

# **Specification Sheet S2561F-001**

Modular 256x256 Analog & Digital Switching Array System S2561F & S2561FX Building Block to 1024x1024

March 2018

## **General**

Eliminating and automating manual patch bays and cords, the System S2561F is a single-ended high-density switch array specifically designed for routing both digital and analog signals. It can handle a wide range of signals such as IRIG-B, PCM, TTL, clock & data, 70MHz IFvideo, or other similar signals between DC-125MHz.

Fully populated, this 5RU unit delivers 256 inputs and 256 outputs where a given input can be connected to one, many or all 256 outputs (full Fan-OUT non-blocking). The S2561FX is the same, but includes our Option X front panel display (10.1") providing additional front panel visuals and features.

The system is field configurable from a 32x32, which is then expandable to a full 256x256 within the same chassis. To further expand, multiple units can be connected together for 512x512, or even sizes up to as large as 1024x1024.

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. System control & monitoring (and programming updates) is simple via the built-in web browser, or from our software package RouteWarePRO.

The optional I/O connector adapter panels allow the system to be multi-purpose for clock/data, TTL, PCM, E1, or any combination of digital or analog signals depending upon the type of panel selected. Signals can be logically grouped together as clock and data with BNC's, or for PCM type signals. The panels also allow the user to remotely locate the I/O from the actual switching chassis. This allows a new higher level of flexibility for the system integrator.

# **Applications**

- Telemetry data TTL or PCM (clock and data streams)
- Audio, Data or Video routing
- E1 audio switching (30 channel optional card)
- Clock & data routing/distribution
- Mobile telemetry and surveillance shelters
- Production studios, data recorders
- Analog NTSC or PAL video routing

# **Features**

- High reliability solid-state switch elements
- Redundant signal paths (Tri-Stage)
- Flexible configuration: 32x32 up to 256x256, or larger
- Capable of digital and analog switching
- DC to 125MHz bandpass
- Ultra-high density, over 65,500 crosspoint in 5RU
- Hot-swap module technology
- Menu driven color touchscreen display (4.3" & 10.1")
- Available with either single or dual CPUs
- 10/100 Ethernet, USB and Serial control ports
- TCP/IP, SNTP, SNMP v1/v2, IPv4 & IPv6 & web browser
- Removable microSD card for secure environments
- Rugged 5RU high aluminum/steel chassis
- 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





Advanced C3 Controller







System S2561F (shown with 4.3" display)

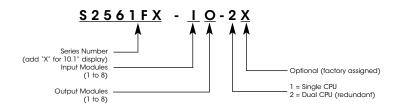


Series AP32 Adapter Panels Units available for various configurations with interconnect cables included

S2561F-2017-03



# **Model Number Assignment**



# **Adapter Panel Assemblies**

(sold separately, see individual data sheets)

### Passive input panel assembly

For 256x256: AP32BI-S76 (includes two cables and two termination plugs) For 512x512: AP32BI-E-S76 (includes four cables) For 1024x1024: AP32BI-4E-S76 (includes eight cables) - different unit from shown.

NOTE: Must be used with matching output panel assembly. Provides 75 ohm BNC's to the user. Specify system S2561F(X)-xx-2.

## Active output panel assembly

For 256x256: AP32BO-S76 (includes two cables and two termination plugs) For 512x512: AP32BO-E-S76 (includes four cables) For 1024x1024: AP32BO-4E-S76 (includes eight cables) - different unit from shown.

NOTE: Must be used with matching input panel assembly. Provides 75 ohm BNC's to the user. Specify system \$2561F(X)-xx-2.





### System S2561F Specifications

Minimum array size .........32 input, 32 output Maximum array size .......256 input, 256 output Expansion increment . . . . . . . . . . . . . . . . . 32 ports per module Switching elements ......Solid-state

Type of system ......Non-blocking with full Fan-Out Architecture ......Tri-Stage redundant, uni-directional

\*\* Systems comprised of multiple units are individually controlled unless special Master/Slave controller is purchased.

#### Input Characteristics

Signal connector . . . . . . . . . . . . . . . . . 62 position DSUB

#### Output Characteristics

Signal connector . . . . . . . . . . . . . . . . . 62 position DSUB

Impedance ......50 ohm (75 ohm optional)

Output type ......Single-ended

Universal Switching's policy is one of continuous development, and consequently the company reserves the right to vary from the descriptions and specifications shown in this publication.

### Signal Characteristics (without adapter panels)

Frequency response .......DC-125MHz (50 ohm version)

Nominal signal level .....<u>±</u>1.5VDC

Maximum input level . . . . . . . <u>+</u>10.0VDC (no damage)

Crosstalk isolation ...........>60dB @ 4MHz

### Signal Characteristics with 75 ohm Adapter Panels (shown above)

Frequency response ........DC-100MHz minimum (75 ohm system)

Nominal signal level ......±5.0VDC

Maximum input level . . . . . . <u>+</u>20.0VDC (no damage)

Crosstalk isolation .........>60dB @ 4MHz >40dB @ 50MHz

>30dB @ 100MHz

### General Specifications

Controller CPU ......Single or Dual (redundant)

Remote interface ...........10/100 Ethernet, USB & Serial (232/422/485)

Configuration routing . . . . . AutoRoute or manual Configuration memory . . . . . Flash

Size ......8.75H x 22.00D x 19.00W (5RU)

Operating temp . . . . . . . . . 0 to +50C Non-operating temp .....-20 to +85C

**MTBF** >125,000 hours estimated

