

## Regulatory Notices

### EC Declaration of Conformity

FarSite Communications Limited declare that the product FarSync T4E/T4E+ is in conformity with the following standards and other documents:

Telecommunications Terminal Equipment (TTE Directive 91/263/EEC): **TBR1, TBR2**  
Electromagnetic compatibility (EMC Directive 2004/108/EC): **EN55022, EN61000-6-2**  
Safety (LVD Directive 2006/95/EC): **EN60950**

This equipment is intended for attachment to public or private leased lines or packet switched data networks.

### Federal Communications Commission (FCC) Statement

#### Radio Frequency Interference (RFI) (FCC 15.105)

The FarSync T4E/T4E+ has been tested and found to comply with the limits for Class B digital devices pursuant to Part 15 Subpart B, of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by switching the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

#### Labelling requirements (FCC 15.19)

This device complies with Part 15 of FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference which may cause undesired operation.

#### Modifications

Changes or modifications to this equipment not expressly approved by FarSite may void the user's authority to operate this equipment.

### FCC Declaration of Conformity

(In accordance with FCC dockets 96-208 and 95-19)

Manufacturer's name: FarSite Communications Limited  
Tempus Business Centre, 60 Kingsclere Road, Basingstoke  
Hampshire, RG21 6XG, United Kingdom

FarSite Communications Limited declares that the product FarSync T4E/T4E+ to which this declaration relates, meet the requirements specified by the Federal Communications Commission as detailed in the following specifications

- Part 15, Subpart B, for Class B Equipment
- FCC Docket 96-208 as it applies to Class B Personal Computers and Peripherals

The products have been tested at an external laboratory certified per FCC rules and has been found to meet the FCC, Part 15, Class B emission limits. Documentation is on file and available from FarSite.

### Industry Canada

This Class B digital apparatus meets the requirements of the Canadian Interference Causing Equipment regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.



# FarSite COMMUNICATIONS

## FarSync T4E/T4E+

### QUICK START GUIDE

#### FOR WINDOWS AND LINUX

Thank you for choosing FarSync for your synchronous data communications needs. The FarSync product family provides a full range of synchronous data communications solutions. The models covered by this guide is:

#### FarSync T4E/T4E+

Intelligent 4-port Universal PCI adapters for synchronous data communications over X.21 (V.11/RS-422), V.24 (X.21bis/RS-232-C), V.35 and EIA-530 (V.11/RS-422) physical interfaces.

The installation of the FarSync T4E/T4E+ product has four basic steps.

- **Install the hardware**
- **Connect the cables**
- **Install the FarSync driver software**
- **Configure the FarSync drivers**

Refer to page 2 of this guide for more instructions on each step. Note that **Administrative privilege** is required to install the software under Windows. Installation under Linux should be performed as **root**. Use a web browser to view the file `install.html` file for further assistance on the installation process.

Manuals on the FarSync CD are in HTML or Adobe Portable Document Format (PDF). If you do not already have a suitable PDF reader installed a selection of readers can be found in the **Acrobat** directory on the FarSync CD. Further readers for other platforms are available from Adobe.

Step 1 Installing the hardware

**Warning – Electrostatic discharge can damage integrated circuits on your FarSync card. Observe precautions for handling electrostatic sensitive devices.**

Shut down and power off the system. Identify a free PCI slot in your PC and install the FarSync T4E/T4E+ card, ensuring that it is properly secured with a mounting screw. The FarSync T4E/T4E+ card is a **Universal PCI** card that will operate in either 5-volt or 3.3-volt PCI slots conforming to revision 2.1 or later of the PCI interface specification. This includes 64-bit **PCI-X** slots. Note that some early PCs with PCI bus slots (specifically those with an AT format motherboard and AT style power supply connectors) do not supply all of the power signals required by the FarSync T4E/T4E+. Such PCs are not PCI revision 2.1 compatible.

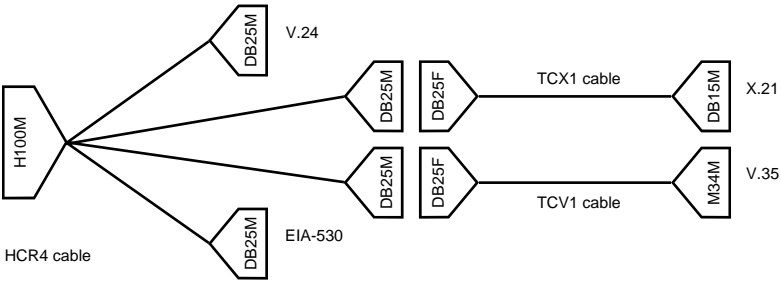
Note that to correctly operate, any IRQs in use by legacy devices (such as integrated peripherals or ISA bus cards) must be flagged as such in the PC BIOS configuration pages. Many other problems regarding operation of PCI cards in a particular PC can be resolved by changing settings in the BIOS with or without the card installed. Each BIOS differs in the parameters available and their naming. Refer to your system documentation for more information.

Step 2 Connecting the cables

The FarSync T4E/T4E+ card has a 100-pin external HIPPI female connector and a 10-pin internal connector.

FarSync T4E/T4E+ - Cable Assembly

The standard cable for the FarSync T4E/T4E+ (type **HCR4**) presents each port on a DB25 male connector. Separate ports may be configured and directly connected to a V.24 or EIA-530 Network Termination Unit (NTU). Connection to an X.21 or V.35 NTU requires a **TCX1** or **TCV1** adapter cable, as shown below:



Any combination of interface types is permitted on FarSync T4E/T4E+.

The available adapter cables are as follows:

<u>Cable</u>	<u>Serial Network Connection(s)</u>
<b>TCX1</b>	15 pin D-type male connector for V.11 (X.21/RS-422) use.
<b>TCV1</b>	MRAC-34 male 'brick' type connector for V.35 use.

The 100-pin connector of the **HCR4** cable should be firmly secured to the communications card using the screws in the connector hood. The connections between the transition cable and the serial interface cable(s) and the connection to the Network Termination Point should be firmly secured in a similar way.

FarSync T4E/T4E+ - CT-Bus Connector (HDR1)

The internal CT-Bus connector allows the FarSync T4E/T4E+ to be connected to other FarSync T4E/T4E+ cards or other compatible devices so that all attached devices may be synchronized to a single clock source. Use of this feature is entirely optional and if not required connector HDR1 may be left unconnected and the jumper setting for JP7 may be disregarded.

Connection to the CT-Bus connector is by 10-way ribbon cable. When the cable is attached, ensure that the connector is correctly oriented and latched in position

FarSync T4E/T4E+ is supplied with four jumpers fitted on block JP7. When a jumper is fitted it terminates the signal identified below with a standard termination network. If termination is not required the jumper(s) can be removed.

<u>Jumper</u>	<u>Signal</u>
<b>JP7 - 1</b>	CT_FRAME_A
<b>JP7 - 2</b>	CT_C8_A
<b>JP7 - 3</b>	CT_FRAME_B
<b>JP7 - 4</b>	CT_C8_B

Whether termination is used or not is entirely dependant on the application; but as a general rule cards at either end of the CT-Bus should have termination enabled and intermediate cards should not.

Step 3 Install the Driver Software

The software included with this product is subject to one or more software license agreements. The top level license agreement is either included in printed form in your product package or in the file LICENSE.TXT in the root directory of the CD included with the product.

**By installing the software you agree that you have read and understood the license and agree to its terms and conditions**

The driver installation varies between the different supported operating systems, but in all cases the hardware should be installed first. Refer to the software CD or the FarSite web site for the latest information on supported environments.

**Driver installation instructions for each supported operating system can be found on the software CD accompanying the product. The `install.html` file in the root directory of the CD should be used as a starting point.**

Step 4 Configure the FarSync Drivers

Configuration of the FarSync driver software also varies between the many supported operating systems. Again refer to the documentation on the product CD for details of the mechanism suitable for your environment.

WARRANTY INFORMATION

Your FarSync T-Series Adapter carries as standard a return to base hardware warranty of 5 years from date of delivery. If you require support visit the Support area at [www.farsite.com](http://www.farsite.com). If you wish to extend your warranty period or upgrade to full product maintenance cover, please contact your sales representative. Further information can be found at [www.farsite.com/products/product\\_warranty.htm](http://www.farsite.com/products/product_warranty.htm).