

APPLICATION NOTE

ABSTRACT

This application note shows how a SC16C554/SC16C554B or a SC16C654/SC16C654B can be connected to an ISA bus. It is also applicable to the SC16C554DB and SC16C654DB.

AN10224

SC16C554/SC16C654/

SC16C554B/ SC16C654B

ISA bus hardware interface example

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SC16C554/SC16C654/SC16C554B/SC16C654B
ISA bus hardware interface example

AN10224

This application note shows how a SC16C554 or a SC16C654 can be connected to an ISA bus. Although an oscillator is used to drive the device's clock input, a crystal can be easily used in place of the oscillator (see the datasheet for circuit example).

All four channels of the UART are hardwired to the following addresses:

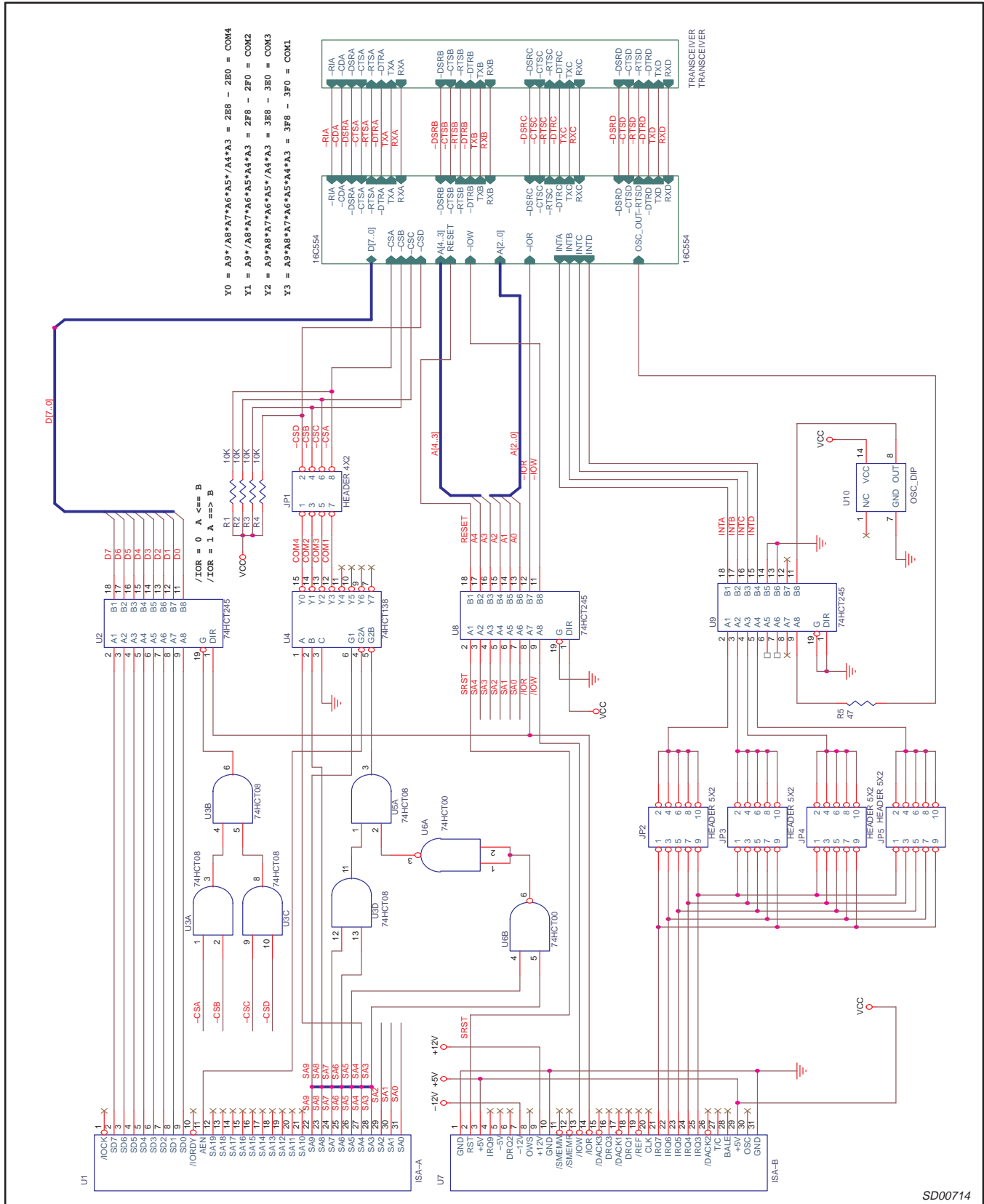
CH A → 3F8 – 3F0
CH B → 2F8 – 2F0
CH C → 3E8 – 3E0
CH D → 2E8 – 2E0

To enable any of the above channels a jumper (short block) must be installed on JP1, otherwise, the channels are automatically disabled by pull-up resistor R1..R4.

Hardware interrupt for each channel can be selected by JP2..JP5, and the following interrupts are supported: IRQ3, IRQ4, IR5, IRQ6, and IRQ7.

SC16C554/SC16C654/SC16C554B/SC16C654 B ISA bus hardware interface example

AN10224



SD00714

Figure 1.

SC16C554/SC16C654/SC16C554B/SC16C654 B ISA bus hardware interface example

AN10224

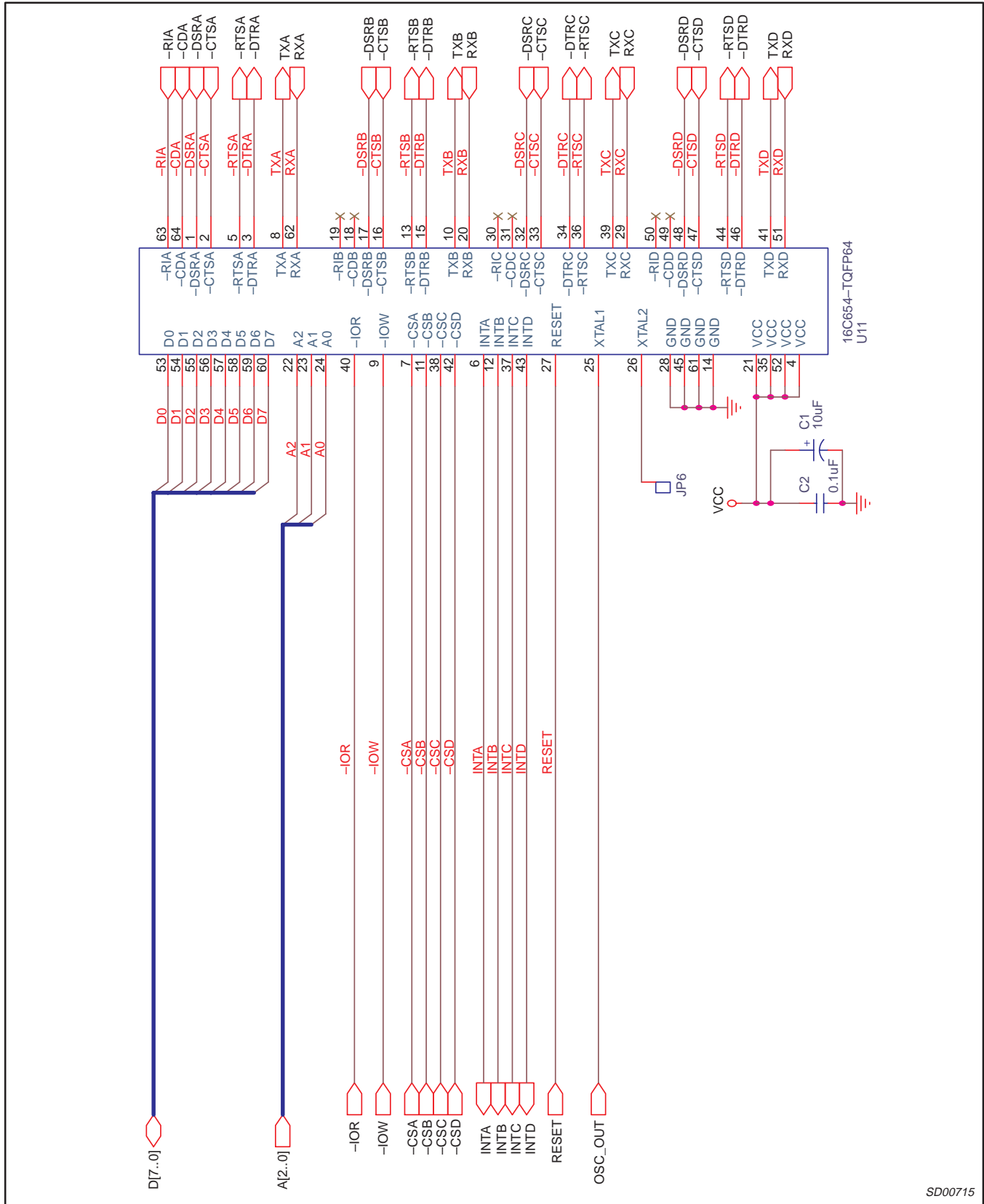
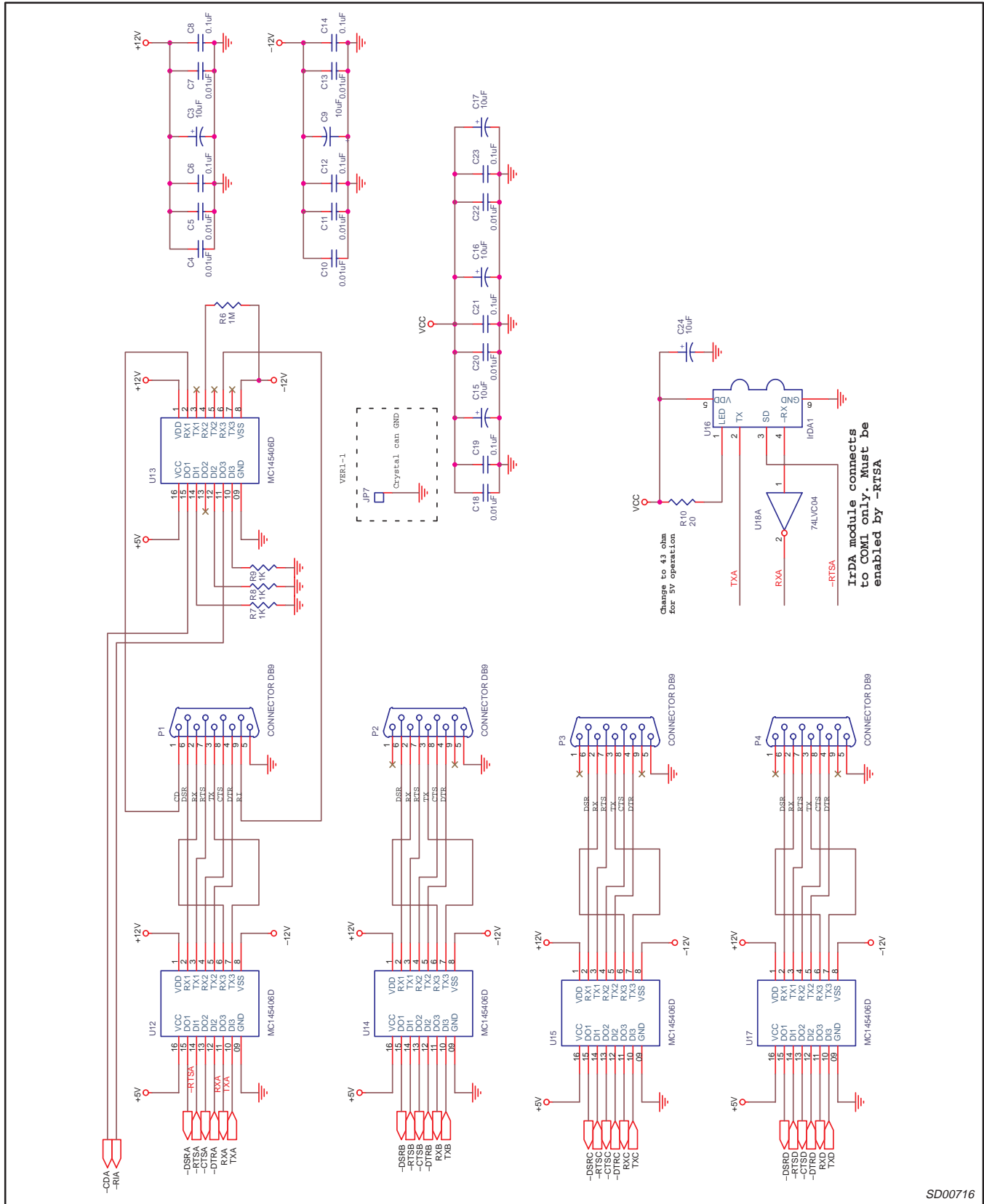


Figure 2.

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SC16C554/SC16C654/SC16C554B/SC16C654 B ISA bus hardware interface example

AN10224



SD00716

Figure 3.

SC16C554/SC16C654/SC16C554B/SC16C654 B ISA bus hardware interface example

AN10224

REVISION HISTORY

Rev	Date	Description
_2	20040820	Application note (9397 750 13515). Supersedes data of 2004 Sep 04 (9397 750 11995). Modifications: <ul style="list-style-type: none"> • Add references to SC16C554B, SC16C654B, SC16C554DB, and SC16C654DB.
_1	20030904	Application note, initial version (9397 750 11995).

Definitions

Short-form specification — The data in a short-form specification is extracted from a full data sheet with the same type number and title. For detailed information see the relevant data sheet or data handbook.

Limiting values definition — Limiting values given are in accordance with the Absolute Maximum Rating System (IEC 60134). Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Characteristics sections of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.

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