



## Redundancy Switching System (RSS)

### Overview:

Dataprobe's Redundancy Switching System represents a re-organization of several of Dataprobe's successful switching solutions into an integrated product line. The RSS family includes elements from the following existing product families, and builds a coordinated framework for designing and managing physical layer redundancy switching solutions:

- K-16** 5U A/B Switch System for multiple (16) circuits
- K-3** 1U A/B Switch System for multiple (3) circuits
- iP-AB** Web Controlled A/B switches

Each of these legacy systems will be subsumed by the RSS. This document details the new features of the RSS, and the transition from the legacy systems to the RSS. For specific sunset status of the legacy systems, contact Dataprobe or your Authorized Dataprobe Partner.

### RSS Improvements:

4U Rack Mounted Chassis	The RSS-16 chassis has been reduced in size to 4U (7" nominal height). This 20% reduction in space requirements is accomplished without any loss of capabilities, as compared to the K-16.
Redundant Control Cards	The RSS-16 chassis also provides one additional slot for dual redundant control cards.
Common Suite of Components	All the elements of the RSS can be used in any chassis, making stocking, deploying and managing systems easier and at a lower cost. All A/B switch cards, power supplies and control cards can be used in any RSS chassis configuration.
Internal, External and Dual Redundant Power Options	The RSS-3 can use internal power supplies, or lower cost external power supply. One of each can be used to provide dual redundant power for smaller switch configurations. The RSS-16 can accommodate two internal supplies for redundancy

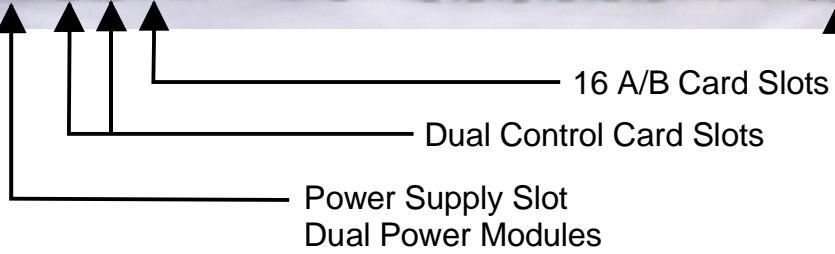
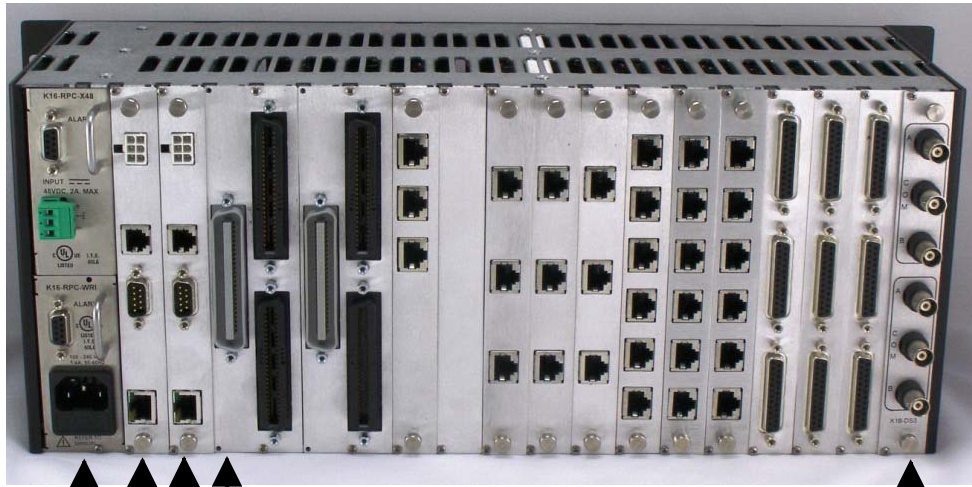
### Legacy Compatibility:

The RSS system builds on the existing hardware and firmware architecture of the K16, K3 and iP-AB product families. Many RSS models are identical to their legacy counterparts, and some have only cosmetic changes to accommodate the higher density available in the RSS chasses.

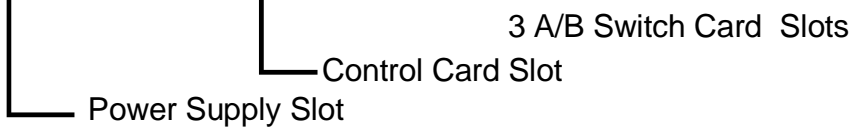


**RSS Chasses:**

RSS-16 Rear View



RSS-3 Rear View



**RSS models and Legacy Replacements:**

Summary

RSS Model		
Item	Model	Description
Chassis		
1150101	RSS-16	RSS 16 Slot 4U Chassis
1150102	RSS-3	RSS 3 Slot 1U Chassis
Power Supplies		
1930069	PS-RSS-WRI	A/C Power Module 100-240VAC
1930070	PS-RSS-48	48VDC Power Supply
1930081	PS-RSS-24	Dual Power Access Supply
1930076	PS-WRI-4	External A/C Power Supply (RSS-3 only)
1920031	FP-PS-RSS	Filler Panel, RSS Series Power Supply
Control Cards + Options		
1340065	IPC-16-R	Network and Serial Control Card
1340066	IPC-1-R	Network Control Gang Card
1340067	IOC-16-R	I/O Control Card - 16
1340068	IOC-1-R	I/O Control Card - Gang
A/B Switching Cards		
1110206	AB-D9-R	9 Pin D'Subminiature
1110212	AB-D15-R	15 Pin D'Subminiature
1110200	AB-D25-R	25 Pin D'Subminiature
1110202	AB-2RJ8-R	Dual 8 Wire Modular Jack up to 16 Mhz
1110203	AB-NET-R	High Speed Ethernet 10/100/1000
1110211	AB-2BNC-R	Dual BNC/DS-3 AB Card
1110205	AB-M34-R	V.35 with M34 Winchester Connectors
1110204	AB-T50-R	50 Pin Telco (Amphenol, RJ21X).
1920128	FP-AB-RSS	Blank Panel for unused slots
1110207	AB-2NET-R	Dual Network Switch Card
1120208	AB-232-R	Auto Switch/Monitor Card

Legacy Model Replaced		
Item	Model	Description
Chassis		
1150050	K-AB-R-16L	K-16 Series Chassis 5U
1150100	K3-R	K-3 Series Chassis 1U
Power Supplies		
1930069	K16-RPC-WRI	A/C Power Supply
1930070	K16-RPC-48	48VDC Power Supply
1930079	PS-R1-224	Dual Power Access Module
1930061	K16-XPS	External A/C Power Supply
1920019	K-AB-PS-FP	Blank Panel for unused P/S Slot
Control Cards + Options		
1340048 1340050	IP-K16-R CP-K16-R	Network and Serial Control Cards
1340049	T-K16-R	Extended I/O Control Card
1340044 1340063	G-K16-R C-AB-1-R	Gang Control / Expansion Cards.
A/B Switching Cards		
1110051	K16-D9-L-R	9 Pin D'Subminiature
1110050	K16-D15-L-R	15 Pin D'Subminiature
1110053	K16-D25-L-R	25 Pin D'Subminiature
1110057	K16-2RJ8-L-R	Dual 8 Wire Modular Jack up to 16 Mhz
1110068	K16-RJ1X-L-R	High Speed Ethernet 10/100/1000
1110056 1110052 1110060	K16-BNC-L-R K16-2BNC-L-R K16-DS3-L-R	Dual BNC, up to 16 Mhz Dual BNC, up to 16 Mhz Dual BNC for 45 Mhz DS-3
1110067	K16-M34-L-R	V.35 with M34 Winchester Connectors
1110055	K16-T50-L-R	50 Pin Telco (Amphenol, RJ21X).
1920023	K16-Blank	Blank Panel for unused slots

## Chassis

The RSS-16 chassis provides the following:

- 4U Rack Mount Height
- 2 x Power Supply Bays
- 2 x Control Card Slots
- 16 x A/B Switch Card Slots

The additional space for the dual redundant control cards was achieved by reducing width of the A/B Cards. The reduction in height was achieved with improved metal fabrication technology.

The RSS-3 chassis provides the following:

- 1U Rack Mount Height
- 1 x Power Supply Bay
- 1 x Control card Slot
- 3 x A/B Switch Card Slots

## Control Cards

1340065      IPC-16-R      Network and Serial Control Card

This card uses the same hardware architecture and runs identical firmware as the K-16 equivalency. As such, all scripts, control programs, and custom firmware written for the IP-K16-R will work in the RSS version. Future development of the IPC-16-R will provide enhancements in redundancy, security, and user programmable features.

1340066      IPC-1-R      Network Control Gang Card

This card uses the same hardware architecture and runs identical firmware as the IP-AB equivalency. It can be used in the RSS-3 and RSS-16 to support web controlled gang switching applications. It also supports the AutoPing feature, for creating automatic switching scenarios based on circuit availability. This card currently requires both slots of the RSS-16 and the control card slot and one A/B card slot in the RSS-3. A new version of this card is in design, eliminating the need for the second slot.

1340067      IOC-16-R      I/O Control Card – 16

This card provides the same 16 dry contact closure control points and 16 relay status outputs as the K-16 version.

1340068      IOC-1-R      I/O Control Card – Gang

This card provides the same 1 contact closure control point for gang switching functions as the K16 and K3 versions.

Power Supplies

1930069 PS-RSS-WRI A/C Power Supply. 100-240VAC  
 1930070 PS-RSS-48 48VDC Power Supply

These two models are kept from the K-16 and K-3 product families. They maintain their UL approvals when used appropriately in the RSS configurations. Two of these supplies can be installed in the RSS-16 for dual redundant applications. One can be installed in the RSS-3. For redundant power in RSS-3, use one internal supply above, and the 1930076 External Supply.

1930081 PS-RSS-24 Dual Power Access Module

This model provides the same dual 24VDC power inputs as the K16 version. The power connector is the same and any cable harnesses designed for K-16 systems will be interoperable with RSS-16 and RSS-3.

1930076 PS-WRI-4 External A/C Power Supply

This power supply can be used as a lower cost alternative to the internal power supply in the RSS-3 chassis. It can also be used as a redundant power supply in conjunction with the internal power supply.

A/B Cards

All of the A/B cards in the RSS system are made from the same hardware architecture as their K16, K3 and iP-AB counterparts. As such, all connectors and connector hardware, pins supported and throughput capabilities are identical to the legacy versions.

**iP-AB Model Replacement**

iP-AB models are replaced by substituting the components of the RSS equivalent to the function of the iP-AB model. As an example: To create a replacement of the iP-AB-D25-R1, order:

1	1150102	RSS-3	RSS 3 Slot 1U Chassis
1	1930076	PS-WRI-4	External A/C Power Supply
1	1340066	IPC-1-R	Gang Control Expansion Card
1	1110200	AB-D25-R	25 Pin D'Subminiature
2	1920128	FP-AB-RSS	Blank Panel for unused slots

With the RSS, an internal power supply option, using 1930069 instead of the external 1930076 is possible. Up to three A/B switch cards can be used to provide gang controlled switching of multiple circuits (up to 6 when using dual cards).

For additional information, availability and design assistance, contact Dataprobe or your Authorized Dataprobe Partner.