FUTRO S300
Reliable computing
without any restrictions

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Why take a fully featured PC for server based computing, when you can have everything you need in a reliable small form factor thin client?

The FUTRO S300 is ideally suited for Windows Terminal Server computing. The server exexutes the applications, the screen is displayed on the client. Your data is saved secure on the server and is therefore protected against loss. Also the operating system is stored secure on a flash memory and safe from unauthorized changes due to a write protected file system. Selectively, an optional SmartCard reader is integrated as another security implement. Smart administration tools help to update the client easily.

Without fan and rotating drives, the FUTRO S300 is reliable, fail-safe and silent.

All that turns the FUTRO S300 into a minimizer of Total Cost of Ownership.

Accessibility
- Embedded Linux (eLux NG) or Windows XP Embedded (XPe) operating system with ICA / RDP protocol and terminal emulations
- TCP/IP network integration with DNS and DHCP support
- 10/100/1000 Mbit/s Ethernet LAN controller with PXE bootcode on board
- Support for analogue WAN connectivity via optional USB devices (eLux only)
- Support for ISDN WAN connectivity
- Variety of browsers including Java Virtual Machine for direct internet connection (depending on OS)
- Support of extended memory with MEMORYBIRD, external USB floppy drive and a wide range of Fujitsu Siemens Computers' keyboards

Reliability
- Cost-optimized and trusted solution for displaying and running Windows applications
- Approved by Microsoft Terminal Server and Citrix MetaFrame XP/Presentation Server
- Highest quality design and function stability

Manageability
- Simple network administration: programs and data are on the server
- Easy configuration, administration and system monitoring via optional tools
- Cost-effective remote administration via SNMP and DHCP standard protocols
- Manageability tool SCOUT NG for embedded Linux solution
- Altiris® Deployment Solution™ for clients integrated in Windows XP Embedded solution

Security
- Secure (write protected) operating system embedded on flash memory
- Optional SmartCard reader inside (PKI approved)
- Security support for SmartCard integration in connection with Citrix MetaFrame/Presentation Server
- SmartCards with CardOS, GemPLUS or German Health Insurance format are supported by eLux. (within/without certification)
- Secure data transaction via VPN available

Ergonomics
- Space saving through vertical usage and small footprint
- Stress-free working and silent operation without any rotating fan and drives
- Low power consumption, low heat dissipation

Operating systems and software

eLux NG - Embedded Linux	Windows XP Embedded
eLux NG is a Linux based embedded operating system, specially developed for use in FUTRO to apply as thin clients in server-based environments.	Windows XP Embedded is the modulated version of the desktop operating system Windows XP Professional, enabling development of reliable and full-featured connected devices.
Target group From Small Enterprises to Large Accounts	**Target group** Ideally suited for medium and large enterprise customers with decentralize system configurations and branch offices
Local functions ■ ICA-Client ■ RDP-Client ■ Mozilla Browser ■ Opera Browser ■ Firefox Browser ■ Acrobat Reader ■ Sun JVM 1.5 ■ Tarantella-Client ■ Terminal emulations for ANSI, 97801, VT320 ■ X.11 terminal application ■ Local SAP GUI 4.6 on 128MB or 256 MB Flash **Local functions requiring further licenses** ■ IBM 3270 / 5250, FSC 9750 emulation, additional license necessary, available from UniCon	**Local functions** ■ ICA-Client ■ RDP-Client ■ Internet Explorer V 6.0 ■ Acrobat Reader (V4.05 on 256MB Flash, V7.0 on 512MB Flash ■ Media Player (V 6.4 on 256MB Flash, V10 on 512MB Flash) ■ Sun JVM 1.5 (only on 512MB Flash) ■ Windows Installer ■ Altiris® Deployment Solution™ for clients
Options available Integration of additional features like Wireless LAN support, remote administration, printer support, VPN and Firewall Support will be offered by Fujitsu Siemens Computers made4you program	**Options available via Customizing** Integration of additional features like Wireless LAN support, remote administration, printer support, VPN and Firewall Support will be offered by Fujitsu Siemens Computers made4you program

Manageability with SCOUT NG (license required, evaluation right for up to 3 seats):
■ FUTRO utility tool for embedded Linux
  – Flash memory management
  – Embedded operating system update and system monitoring
  – Managing devices by location, group or user
  – Individual operating system composition with ELIAS
	Manageability
	■ Altiris® Deployment Solution™ for clients preinstalled

Security ■ SmartCard support within/without certificate for CardOS or GemPlus cards Sicrypt cards only without certificate functionality available	**Security** ■ Driver for SmartCard reader hardware
VPN ■ VPN client from Cisco (license required) ■ VPN client Free S/WAN	
Wireless LAN ■ Support for internal D-Link PCI WLAN Card (download)	**Wireless LAN** ■ Support for internal D-Link PCI WLAN Card

System	FUTRO S300	
Operating System	eLux NG	XPe
Flash memory (MB), Compact Flash Card	128, 256	256, 512
System memory (MB),DDR SDRAM	128, 256, 512	256, 512 (1GB via CUZ)

Operating Systems / Software
Windows XP Embedded or eLux NG on flash memory
If the ICA protocol is selected, the
MetaFrame®/Presentation server Software from Citrix is
required (optional).

Mainboard
Processor　　　　　　Crusoe TM5800 800 MHz
Graphic Processor (GPU)　　SiS315T

Interfaces
1 x serial (9-pin, 16-byte FIFO, 16550-compatible)
1 x parallel (25-pin, with EPP and ECP) for printing
　　via ICA protocol (local and / or over network)
1 x keyboard (PS/2) (rear)
1 x mouse (PS/2) (rear)
1 x monitor (15-pin, VGA)
1 x LAN RJ-45
1 PCI Slot midsize
1 x audio out 1/8-inch mini
1 x Headphone out
1 x micro 1/8-inch
4 x Universal Serial Bus (USB 2.0);
2 x in front panel, 2 x rear side
1 x SmartCard reader (optional integrated via internal USB)

Display modes
Video RAM 32MB (independent from RAM memory)
VESA monitor support with DDC for automatic setting of
resolution and refresh rate
Resolution selectable
32 bit colors, max　　　　1600 x 1200 / max 85 Hz
32/16/8 bit coloras　　　　1280 x 1024 / max 85 Hz
32/16/8 bit coloras　　　　1024 x 768 / max 120 Hz
32/16/8 bit coloras　　　　 800 x 600 / max 160 Hz
32/16/8 bit coloras　　　　 640 x 480 / max 160 Hz

Network
LAN on board　　　　　　　10/100/1000 Mbit/s
Fast Ethernet Connectivity　TP (Twisted Pair), RJ-45
TCP/IP with DNS and DHCP
Point-to-Point protocol
Supported Citrix Load Balancing over ICA
SNMP support allows configuration of terminal settings,
reporting of terminal configuration and attached devices,
traps
DHCP support for automatic firmware upgrades and unit
configuration
Multiple master browser support on ICA

Audio
On board
Output: full 16-bit stereo sound, AC'97 codec
Input: 8-bit mini microphone

Electrical values (internal AC/DC power supply)
Rated voltage　　　　　　　100 - 240 V
Rated frequency　　　　　　50/60 Hz
Max. power consumption　　0.7 A

Power consumption for standard configurations with XPe
Peak (running application)　　　15.9 W
Average (running OS, Idle mode)　10.1 W
Minimum (ACPI status S5, soft-off)　2.3 W

Temperature / dimensions / weight
Ambient temperature　　　　15°C to 35°C to IEC 721
Dimensions with stand
(H x W x D)　　　　　　　　246 x 68 x 177 mm
Dimensions without stand
(H x W x D)　　　　　　　　246 x 48 x 177 mm
Weight　　　　　　　　　　1.5 kg

Compliance with standards
Product safety　　　　　　IEC60950, EN60950,
　　　　　　　　　　　　　UL60950, CAN/CSA-C22.2
　　　　　　　　　　　　　　No.60950-00
Electromagnetic Compatibility EN55022 class B, EN55024
　　　　　　　　　　　　　　EN61000-3-2/-3, FCC
class B,　　　　　　　　　ICES-003
CE-Certification　　　　　according to EC Directive
　　　　　　　　　　　　　　89/336/EEC
　　　　　　　　　　　　　73/23/EEC
Environmental compatibility　EPA-compliant

Security functions
Security functions implemented in the cabinet:
-　Access protection via internal/external SmartCard reader
　(optional)
-　Write-protect facility for Flash EPROM
-　Kensington Lock at rear side