the internal oscillator for the accuracy required for USB operation.

JTAG Connector

The ARM standard 20-pin connector pinout is provided by shrouded header J1. Various debugger modules are available for this interface. The Olimex ARM-USB-TINY-H debugger is supplied with the EV kit.

Graphic OLED Display Module

A 128 x 32 pixel graphic OLED display module, NHD-2.23-12832UCB3, is provided on the EV kit board. Communications with the NHD-2.23-12832UCB3 is through SPI 2A.

Power Management IC (PMIC)

The MAX14690 manages the EV kit power rails. It also manages the selection of EV kit power from either VBUS from CN2 or an (optional) external lithium-ion polymer battery. The MAX14690 can also function as a battery charger. Refer to the MAX14690 IC data sheet for additional information.

Prototyping Area

An area for adding customer-specific circuitry is provided. This matrix is on a 0.1in spacing and is usable for solder or wire-wrap construction. Power and ground rails run through the matrix.

Windows is a registered trademark and service mark of Microsoft Corp.

Jumper Descriptions

[Table 1](#) details the functions of the configurable jumper headers on the EV kit board. The headers are standard 0.1in spacing, 0.025in posts. Settings in [Table 1](#) marked with an asterisk (“*”) indicate default placements. [Figure 4](#) also shows the default placements highlighted in red.

Table 1. Jumper Functions and Default Settings

JUMPER	SETTING	EFFECT OF SETTING
JP1 EN0	Open	Connection broken between MAX32620 GPIO3.0 and LED0.
	Closed*	Connection enabled between MAX32620 GPIO3.0 and LED0.
JP2 EN1	Open	Connection broken between MAX32620 GPIO3.1 and LED1.
	Closed*	Connection enabled between MAX32620 GPIO3.1 and LED1.
JP3 EN2	Open	Connection broken between MAX32620 GPIO3.2 and LED2.
	Closed*	Connection enabled between MAX32620 GPIO3.2 and LED2.
JP4 EN3	Open	Connection broken between MAX32620 GPIO3.3 and LED3.
	Closed*	Connection enabled between MAX32620 GPIO3.3 and LED3.
JP5 AIN0 TP SEL	1-2	Connect MAX32620 AIN0 and BAT.
	2-3	Connect MAX32620 AIN0 and PMIC_MON.
JP6 AIN1 TP SEL	1-2	Connect MAX32620 AIN1 to VBUS.
	2-3	Connect MAX32620 AIN1 to PMIC_MON.
JP7 FLASH PWR EN	Open	Connection broken between 1.8V and FLASH VCC. The FLASH is disabled.
	Closed*	Connection enabled between 1.8V and FLASH VCC.
JP8 OLED PWR EN	Open	Connection broken between 3.3V and OLED display VDD.
	Closed*	Connection enabled between 3.3V and OLED display VDD.
JP9 BTLE PWR EN	Open	Connection broken between 3.3V and the EM9301 BLE controller. The controller is disabled.
	Closed*	Connection enabled between 3.3V and the EM9301 BLE controller.
JP10 RX SEL	1-2*	Connection enabled between MAX32620 UART 0 RX and FT230XS TXD.
	2-3	Connection enabled between MAX32620 UART 1 RX and FT230XS TXD.
JP11 3.3V PERIPH SEL	1-2	Connection enabled between PMIC L3OUT and 3.3V peripherals.
	2-3*	Connection enabled between LDO U11 and 3.3V peripherals.
JP12 TX SEL	1-2*	Connection enabled between MAX32620 UART 0 TX and FT230XS RXD.
	2-3	Connection enabled between MAX32620 UART 1 TX and FT230XS RXD.
JP13 CTS SEL	1-2*	Connection enabled between MAX32620 UART 0 CTS and FT230XS RTX.
	2-3	Connection enabled between MAX32620 UART 1 CTS and FT230XS RTS.
JP14 RTS SEL	1-2*	Connection enabled between MAX32620 UART 0 RTS and FT230XS CTS.
	2-3	Connection enabled between MAX32620 UART 1 RTS and FT230XS CTS.
JP15 1.2V DUT EN	Open	Connection broken between PMIC B1OUT (1.2V) and MAX32620 VDD12.
	Closed*	Connection enabled between PMIC B1OUT (1.2V) and MAX32620 VDD12.
JP16 1.8V DUT EN	Open	Connection broken between PMIC B2OUT (1.8V) and MAX32620 VDD18.
	Closed*	Connection enabled between PMIC B2OUT (1.8V) and MAX32620 VDD18.

Table 1. Jumper Functions and Default Settings (continued)

JUMPER	SETTING	EFFECT OF SETTING
JP17 L1IN SEL	1-2	Connection enabled between BAT and PMIC L1IN input.
	2-3*	Connection enabled between PMIC SYS and PMIC L1IN input.
JP18 1.8V RTC DUT EN	Open	Connection broken between PMIC L1OUT (1.8V) and MAX32620 VRTC input.
	Closed*	Connection enabled between PMIC L1OUT (1.8V) and MAX32620 VRTC input.
JP19 3.2V DUT EN	Open	Connection broken between PMIC L2OUT (3.2V) and MAX32620 VDDb input.
	Closed*	Connection enabled between PMIC L2OUT (3.2V) and MAX32620 VDDb input.
JP20 3.3V LDO IN	1-2*	Connection enabled between CN2-VBUS and 3.3V LDO input.
	2-3	Connection enabled between PMIC-SYS and 3.3V LDO input.

*Default setting.

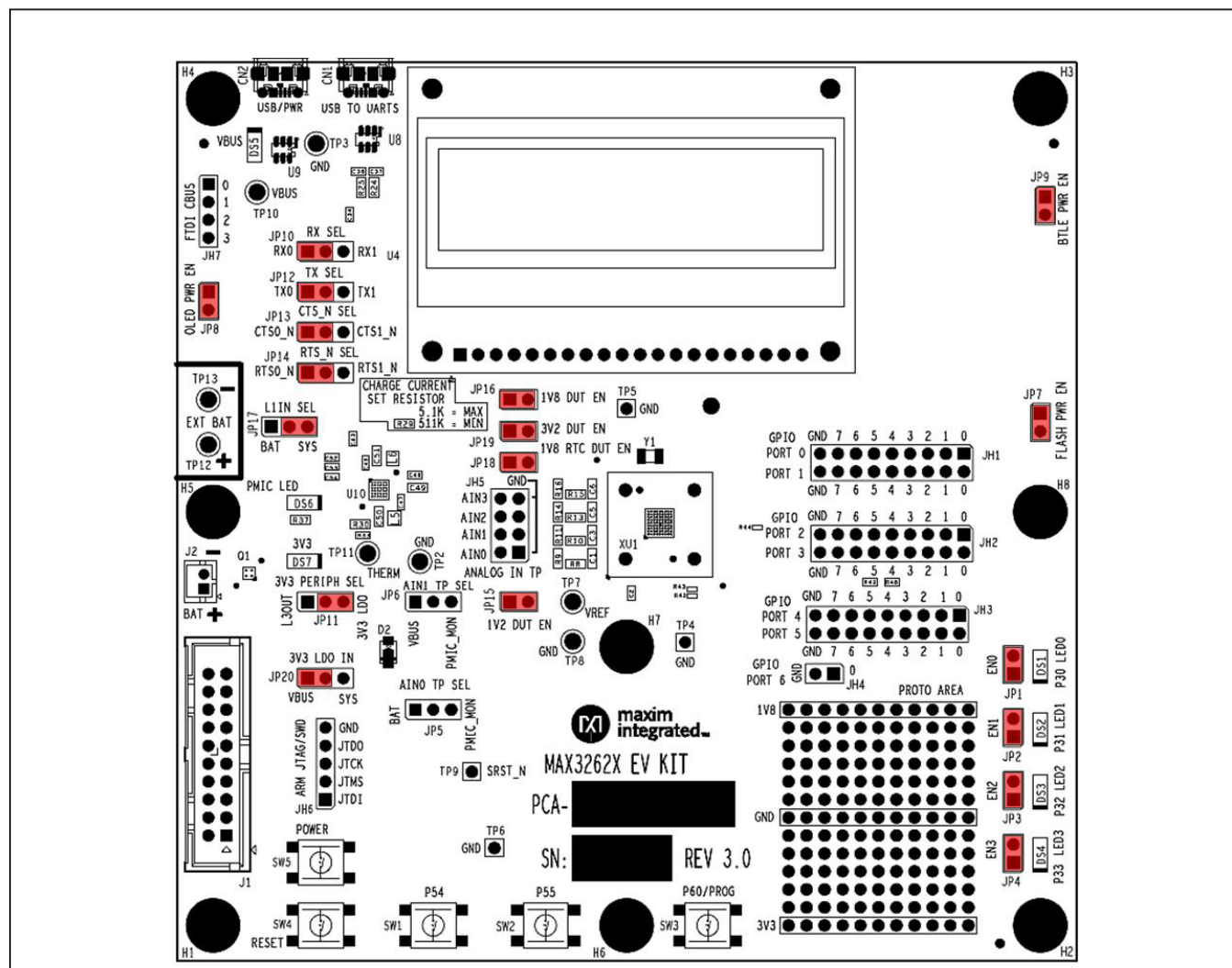


Figure 4. Default Jumper Placement

Additional Resources

- MAX32620 EV Kit Quick Start
- MAX32620 EV Kit Data Sheet (this document)
- MAX32620 EV Kit Schematics (attached to this PDF) (see note)
- MAX32620/MAX32621 IC Data Sheet (see note)
- MAX32620/MAX32621 User's Guide (see note)
- ARM® Cortex® Toolchain User's Guide – README (see note)
- MAX32620/21 CMSIS Libraries – Firmware User's Guide (see note)
- Example projects and app notes describing them (see note)

Component List and Schematics

See the following links for component information and schematics:

- [MAX3262x EV BOM](#)
- [MAX3262x EV Schematics](#)

Note: A lot of valuable information resides in the **MAX32620 Resources** component of the Installer. Once this component is installed, the information can then be found in the Windows **Start** menu under **Maxim Integrated**, or it can be found by exploring the installation directory. Documentation is “fetched” at the time of installation in order to assist offline development. However, it is recommended to visit www.maximintegrated.com to check if updates have been made to any of the documents.

Technical Support

For technical support, go to:

<http://support.maximintegrated.com/micro>.

Ordering Information

PART	TYPE
MAX32620-EVKIT#	EV Kit

#Denotes RoHS compliant.

ARM is a registered trademark and registered service mark and Cortex is a registered trademark of ARM Limited.

Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	4/15	Initial release	—

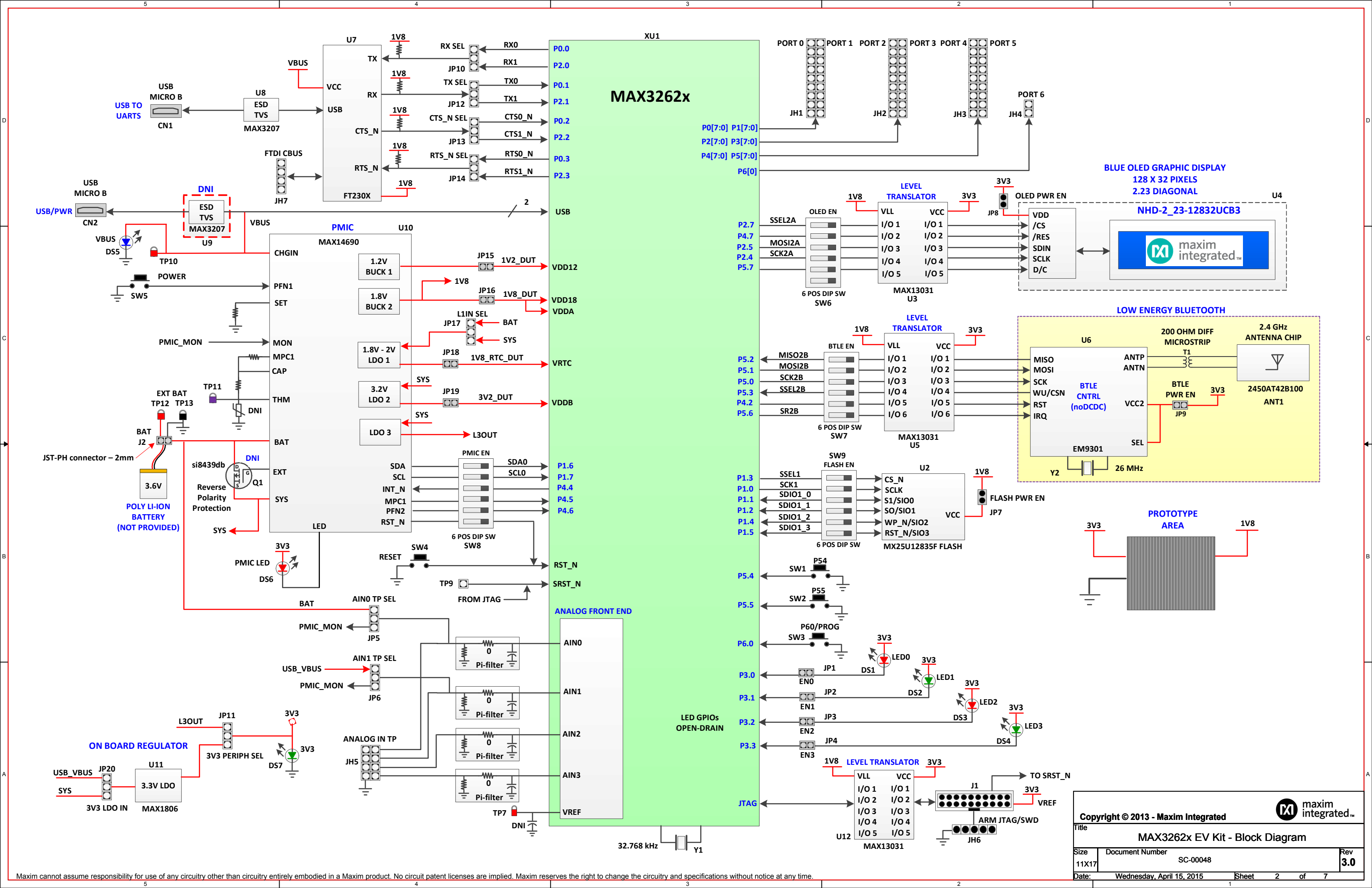
For pricing, delivery, and ordering information, please contact Maxim Direct at 1-888-629-4642, or visit Maxim Integrated's website at www.maximintegrated.com.

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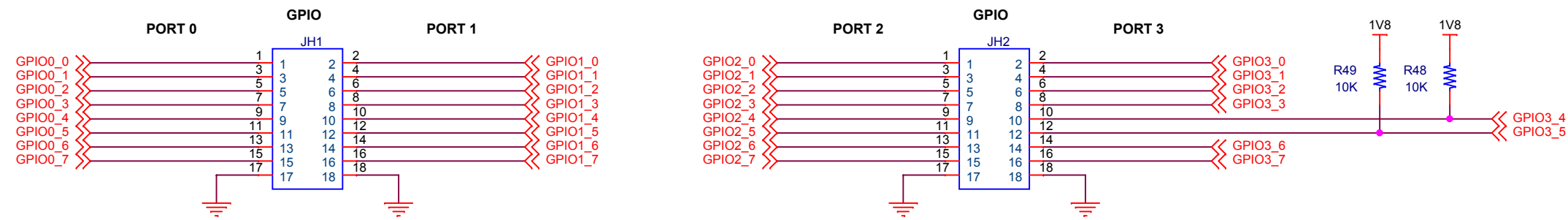
Bill of Materials (BOM) (Rev 0, 4/15)

Reference	Qty	Value	BOM_Description	Manufacturer_PN
ANT1	1	2450AT42B100S	ANTENNA CHIP 2.4GHZ 5020 SMT	2450AT42B100MS
BMP1, BMP2, BMP3, BMP4, BMP5, BMP6, BMP7, BMP8	8	RB Bump	BUMPER RECESSED #4 SCREW BLACK	720
C1, C3, C5, C6	4	DNI	DNI	N/A
C2	1	DNI	CAP CER 0.1UF 10V 10% X5R 0402	GRM155R61A104KA01D
C4	1	DNI	CAP CER 30pF 50V 5% NP0 0603	C0603C300J5GACTU
C12, C33	2	4700pF	CAP CER 4700PF 25V 10% X7R 0402	GRM155R71E472KA01D
C10, C13, C14, C17, C18, C21, C24, C26, C29, C34, C39, C40, C42, C45, C58, C60, C61	17	100nF	CAP CER 0.1UF 10V 10% X5R 0402	GRM155R61A104KA01D
C15	1	DNI	CAP CER 4700PF 25V 10% X7R 0402	GRM155R71E472KA01D
C16, C19, C27, C31, C59	5	1uF	CAP CER 1uF 16V 10% X7R 0603	GCM188R71C105KA64D
C22, C23	2	15pF	CAP CER 15PF 50V 5% NP0 0402	GRM1555C1H150JA01D
C25	1	47uF	CAP CER 47uF 6.3V 20% X5R 1206	C3216X5R0J476M
C30, C32	2	100pF	CAP CER 100PF 50V 5% NP0 0402	C1005C0G1H101J050BA
C35, C44	2	10nF	CAP CER 10nF 25V 10% X7R 0603	GRM188R71E103KA01D
C36, C37	2	47pF	CAP CER 47PF 50V 1% NP0 0402	C1005C0G1H470F050BA
C38	1	4.7uF	CAP CER 4.7uF 10V 10% X5R 0603	C0603C475K8PACTU
C41	1	100nF	CAP CER 0.1uF 16V 10% X7R 0603	C0603C104K4RACTU
C43	1	1uF	CAP CER 1UF 35V 10% X5R 0603	GMK107BJ105KA-T
C7, C8, C9, C11, C46, C47, C48, C52, C53, C54, C56, C62, C63	13	1uF	CAP CER 1UF 6.3V 10% X5R 0402	C1005X5R0J105K050BB
C49, C50, C51	3	22uF	CAP CER 22UF 4V 20% X5R 0603	AMK107BJ226MA-T
C55	1	22uF	CAP CER 22uF 6.3V 20% X5R 1206	C3216X5R0J226M/0.85
C57	1	10uF	CAP CER 10UF 6.3V 20% X5R 0603	CL10A106MQ8NNNC
C64	1	DNI	DNI	N/A
CN1, CN2	2	MICRO USB B R/A	CONN RCPT 5POS MICRO USB B R/A	105017-0001
D2	1	DFLS230L-7	DIODE SCHOTTKY 30V 2A POWERDI123	DFLS230L-7
DS1, DS3, DS6	3	RED	LED 660NM RED WTR CLR 1206 SMD	SML-LX1206SRC-TR
DS2, DS4, DS7	3	GRN	LED 565NM WTR CLR GREEN 1206 SMD	SML-LX1206GC-TR
DS5	1	BLUE	LED 469NM BLUE DIFF 1206 SMD	HSMR-C150
HDR1	1	20P 1x20	CONN HEADER .100 SINGL STR 20POS (1x20)	PEC20SAAN
J1	1	20P 10x2	CONN HEADER LOPRO STR GOLD 20POS SHROUD	5103308-5
J2	1	2POS 2MM	CONN HEADER PH TOP 2POS 2MM	B2B-PH-K-S(LF)(SN)
JH1, JH2, JH3	3	18P 2x9	CONN HEADER .100 DUAL STR 18POS (2x9)	PEC09DAAN
JH4	1	2P 1x2	CONN HEADER .100 SINGL STR 2POS (1x2)	PEC02SAAN
JH5	1	8P 2x4	CONN HEADER .100 DUAL STR 8POS (2x4)	PEC04DAAN
JH6	1	DNI	CONN HEADER .100 SINGL STR 5POS (1x5)	PEC05SAAN
JH7	1	DNI	CONN HEADER .100 SINGL STR 4POS (1x4)	PEC04SAAN
JP1, JP2, JP3, JP4, JP7, JP8, JP9, JP15, JP16, JP18, JP19	11	JUMPER	CONN HEADER .100 SINGL STR 2POS (2x1)	PEC02SAAN
JP5, JP6, JP10, JP11, JP12, JP13, JP14, JP17, JP20	9	3P 3x1	CONN HEADER .100 SINGL STR 3POS (3x1)	PEC03SAAN
JP1, JP2, JP3, JP4, JP7, JP8, JP9, JP10(1-2), JP11(2-3), JP12(1-2), JP13(1-2), JP14(1-2), JP15, JP16, JP17(2-3), JP18, JP19, JP20(2-3)	18	SHUNT	SHORTING SHUNT/JUMPER	STC02SYAN
L1	1	3.3nH	INDUCTOR MULTILAYER 3.3NH 0402	MLK1005S3N3ST000
L2	1	1.5nH	INDUCTOR MULTILAYER 1.5NH 0402	MLK1005S1N5ST000

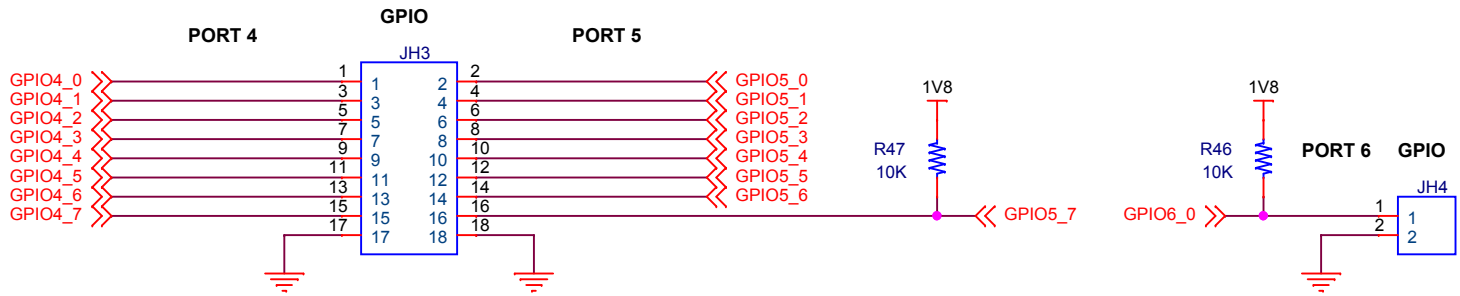
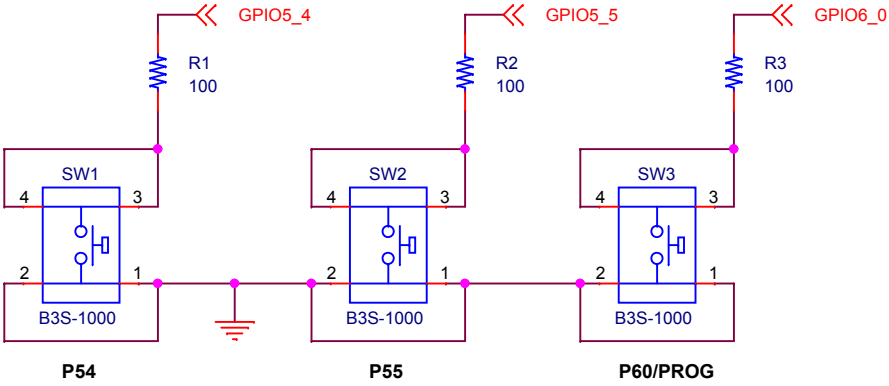
L3, L4	2	HZ1206C202R-10	FERRITE CHIP SIGNAL 2000 OHM SMD 1206	HZ1206C202R-10
L5, L6	2	2.2uH	INDUCTOR POWER 2.2UH 1.05A SMD	VLS201610ET-2R2M
MS1, MS2, MS3, MS4, MS5, MS6, MS7, MS8, MS9, MS10, MS11, MS12, MS13, MS14, MS15, MS16	16	Screw Steel	MACHINE SCREW PAN PHILLIPS 4-40	PMSSS 440 0025 PH
MST1, MST2, MST3, MST4, MST5, MST6, MST7, MST8	8	STANDOFF	HEX STANDOFF 4-40 ALUMINUM 5/8"	1808
PCB1	1	PCB	MAX3262X NIMITZ EV KIT Eagle Circuits	PCB-00048-1-0
PROTO1	1	DNI	Proto Type Area 11x13 (0.1" LS)	N/A
Q1	1	DNI	MOSFET P-CH 8V MICROFOOT 4P UFBGA	SI8439DB-T1-E1
R1, R2, R38	3	100	RES 100 OHM 1/10W 1% 0603 SMD	ERJ-3EKF1000V
R4, R6, R37	3	470	RES 470 OHM 1/10W 1% 0603 SMD	ERJ-3EKF4700V
R5, R7	2	332	RES 332 OHM 1/10W 1% 0603 SMD	ERJ-3EKF3320V
R8, R10, R13, R15	4	0	RES 0.0 OHM 1/10W JUMP 0603 SMD	ERJ-3GEY0R00V
R3, R9, R11, R14, R16	5	DNI	DNI	N/A
R12	1	DNI	RES 62 OHM 1/10W 1% 0402 SMD	ERJ-2RKF62R0X
R17, R19, R21, R23, R26, R27, R28, R50	8	10K	RES 10K OHM 1/10W 1% 0603 SMD	ERJ-3EKF1002V
R18, R22, R40	3	4.75K	RES 4.75K OHM 1/10W 1% 0603 SMD	ERJ-3EKF4751V
R20	1	27K	RES 27K OHM 1/10W 1% 0402 SMD	ERJ-2RKF2702X
R24, R25	2	27	RES 27 OHM 1/10W 1% 0603 SMD	ERJ-3EKF27R0V
R29	1	511K	RES 511K OHM 1/10W 1% 0603 SMD	ERJ-3EKF5113V
R30	1	100K	RES 100K OHM 1/10W 1% 0603 SMD	ERJ-3EKF1003V
R31	1	2.7K	RES 2.7K OHM 1/10W 1% 0603 SMD	ERJ-3EKF2701V
R32, R34, R35, R39, R41, R46-R49	9	10K	RES 10K OHM 1/10W 1% 0402 SMD	ERJ-2RKF1002X
R33	1	100K	THERMISTOR 100K OHM NTC 0402 SMD	NCP15WF104F03RC
R36	1	DNI	RES 4.7K OHM 1/10W 1% 0402 SMD	ERJ-2RKF4701X
R42, R43, R44, R45	4	0	RES 0.0 OHM 1/20W JUMP 0201 SMD	ERJ-1GN0R00C
SW1, SW2, SW3	3	B3S-1000	SWITCH TACTILE SPST-NO 0.05A 24V	B3S-1000
SW4, SW5	2	B3S-1002 BY OMZ	SWITCH TACTILE SPST-NO 0.05A 24V	B3S-1002 BY OMZ
SW6, SW7, SW8, SW9	4	DIP SW 6POS SMT	SWITCH DIP 6POS HALF PITCH SMD	TDA06H0SB1R
T1	1	2450BL15B200	BALUN 2.4GHZ WIFI/BLUETOOTH 805	2450BL15B200E
TP1, TP2, TP3, TP13	4	BLK	TEST POINT PC MULTI PURPOSE BLK	5011
TP4, TP5, TP6, TP9	4	1P	CONN HEADER .100 SINGL STR 1POS	PEC01SAAN
TP7	3	DNI	TEST POINT PC MULTI PURPOSE RED	5010
TP8	1	DNI	TEST POINT PC MULTI PURPOSE BLK	5011
TP10, TP12	2	RED	TEST POINT PC MULTI PURPOSE RED	5010
TP11	1	PRPL	TEST POINT PC MULTI PURPOSE PRPL	5129
U2	1	MX25U12835FZ2I-10G	IC FLASH 128MBIT 104MHZ 8WSON (8x6)	MX25U12835FZ2I-10G
U3, U5, U12	3	MAX13030EETE+	6-Channel High-Speed Logic Translators 16P TQFN	MAX13030EETE+
U4	1	NHD-2.23-12832UCB3	LCD OLED GRAPHIC 128 X 32 BLUE (63.2 x 43.1) mm	NHD-2.23-12832UCB3
U6	1	EM9301V02LF024B+	BLE Controller without DCDC	EM9301V02LF024B+
U7	1	FT230XS-R	IC USB SERIAL BASIC UART 16SSOP	FT230XS-R
U8	1	MAX3207EAUT+	ESD PROT DIFF SOT23-6	MAX3207EAUT+
U9	1	DNI	ESD PROT DIFF SOT23-6	MAX3207EAUT+
U10	1	MAX14690EWX+	MAX14690 PMIC 36P WLP	MAX14690EWX+
U11	1	MAX1806EUA33+	IC REG LDO 3.3V/ADJ 0.5A 8UMAX	MAX1806EUA33+
XU1	1	MAX32620 SOCKET	MAX32620 ME02 NIMITZ 81P WLP SKT C13951	C13951 IRONWOOD
Y1	1	32.768kHz	CRYSTAL 32.768KHZ 6.0PF 3.2x1.5 SMD	ABS07-32.768KHZ-6-T
Y2	1	26MHz	CRYSTAL 26MHZ 10PF 3.2x2.5 SMD	ABM8-26.000MHZ-10-1-U-T



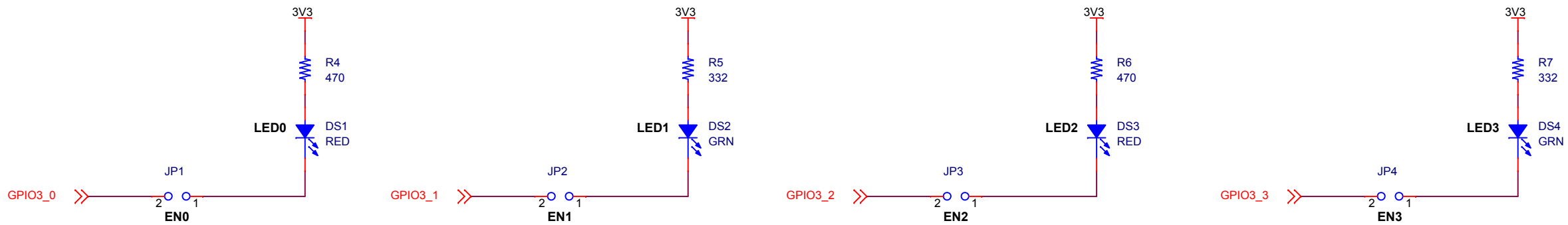
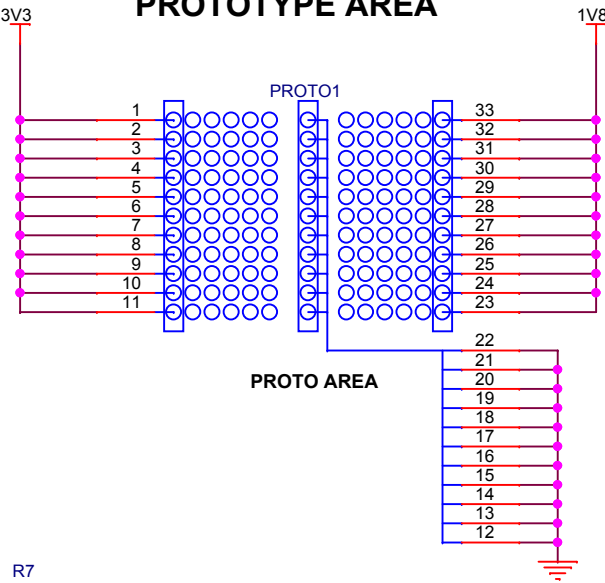
GPIO HEADERS



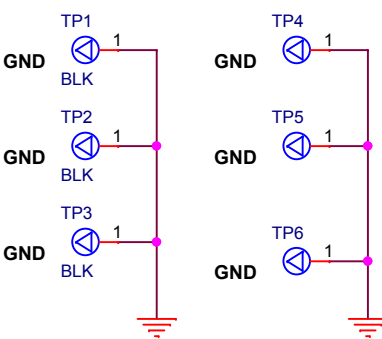
GENERAL PURPOSE PB SWITCHES

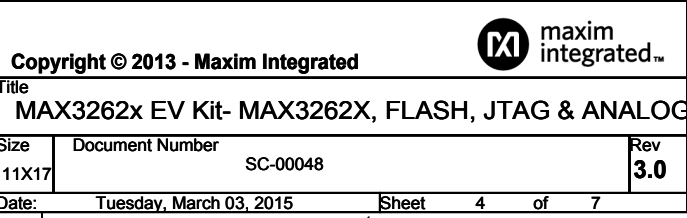


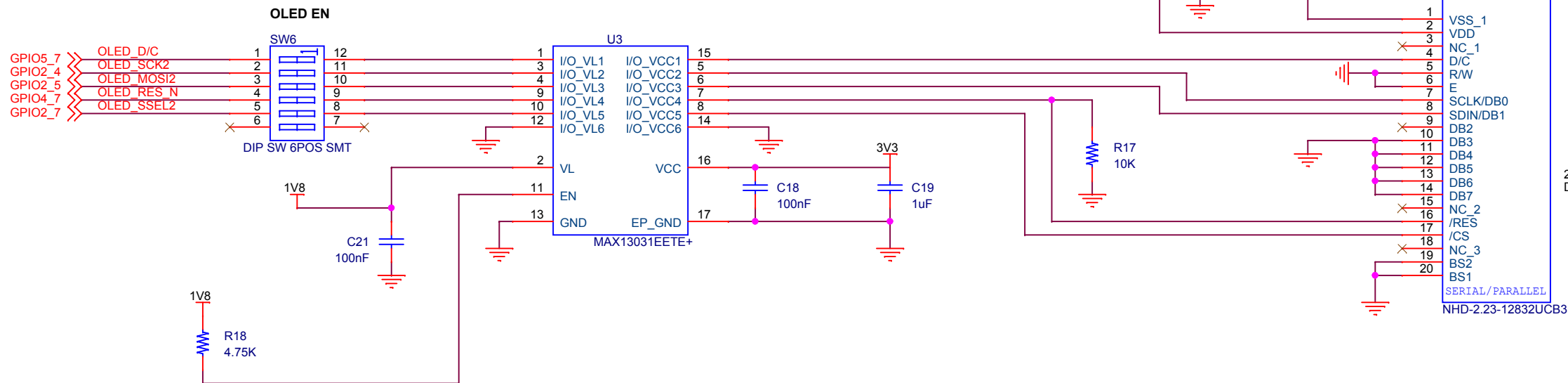
PROTOTYPE AREA



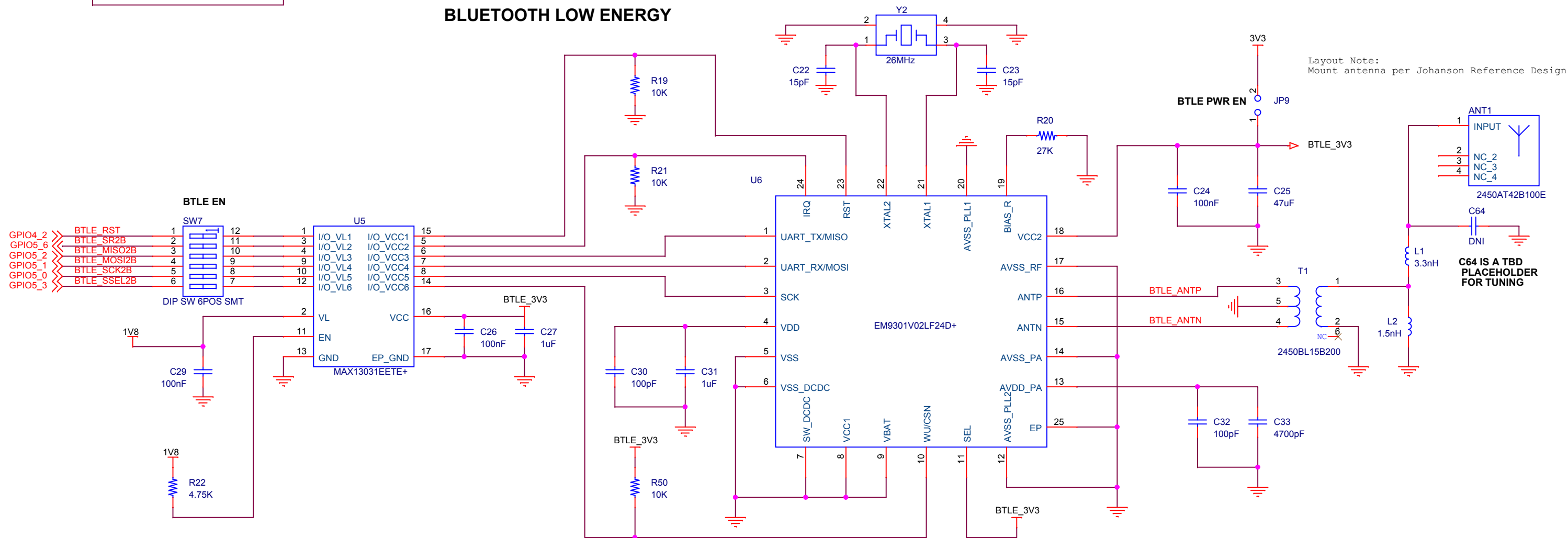
GENERAL PURPOSE LEDs
(NOTE: Configure GPIOs as open-drain due to LED 3.3V supply voltage)

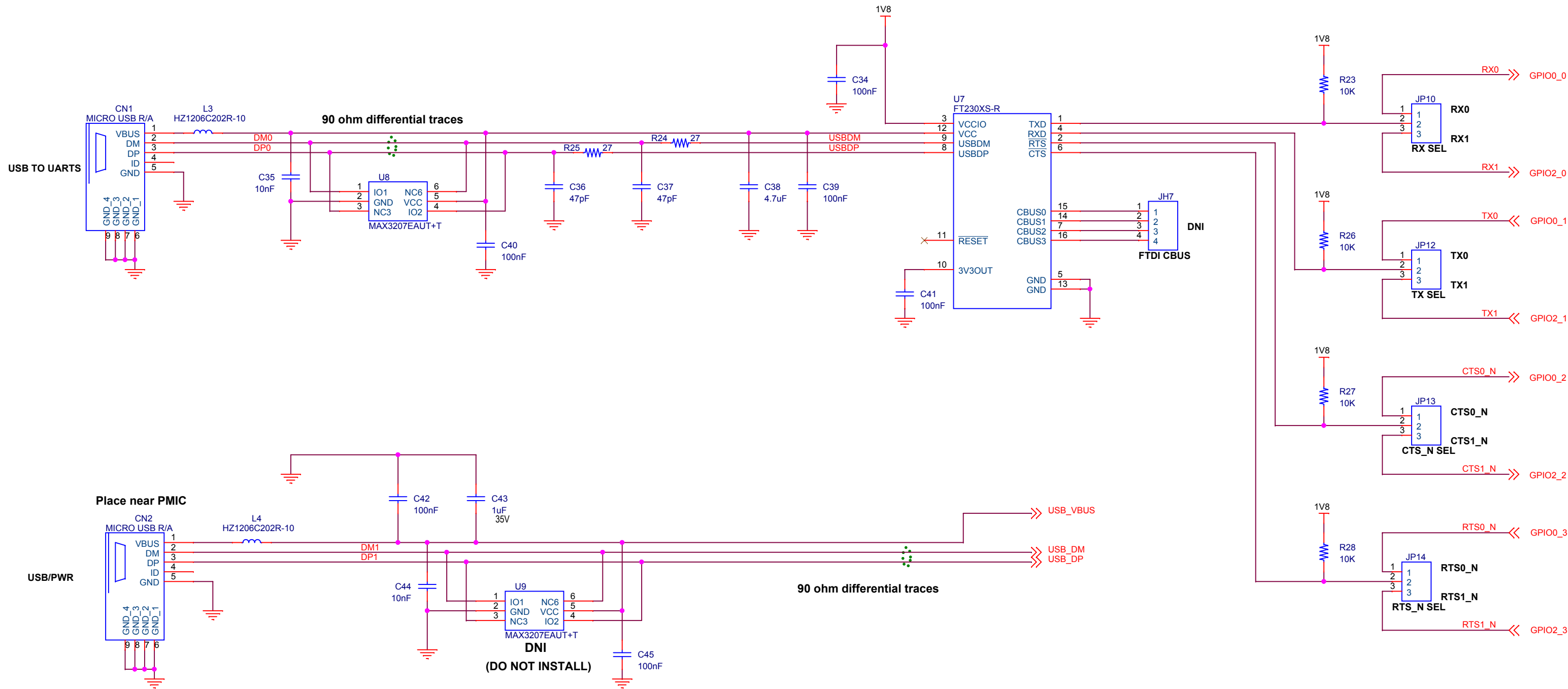


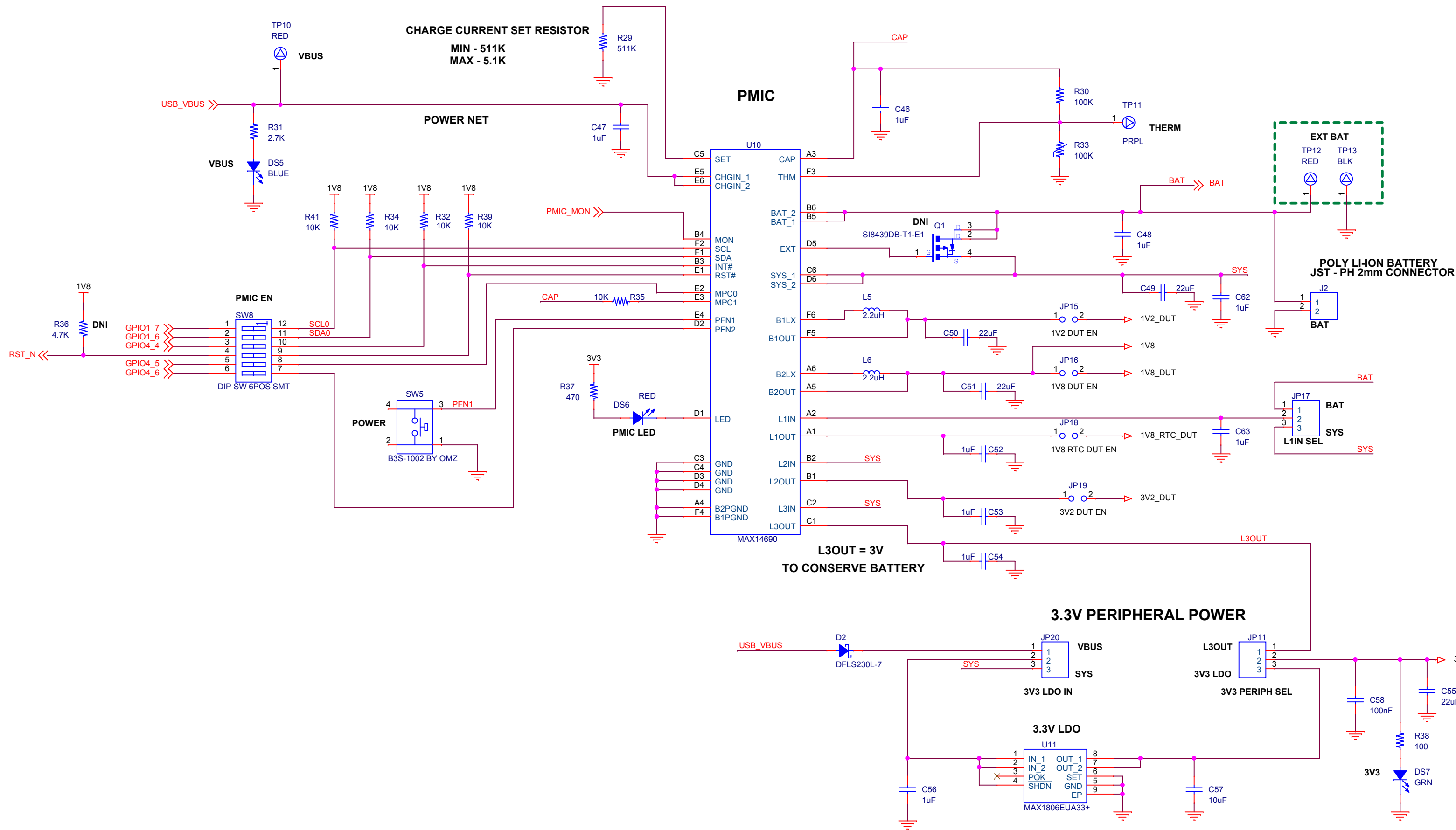




BLUETOOTH LOW ENERGY







Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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