



Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

*InstraView*SM REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at www.instraview.com ↗

WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. www.artisanng.com/WeBuyEquipment ↗

LOOKING FOR MORE INFORMATION?

Visit us on the web at www.artisanng.com ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

Contact us: (888) 88-SOURCE | sales@artisanng.com | www.artisanng.com

FibreXtreme™

**Second-Generation
SL100 SERIES
Now Available!**

- **105 MB/second Sustained Data Rate – The Fastest, Most Efficient Way to Transfer Anything!**
- **Dedicated Point-to-Point, Broadcast Chaining, or Single and Multiple Master Ring Topologies**
- **Extends Front Panel Data Port (FPDP) Connections Up To 10 Km**
- **Supports Shortwave and Longwave Fiber Optic Connections**
- **Compatible with Mercury RACEway and Sky Computers' SKYchannel™ architectures**



Introduction

Systran Corporation introduces the next wave in high-bandwidth, low-latency data communication — it's the FibreXtreme SL100 Series! Based on the technology pioneered in our original Simplex Link series, FibreXtreme SL100 blasts data at a sustained 105 MB per second with microsecond data latency — up to 25% faster than other technologies. You won't find a faster, more efficient, easier-to use data link for your data-intensive application:

- Digital Signal Processing
- High-speed data acquisition
- Medical imaging
- Range and telemetry systems
- Simulation systems
- Video production

FibreXtreme SL100 is a 1.062 GHz serial data link which utilizes a highly specialized communications protocol optimized for maximum data throughput. Data transfers occur without the CPU overhead and non-deterministic latencies associated with many layers of complex communication protocols. The FibreXtreme on-board DMA engine handles single transactions up to 64 MB for maximum data throughput without processor intervention. DMA and register byte/word swapping provide additional system flexibility.

Industry Standard Architecture

FibreXtreme Serial FPDP technology (VITA 17.1p) is fast becoming the industry standard for high-speed serial com-

munication in today's advanced DSP systems. It is fully compatible with both Mercury's RACEway Interlink Standard and Sky Computers' SKYchannel, two of the leading DSP communications architectures. It's field-tested technology that produces real-world results.

Powerful and Flexible

Each SL100 board features programmable bi-directional communication capability. There's no need for specialized source and destination cards — you have more communication flexibility with FibreXtreme SL100. For even more flexibility in system design, SL100 cards support a variety of system topologies. Choose from point-to-point, broadcast chaining, or single and multiple master ring topologies that enable a single SL100 card to simultaneously send data to multiple destinations.

FibreXtreme offers flexibility in software support with drivers for today's popular operating systems. With support for Windows NT, SGI IRIX, VxWorks, Sun Solaris, Red Hat Linux, and Lynx OS, you can choose the best OS solution for your application.

The flexibility offered by FibreXtreme doesn't stop there. With media options for both short-wave and long-wave fiber, FibreXtreme links can extend Front Panel Data Port (FPDP) connections up to 10 Km with no significant impact on performance. System designers have the flexibility to distribute system components across the building, across the campus, or even across town!

Unique Design Characteristics

With support for 1 Gbit/sec transmission rates between interconnected subsystems separated by as much as 10 kilometers and low-latency performance to match, FibreXtreme data link technology is ideal for many of today's high-throughput Digital Signal Processing (DSP) applications like those shown in Figure 1.

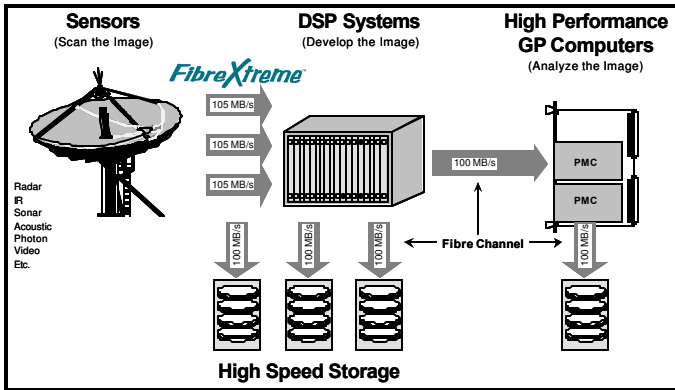


Fig. 1 - Typical DSP Imaging System

FibreXtreme employs hardware-based insertion of data into fixed frames with flow control to keep the data connection open and operating at full speed. There's no need for complex communication protocols that cause data latency and reduce system performance as they establish and arbitrate the connection.

Extend Front Panel Data Port Connections

The Front Panel Data Port (FPDP) was specifically invented to address the high speed connection between

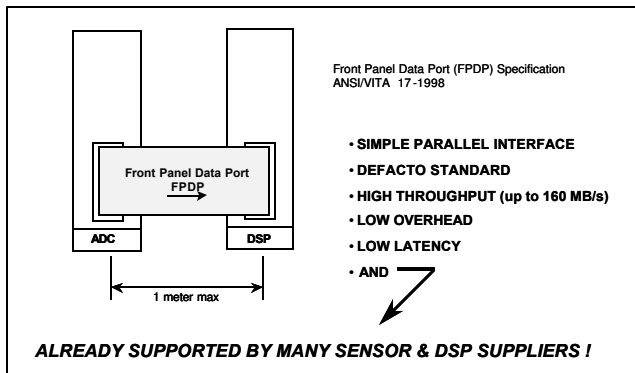


Fig. 2 - Industry-standard FPDP Connections

the Analog-to-Digital Converter (ADC) of a Sensor Subsystem and the Digital Signal Processors (DSP) of advanced DSP based image processing systems. FPDP can be either an 80 or 160 MB/sec parallel connection made via ribbon cable across the VME front panel. The FPDP provides the simplicity, bandwidth, and reliability necessary to support these types of DSP systems. This concept is summarized in Figure 2.

However, FPDP has one major limitation, the ADC must be located within the one meter maximum cable length of FPDP. For many reasons, it is often desirable to locate the ADC as close as possible to the sensing unit, which may be located more than one meter from the DSP system(s). FibreXtreme SL100 extends the reach of FPDP up to 10 kilometers while retaining its simplicity, bandwidth, and reliability. This concept is illustrated in Figure 3 below.

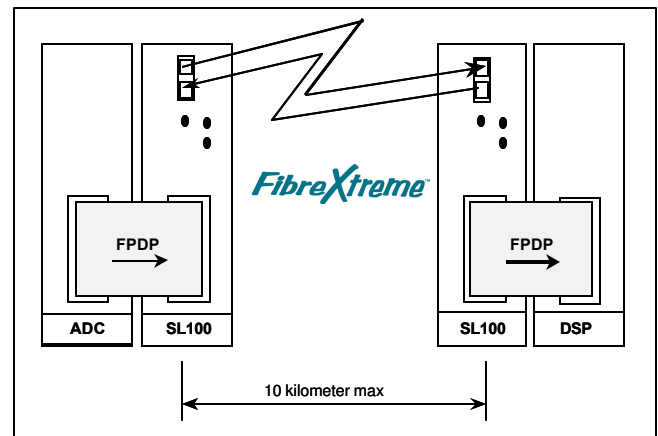


Fig. 3 - FibreXtreme Extends FPDP to 10 Km

The link is implemented on standard 6U VME cards with a sending card at the sensor and a receiving card at the DSP. PCI and PMC FibreXtreme cards allow data to flow from FPDP directly into the computer backplane and also provides high speed computer to computer connections.

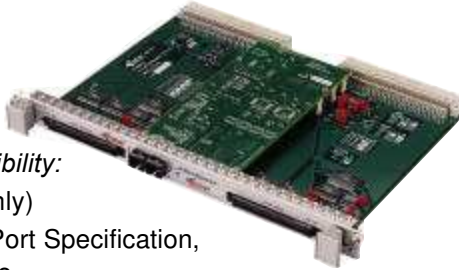
In demanding high-throughput applications, even the smallest delay can mean the difference between success and failure. FibreXtreme SL100 offers the speed, power, flexibility, and reliability to ensure that your application succeeds!

Features & Specifications

- Programmable bi-directional boards for provide more configuration flexibility
- Built-in data synchronization with minimal impact on overall data throughput
- Integrated interrupt controller to report link failure, transaction completion, or buffer space request
- Loop operation with out-of-band arbitration or point-to-point operation
- Watchdog timer for failover operation
- Proven 8B/10B encoding for data transmission
- Memory: 1 MB receive buffer
- Electrical Requirements: +5 VDC $\pm 5\%$, 2 Amps
- Operating Environment:
 - Temperature Range: +0° to +50°C
 - Humidity Range: 5% to 95% (noncondensing)
- Storage Environment:
 - Temperature Range: -40° to +85°C
 - Humidity Range: 0% to 95% (noncondensing)

FibreXtreme SL100 Series Products

6U VME FPDP



Hardware Compatibility:

6U VME (power only)
Front Panel Data Port Specification,
ANSI/VITA 17-1998

Physical Dimensions:

6.690" x 10.320" (169.926 mm x 262.128 mm)

CMC FPDP



Hardware Compatibility:

Front Panel Data Port
Specification, ANSI/VITA 17-1998
IEEE Draft Standard for CMC Family, P1386/Draft 2.0

Physical Dimensions:

2.913" x 5.866" (74.000 mm x 149.000 mm)

PMC



Hardware Compatibility:

PCI Local Bus
Specification, Rev. 2.1

Physical Dimensions:

2.913" x 5.866" (74.000 mm x 149.000 mm)

PCI



Hardware Compatibility:

PCI Local Bus
Specification, Rev. 2.1

Physical Dimensions:

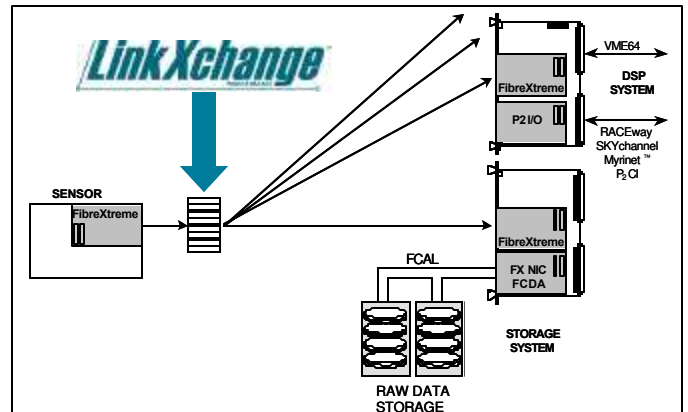
4.725" x 4.200" (120.015 mm x 106.680 mm)

LinkXchange

LX1500 Modular Hub



The LinkXchange LX1500 Modular Hub is a 32-port crosspoint matrix switching device that supports a variety of digital signals at baud rates up to 1.5 GB/second. It supports up to eight "port cards" with up to four I/O ports per card. Different types of port cards provide the specific media connectors, signal conversion, and conditioning required for a specific type of network or digital signal to be switched.



When the LX1500 is utilized with the FibreXtreme SL100 data link, high-speed digital signals from a single sending card can be instantly copied and distributed to multiple receiving cards. This provides the capability for simultaneous parallel processing of identical data streams.

FibreXtreme SL100 Series Software

The FibreXtreme SL100 Series data link system interfaces with various computing platforms typically utilized in data-intensive high bandwidth applications such as DSP. Specific software packages are covered under our Software Maintenance Service, which offers free, automatic software and documentation upgrades when new versions are released during the maintenance term.



Operating System Support

Windows NT®	VxWorks®	LynxOS®
Red Hat Linux	Sun Solaris™	SGI IRIX®

Partial List of Systran Corporate Clients

AIDC (Taiwan)
AP Labs Inc.
Adaptive Optics Associates, Inc.
Aeronautical Development
Establishment Honda (Japan)
Aerospatiale Inc. (France)
Alcoa
Alenia Difesa (Italy)
Allied Signal
Applied Dynamics International
Argonne National Laboratory
Army Research Laboratory
Artesyn Technologies
Ascom (Switzerland)
Atlas Elektronik (Germany)
Aviation Avionics & Instrument Corporation
AYDIN Corporation
BBN Systems & Technology
The BF Goodrich Company
Ball Aerospace & Technologies
Corporation
Bell Helicopter TEXTRON
Boeing Commercial
Boeing Computer Services
Boeing Defense & Space
Boeing Helicopter
Boeing Military Airplanes
Boeing North America n
Bose Corporation
British Aerospace plc
CAE Inc. (Canada)
CAE MRad (Australia)
CASA (Spain)
CBS, Inc.
CSA
Calspan Corporation
Camber Corporation
Carnegie Mellon University

Carolina Power & Light Company
Charles Stark Draper Laboratory, Inc.
Chess DAX BV (Netherlands)
Chrysler Corporation
Concurrent Computer Corporation
Daewoo Heavy Industries Ltd. (Korea)
Daimler-Benz Aerospace (Germany)
Digital Equipment Corporation
DynCorp
EG&G, Inc.
ESG (Germany)
Eastman Kodak Company
Eaton Corporation
Eglin AFB
Elbit.COM (Israel)
Encore Computer Corporation
Ericsson Microwave Systems
Evans & Sutherland Computer Corporation
Fermi National Accelerator Laboratory
Finnair (Finland)
FlightSafety International, Inc.
Fokker Control Systems BV (Netherlands)
Ford Motor Co.
GE Aircraft Engines
GEC Marconi
GTE Government Systems Corporation
General Dynamics Information Systems
General Motors Corporation
General Physics Corporation
Georgia Tech Research Institute
Harris Corporation, Computer Systems
Division
Hewlett-Packard
Hill AFB
Hitachi Zosen Corporation (Japan)
Holloman AFB
Honeywell Inc.
Honeywell Space Systems

IIT Research Institute
INDRA DTD (Spain)
ITT Defense & Electronics, Inc.
Interstate Electronics Inc.
Jet Propulsion Laboratory
Kaiser Aluminum Corporation
Kawasaki Heavy Industries (Japan)
Komatsu TEC (Japan)
Korea Electric Power Data Network
Company Ltd. (Korea)
Krauss-Maffei AG
Lawrence Livermore National Laboratory
Lear Astronics Corporation
Lear Siegler Services, Inc.
Litton Guidance & Control Systems
Lockheed Martin Aeronautical Systems
Lockheed Martin Federated Systems
Lockheed Martin Missiles & Space
Lockheed Martin Skunk Works
Lockheed Martin Tactical Aircraft Systems
Logicon, Inc.
Los Alamos National Labs
MIT Lincoln Labs
MODCOMP, Inc.
MTS Systems Corporation
MacAulay Brown, Inc.
Marconi North America, Inc.
Massachusetts Institute of Technology
McClellan AFB
Mitsubishi Electric Corporation (Japan)
Motorola
NASA
Naval Air Warfare Center
Naval Surface Warfare Center
Naval Undersea Warfare Center
Northrop Grumman
Orbital Sciences Corporation
Oerlikon Contraves Defense (Switzerland)

PSE&G Nuclear Training
Philips Laboratories
Pratt & Whitney
Racal Instruments, Inc.
Raytheon Co.
Raytheon Systems Co.
Rediffusion Simulation Ltd.
Reflectone Inc.
SAAB Aircraft (Sweden)
SAIC
Seos Displays Ltd.
SSC Laboratories
STN-Atlas Elektronik (Germany)
Sandia National Labs
Sikorsky Aircraft Corporation
Silicon Entertainment
Silicon Graphics, Inc.
SPARTA, Inc.
Space Systems/Loral
Spectrum Astro Inc.
Stanford Telecom
Sverdrup Technologies, Inc.
TRW Inc.
Texas Instruments
Thomson-CSF Elektronik (UK & France)
Tokyo Electric (Japan)
Tokyo University (Japan)
USAF
Unisys Computer Systems Group
(Canada)
University of Illinois
University of Massachusetts
Veda Incorporated
Vincor Inc.
VMETRO, Inc.
Wright Patterson AFB
Wyle Laboratories, Inc.

Available From

USA

Systran Corporation
4126 Linden Avenue
Dayton, Ohio 45432-3068 USA
Phone: 937-252-5601
Sales Phone: 800-252-5601
Sales Fax: 937-258-2729
E-mail: info@systran.com
Internet: www.systran.com

Australia

Advanced Systems Pty. Ltd.
117-121 South Road
Hindmarsh
South Australia 5007
Phone: 61-8-8346-0899
Fax: 61-8-8346-5911
E-mail: geoallen@advsys.com.au

France

VSYSTEMS S.A.
2, Rue de Marly
78150 Le Chesnay, France
Phone: 33-1-39238484
Fax: 33-1-39632875
E-mail: info@vsystems.fr

Germany

VSYSTEMS Electronic GmbH
Elisabethstrasse 30
80796 Munchen, Germany
Phone: 49-89-2725306
Fax: 49-89-2722584
E-mail: info@vsystems.de

Italy

VSYSTEMS S.R.L.
Via Cavour 151
10091 Al Pignano
Turin, Italy
Phone: 39-11-9661319
Fax: 39-11-9662368
E-mail: info@vsystems.it

Japan

EIE, Inc.
Sukiyabashi Building
5-1-7 Ginza, Chuo-Ku
Tokyo 104 Japan
Phone: 81-3-3572-3443
Fax: 81-3-3572-3434

Korea

KCE International Co., Ltd.
RM#503 DooRay Building
24 Youido-Dong
Youngdeungpo-Ku
Seoul 150-010 Korea
Phone: 822-761-5200
Fax: 822-780-5010
E-mail: kceicom@mail.hitel.net

Norway, Denmark

VSYSTEMS A/S
Nedre Rommen 5
0988 Oslo, Norway
Phone: 47-22-10-18-52
Fax: 47-22-10-62-02
E-mail: info@vsystems.no

Singapore

Hai-Ou PTE., Ltd.
155 Kallang Way #06-18/22
Singapore 349244
Phone: 65-296-5028
Fax: 65-297-2285
E-mail: haiou@singnet.com.sg

South Africa

Technology Marketing Solutions
Unit 2, Pine Place
116 Johannesburg Rd.
Lyndhurst 2192
Johannesburg, South Africa
Phone: 27-11-882-6836
Fax: 27-11-640-3804
E-mail: tms@iafrica.com

Sweden, Finland

VSYSTEMS AB
Ekbacksvagen 28, 5tr.
S-16869 Bromma, Sweden
Phone: 46-8-26-65-60
Fax: 46-8-26-65-20
E-mail: info@vsystems.se

Taiwan

Skywav e Electronics, Inc.
52 Lane
101 Poaching Street
Taipei, Taiwan
Phone: 866-2-2218-6249
Fax: 866-2-2218-6248
E-mail: skywave@m515.hinet.net

Taiwan

Tai Full Technologies Corporation
4th Floor
No. 130 Nam King East Road Sec 4
Taipei, Taiwan
Phone: 866-2-2578-7890
Fax: 866-2-2578-7790
E-mail: simon@taifull.com.tw

Western Europe and Israel

Aerotech World Trade Ltd.
St. Peter's Road
Maidenhead, Berkshire
SL6 7QU England
Phone: 44-1-628-634555
Fax: 44-1-628-781070
E-mail: ukhq@aerotech.uk.com

For representation in other countries, contact Systran's corporate headquarters





Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

*InstraView*SM REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at www.instraview.com ↗

WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. www.artisanng.com/WeBuyEquipment ↗

LOOKING FOR MORE INFORMATION?

Visit us on the web at www.artisanng.com ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

Contact us: (888) 88-SOURCE | sales@artisanng.com | www.artisanng.com