

10Pin XPRO Adapter

Atmel MCU Wireless

Features

- Enables Atmel Legacy platforms to use newer ZigBit[®] Extensions.
- Supports RF-only ZigBits, SoC ZigBits and RF Extensions.
- On board current measurement header.
- Minimal jumper configuration.

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1. Introduction

1.1 Summary

ATXPRO-10PIN is a 10- to 20-pin adaptor that facilitates to connect new 20-pin Zigbits extensions and RF extensions to legacy 10-pin headers on SAM-EKs, STK[®]600, Xplained kits. The 10-pin header on legacy kits refers to the RF header where RZ600 fits. The supported 20-pin extensions includes RF only ZigBit extension, SoC ZigBit extension and REB233-XPRO.

1.2 Supported Kits Containing 10 Pin Headers

- | | | | |
|-------------|--------------|-------------------------------------|------------------------|
| 1. SAM4E-EK | 4. SAM4L-EK | 7. XMEGA [®] A3BU Xplained | 10. SAM4S-XPLD |
| 2. SAM3X-EK | 5. SAM4S-EK2 | 8. XMEGA B1 Xplained | 11. Mega1284P Xplained |
| 3. SAM3S-EK | 6. SAM3N-EK | 9. XMEGA A1 Xplained | 12. STK600 |

2. Specifications

2.1 Pin Configuration

Pin No.	20-pin Connector (J3)
1	ID_DATA
2	GND
3	ADC(+)
4	ADC(-)
5	GPIO
6	GPIO
7	PWM(+)
8	PWM(-)
9	IRQ/GPIO
10	SPI_SS_B/GPIO
11	TWI_SDA
12	TWI_SCL
13	UART_RX
14	UART_TX
15	SPI_SS_A
16	SPI_MOSI
17	SPI_MISO
18	SPI_SCK
19	GND
20	VCC_TARGET

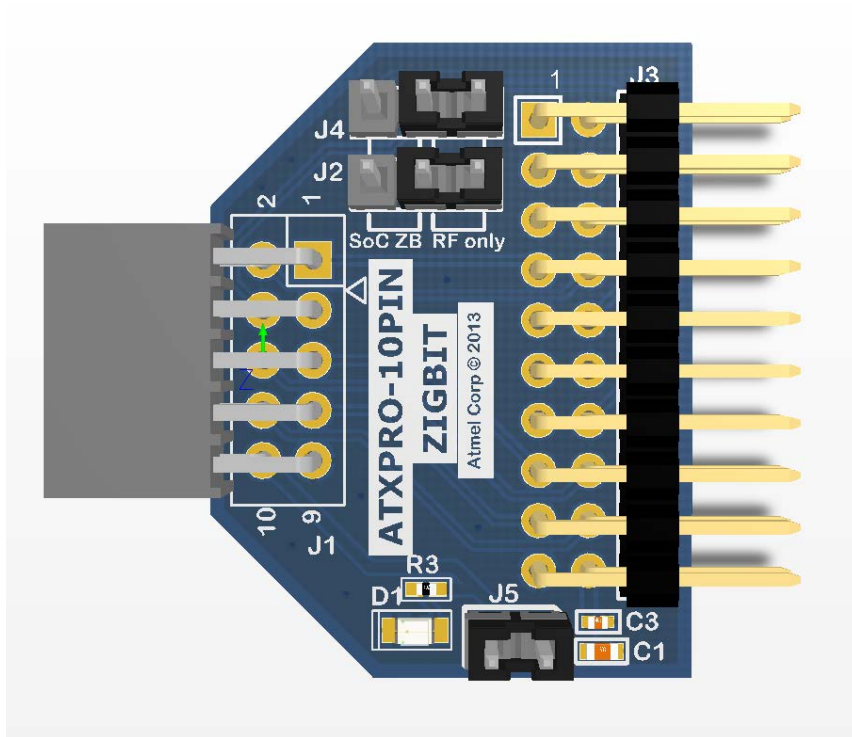
Pin No.	10-pin Connector (J1)
1	RST
2	MISC IO
3	IRQ
4	SLP_TR
5	SEL/SPI_CS
6	MOSI
7	MISO
8	SCLK/SPCK
9	GND
10	VCC

Note: Refer datasheets of the selected evaluation board or XPRO extension for details on the signal names mentioned in above tables.

2.2 Jumper Settings

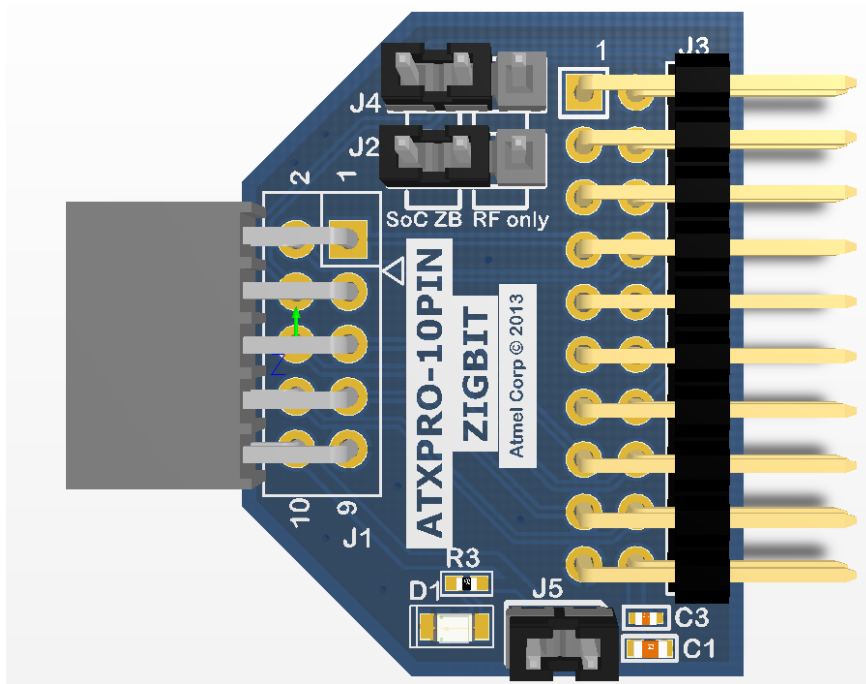
For REB233-XPRO and RF only Zigbits, jumper settings for J4 and J2 are as shown in [Figure 2-1](#).

Figure 2-1. ATXPRO-10PIN for REB233-XPRO and RF only ZigBits



For SoC Zigbits, jumper settings for J4 and J2 are as shown in [Figure 2-2](#).

Figure 2-2. ATXPRO-10PIN for SoC ZigBits

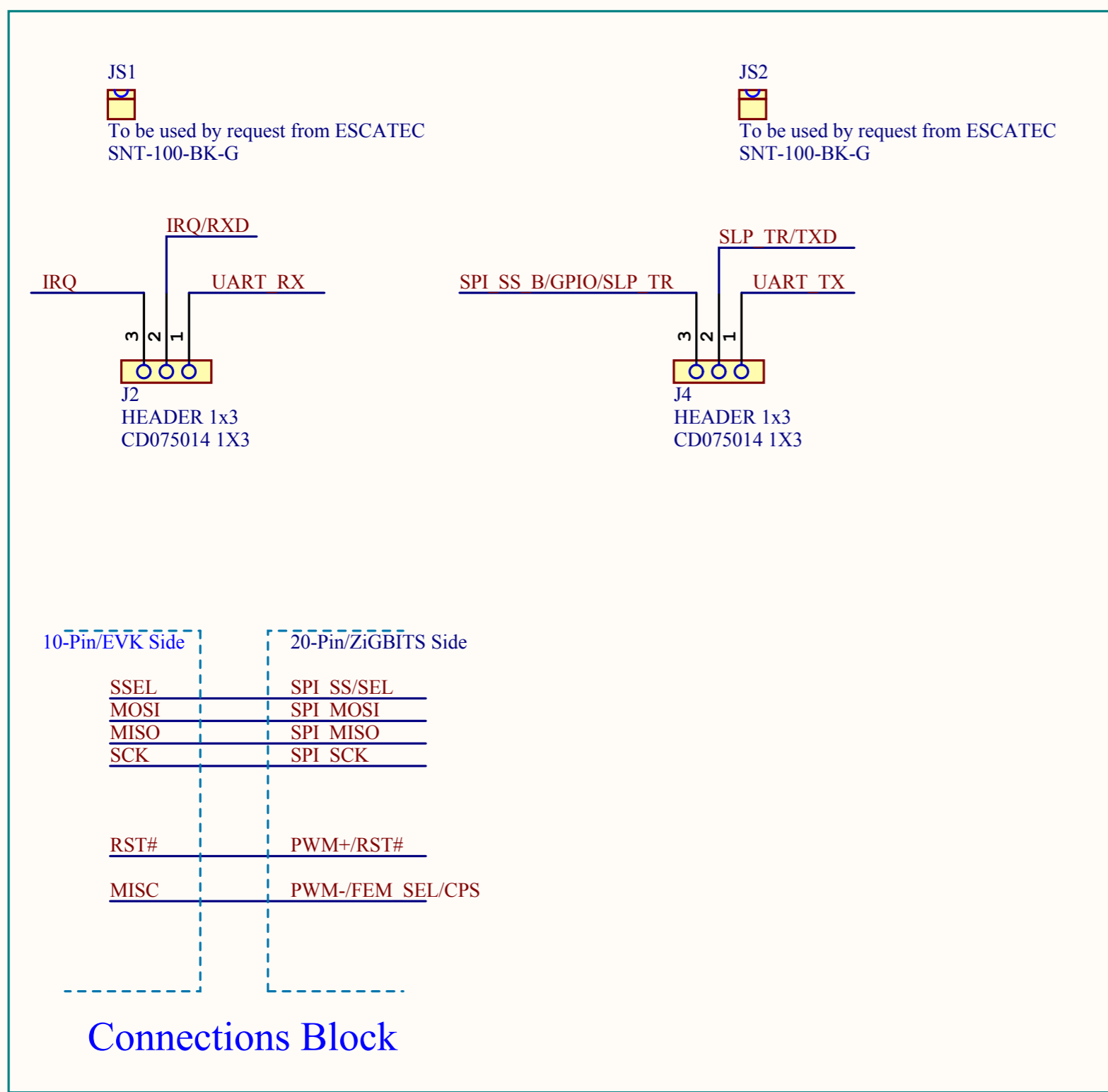


2.3 Current Measurement

Header J5 is the current measurement header which enables user to measure current consumed by the extension modules. When 'J5' is not used for current measurement, the jumper should be placed on it.

2.4 Schematics

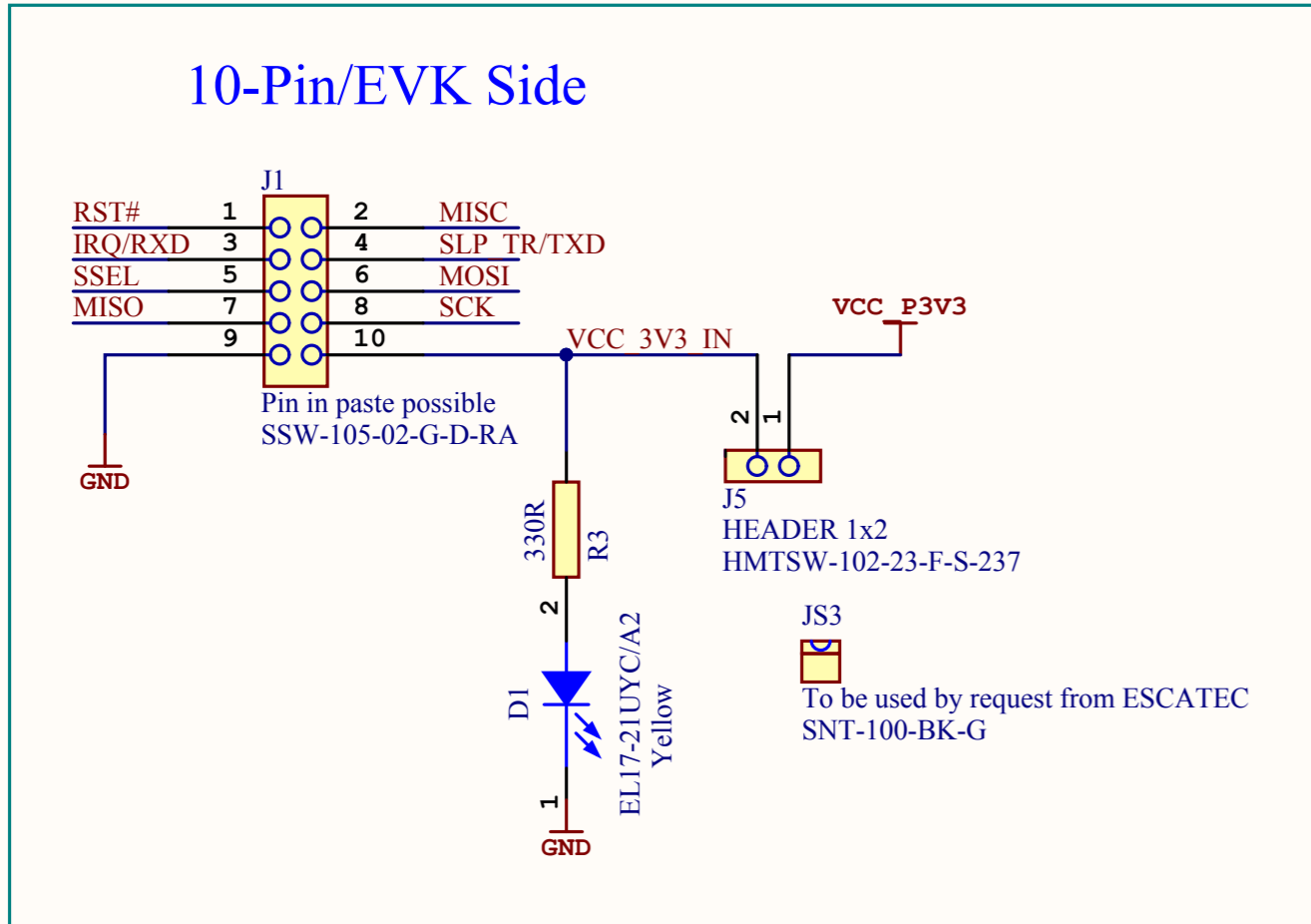
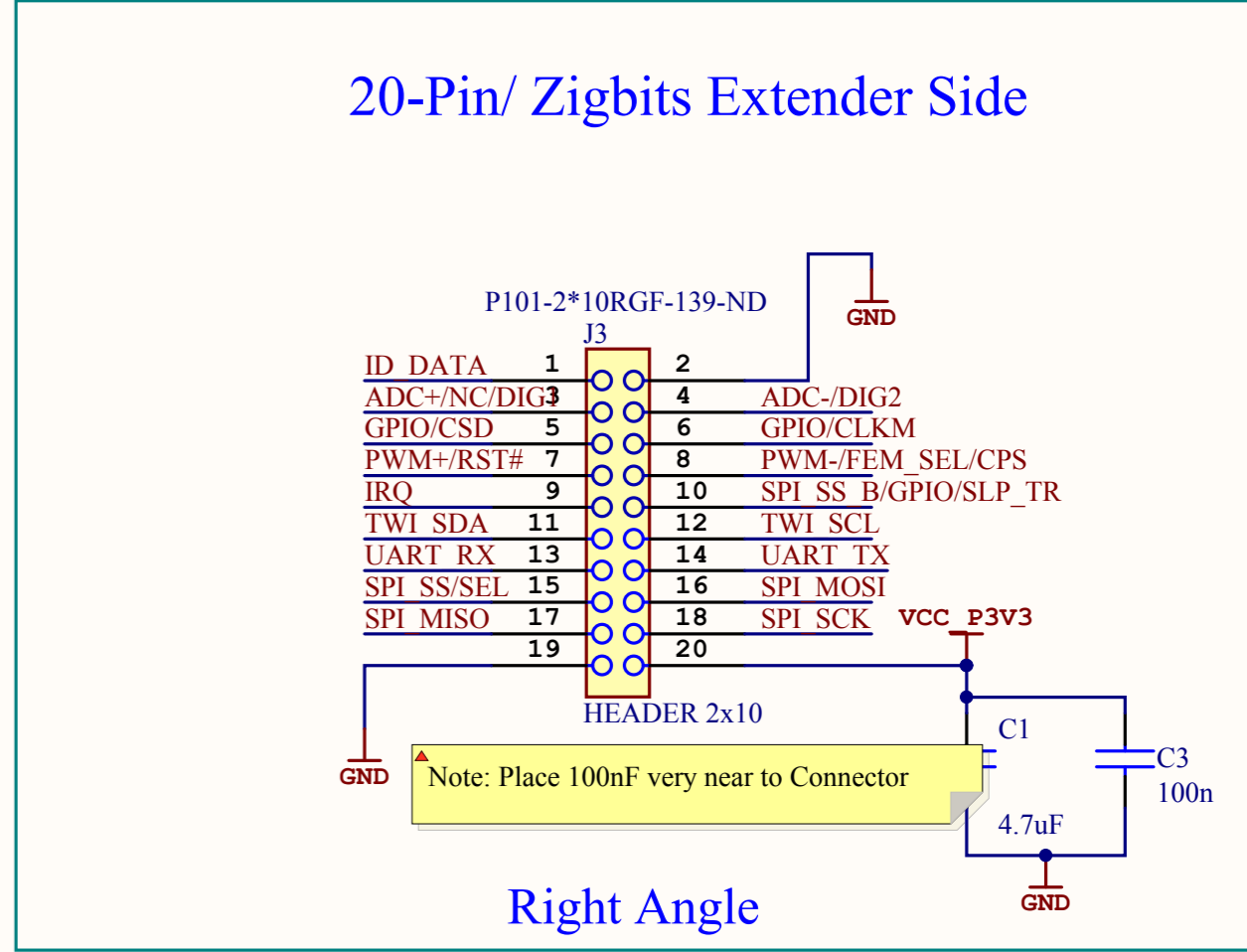
The schematic of the 10-pin to 20-pin Adaptor is shown below.



Note:
 For some of these kits pin3 and pin4 of 10pin Connector has UART interface connected.
 for those kits SoCZigbits Can be directly interfaced.

- 1.Xmega A3BU Xplained
- 2.Xmega B1 Xplained
- 3.Xmega A1 Xplained
- 4.SAM4S-XPLD
- 5.Mega1284P Xplained
- 6.STK600(mapping)

Note:
 1. ID_DATA has no connection to 10-pin Connector
 2. ADC+/NC/DIG1, ADC-/DIG2, TWI_SDA, TWI_SCL, UART_RX and UART_TX have no connection to 10-pin connector, except(UART_RX and UART_TX were used for some kits)
 3. CSD has Pull down on RF-only Zigbits.



Supported Zigbits

1. RF212B RF-only Zigbits
2. RF233 RF-only Zigbits
3. mega256RFR2 SoC Zigbits(Optional - only listed kits will be supported)

Note:
 As this is an adapto doesn't require Rubber Feet

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3. Revision History

Doc. Rev.	Date	Comments
42207A	10/2013	Initial document release

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