

Specification Sheet BS1553F-001

High Performance Modular 1553B Bus Switch Array **System BS1553F & BS1553FX** From 8x8 to 64x64 - 5RU

February 2019

General

Automating "patch panels" is a proven & effective method to reduce facility operating costs by increasing efficiency, productivity, repeatability, and reliability. Our BS1553F(X) unit is a modular high density 5RU automated patch unit that can be configured in symmetric or asymmetric configurations from 8x8 to 64x64 within the same chassis.

Designed specifically for a passive differential signal path, high reliability mechanical relay technology is used with DC coupling (no transformers). Each input and output is terminated with 78 ohms (center pin to inner shield) when not selected to be patched. The internal stubbreaking design provides a nearly "transparent" 1553B environment to allow for accurate bus simulations.

Fully populated, this 5RU unit contains a total of 64 inputs and 64 outputs where each input can be connected to any one of the 64 outputs. The BS1553FX is the same but has a 10.1" display (**Option X**) and additional front panel features.

The unit comes standard with redundant hot-swap power supplies, and is available with either single or dual (redundant) hot-swap C3 controllers installed. The C3 controller features 10/100 Ethernet (LXI certified), USB 2.0 and multi-serial (RS-232C/422A/485) control ports. Contact your local sales representative or the factory for assistance.

Applications

- 1553B Bus simulation connectivity
- Aircraft test lab facilities
- Clock and Data routing
- Differential 422 routing (1:1)
- Data recorder data management

Features

- Passive high reliability Tri-Stage design
- Modular I/O for easy expansion & maintenance
- LED indicators adjacent to each port
- Flexible configuration: 8x8 up to 64x64 (or larger)
- Multiple units can be grouped to configure 256x256
- Ultra-high density Tri-Stage design
- DC to >15Mbps throughput
- Hot-swap module technology
- Menu driven color touchscreen display (4.3" or 10.1")
- Available with either single or dual CPUs
- 10/100 Ethernet, USB and Serial control ports *
- Includes TCP/IP, SNMP, SNTP, IPv4 & IPv6 & browser
- Removable microSD card for secure environments
- Rugged 5RU high aluminum chassis (8.75")
- International AC power range
- Self-monitoring hot-swap plug-in supplies with PFC
- Integrated rack mount design (19 inch)
- Chassis slide mounting hardware (slides not included)
- Certified CE EN61010 (LVD)
- Compatible with RouteWarePRO control software

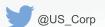
^{*} New C3+ control CPU in Q3 2019 includes 1GB Ethernet and SNMP v1/v2/v3







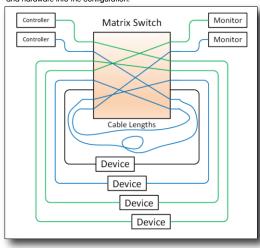
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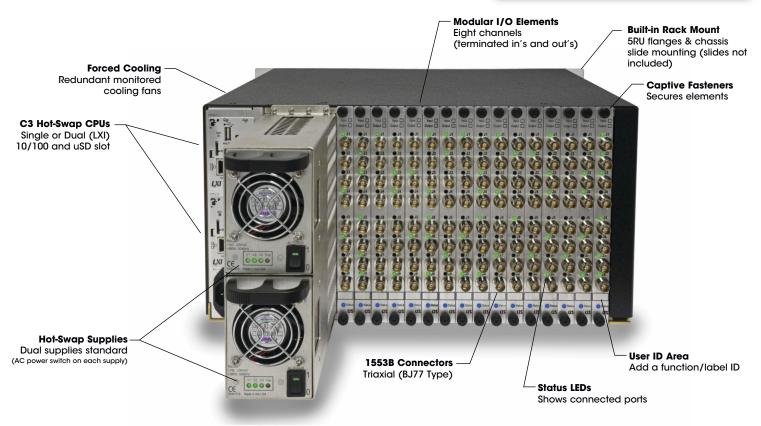


Model Number Assignment

BS1533FX - io-X7 Series Number (add "X" for 10.1" display) Input Modules (1 to 8) 7 = 78 ohm (std) Output Modules (1 to 8) 1 = Single CPU 2 = Dual CPU (redundant)

1553B Bus SimulationAutomated patch for including cables and hardware into the configuration.





System BS1553F Specifications	General Specifications
	Module technologyHot-Swappable
Minimum array size 8 input, 8 output	Power supply section
Maximum array size64 input, 64 output	Controller CPUSingle or Dual (redundant)
	Remote interface
Expansion increment 8 ports per module	Protocol
Switching technology Passive (mechanical relay)	Local control
Type of system1:1 connectivity (patching)	Configuration routingAutoRoute or manual
	Configuration memory
ArchitectureTri-Stage redundant, bidirectional	CoolingForced cooling with RPM monitoring
	AC power requirements
Signal Characteristics	Power cordsDual inputs (USA 15A)
Signal Characteristics	Weight
To	Size
Impedance	Operating temp
Signal type	Non-operating temp20 to +85C
Connector	Humidity
Termination	MTBF >135,000 hours (per MIL-HDBK-217F N1,
FrequencyDC - 15Mbps	ground benign @ +25C) estimated
Factory Spares	* New C3+ control CPU in Q3 2019 includes 1GB Ethernet and SNMP v1/v2/v3.
I/O module (eight channel, 78 ohm)VRIO-1553B-87X (78 ohm, Triax) Mid-moduleVRIV-1553B-7X	Universal Switching's policy is one of continuous development, and con-
Power supply element	sequently the company reserves the right to vary from the descriptions and specifications shown in this publication.

