



XR16C854 Evaluation Board User's Manual Rev C2

Introduction

The XR16C854 evaluation board can be configured to support one QUAD device in our family. Please see Table 1 below for the complete list. The XR16C454/554/654/854 is 16550 compatible. For a list of features, refer to their data sheets at www.exar.com.

Description

On the XR16C854 evaluation board, we have added a +3.3v regulator to operate the QUAD at +5v or +3.3v. There are two ports that use the RS-232 ports (transceiver supports up to 1Mbps data rate) and two RS-485 ports.

There is an option to select an external clock or the standard crystal 14.7456Mhz. U12 clock multiplier chip (ST49C101A-XX) is used for factory external clock test. U5 can be clocked at multiple of 2,3,4,5,6,8,10 and 12, depending on the part selected. The ST49C101A-XX device is not installed. The evaluation board has several sets of jumpers. Jumpers and Test Points are described under default setting below.

Warning: When installing the XR16C854 board, follow ESD Safety Procedures. Ground yourself to prevent damage to any electronic component.

Note: This evaluation board supports a family of QUADs. Refer to Table 1

Table 1

UART	Reference
XR16C454	U4-PLCC
XR16C554	U4-PLCC
XR16C654	U4-PLCC
XR16C854	U4-PLCC

Default setting for the hardware on the XR16C854 on Table 2

Table 2

JUMPER	FUNCTION	CHANNEL
J4-3&4	IRQ4	INTA
J5-1&2	IRQ3	INTB
J6-5&6	IRQ5	INTC
J7-5&6	IRQ7	INTD
J9-1&2	+5V	
JP5-1&2	RXB	
JP5-3&4	RXA	

Jumper Options

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Table 3

JUMPER	FUNCTION
J4-3&4	1RQ4 (PORT1)
J5-1&2	1RQ3 (PORT2)
J6-5&6	1RQ5 (PORT3)
J7-7&8	1RQ7 (PORT4)
J2-1&2	SHARED IRQ7
J2-3&4	SHARED IRQ5
J2-5&6	SHARED IRQ4
J2-7&8	SHARED IRQ3
JP1-1&2	RESET
JP2	16/68#
J11	(FACTORY TESTING)
JP3	INTSEL
JP4	1x/4xCLK
J9-2&3	+3.3V
J9-1&2	+5V
J8	(FACTORY TESTING)
J13-1&2	UART LOOP TXA TO RXA
J14-1&2	UART LOOP TXA TO RXB
J16-1&2	UART LOOP RXA TO TXB
J17-1&2	UART LOOP TXB TO RXB
JP5-1&2	RXB PATH
JP5-3&4	RXA PATH
J12-1&2	EIA LOOP TXA TO RXA PORT1
J18-1&2	EIA LOOP TXB TO RXB PORT2
J19	(FACTORY TESTING)
J20	(FACTORY TESTING)
J15	(FACTORY TESTING)
J21-1&3	RS-485 NON-INVERTING RECEIVER INPUT AND NON-INVERTING DRIVER OUTPUT PORT3
J21-2&4	RS-485 INVERTING RECEIVER INPUT AND INVERTING DRIVER OUTPUT PORT3
J23-1&3	RS-485 NON-INVERTING RECEIVER INPUT AND NON-INVERTING DRIVER OUTPUT PORT4
J23-2&4	RS-485 INVERTING RECEIVER INPUT AND INVERTING DRIVER OUTPUT PORT4
J22	(FACTORY TESTING)