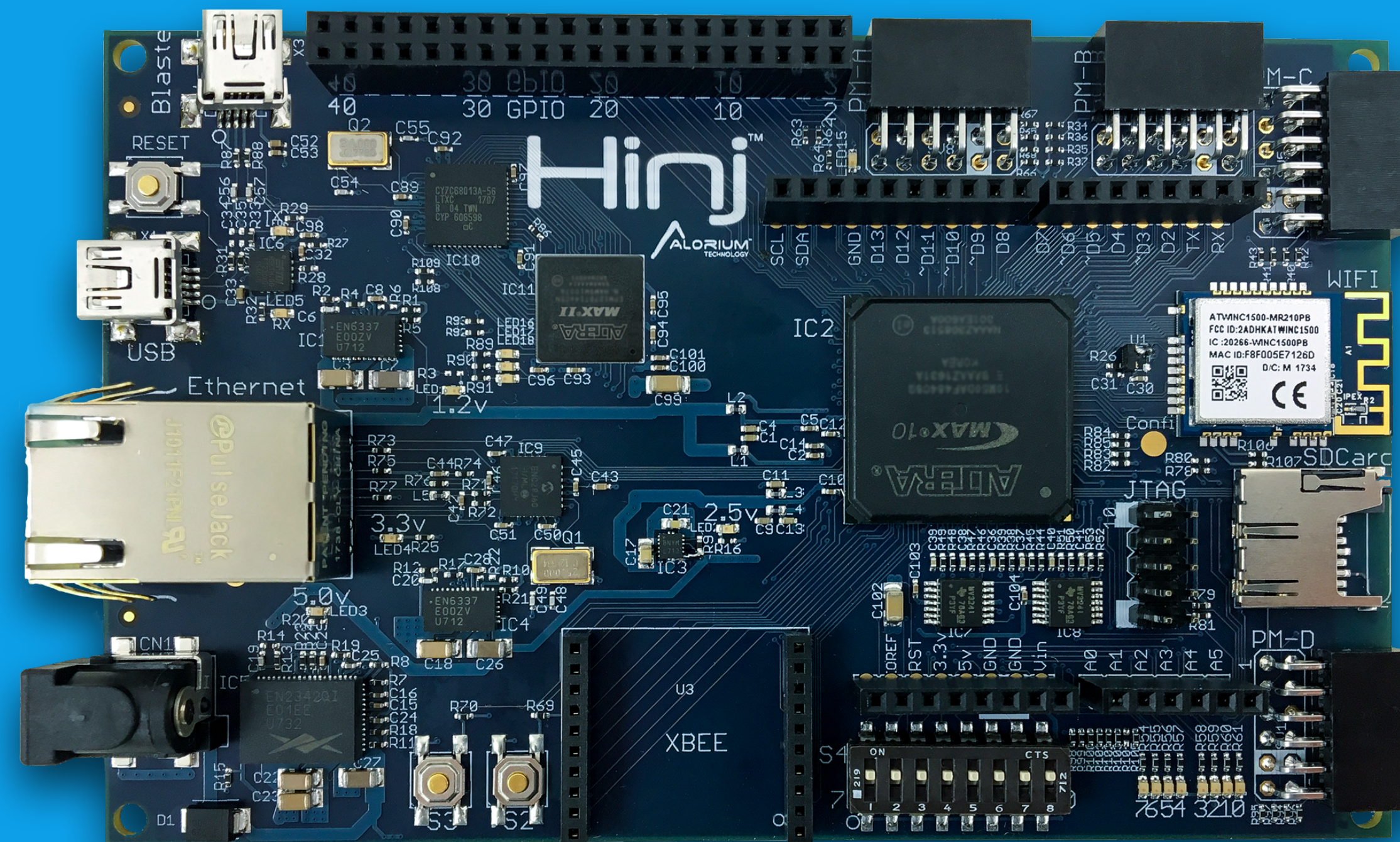
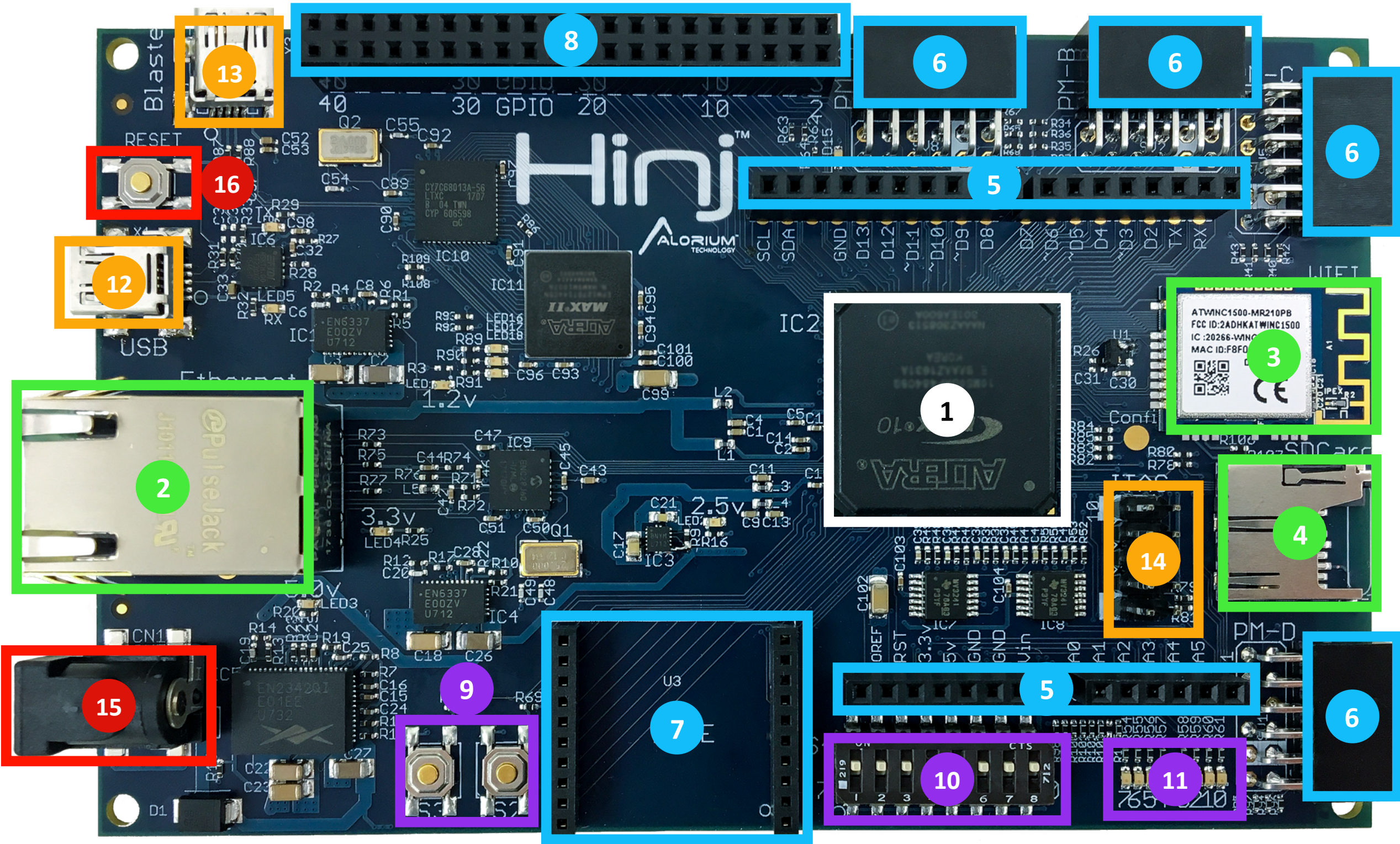


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Intel MAX 10
IoT Sensor Hub
Development Board

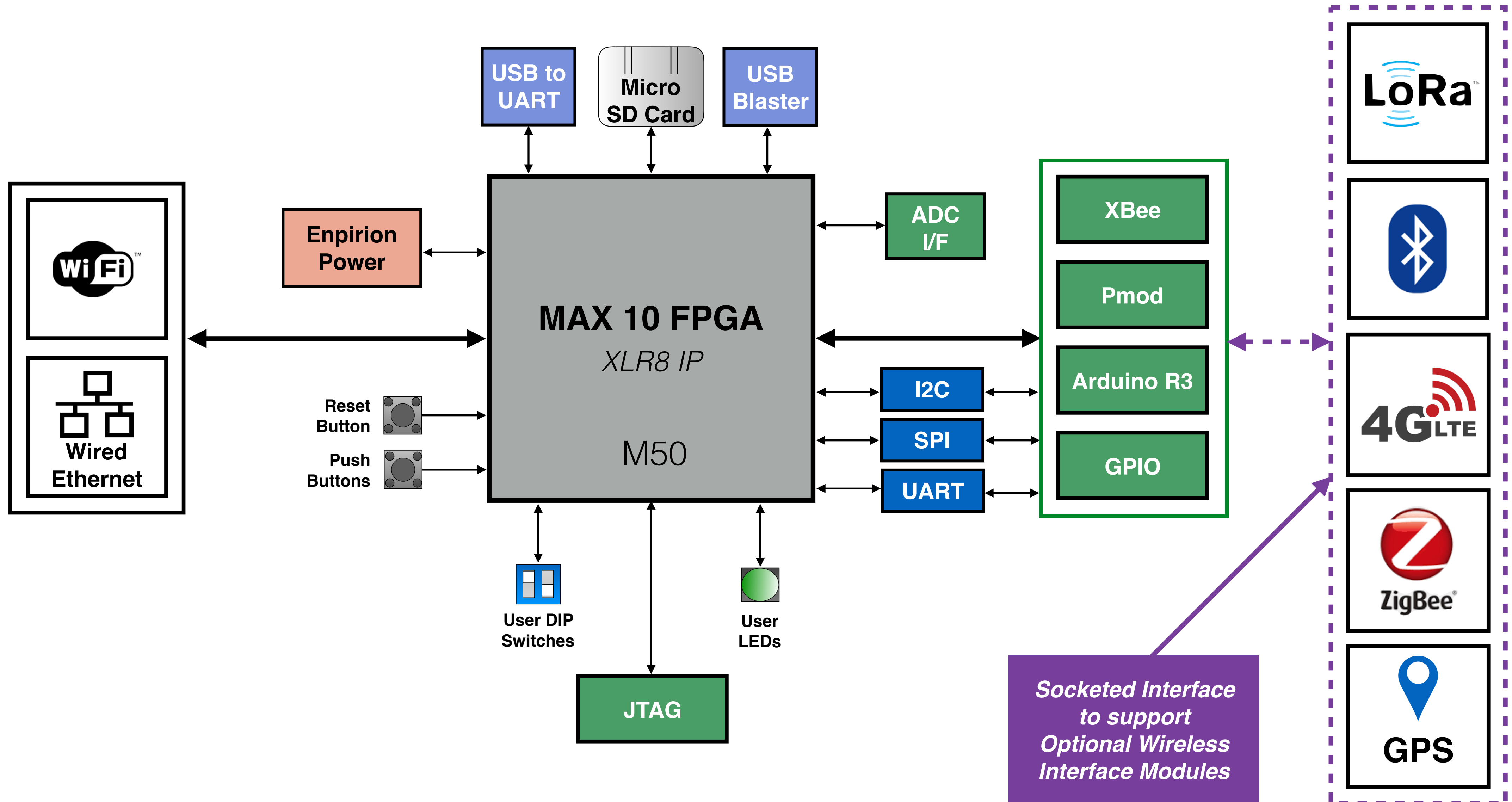


ID	Description
1	Intel MAX 10 FPGA
2	Ethernet Port
3	WiFi Module
4	MicroSD Card Slot
5	Arduino R3 Headers
6	PMOD Interfaces
7	XBEE Module Header
8	GPIO Interface



ID	Description
9	User Configurable Buttons
10	Assignable Switches
11	Programmable LED Bank
12	USB UART
13	Integrated USB Blaster
14	JTAG Interface
15	Barrel Connector Power Jack
16	Reset Button

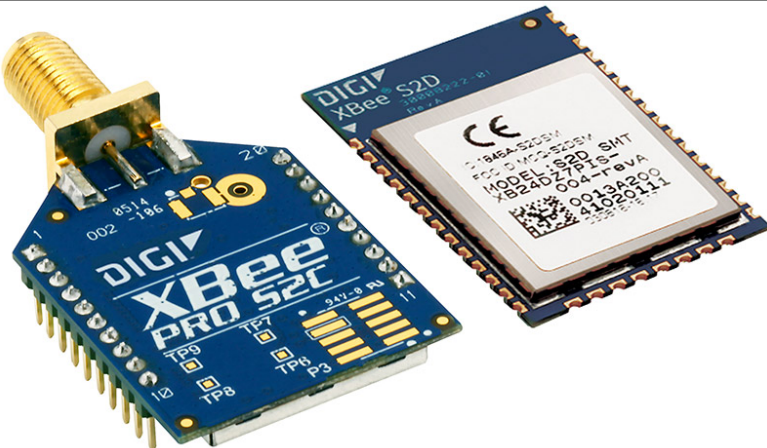
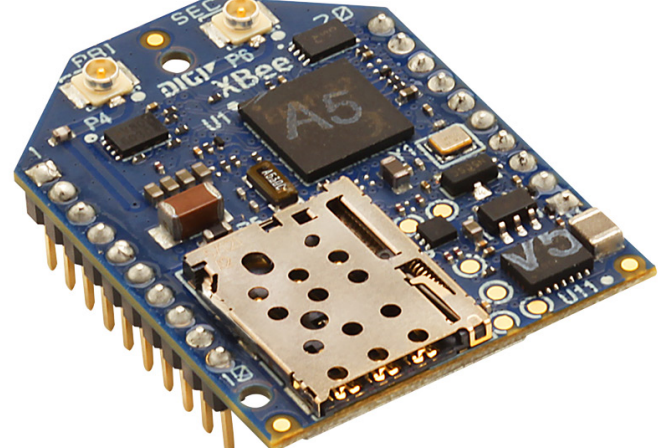
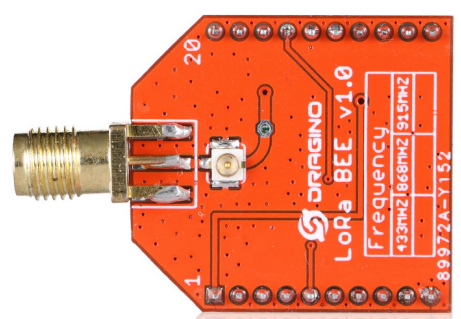
Hinj Block Diagram



Key Features / Specifications

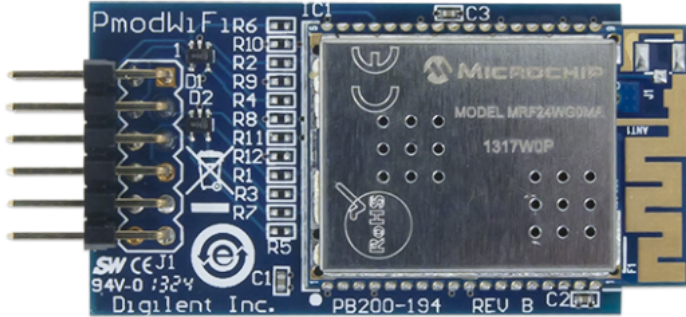
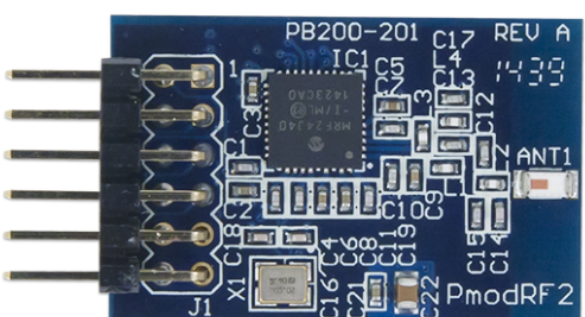
- **Based on Alorium's XLR8 AVR-compatible IP**
 - Maintains Arduino compatibility
 - Opens door to Arduino developer market
 - Natural transition from Arduino-based projects to FPGA-powered solutions
- **Wired & Wireless Modules**
 - Wifi and Ethernet based on pre-certified modules
 - Leverages existing FCC testing/certifications
- **Socketed interface to support additional communication options including:**
 - LoRa - ZigBee
 - BLE - GPS
 - 4G Cellular - SigFox
- **FPGA programming options**
 - On-board USB Blaster (MAX II)
 - USB UART
 - Compatible with existing XLR8 USB programming
 - Convenient/easy for new FPGA users
 - JTAG
- **I/O Expansion flexibility**
 - Multiple UART, SPI, I2C capability
 - Configurable for specific applications
 - Mappable to GPIO, Pmod, Arduino I/F, etc.
- **Other features**
 - Micro SD memory card slot
 - Enpirion power

Compatible XBee® Module Examples

Description	Supplier
 A blue Digi XBee Pro S2L module with a gold SMA connector and a silver SMD package.	Digi XBee Zigbee
 A blue Digi XBee Cellular LTE Cat 1 module with a gold SMA connector, a silver SMD package, and a gold SIM card slot.	Digi XBee Cellular LTE Cat 1
 Two blue Digi XBee Wi-Fi modules, one with a gold SMA connector and one with a gold SIM card slot.	Digi XBee Wi-Fi
 A red LoRa Bee module with a gold SMA connector and a silver SMD package.	LoRa Bee

Dragino

Compatible PMOD Module Examples

	Description	Supplier
 A blue printed circuit board (PCB) for a Pmod WiFi module. It features a Microchip 1317WOP WiFi chip, various passive components like resistors and capacitors, and a 5-pin header on the left. The PCB is labeled with 'PmodWiFi16', 'SW', '94V-0', 'Digilent Inc.', 'PB200-194', and 'REV B C200'.	Pmod WiFi: WiFi Interface 802.11g	Digilent
 A blue PCB for a Pmod BT2 Bluetooth module. It includes a Bluetooth module with a label showing 'MAID 0006688798' and 'REV B'. The board has a 5-pin header, several jumpers (JP1, JP2, JP3, JP4), and various electronic components. Labels on the board include 'PmodBT2', 'IC1', 'IC2', 'IC3', 'LD1', 'LD2', 'J1', 'J2', 'J3', 'J4', 'J5', 'J6', 'J7', 'J8', 'J9', 'J10', 'J11', 'J12', 'J13', 'J14', 'J15', 'J16', 'J17', 'J18', 'J19', 'J20', 'J21', 'J22', 'J23', 'J24', 'J25', 'J26', 'J27', 'J28', 'J29', 'J30', 'J31', 'J32', 'J33', 'J34', 'J35', 'J36', 'J37', 'J38', 'J39', 'J40', 'J41', 'J42', 'J43', 'J44', 'J45', 'J46', 'J47', 'J48', 'J49', 'J50', 'J51', 'J52', 'J53', 'J54', 'J55', 'J56', 'J57', 'J58', 'J59', 'J60', 'J61', 'J62', 'J63', 'J64', 'J65', 'J66', 'J67', 'J68', 'J69', 'J70', 'J71', 'J72', 'J73', 'J74', 'J75', 'J76', 'J77', 'J78', 'J79', 'J80', 'J81', 'J82', 'J83', 'J84', 'J85', 'J86', 'J87', 'J88', 'J89', 'J90', 'J91', 'J92', 'J93', 'J94', 'J95', 'J96', 'J97', 'J98', 'J99', 'J100'.	Pmod BT2: Bluetooth Interface	Digilent
 A blue PCB for a Pmod GPS module. It features a PA6H0Y1438 GPS receiver chip with a label 'G.top013'. The board has a 5-pin header, various components, and labels like 'PmodGPS', 'IC1', 'LD1', 'J1', 'J2', 'J3', 'J4', 'J5', 'J6', 'J7', 'J8', 'J9', 'J10', 'J11', 'J12', 'J13', 'J14', 'J15', 'J16', 'J17', 'J18', 'J19', 'J20', 'J21', 'J22', 'J23', 'J24', 'J25', 'J26', 'J27', 'J28', 'J29', 'J30', 'J31', 'J32', 'J33', 'J34', 'J35', 'J36', 'J37', 'J38', 'J39', 'J40', 'J41', 'J42', 'J43', 'J44', 'J45', 'J46', 'J47', 'J48', 'J49', 'J50', 'J51', 'J52', 'J53', 'J54', 'J55', 'J56', 'J57', 'J58', 'J59', 'J60', 'J61', 'J62', 'J63', 'J64', 'J65', 'J66', 'J67', 'J68', 'J69', 'J70', 'J71', 'J72', 'J73', 'J74', 'J75', 'J76', 'J77', 'J78', 'J79', 'J80', 'J81', 'J82', 'J83', 'J84', 'J85', 'J86', 'J87', 'J88', 'J89', 'J90', 'J91', 'J92', 'J93', 'J94', 'J95', 'J96', 'J97', 'J98', 'J99', 'J100'.	Pmod GPS: GPS Receiver	Digilent
 A blue PCB for a Pmod RF2 IEEE 802.15 RF Transceiver module. It includes an RF transceiver chip, an antenna (ANT1), and various components. The board has a 5-pin header and labels like 'PmodRF2', 'IC1', 'C1', 'C2', 'C3', 'C4', 'C5', 'C6', 'C7', 'C8', 'C9', 'C10', 'C11', 'C12', 'C13', 'C14', 'C15', 'C16', 'C17', 'C18', 'C19', 'C20', 'C21', 'C22', 'C23', 'C24', 'C25', 'C26', 'C27', 'C28', 'C29', 'C30', 'C31', 'C32', 'C33', 'C34', 'C35', 'C36', 'C37', 'C38', 'C39', 'C40', 'C41', 'C42', 'C43', 'C44', 'C45', 'C46', 'C47', 'C48', 'C49', 'C50', 'C51', 'C52', 'C53', 'C54', 'C55', 'C56', 'C57', 'C58', 'C59', 'C60', 'C61', 'C62', 'C63', 'C64', 'C65', 'C66', 'C67', 'C68', 'C69', 'C70', 'C71', 'C72', 'C73', 'C74', 'C75', 'C76', 'C77', 'C78', 'C79', 'C80', 'C81', 'C82', 'C83', 'C84', 'C85', 'C86', 'C87', 'C88', 'C89', 'C90', 'C91', 'C92', 'C93', 'C94', 'C95', 'C96', 'C97', 'C98', 'C99', 'C100'.	Pmod RF2: IEEE 802.15 RF Transceiver	Digilent
 A blue PCB for a Pmod NIC100 Network Interface Controller module. It features a network interface controller chip, a large metal heat sink, and various components. The board has a 5-pin header and labels like 'PmodNIC100', 'IC1', 'C1', 'C2', 'C3', 'C4', 'C5', 'C6', 'C7', 'C8', 'C9', 'C10', 'C11', 'C12', 'C13', 'C14', 'C15', 'C16', 'C17', 'C18', 'C19', 'C20', 'C21', 'C22', 'C23', 'C24', 'C25', 'C26', 'C27', 'C28', 'C29', 'C30', 'C31', 'C32', 'C33', 'C34', 'C35', 'C36', 'C37', 'C38', 'C39', 'C40', 'C41', 'C42', 'C43', 'C44', 'C45', 'C46', 'C47', 'C48', 'C49', 'C50', 'C51', 'C52', 'C53', 'C54', 'C55', 'C56', 'C57', 'C58', 'C59', 'C60', 'C61', 'C62', 'C63', 'C64', 'C65', 'C66', 'C67', 'C68', 'C69', 'C70', 'C71', 'C72', 'C73', 'C74', 'C75', 'C76', 'C77', 'C78', 'C79', 'C80', 'C81', 'C82', 'C83', 'C84', 'C85', 'C86', 'C87', 'C88', 'C89', 'C90', 'C91', 'C92', 'C93', 'C94', 'C95', 'C96', 'C97', 'C98', 'C99', 'C100'.	Pmod NIC100: Network Interface Controller	Digilent

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