

### OVERVIEW

The **TS-RELAY8** is PC/104 compatible peripheral board that provides a robust interface between the PC/104 bus and external devices through eight independent software controlled PC board relays. This daughter board is compatible with any PC/104 main board.

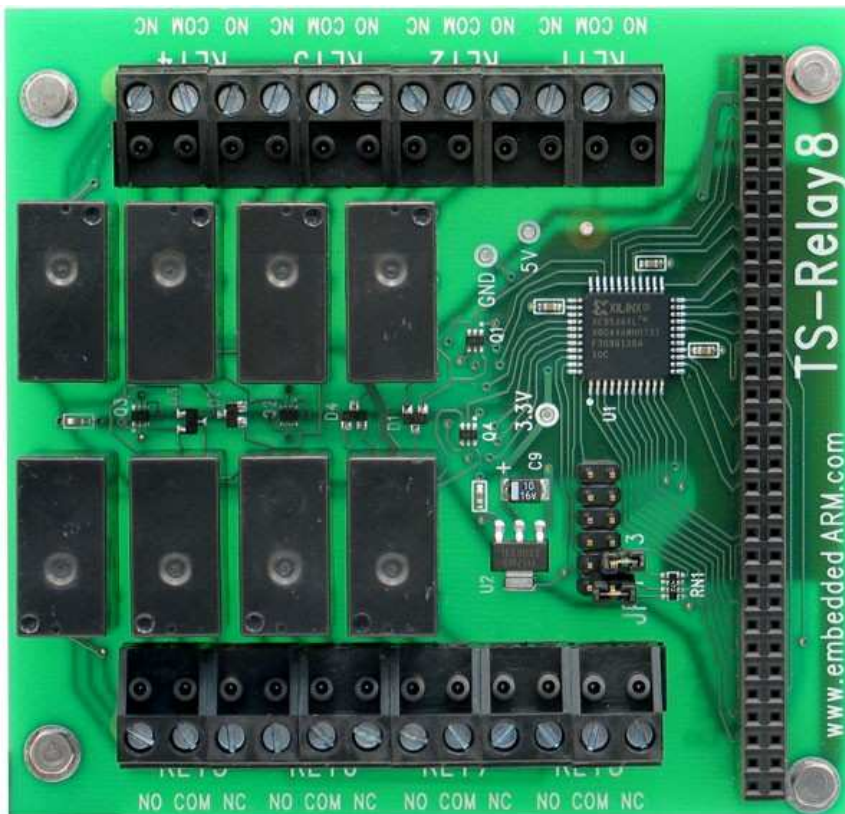
- ✓ Eight independent SPDT relays
- ✓ Software controlled
- ✓ 40mA draw per coil
- ✓ Jumper selectable I/O address
- ✓ RoHS compliant
- ✓ Works with any PC/104 SBC

The TS-Relay8 provides eight independent relays capable of handling up to 277VAC / 30VDC at 5A across the contacts. Each relay coil draws only 40mA when active. It runs on any Technologic Systems product with a PC/104 bus.

Jumpers are used to select one of four I/O addresses allowing up to four boards stacked on a single PC/104 bus. This daughter board is manufactured RoHS compliant by default and has a standard PC/104 form factor.

### HARDWARE CONFIGURATION

TS-RELAY8 board's front view



**Jumper settings for IO address selection**

Addr	JP1	JP2
0x140	OFF	OFF
0x150	ON	OFF
0x160	OFF	ON
0x170	OFF	OFF

## BASE PLD REGISTER MAP: TS-RELAY8

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The TS-RELAY8 implements 3 PLD registers which appear at the selected base addresses.

I/O Addr	Description	Data	Bits and such
Base + 0	Board Identifier	Read only	Board Identifier is 0x9b
Base + 1	PLD Rev	Read Only	PLD revision
Base + 2	Relay Control	Read/Write	controls relays ON/OFF (bit n corresponds to relay n+1, 0=OFF and 1=ON)



### Note

In order to perform PC/104 8-bit bus cycles with the TS-7200 Cirrus platform, use 0x11E00000 as the PC/104 base address. With the TS-7800 Marvell platform, use 0xEE000000 as the PC/104 base address.

## DRIVER SUPPORT

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If you are using the TS ARM Linux platform, you can make use of the peek and poke (or peekpoke if in busybox) commands to read/write the registers in PC/104 8-bit bus cycles.

For the TS-7200 Cirrus platform and a TS-RELAY8 with all jumpers OFF, add the 0x11E0\_0000 base address, i.e:

```
# peek8 0x11e00140 (returns 0x9b)
# peek8 0x11e00142 (returns the ON/OFF status of the relays)
# poke8 0x11e00142 0x00 (turn off all the relays)
# poke8 0x11e00142 0xff (turn on all the relays)
```

For the TS-7800 Marvell platform and a TS-RELAY8 with all jumpers OFF, add the 0xEE00\_0000 base address, i.e:

```
# peek8 0xee000140 (returns 0x9b)
```

For further information about this product, contact Technologic Systems.

## CONTACT TECHNOLOGIC SYSTEMS

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## DOCUMENT HISTORY

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