

# XA-SK-UART-8 Slice Card Hardware Guide

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# 1 Slice Card Overview

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## IN THIS CHAPTER

- ▶ Pack Contents
  - ▶ RS232 Capability
  - ▶ Fixed Oscillator
  - ▶ DB9 Connector
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## 1.1 Pack Contents

- ▶ One XA-SK-UART-8 Slice Card

## 1.2 RS232 Capability

8 Uarts are provided on two 8-bit ports. An RS232 signalling level optn is provided by four SP3222EB RS232 transceivers, each handling 4 tx or 4 rx lines. The EN\_N enable pins of the transceivers are controlled by populating a jumper between pins 25 and 26 of header J3. If that jumper is populated then RS232 is disabled and TTL inputs/outputs for all uarts can be accessed via J3, otherwise RS232 inputs/outputs for all uarts can be accessed via J4.

## 1.3 Fixed Oscillator

A 1.8432 MHZ oscillator provides a fixed master reference frequency which is input into the XCore on a 1-bit port to allow the sc\_multi\_uart transmitter module software to obtain precise timing against standard UART baud rates.

## 1.4 DB9 Connector

Uart channel 0 (RX and TX) can be accessed either via pins 1 and 2 of J3 or J4, or via the DB9 connector. In the latter case, RS232 mode needs to be enabled as above.

## 2 XA-SK-UART-8 Functional Pins

This table shows the port mapping for each of the Slice Card Signal IO, and the Slicekit Slot connector pin it is located on.

Function	STAR	TRIANGLE	SQUARE	CIRCLE	PIN	Description
CLK_OUT	1F	1L	1F	1L	B2	1 Bit port free for GPIO
RXD0	8A0	8C0	8A0	8C0	B6	Rx Data for Uart #0
RXD1	8A1	8C1	8A1	8C1	B7	Rx Data for Uart #1
RXD2	8A2	8C2	8A2	8C2	A6	Rx Data for Uart #2
RXD3	8A3	8C3	8A3	8C3	A7	Rx Data for Uart #3
RXD4	8A4	8C4	8A4	NC	B9	Rx Data for Uart #4
RXD5	8A5	8C5	8A5	NC	B11	Rx Data for Uart #5
RXD6	8A6	8C6	8A6	NC	A9	Rx Data for Uart #6
RXD7	8A7	8C7	8A7	NC	A11	Rx Data for Uart #7
TXD0	8B0	8D0	8B0	8D0	B12	Tx Data for Uart #0
TXD1	8B1	8D1	8B1	8D1	B13	Tx Data for Uart #1
TXD2	8B2	8D2	8B2	8D2	B17	Tx Data for Uart #2
TXD3	8B3	8D3	8B3	8D3	B18	Tx Data for Uart #3
TXD4	8B4	8D4	8B4	NC	A18	Tx Data for Uart #4
TXD5	8B5	8D5	8B5	NC	A17	Tx Data for Uart #5
TXD6	8B6	8D6	8B6	NC	A12	Tx Data for Uart #6
TXD7	8B7	8D7	8B7	NC	A13	Tx Data for Uart #7



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