

ION Networks® Product Catalog



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api 
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This ION Product Catalog is a "living" document. This means it is continually updated. The most up-to-date version of the product catalog may be found online at www.ion-networks.com.

This guide is intended solely for the use and information of ION Networks, its designated agents and their employees. The information was obtained from several different sources that are deemed reliable by all industry standards.

To the best of our knowledge, this information is accurate in all respects. However, neither ION Networks, nor any of its agents or employees, shall be responsible for any inaccuracies contained herein.

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Introduction

This catalog assists customers in determining the correct ION product, peripherals, and ION services to order. This document contains product part numbers, specifications, cabling, certification, and ION services information. All prices are listed in US dollars.

How to Order ION Products

Contacting

To order ION products either contact your account representative directly or reach us using the information below:

phone:

+1 908.546.3900, Option 1

email:

ion.sales.info@apitech.com

mail:

120 Corporate Blvd.

South Plainfield, NJ USA 07080

ION Products

ION secure appliances provide secure administrative access to virtually any device, using virtually any type of connectivity (e.g., IP, dial-up). ION appliances provide a highly-scalable, easily compatible platform for remote services delivery that satisfies service providers' need for access, monitoring and management, and enterprise companies' need for security. Built-in alarm management and filtering technology helps dramatically improve service levels.

The ION ST530 Secure Token (ST530) is a software personal authenticator, for verifying users accessing PRIISMS, security appliances, and the SM110 Secure Modem. If PRIISMS is licensed for use with an ION device, an ION ST530 Secure Token is provided at no charge. Additional tokens for use with any non-PRIISMS ION device are available on a per/seat basis.

ION SA5600 Secure Appliance



The ION SA5600 Secure Appliance is an intelligent appliance that provides easy, scalable in-band and out-of-band remote administrative access along with superior security and audit capabilities.

System Components

- (2) Ethernet ports (10/100 Base-T)
- Modem options:
 - (0) Analog Modems OR
 - (1) Analog Modem (v.92 - up to 56 Kbps) OR
 - (2) Analog Modems (v.92 - up to 56 Kbps) OR
- Support for 64 Logical Endpoints (upgradable to 400 endpoints)
- Storage capacity 4GB
- (1) Aux port cord (DB9 to DB9 null) 6'
- (1) Host port cord (RJ45 to DB9) 7'
- (1) 7' Telephone cord
- Wall mount kit included — Rack mount kit (optional)
- Document CD: Administrator Guide, Quick Install Guide, ST530 Token

Dimensions and Weight

- Appliance — 12" x 11" x 2.1" (length, width, height)
- Shipping Box — 16" x 14" x 6" (length, width, height)
- Shipping Weight — 9 lbs

Power Requirements

- AC Input — 100/240 VAC, 1.8 amp, 50-60 Hz, 102 BTU/hr (30 watts)
- A 48 Volt DC (@ 0.8 A) power supply is an available option

Export Classification Information for the SA5600 and Accessories

For a chart containing all export classification information, please refer to the “United States Department of Commerce Commodity Classification Information” section of the catalogue.

Table 1: EXPORT LICENSE CLASSIFICATION NUMBERS			
ION Product	ECCN Number	HTS Code	CCATS Number
Secure Appliance SA5600	5D002	8517690000	G043439
Rack Mount Kit RM-56	—	8302498085	
Host Expansion Modules EXP8-56 and EXP16-56	5A991	8637109090	—
Secure Modem SM110	5A991	8517620010	—
ST530 — Software Token personal authenticator	5D922	8523402010	—
PRIISMS	EAR99	8523402010	—
Dataprobe Intelligent Power Controllers	5A002	8471801000	G065444
IEC Power Cords	EAR99	8544420000	—
Data Cable WC-45E9MF7	EAR99	8517180000	
Data Cable WC-45EC25M7	EAR99	8517180000	
Data Cable WC-45EC7	EAR99	8517800050	

Connectivity to the SA5600

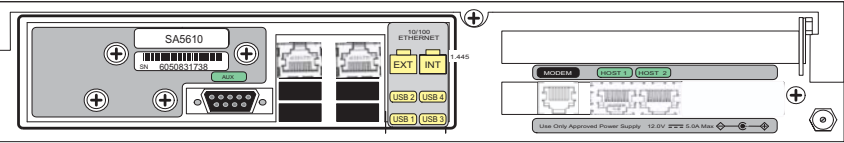
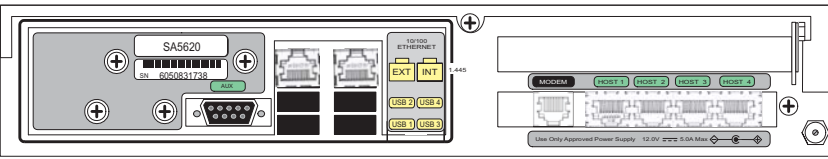
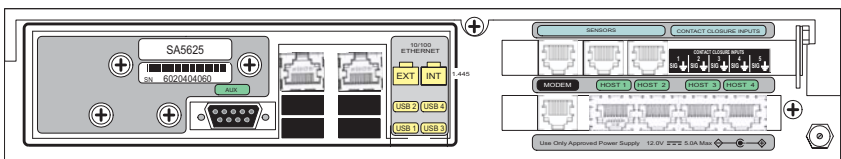
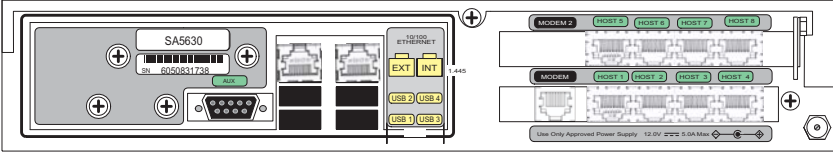
The SA5600 comes with a 6' North American-compatible (IEC) power cord and can be shipped with an additional power cord for a specific country. There is no charge for these additional country-specific cords if the option is made in the original order. (If ordered separately, they cost \$15 each). To ensure that you order the correct power cord for a specific SA5600 model for a particular country, simply add a second line to the product order. For example:

- IEC-NA — for North America
- IEC-CE — for Continental Europe
- IEC-UK — for United Kingdom
- IEC-AU — for Australia
- IEC-IN — for India
- IEC-CN — for China

To order only the power cord without an SA5600 appliance, use the part numbers in the Power Cord Options section.

For further assistance, please refer to the ION Order Assistance Guide on page 19 or contact your ION representative.

Which SA5600 Appliance Should I Purchase?


Table 2: SA5600 APPLIANCE MODELS			
Product Code		Available Configuration	Product Image and General Information
SA5610-RW		(1) Analog Modem	 <ul style="list-style-type: none"> (2) Host ports RoHS/WEEE compliant 48 Volt DC power supply is an available option
SA5610N-RW		No Modem	
SA5620-RW		(1) Analog Modem	 <ul style="list-style-type: none"> (4) Host ports RoHS/WEEE compliant 48 Volt DC power supply is an available option
SA5620N-RW		No Modem	
SA5620G2-RW		(2) Analog Modems	
SA5625		(1) Analog Modem	 <p>Not RoHS/WEEE compliant</p> <ul style="list-style-type: none"> (4) Host ports I/O Expansion — Includes five contact closures and three temperature sensor inputs 48 Volt DC power supply is an available option
SA5625N		No Modem	
SA5625G2		(2) Analog Modems	
SA5630-RW		(1) Analog Modem	 <ul style="list-style-type: none"> (8) Host ports RoHS/WEEE compliant 48 Volt DC power supply is an available option
SA5630N-RW		No Modems	
SA5630G2-RW		(2) Analog Modems	

ION Specialized Applications:

ION has three versions of the SA5600 appliance designed for specific applications/markets. This section provides information to assist in the ordering of these items.

- **Information Assurance (IA2)** appliance - This version of the SA5600 Appliance is listed on the US DOD JITC/IA approved products list. With a special "Locked down" version of firmware which meets the STIG this appliance is permitted to be installed on a US DOD network.
- **ASG Defender** - A Secure Appliance that can be used by US federal government agencies for enabling Avaya services access and monitoring. This appliance allows secure modem access and features real time alarm delivery. Avaya's ASG Defender series of secure appliances delivers the highest level of control, audit, and monitoring, where secure remote access is required for endpoint maintenance and support.
- **SAL** - A Secure Appliance delivering an embedded Avaya SAL Gateway within the ION Mutli-function device with modem access. Secure Access Link (SAL) is an Avaya serviceability solution for support and remote management of a variety of devices and products.

Table 3: ION SPECIALIZED APPLICATIONS		
Product Code	Product Configuration	
Information Assurance (IA):		
SA5610-IA2	ION Security Appliance with JITC/IA software remediations. (1) modem, (2) Ethernet ports, and (2) Serial (Host) ports.	
SA5620-IA2	ION Security Appliance with JITC/IA software remediations. (1) modem, (2) Ethernet ports, and (4) Serial (Host) ports.	
SA5630-IA2	ION Security Appliance with JITC/IA software remediations. (1) modem, (2) Ethernet ports, and (8) Serial (Host) ports.	
ASG Defender:		
SA5610-DEF	ION Security Appliance with ASG Defender software. (1) modem, (2) Ethernet ports, and (2) Serial (Host) ports.	
SA5620-DEF	ION Security Appliance with ASG Defender software. (1) modem, (2) Ethernet ports, and (4) Serial (Host) ports.	
SA5630-DEF	ION Security Appliance with ASG Defender software. (1) modem, (2) Ethernet ports, and (8) Serial (Host) ports.	
Secure Access Link (SAL) Gateway		
SA5610-SAL	ION Secure Appliance with embedded Avaya SAL Gateway software (4GB, 120 GB SSD).	
SA5600-SAL-IPO	ION Secure Appliance with embedded Avaya SAL Gateway software (2GB, 16 GB SSD)	

Table 4: SA5600 ACCESSORIES AND POWER OPTIONS		
Product Code	Product Configuration	
RM-56	19" Rack Mounting Kit for model 5600	
TMP-56	Temperature Sensor (model 5625 only)	
SMK-10	Smoke Detector (model 5625 only)	
WT10	Water Sensor (model 5625 only)	
PS-12V5A-U	Replacement AC Power Adapter and cord. AC Input – 100/240 VAC~, 1.8 amp, 50-60 Hz. 	
PS-12V5A-48	Optional 48 Volt (@ 0.8 A) Power Supply and cord. -48 Volt DC Input to 12v DC @ 5 Amps. 	

Power Control

We provide Dataprobe Intelligent Power Controllers to perform remote power-on, power-off, or Reboot (timed power-cycle). Depending upon the product you choose, you can control from 1-16 power outlets independently. You can also daisy-chain two or more controllers to control the power for up to 48 devices.










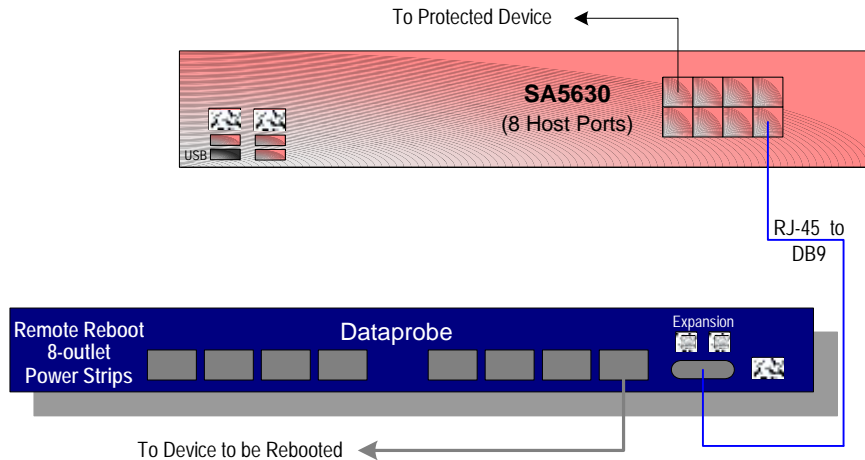
Table 5: DATAPROBE INTELLIGENT POWER CONTROLLERS		
Product Code	Product Configuration	
IPC1-10A-C14	Intelligent Power Controller, Dataprobe 1-port unit, 10 Amp., 70 BTU/hr.  <ul style="list-style-type: none"> • AC power cord included • Includes ION data cable part # WC-45EDP 	
IPC8-15A-NA	Intelligent Power Controller, Dataprobe 8-port unit, 15 Amp., 70 BTU/hr.    <p>Powercord is molded into the device — non-detachable.</p> <p>NEMA 5-15</p> <p><u>Includes ION data cable part# WC-45E9MF7 (RJ45 to DB9)</u></p>	
IPC8-20A-NA	Intelligent Power Controller, Dataprobe 8-port unit, 20 Amp., 70 BTU/hr.    <p>Powercord is molded into the device — non-detachable.</p> <p>NEMA 6-20</p> <p><u>Includes ION data cable part# WC-45E9MF7 (RJ45 to DB9)</u></p>	

Table 5: DATAPROBE INTELLIGENT POWER CONTROLLERS		
Product Code	Product Configuration	
IPC8-20A-C14	<p>Intelligent Power Controller, Dataprobe 8-port unit, 20 Amp., 70 BTU/hr</p>  <p><u>Includes ION data cable part# WC-45E9MF7 (RJ45 to DB9)</u></p> <p>Note: You must select the appropriate power cord (below) when ordering this appliance:</p> <ul style="list-style-type: none"> • WL-IEC320C19CE for Continental Europe (Included with Product Code IPC8-20A-C14) • WL-IEC320C19UK for the United Kingdom • WL-IEC320C19AU for Australia • WL-IEC320C19IN for India • WL-IEC320C19CN for China • Other Power Cord options are available. Power cord \$40 if ordered separately. 	
WL-IEC320C13C14	<p>6' Extension Cable for Dataprobe IPC1-10A-C14 and IPC8-20A-C14</p>  <p>male end female end</p>	

Connectivity to the SA5600

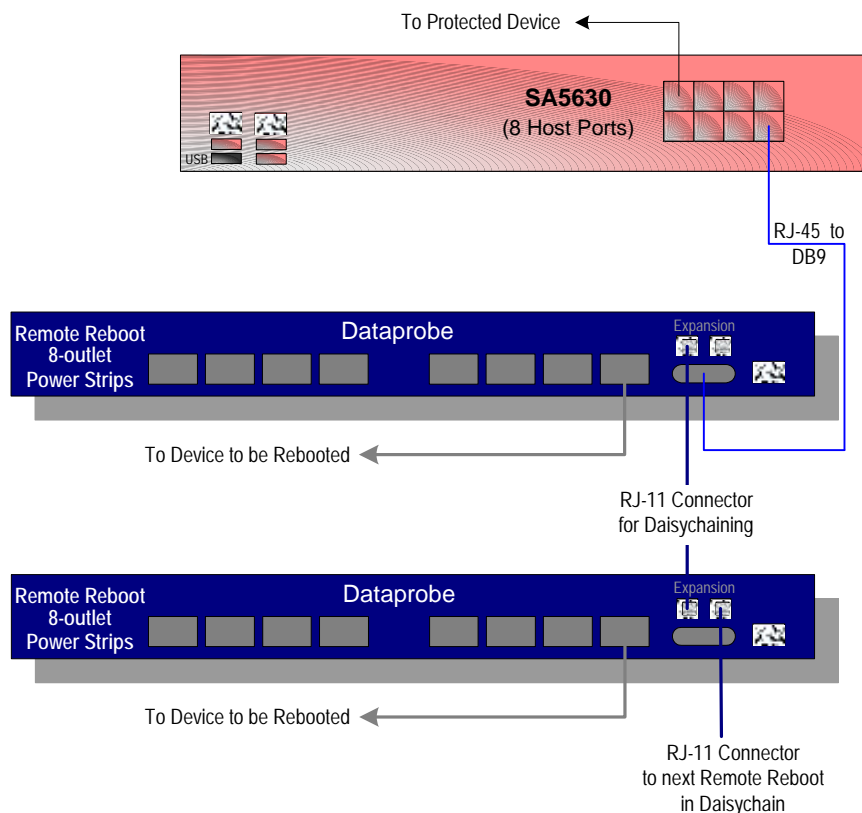
A Dataprobe Intelligent Power Controller connects to a SA5630 appliance (for example) as depicted below:



Note: The Dataprobe uses one of the Host Ports of the Secure Appliance, making one less host port available for connecting protected devices.

Daisy-chained Controller

You can daisy-chain two Dataprobe Power Controllers, to control 16 devices as illustrated below:



Which Power Controller and Cables Should I Purchase?

Table 6: ORDERING POWER CONTROLLERS			
IF you have this number of devices to control...		THEN order these...	and these...
Devices	Environment	Power Controllers	Cables
1	10 Amps, <u>North America</u>	One 1-port unit, Dataprobe Intelligent Power Controller, (part# IPC1-10A-C14)	
2-8	15 Amps, <u>North America</u>	One 8-port unit, Dataprobe Intelligent Power Controller (part# IPC8-15A-NA)	
	20 Amps, <u>North America</u>	One Dataprobe Intelligent Power Controller, 8-port unit (part# IPC8-20A-NA)	
	20 Amps, <u>Continental Europe, UK, Australia, India, China</u>	One 8-port unit, Dataprobe Intelligent Power Controller (part# IPC8-20A-C14)	One WL-IEC320C13C14 powercable for each device to be controlled by the Dataprobe.
16	15 Amps, <u>North America</u>	Two daisy-chained 8-port units, Dataprobe Intelligent Power Controller (part# IPC8-15A-NA)	Cable for daisy-chaining: <ul style="list-style-type: none"> One RJ-11 Expansion Cable, 7' long, part# WL-TEL-7LN or <ul style="list-style-type: none"> One RJ-11 Expansion Cable, 14' long, part# WL-TEL-14LN
	20 Amps, <u>North America</u>	Two daisy-chained 8-port units, Dataprobe Intelligent Power Controller, (part# IPC8-20A-NA)	Cable for daisy-chaining: <ul style="list-style-type: none"> One RJ-11 Expansion Cable, 7' long, part# WL-TEL-7LN or <ul style="list-style-type: none"> One RJ-11 Expansion Cable, 14' long, part# WL-TEL-14LN
	20 Amps, <u>Continental Europe, UK, Australia, India, China</u>	Two daisy-chained 8-port units, Dataprobe Intelligent Power Controller (part# IPC8-20A-C14)	One WL-IEC320C13C14 powercable for each device to be controlled by the Dataprobe. Cable for daisy-chaining: <ul style="list-style-type: none"> One RJ-11 Expansion Cable, 7' long, part# WL-TEL-7LN or <ul style="list-style-type: none"> One RJ-11 Expansion Cable, 14' long, part# WL-TEL-14LN

Table 6: ORDERING POWER CONTROLLERS			
IF you have this number of devices to control...		THEN order these...	and these...
Devices	Environment	Power Controllers	Cables
24	15 Amps, <u>North America</u>	Three daisy-chained 8-port units, Dataprobe Intelligent Power Controller (part# <u>IPC8-15A-NA</u>)	Cables for daisy-chaining: <ul style="list-style-type: none"> Two RJ-11 Expansion Cable, 7' long, part# WL-TEL-7LN or <ul style="list-style-type: none"> Two RJ-11 Expansion Cable, 14' long, part# WL-TEL-14LN
	20 Amps, <u>North America</u>	Three daisy-chained 8-port units, Dataprobe Intelligent Power Controller, (part# <u>IPC8-20A-NA</u>)	Cables for daisy-chaining: Two RJ-11 Expansion Cable, 7' long, part# WL-TEL-7LN or Two RJ-11 Expansion Cable, 14' long, part# WL-TEL-14LN
	20 Amps, <u>Continental Europe, UK, Australia, India, China</u>	Three daisy-chained 8-port units, Dataprobe Intelligent Power Controller (part# <u>IPC8-20A-C14</u>)	One WL-IEC320C13C14 powercable for each device to be controlled by the Dataprobe. Cables for daisy-chaining: Two RJ-11 Expansion Cable, 7' long, part# WL-TEL-7LN or Two RJ-11 Expansion Cable, 14' long, part# WL-TEL-14LN

Host Expansion for the SA5600

With the Host Expansion Modules you can extend console port density to more than the 2-8 devices that are supported on a single SA5600 appliance:

- The 8-port Expansion Module expands protection up to eight additional RS-232 serial devices.
- The 16-port Expansion Module expands protection up to sixteen additional RS-232 serial devices.

Host expansion is not a field-upgradeable option — host expansion units must be ordered with the SA5600 base unit to ensure proper system configuration. Host expansion units are compatible only with the SA5630 models.

System Components

8-Port Module

- (8) RS-232 ports
- (8) DB9 to RJ45 converters
- (1) USB receptacle (type B)
- External Power Supply
- North American Power Cord (Included, unless a region-specific power cord is requested. See “Power Cords” section below.)
- USB cable for connection to an SA5600

16-Port Module

- (16) RS-232 ports
- (16) DB9 to RJ45 converters
- (1) USB receptacle (type B)
- North American Power Cord (Included, unless a region-specific power cord is requested. See “Power Cords” section below.)
- USB cable for connection to an SA5600

Dimensions and Weight

8-Port Module

- Appliance Dimensions: 204 x 44 x 125 mm (8.03 x 1.73 x 4.92 in)
- Appliance weight: 835 g (1.84 lb.)
- Shipping weight: 1435 g (3.16 lb.)

16-Port Module

- Standard 19-inch rack-mountable
- Appliance Dimensions: 440 x 45.5 x 198.1 mm (17.32 x 1.79 x 7.80 in)
- Shipping Weight: 3485 g (7.68 lb.)

Power Requirements

AC Input — 100/240 VAC, 50-60 Hz, 102 BTU/hr. (30 watts)

8-Port Modules

- Power Consumption — 230 mA @ 12 VDC, 14 BTU/hr. (external power supply) (4 watts)
- No 48 volt power option

16-Port Modules

- Power Consumption — 130 mA @ 100 VAC, 44 BTU/hr. (14 watts)
- No 48 volt power option

Power Cords

- The 8-port Expansion Module ships with the external power supply and a North American power cord (unless a region-specific power cord is requested at the time of ordering).
- The 16-port Expansion Module contains an internal power supply and ships with a North American power cord (unless a region-specific power cord is requested at the time of ordering).

See Table 8, "HOST EXPANSION DEVICES," on page 17 for power cord part numbers.

Ordering Host Expansion Modules

Which Expansion Module Should I Purchase?

To expand the capacity of the SA5600 family to support nine or more “console” devices you must have the following appliance models and host expansion modules:



- Appliance: SA5630-RW
- Host Expansion Module: The 8-port Expansion Module (EXP-8) or the 16-port Expansion Module (EXP-16).

Table 7: ORDERING HOST EXPANSION MODULES		
<i>IF</i> you have this number of devices to protect...	<i>THEN</i> order these items...	
	5600 Appliance Model	Expansion Module
16	SA5630-RW	(1) EXP-8
24	SA5630-RW	(2) EXP-16

For serial cables, see the ION Serial Cables section.

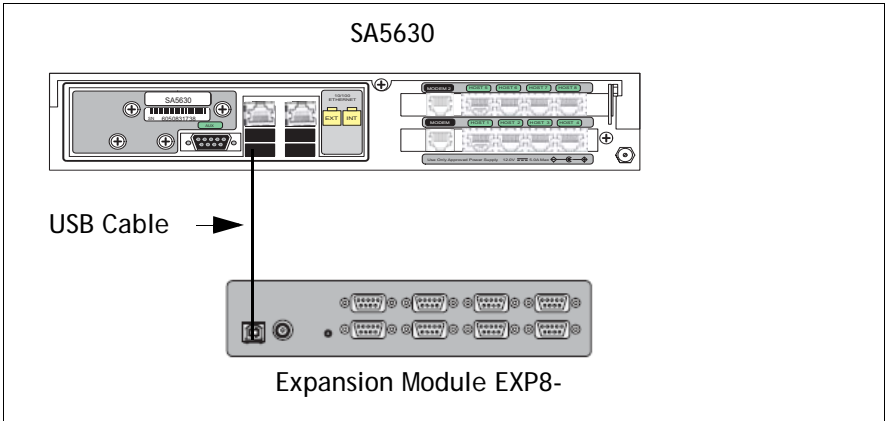
For non-US power cords, see the “Power Cord Picture Guide.”

Note: The serial interface on the Expansion Module is DB9. We provide a DB9 to RJ45 headshell/ converter that provides an identical pinout to the SA5600 appliance host port. This permits the use of identical serial cables for both the base unit and expansion unit as detailed in the serial cable section of this catalog.

Table 8: HOST EXPANSION DEVICES		
Product Code	Product Configuration	
EXP8-56	<p>The 8-port Expansion Module supports up to eight RS-232 serial devices.</p>  <ul style="list-style-type: none"> • RoHS/WEEE compliant • Ships with USB cable for connection to an SA5600 <p>Ships with the external power supply and a North American power supply unless you request one of the region-specific power cords below:</p> <ul style="list-style-type: none"> • WL-IEC320C7CE (Continental Europe) • WL-IEC320C7UK (United Kingdom) • WL-IEC320C7AU (Australia) • WL-IEC320C7IN (India) • WL-IEC320C7CN (China) <p>Power cord \$15 if ordered separately.</p>	
EXP16-56	<p>The 16-port Expansion Module supports up to sixteen RS-232 serial devices.</p>  <ul style="list-style-type: none"> • RoHS/WEEE compliant • Ships with USB cable for connection to an SA5600 <p>Ships with the external power supply and a North American power supply unless you request one of the region-specific power cords below:</p> <ul style="list-style-type: none"> • IEC-CE (Continental Europe) • IEC-UK (United Kingdom) • IEC-AU (Australia) • IEC-IN (India) • IEC-CN (China) <p>Power cord \$15 if ordered separately.</p>	

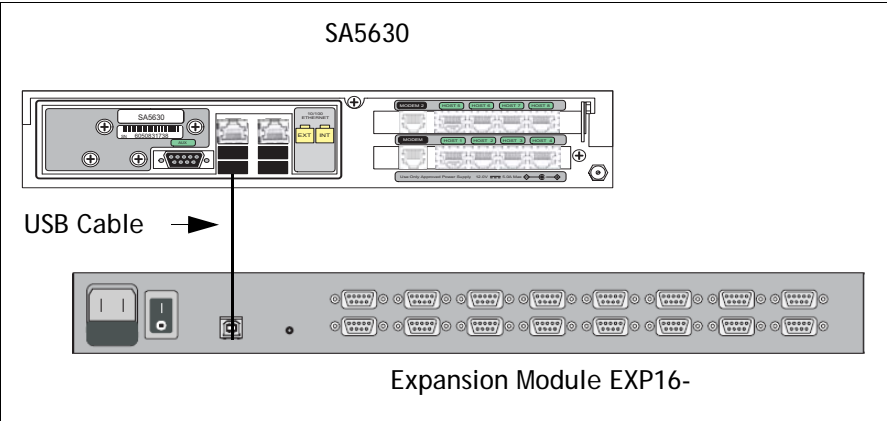
Example of an SA5630-RW connected to an eight port Expansion Module (EXP8-56)

This configuration supports a total of 16 “console” ports — 8 on the SA5630-RW host appliance, and 8 on the Expansion Module. The EXP8-56 Expansion Module comes with 8 DB9 to RJ45 converters.



Example of an SA5630-RW connected to an sixteen port Expansion Module (EXP16-56)

This configuration supports a total of 24 “console” ports — 8 on the SA5630-RW host appliance, and 16 on the Expansion Module. The EXP16-56 Expansion Module comes with 16 DB9 to RJ45 converters.



ION Order Assistance Guide for SA5600

Confused about ordering ION products? This Order Assistance Guide walks you through several sample customers to give you a better understanding of the ordering process.

SA5600 with Expansion Kit and Power Reboot		
Quantity	Example Part Number	Comments
SA5600 Secure Appliance		
1	SA5630-RW	This is the ION SA5600 model part number. There are several base configurations that can be ordered. This one is the four-port model. For more information, refer to the SA5600 section of this catalog.
1	IEC-CE	Most ION appliances ship with a North American power cord. However, this appliance is going to Europe. As such it requires a different plug type. For a list of power cord options, refer to the power cord section of this catalog.
4	WC-45EC7	Customers must order the appropriate serial cables to connect to the host ports of the ION appliance. For questions regarding cables, refer to the serial cables section of this catalog.
1	RM-56	This customer required rack mounts. For rack mounts and other accessories, refer to the SA5600 section of the catalog.
1	Load config: ABC_Co_Users.CFG	We have the ability to pre-load custom configuration files to your ION devices. If you require a custom configuration, it must appear on your purchase order. Purchase orders received without mention of a specific configuration will be sent with the standard configuration file. (This service is offered free to SecureCare customers. For all other customers, we charge a \$25 per device fee for this service.)
Host Expansion Unit		
1	EXP8-56	This is the 8-port Expansion Module. It plugs into the back of the SA5630 appliance.
1	WL-IEC320C7CE	Most ION appliances ship with a North American power cord. However, this appliance is going to Europe. As such it requires a different plug type. For a list of power cord options, refer to the power cord section of this catalog.
4	WC-45EC7	Customers must order the appropriate serial cables to connect to the host ports of the ION appliance. See serial cable section for more details. Note that the serial interface on the expansion unit is DB9. We provide DB9 to RJ45 headshell/converters that provide an identical pinout to the SA5600 model host ports. This permits the use of identical serial cables for both the base unit and expansion unit as detailed in the serial cable section of this catalog.
4	WC-45E9MF7	
Power Control		
1	IPC8-20A-C14	We support a range of intelligent reboot devices that allow for the secure remote reboot of a router or server. For more information, refer to the power reboot section of this catalog.
1	WL-IEC320C19CE	Most ION appliances ship with a North American power cord. However, this appliance is going to Europe. As such it requires a different plug type. For a list of power cord options, refer to the power cord section of this catalog.
8	WL-IEC320C13C14	Depending upon which reboot device is purchased, the customer may require an IEC C13 to IEC C14 power extension cord. Please refer to the power reboot device section for more information.

ION SA500 Service Access Point



Purpose-built for Managed Service Providers (MSPs) the ION SA500 Service Access Point offers drop-in IP access to a wide range of IT and voice systems. Perfect for Small-to-Medium Business (SMB) deployments, the ION SA500 is a highly-affordable and easy-to-deploy alternative to traditional VPN.

The ION SA500 Service Access Point offers six (6) IP endpoints and is upgradable to support up to 24 IP endpoints.

System Components

- (2) Ethernet ports (10/100 Base-T)
- (1) IP port and for local administration
- (1) RS-232 port for local administration
- (1) 6' null modem 9-pin RS-232 serial cable (DB9 to DB9 null) for local administration
- Support for six (6) logical endpoints (optional 12 or 24)
- Storage capacity 1GB
- Document CD
- Quick Install Guide

Dimensions and Weight

- Appliance — 6.25" x 6.125" x 1.125" (length, width, height)
- Shipping Box — 10.5" x 8.5" x 3.75" (length, width, height)
- Shipping Weight — 3 lbs.


Power Requirements

- AC Input — 100/240 VAC-, 0.6 amp, 50-60 Hz, 20.5 BTU/hr. (6 watts)

SA500 Power Cord

See Power Options and Accessories in Table 10:

Table 10: SA500 SERVICE ACCESS POINT APPLIANCE		
Product Code	Product Configuration	
EPLIC-UP6	Upgrade license to add an additional six (6) endpoints to an SA500 or SA600 appliance. An Endpoint is defined as a unique IP address.	
EPLIC-UP12	Upgrade license to add an additional twelve (12) endpoints to an SA500 or SA600 appliance. An Endpoint is defined as a unique IP address.	

Table 10: SA500 SERVICE ACCESS POINT APPLIANCE		
Product Code	Product Configuration	
EPLIC-UP18	Upgrade license to add an additional eighteen (18) endpoints to an SA500 or SA600 appliance. An End-point is defined as a unique IP address.	
SA500 OPTIONS and ACCESSORIES		
PS-WWPLUGS	International blade kit with plugs for the UK, Continental Europe, and Australia. Blades attach to the default wall-mount power supply.	
PS-18VDC-U	Replacement AC Power Adapter. North American Blades. AC Input 100/240 VAC 	

ION SA600 Secure Appliance



The ION SA600 Secure Appliance is an intelligent appliance that provides easy, scalable in-band and out-of-band remote administrative access along with superior security and audit capabilities.

The SA600 is a smaller version of the SA5600 with similar functionality.

System Components

- (2) Ethernet ports (10/100 Base-T)
- (1) IP port and for local administration
- (1) RS-232 port for local administration
- (1) 6' null modem 9-pin RS-232 serial cable (DB9 to DB9 null) for local administration
- Support for six (6) logical endpoints (optional 12 or 24)
- Storage capacity 1GB
- Document CD
- Quick Install Guide

Dimensions and Weight


- Appliance — 6.375" x 6.125" x 1.75" (length, width, height)
- Shipping Box — 10" x 7" x 4" (length, width, height)
- Shipping Weight — 4 lbs.

Power Requirements

- AC Input — 100/240 VAC-, 0.6 amp, 50-60 Hz, 20.5 BTU/hr. (6 watts)

SA600 Power Supply

See Power Options and Accessories in Table 11.

Table 11: SA600 SERVICE ACCESS POINT APPLIANCE		
Product Code	Product Configuration	
EPLIC-UP6	Upgrade license to add an additional six (6) endpoints to an SA500 or SA600 appliance. An Endpoint is defined as a unique IP address.	
EPLIC-UP12	Upgrade license to add an additional twelve (12) endpoints to an SA500 or SA600 appliance. An Endpoint is defined as a unique IP address.	
EPLIC-UP18	Upgrade license to add an additional eighteen (18) endpoints to an SA500 or SA600 appliance. An Endpoint is defined as a unique IP address.	
SA600 OPTIONS and ACCESSORIES		
PS-WWPLUGS	International blade kit with plugs for the UK, Continental Europe, and Australia. Blades attach to the default wall-mount power supply.	
PS-18VDC-U	Replacement AC Power Adapter. North American Blades. AC Input 100/240 VAC 	

Which SA600 Appliance Should I Purchase?

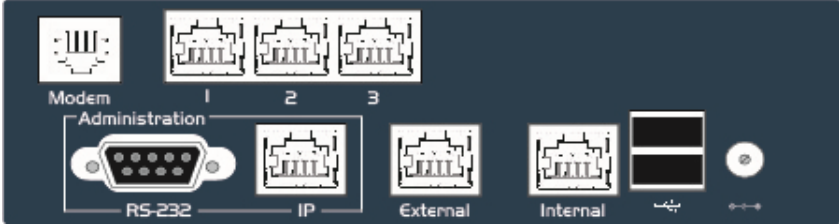
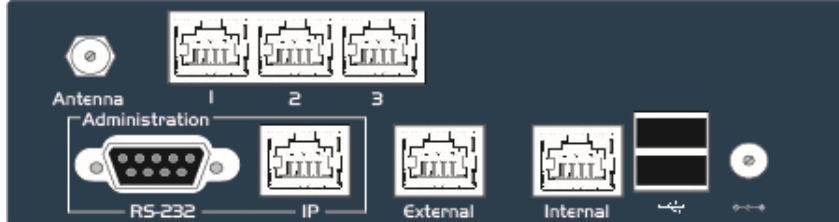
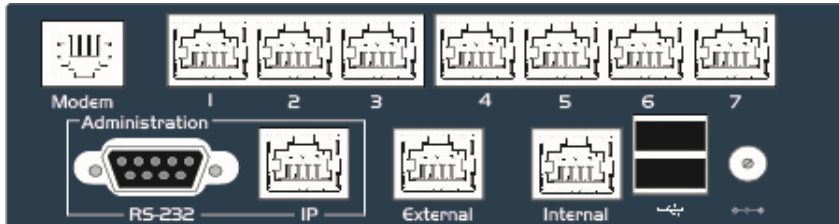
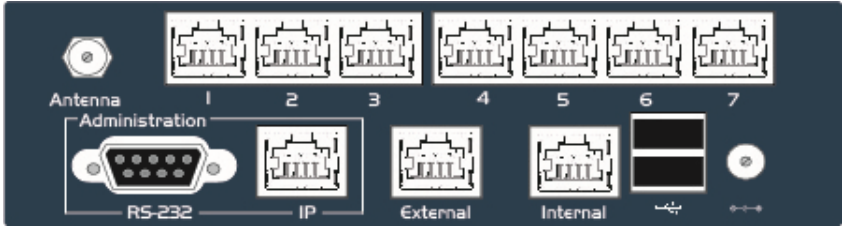
Table 12: SA600 APPLIANCE MODELS			
Product Code		Available Configuration	Product Image and General Information
SA603		(1) Analog Modem	 <ul style="list-style-type: none"> • (3) Host ports • (2) Ethernet Ports • RoHS/WEEE compliant
SA603-S-EP06		SSLVPN, 6 Endpoints	
SA603-S-EP12		SSLVPN, 12 Endpoints	
SA603-S-EP24		SSLVPN, 24 Endpoints	
SA603-C1-S-EP06		(1) CDMA cellular, SSLVPN, 6 Endpoints	 <ul style="list-style-type: none"> • (3) Host ports • (2) Ethernet Ports • RoHS/WEEE compliant • Cellular Modem
SA603-C1-S-EP12		SSLVPN, 12 Endpoints	
SA603-C1-S-EP24		SSLVPN, 24 Endpoints	
SA603-C2-S-EP06		(1) GSM/GPRS cellular, SSLVPN, 6 Endpoints	
SA603-C2-S-EP12		SSLVPN, 12 Endpoints	
SA603-C2-S-EP24		SSLVPN, 24 Endpoints	
SA607		(1) Analog Modem	 <ul style="list-style-type: none"> • (7) Host ports • (2) Ethernet Ports • Analog Modem
SA607-S-EP06		SSLVPN, 6 Endpoints	
SA607-S-EP12		SSLVPN, 12 Endpoints	
SA607-S-EP24		SSLVPN, 24 Endpoints	

Table 12: SA600 APPLIANCE MODELS

Product Code		Available Configuration	Product Image and General Information
SA607-C1-S-EP06		(1) CDMA cellular, SSLVPN, 6 Endpoints	 <ul style="list-style-type: none"> • (7) Host ports • (2) Ethernet Ports • RoHS/WEEE compliant • Cellular Modem
SA607-C1-S-EP12		SSLVPN, 12 Endpoints	
SA607-C1-S-EP24		SSLVPN, 24 Endpoints	
SA607-C2-S-EP06		(1) GSM/GPRS cellular, SSLVPN, 6 Endpoints	
SA607-C2-S-EP12		SSLVPN, 12 Endpoints	
SA607-C2-S-EP24		SSLVPN, 24 Endpoints	

ION Order Assistance Guide for SA600

SA600		
Quantity	Example Part Number	Comments
SA600 Secure Appliance		
1	SA607-C2-S-EP06	This is the ION SA600 model part number. There are several base configurations that can be ordered. This one is the seven-port model. For more information, refer to the SA5600 section of this catalog.
1	IEC-CE	Most ION appliances ship with a North American power cord. However, this appliance is going to Europe. As such it requires a different plug type. For a list of power cord options, refer to the power cord section of this catalog.
7	WC-45EC7	Customers must order the appropriate serial cables to connect to the host ports of the ION appliance. For questions regarding cables, refer to the serial cables section of this catalog.
1	Load config: ABC_Co_Users.CFG	We have the ability to pre-load custom configuration files to your ION devices. If you require a custom configuration, it must appear on your purchase order. Purchase orders received without mention of a specific configuration will be sent with the standard configuration file. (This service is offered free to SecureCare customers. For all other customers, we charge a \$25 per device fee for this service.)

Confused about ordering ION products? This Order Assistance Guide walks you through several sample customers to give you a better understanding of the ordering process

ION SM110 Secure Modem



The SM110 Secure Modem with built-in multi-factor authentication, is a highly cost-effective dial-up solution that allows for emergency dial-up connectivity to voice and IT equipment without compromising security or service levels.

To maintain service levels during an IP outage, remote dial-up access is a necessity. Traditional modems, however, present security risks to the enterprise. Each year, companies install thousands of unsecured modems to remotely administer network devices. These dial-up connections create access points through which sensitive data can be compromised or destroyed. The ION Secure Modem is the most cost-effective way to secure and manage these connections.

System Components

- V.92 — up to 56 Kbps
- (1) DB25 to DB9 Console cable
- (1) 7' Telephone cord
- Document CD: Administrator Guide, User Commands Guide

Dimensions and Weight

- Appliance — 5.7" x 4.3" x 1" (length, width, height)
- Shipping Box — 12.5" x 7.5" x 4" (length, width, height)
- Shipping Weight — 3 lbs.

Power Requirements


- AC Input — 110/240 VAC, 0.5 amp, 50-60 Hz, 5 Watts, 20 BTU/hr

Power Cord

- Comes with a North American-compatible power cord
- Should you require a specific power cord for your region, refer to the Power Cord Options section of this guide to identify the correct cord. For example, for Continental Europe you would order power cord IEC-CE.

Export Classification Information for the SM110

For a chart containing all export classification information, please refer to the "United States Department of Commerce Commodity Classification Information" section of the catalogue.

Table 14: SM110 APPLIANCE MODEL		
Product Code	Product Configuration	
SM110-NA		
SM110-EU		
SM110-UK		
SM110-AU		
SM110-IN		
SM110-CN		
SM110 OPTIONS and ACCESSORIES		
ST530	<ul style="list-style-type: none">• Runs on Windos OS	

PRIISMS Secure Access Gateway

As an option for all ION appliances, the Proactive Remote Intergrated Intelligent Secure Management Solution (PRIISMS) is a web-based management application that provides secure access to network devices by establishing a single entry point for all administrative traffic. When combined with ION Appliances, PRIISMS offers a comprehensive remote services delivery and access & control system.


The PRIISMS application is an *option* for all ION appliances. (The SA500 Service Access Point, however, requires PRIISMS).

Optional PRIISMS modules include:

- **AGM (Authentication Gateway Module)**
This module allows PRIISMS to authenticate a user with an external RADIUS-based authentication server (such as RSA SecurID® and ActivCard®).

PRIISMS is sized and priced according to the number of concurrent connections it can support capable of. Refer to the PRIISMS Gateway section of this guide to select the PRIISMS license that best suits the number of connections your operation needs. The PRIISMS Gateway section also provides details on the server and software components that you need to properly host the application.

Table 15: PRIISMS and MODULES

Product Code	Product Description	
PRIISMS 	<ul style="list-style-type: none"> • Single sign-on • ION appliance management and monitoring tool • Pricing is per server and is dependant on the number of concurrent sessions outbound from the PRIISMS server to endpoints • Supports Windows Server 2008 R2(64bit), and SQL Server 2008 <p>Note: See PRIISMS documentation for additional platform requirements.</p>	
AGM Module	<ul style="list-style-type: none"> • The Authentication Gateway Module allows PRIISMS to authenticate a user with an external Tacacs or RADIUS-based authentication server (such as RSA SecurID® and ActivCard®) 	
PR-RD-DT-V PRIISMS Routing Device	<ul style="list-style-type: none"> • PRIISMS Routing Device enables users to access device with complex GUI clients such as RDP, Web or proprietary fat clients. • A Routing device enables PRIISMS to support more than 60 SSLVPN connections to ION appliances • Desktop form factor 	

PRIISMS Pricing

Table 16: PRIISMS PRICING							
Concurrent Session Licenses — List Prices & Part Numbers							
Description	5	10	15	25	50	100	200
Software license per server (Primary Server)	PR-5CS	PR-10CS	PR-15CS	PR-25CS	PR-50CS	PR-100CS	PR-200CS
Software License per server (Redundant Server)	PR-5CSR	PR-10CSR	PR-10CSR	PR-25CSR	PR-50CSR	PR-100CSR	PR-200CSR
PRIISMSbundledwith server hardware and software (Primary Server)	PR-5CS-V	PR-10CS-V	PR-15CS-V	PR-25CS-V	PR-50CS-V	PR-100CS-V	PR-200CS-V
PRIISMSbundledwith server hardware and software (Redun- dant Server)	PR-5CSR-V	PR-10CSR-V	PR-15CSR-V	PR-25CSR-V	PR-50CSR-V	PR-100CSR-V	PR-200CSR-V
PRIISMS Appliance Bundle: Includes the Following Components: Windows 2008 R2, IIS, SQL (Express), PRIISMS Server application and license, First year of SecureCare System component installation and test							
Primary PRIISMS Appliance Bundle	PR-5CS-DT	PR-10CS-DT	PR-15CS-DT	PR-25CS-DT			
Secondary PRIISMS Appliance Bundle	PR-5CS-DT	PR-10CS-DT	PR-15CS-DT	PR-25CS-DT			
PRIISMS Server On A VM (VM Ware Player):							
Primary PRIISMS Server							
Secondary PRIISMS Server							
Additional Items To Consider:							
SQL Standard							
VM of RD (VM Ware License)							
RD Appliance							
Digi Rapid Port (4 modems)							
Authentication Gate- way Module	AGM						

Note: Configurations requiring more than 200 concurrent sessions require additional servers. Speak to your ION representative for assistance.

Minimum PRIISMS System Requirements

Server Hardware

- Processor: Recent Intel or AMD based processor, Multi Processor/Multi Core compatible
- RAM: 4 GB
- Hard drive: 120 GB disk space
- DVD/CD-Rom: 24X
- Ethernet adapter: 10/100

Operating System

- Microsoft Windows Server 2008 R2 (64 bit).

SQL Database Management System

- Microsoft SQL Server 2008 Standard/R2 with Service Pack 2 or later.

Compatible Tools for PRIISMS Access

Browsers:

- Internet Explorer 8.0 or Later with JRE
- Google Chrome (latest version)
- Firefox (latest version) with Java Plug-in

Terminal emulators:

- HyperTerminal
- Putty
- Tera Term
- Secure CRT
- Procomm
- Telnet — Solaris/Linux/Windows

High-density modem options:

- Cisco Remote Access Server devices
- MultiTech MultiModem ISI board
- Digi Rapidport USB multimodem units

Professional Services

The ION award-winning secure networking products are complemented by a comprehensive service and support offering designed to smooth implementation, provide expertise on demand, and help you make the most of your ION product investment.

Table 17: PROFESSIONAL SERVICES

Service Code	Description	
PRO-100	Implementation and Design Services* include: Architecture and network design Deployment planning Pre-shipment configuration Onsite installation services	
IS-CD	Custom Development Services* Services to implement desired features and functionality to meet your unique requirements and business objectives. Available services include: Custom configurations and custom monitoring requirements Customer configuration file testing and updates for new appliance release Custom integrations with proprietary networks <small>Note: Custom-developed action routines and software are guaranteed to function on a designated version of appliance software. We do not guarantee or warranty that custom software will operate properly on future releases of appliance software. If there is an issue running custom software on a newer version of ION appliance software, we can provide professional services to update the software to ensure the code functions properly.</small>	
IS-PSTD	System Engineering Services: Normal Business Hours System engineer services (via phone) - hourly rate during normal business hours (9am to 5pm east coast US). Services support must be scheduled in advance: Pre and post installation phone support Remote PRIISMS and appliance configurations (MAC) services 3rd party device/endpoint integration services	

IS-PSTN	System Engineering Services: After Hours System engineer services (via phone) - hourly rate outside of normal business hours (9am to 5pm east coast US). Services support must be scheduled in advance: Pre and post installation phone support Remote PRIISMS and appliance configurations (MAC) services 3rd party device/endpoint integration services	
PRO-100-STIG	Professional Service to implement current IA VA/STIG requirements.	

* Full-day billing only. Overtime & weekends — on a per-hour basis, with a minimum of three hours. Transportation, hotel, meals, and all other travel-related expenses are extra and will be billed at cost.

ION Maintenance Plans

ION SecureCare™: Our most comprehensive support plan

SecureCare™ provides comprehensive, round-the-clock support during the operation lifetime of your ION products. With SecureCare™ you get priority status which ensures the fastest response. Multiple levels of ION expertise are available to address everything from basic technical questions to complex problem resolution.

Table 18: ION SecureCare™ APPLIANCE MAINTENANCE PLAN

Product Code	Description	Covers	
ISCA	Annual SecureCare™ maintenance for ION appliances, including hardware and ISOS (ION Secure Operating System) software	<ul style="list-style-type: none"> • Toll-free support number • 24x7 phone support with two hour response guarantee • Support During Business Hours (9am-5pm EST Monday - Friday) with 2 hour response time. Typical types of issues: <ul style="list-style-type: none"> • Troubleshooting assistance. • ION product configuration guidance. For example, creating users, network settings, action routines, etc. Configuration backup/restore, firmware updates. • Assistance with defining periodic maintenance. • ION product deployment assistance. • Support After Hours - covers major system outages or failures with a two hour response time. • Email support within 24 business hours • Free patches for ISOS (ION Secure Operating System) • Free software upgrades and new releases for ISOS • Overnight Cross-shipping of replacement appliances (with RMA)* 	
ISCS	Annual SecureCare™ maintenance for ION PRIISMS	<ul style="list-style-type: none"> • SecureCare maintenance is required for PRIISMS customers • Includes traditional Tier-1, Tier-2, and Tier-3 support • Toll-free support number • 24x7 phone support with two hour response guarantee • Email support within 24 business hours • Free patches and software upgrades as long as you are a SecureCare customer 	

* For international shipments, ION pays return freight only, for appliance. All other freight, duties and/or taxes are the responsibility of the customer. Free enhancements/updates.

Tier III ExpertAssist™: A specialized support plan for experienced customers and technicians

The Tier III ExpertAssist™ plan is for customers who are knowledgeable about the ION product family but require occasional support for complex problems. Tier III customers generally are large enterprise or service providers with in-house technical support organizations.

Table 19: TIER III ExpertAssist™ COVERAGE

Product Code	Description	Covers	
ISEXP3	Tier III ExpertAssist™ Annual Maintenance Plan	<ul style="list-style-type: none"> • 9 AM to 5 PM EST M-F telephone support for certified "named" customer representatives eligible to call for support. A four-hour response is guaranteed. • Email support within 24 business hours • 50% discount for ISOS (ION Secure Operating System) software upgrades and new releases • Repairs: Time & materials basis only. \$50 per hour fee. For repairs that exceed \$250, an estimate will be provided. Shipping costs are customers' responsibility. Two week turnaround time. • Maintenance releases include bug fixes and security patches. Support is provided for two prior releases only. • New feature prices provided at time of announcement. <p>Note: We reserve the right to refuse for repair any appliance that has been altered in any manner, including (but not limited to): open chassis, attempted repair and/or had component(s) replaced by someone other than an authorized ION product representative. Customers will notified upon receipt of any appliances received in this condition.</p>	

À La Carte Coverage

Hardware Repair

Hardware products whose warranty has expired and products that are not covered by an ION maintenance program, can be repaired on a time & materials basis. Customers must contact technical support to obtain an RMA number. Technical support will not attempt to troubleshoot the problem. For repairs that exceed the minimum \$350, an estimate will be provided. Repair for SM110 Secure Modem is \$175. All shipping charges are the responsibility of the customer.

Telephone Support

Customers that do not have an ION maintenance support plan can receive telephone support on a per-incident basis — \$350 per incident for the first two hours of support, then \$50 for each additional half-hour. Phone support is offered Monday through Friday 9 AM to 5 PM EST.

Warranty Coverage

Products are warranted against hardware defects for twelve months and software defects for three months from the date of shipment. Hardware products found defective within 30 days of shipment will be replaced free of charge. After the initial 30-day period, ION will not replace a defective appliance, but will repair and return it to the customer within ten business days. Shipping charges are the responsibility of the customer.

Training

ION product training sessions provide the necessary information to install and setup the PRIISMS application & SA5600 appliances. The target audience for ION product training is the engineers that are responsible for initial installation and ongoing system administration and management.

In addition, the training will cover how to configure ION product to support secure access and monitoring of voice and data equipment. All training materials will be made available in electronic format should an attendee want to share this information with people who are unable to attend this training. Training is offered in both classroom and online formats.

Table 20: Training Options			
Product Code	Description	Covers	
ISFT1	Onsite Training	<ul style="list-style-type: none"> • ION Solution Introduction & Overview 	
ISWT	Web-based Training	<ul style="list-style-type: none"> • PRIISMS Installation, Setup & Administration • PRIISMS Server Overview • ION Secure Appliance Installation, Setup & Administration • PRIISMS / Appliance Integration 	

* Transportation, hotel, meals, and all other travel-related expenses are extra and will be billed separately.

Modem Homologation Certification

Modem Homologation is a certification that permits the connection of a device to a particular PSTN (Public Switched Telephone Network). Such a certification permits the modem embedded in ION devices to connect to an analog (POTS) phone line. ION uses MultiTech modems in its products which allows us to provide a broad range of country-specific homologation. The table below lists countries that are currently certified (as of the publishing date of this catalogue).

NOTE: The list below is updated periodically. For the most up-to-date homologation status, please visit:

http://www.multitech.com/en_US/PRODUCTS/Categories/Device_Networking/global_modems/approvals.aspx

Use the following MultiTech modem part numbers when doing the lookup on the website.

- MT5692SMI — for the SA5600 and SA600
- MT9234ZBA — for the SM110

If your country does not appear on the list, it may be because a homologation certification is not required to connect the device to the local PSTN. Contact your ION representative to confirm that a certificate is required.

Note: It is the customer's responsibility to check that the ordered appliance(s) may be received in country. We do not accept responsibility for customs, power and/or homologation-related issues.

Table 21: MODEM CERTIFICATIONS			
Country	Secure Modem	SA5600	SA600
Argentina	Approved	Approved	Approved
Australia	Approved	Approved	Approved
Austria	Approved	Approved	Approved
Bahrain			
Belgium	Approved	Approved	Approved
Brazil	Approved	Approved	Approved
Bulgaria	Approved	Approved	Approved
Canada	Approved	Approved	Approved
Chile	Approved	Approved	Approved
China	Approved		
Cyprus	Approved	Approved	Approved
Czech Republic	Approved	Approved	Approved
Denmark	Approved	Approved	Approved
Ecuador			
Estonia	Approved	Approved	Approved
Finland	Approved	Approved	Approved
France	Approved	Approved	Approved
Germany	Approved	Approved	Approved
Ghana			
Greece	Approved	Approved	Approved
Hong Kong			
Hungary	Approved	Approved	Approved
Iceland	Approved	Approved	Approved

Table 21: MODEM CERTIFICATIONS			
Country	Secure Modem	SA5600	SA600
India			
Indonesia	Approved	Approved	Approved
Ireland	Approved	Approved	Approved
Israel	Approved	Approved	Approved
Italy	Approved	Approved	Approved
Japan	Approved	Approved	Approved
Korea, South	Approved	Approved	Approved
Latvia	Approved	Approved	Approved
Liechtenstein	Approved	Approved	Approved
Lithuania	Approved	Approved	Approved
Luxembourg	Approved	Approved	Approved
Malaysia		Approved	
Malta	Approved	Approved	Approved
Mexico	Approved	Approved	Approved
Morocco			
Netherlands	Approved	Approved	Approved
New Zealand	Approved	Approved	Approved
Norway	Approved	Approved	Approved
Philippines	Approved	Approved	Approved
Poland	Approved	Approved	Approved
Portugal	Approved	Approved	Approved
Puerto Rico			
Romania	Approved	Approved	Approved
Russian Federation	Approved	Approved	Approved
Singapore	Approved	Approved	Approved
Slovakia	Approved	Approved	Approved
Slovenia	Approved	Approved	Approved
South Africa	Approved	3rd Party	Approved
Spain	Approved	Approved	Approved
Sri-Lanka			
Sweden	Approved	Approved	Approved
Switzerland	Approved	Approved	Approved
Taiwan, Province of China	Approved	Approved	Approved
Turkey	Approved	Approved	Approved
United Kingdom	Approved	Approved	Approved
United States	Approved	Approved	Approved
Uruguay		3rd Party	
Approved: Manufacturer (Multitech) received certification to import modem 3rd Party: 3rd Party acquired certification — ION cannot obtain copies of these documents			

Power Cord Picture Guide

All appliances ship with the standard North American power cord (part number IEC-NA). No charge is made for an additional power cord provided its part number is included in the original order (otherwise \$15 each).

All power cords are 6 feet long except for Australian power cords which are 8 feet. Different cord lengths are special order items.

North American Power Cord

Cord part number: IEC-NA



Continental Europe Power Cord

Cord part number: IEC-CE



United Kingdom Power Cord

Cord part number: IEC-UK



Australia Power Cord

Cord part number: IEC-AU



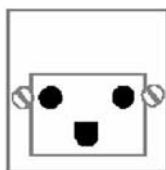
China Power Cord

Cord part number: IEC-CN



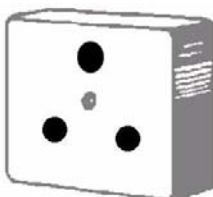
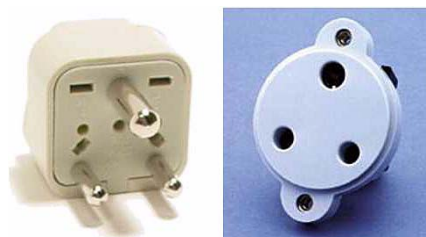
Denmark Power Cord

Cord part number: IEC-DK



India Power Cord

Cord part number: IEC-IN



Italy Power Cord

Cord part number: IEC-IT



New Zealand Power Cord

Cord part number: IEC-NZ



Switzerland Power Cord

Cord part number: IEC-SW



ION Serial Cables

This section provides information on the serial cables used to connect the host port of ION appliances (SM110, SA600, SA5600) to the console ports of endpoint devices such as routers, switches, VoIP platforms, and other voice devices. The information in this document enables you to make your own cables or purchase the appropriate cables from ION Networks.

This section has four parts:

1. Fundamentals of serial connectivity
2. How to build your own cables
3. Serial Cable Pricing and Part Numbers
4. Serial Cable Compatibility Chart

If you are a first-time user of the ION solution and want to gain a general understanding of serial communication and connectivity, read this section from start to finish.

If you need to connect an ION appliance to a specific device, locate the device in Table 24, "THIRD PARTY DEVICES," on page 58. You can then either contact ION to purchase a specific cable, or determine the serial cable pinouts you need and build your own cable.

Though we cannot cover every cable option, this document should cover the majority of your connectivity needs. If your device is not included in Table 24, or if you require additional support, please contact your ION Networks representative or ION Networks Technical Support at ion.networks.support@apitech.com.

Serial Connectivity Basics

The RS-232 standard defines the two devices connected with a serial cable as the Data Terminal Equipment (DTE) and Data Circuit-Terminating Equipment (DCE).

- An example of a DTE port is the serial port on a **personal computer**.
- An example of a DCE port is the serial port on an **external modem**.

This terminology reflects the RS-232 origin as a standard for communication between a computer terminal and a modem.

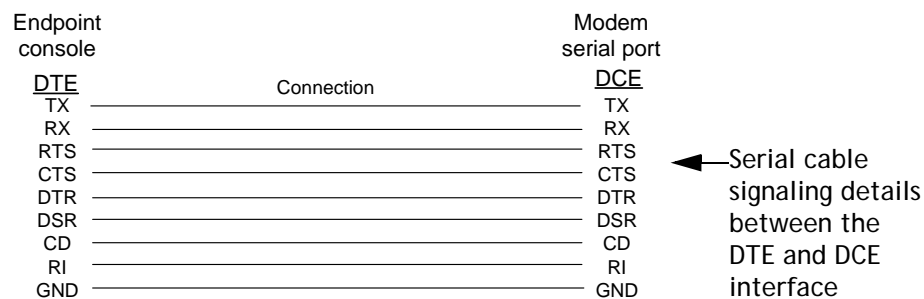
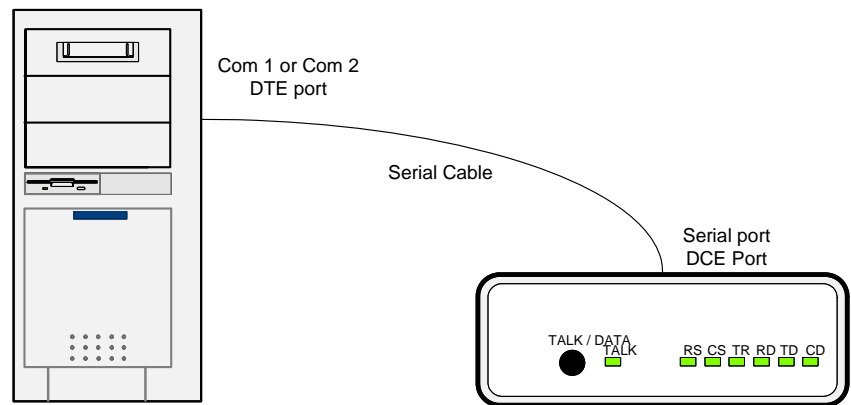


Figure 1: DTE to DCE Serial Cable Signaling

Maximum Serial (RS-232) Cable Length

The RS-232 standard specifies the maximum cable length, conservatively, as 50 feet at a data rate of 19,200 baud. In practice, however, greater distances can be achieved. Although not part of the official standard, the ITU Recommendation of V.10, supports the cable lengths shown in Table 22 below.

Table 22: ITU CABLE LENGTH RECOMMENDATION		
Data Rate	Maximum Cable Length	
Baud	Meters	Feet
1200	1000	3300
9600	100	330
57600	15	50
115200	10	30

The ITU (International Telecommunications Union) specification recommends a limit of 50 feet of Cat 5 cable, and ION Networks can guarantee reliable communication at any supported data rate with that limitation. Under optimal conditions however, reliable communication at 57,600 baud over 300 feet of Category 5 (Cat 5) cable has been attained.

Under real world conditions, the maximum cable length depends on the data speed, the quality of the wire and connectors, the environment, and the characteristics of the serial ports on both ION appliances and the customers' equipment. You can attain more useful cable lengths if you take these measures:

- Decrease the data rate.
- Use higher-quality cables and connectors.
- Run the cables away from sources of interference such as other cables, particularly power cables.

Connectivity Between an ION Device and an Endpoint

ION Host Port Connection to a Device with a *DTE* Serial Interface

The SA5600 Host ports and the SM110 serial port are DCE interfaces. When connecting to DTE equipment such as a PC, a “straight” serial cable is required. Each signal on the ION appliance should be connected to the same signal on the DTE port. The AUX (console) port on the SA5600 (only) is a DTE interface presented on a male DB9 connector.

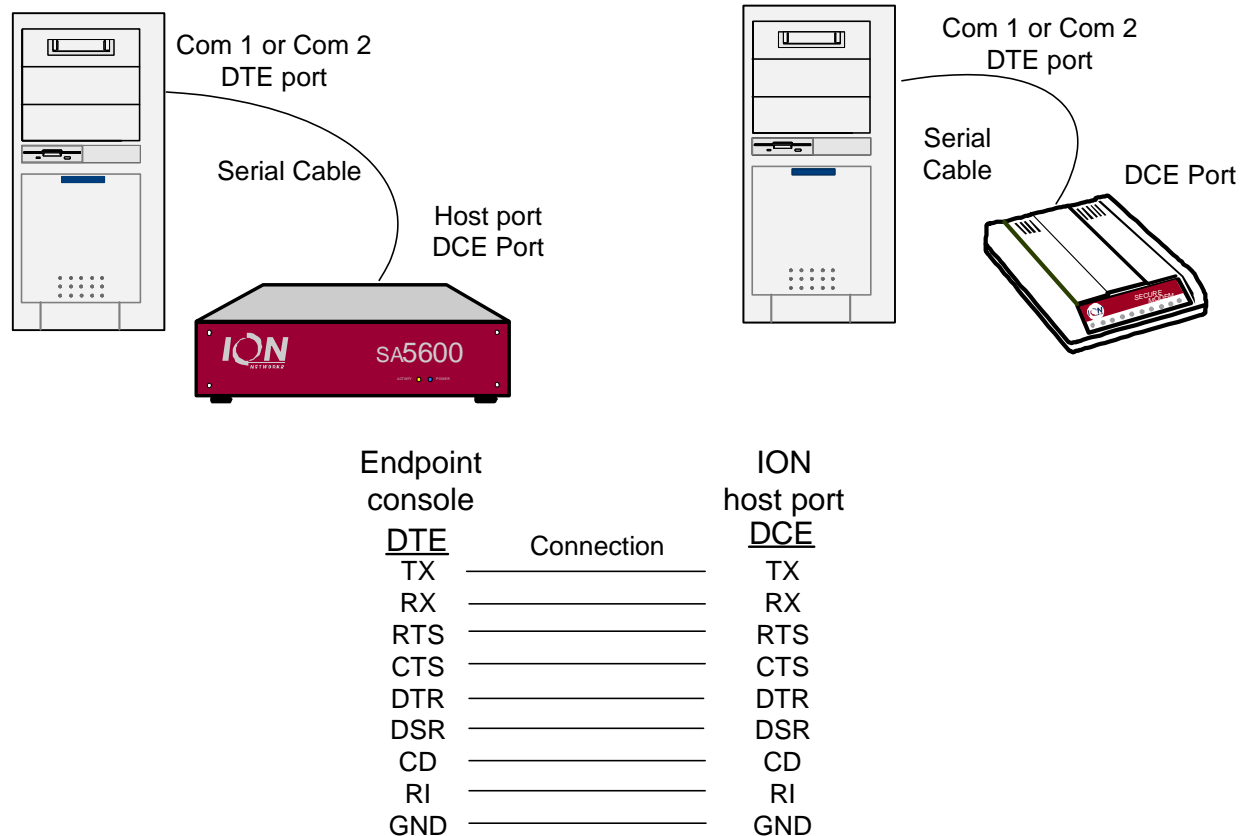


Figure 2: DTE to DCE (Straight) Serial Cabling

Ion Host Port Connection to a Device with a DCE Serial Interface

When connecting the ION appliance to a device with a DCE serial port, use a Null Host cable as shown in Figure 3.

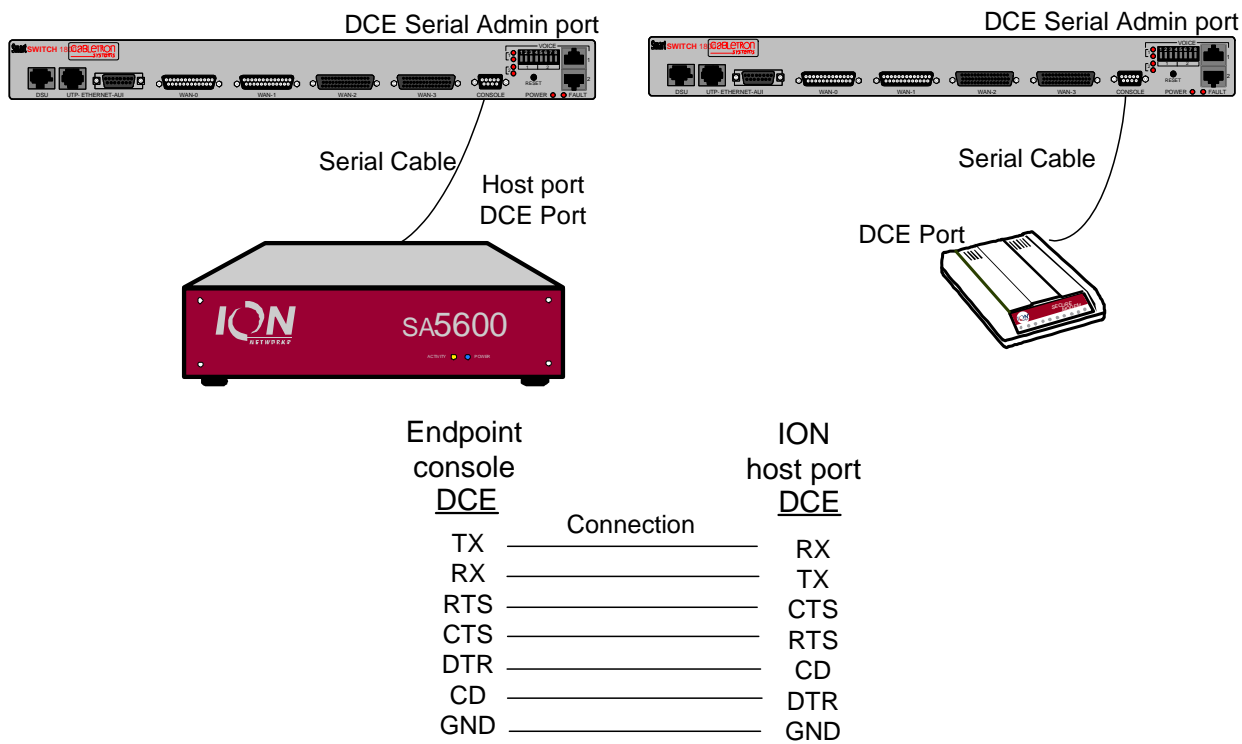


Figure 3: DCE to DCE (Null Host) Serial Cabling

Though there are standard pinouts for serial RS-232 connectors and cables, not all devices follow the standard. This makes it impossible to build “universal” cables for use with all types of equipment. Instead, a custom cable may be necessary for certain devices.

Figure 4 shows the serial port pinouts of ION appliances; this should assist you in building custom cables for those times that a standard cable does not work. With the pin connectivity described in Figure 4, and the RS-232 signal pinouts of the endpoint, you should have all the information necessary to create your own cable. Should you need additional help, please contact your ION Networks account representative or contact our support team at: ion.networks.support@apitech.com.

Standard Serial Cable Part Numbers and Pin-out Diagrams

This section provides the pinout information for building the serial cables used to connect ION appliances to the console ports of widely used devices.

If you would like to order these cables from ION Networks, the part numbers are provided beneath the cable descriptions.

Figures 4 through 8 detail the pinouts of a “straight” serial cable used to connect a networking device with a DTE serial interface to the Host port of an ION appliance.

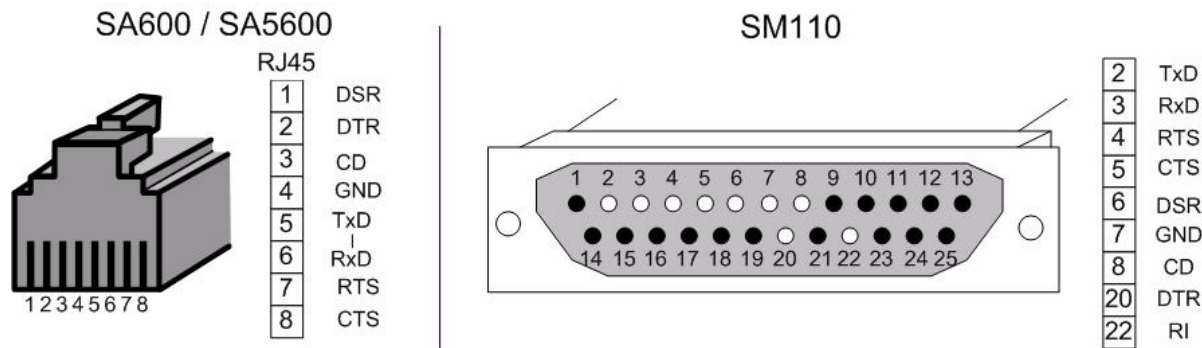


Figure 4: Serial port (host port) pinouts for ION appliances

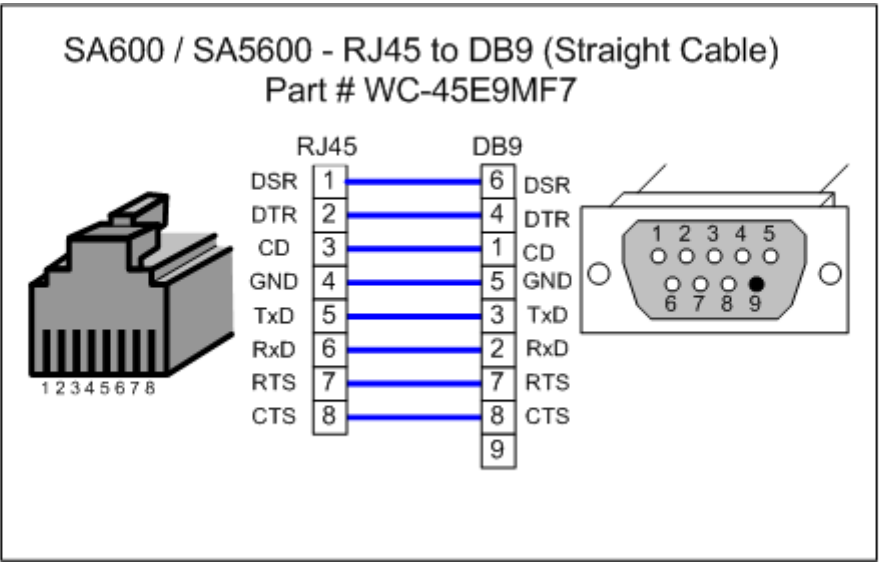


Figure 5: SA600/SA5600 – RJ45 to DB9 (Straight) Cable, WC-45E9MF7

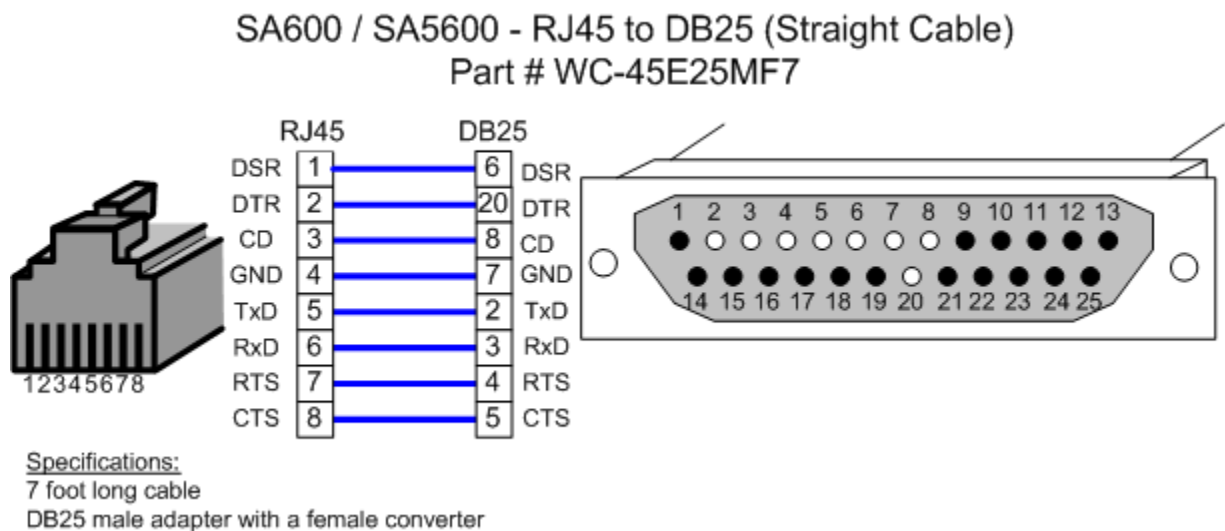


Figure 6: SA600/SA5600 – RJ45 to DB25 (Straight) Cable, WC-45E25MF7

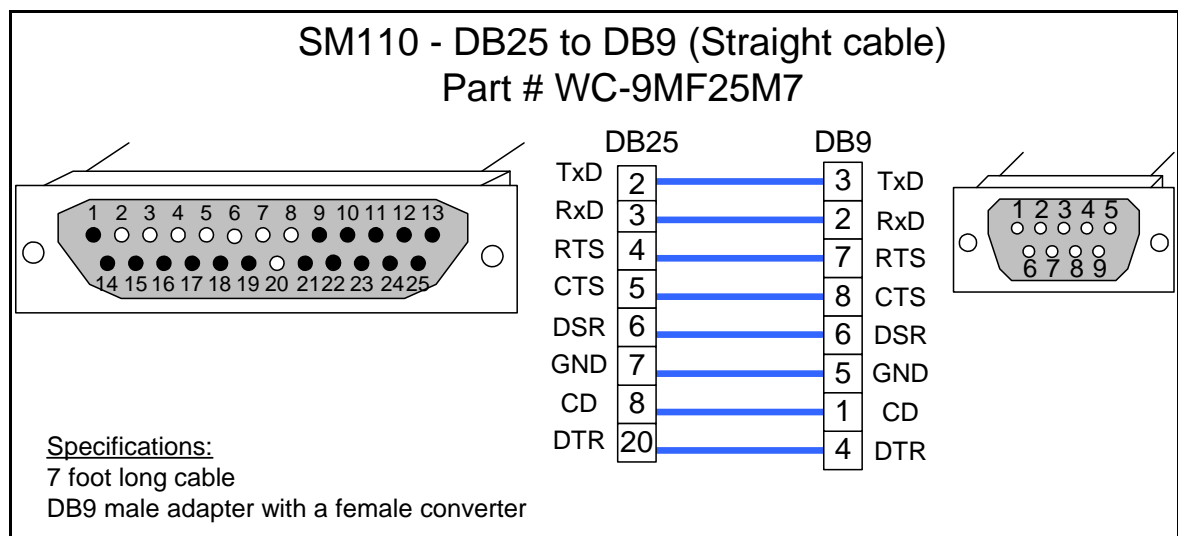


Figure 7: SM110 – DB25 to DB9 (Straight) Cable, WC-9MF25M7

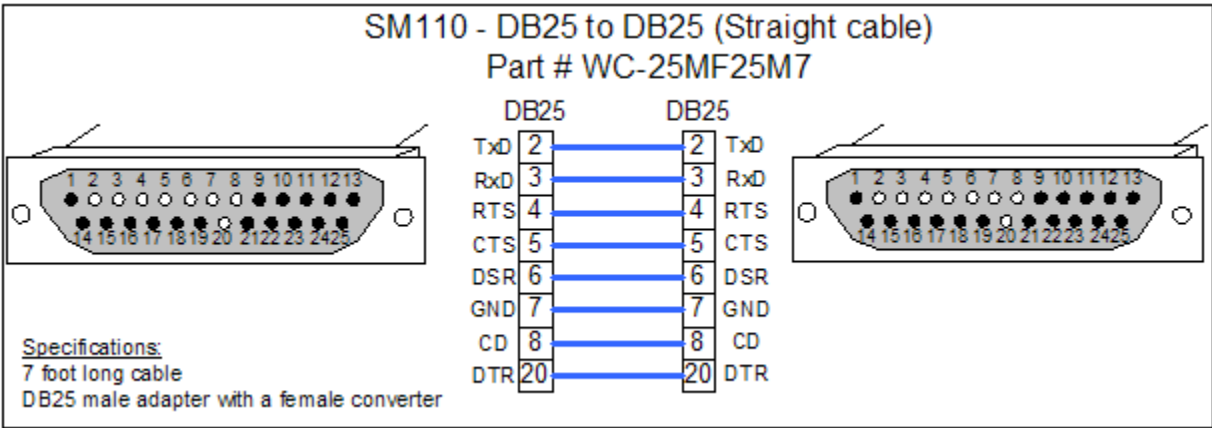


Figure 8: SM110 – DB25 to DB25 (Straight) Cable, WC-25MF25M7

Figures 9 through 12 detail the pin-outs of a “Null host” serial cable used to connect a networking device with a DCE serial interface to an ION appliance (DCE) host port.

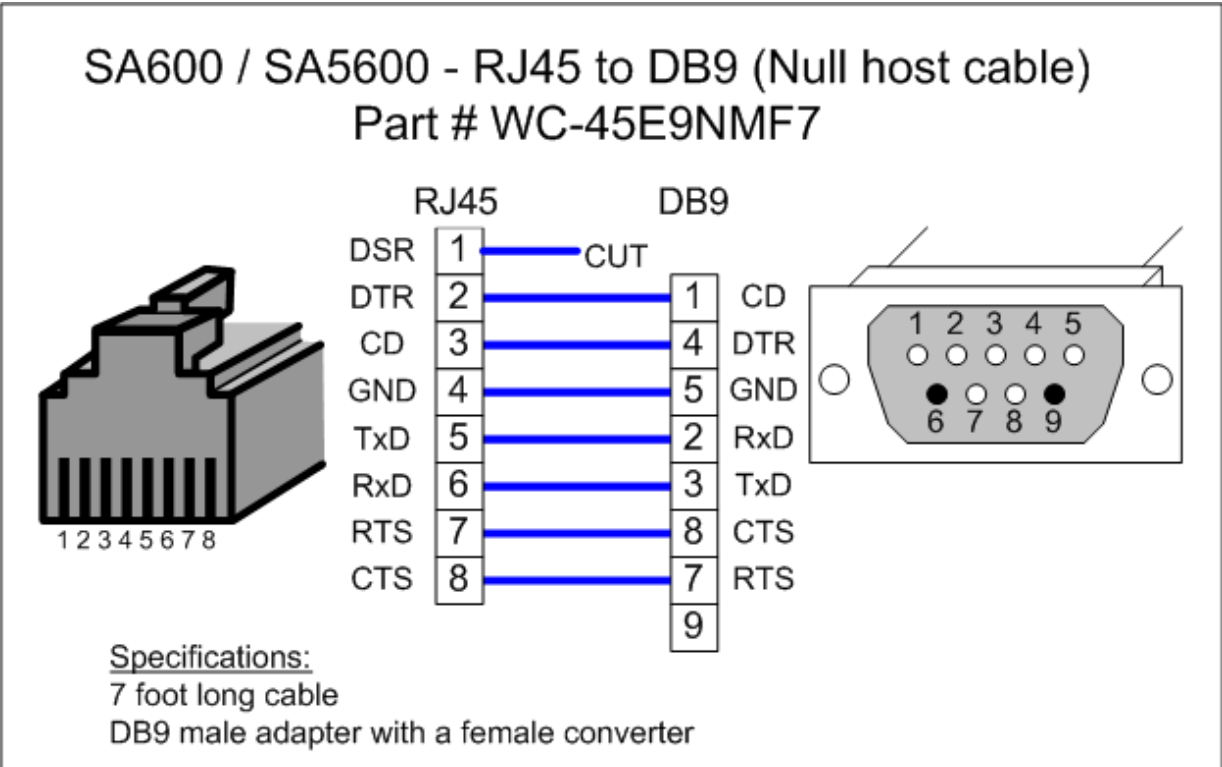


Figure 9: SA600/SA5600 – RJ45 to DB9 (Null Host) Cable, WC-45E9NMF7

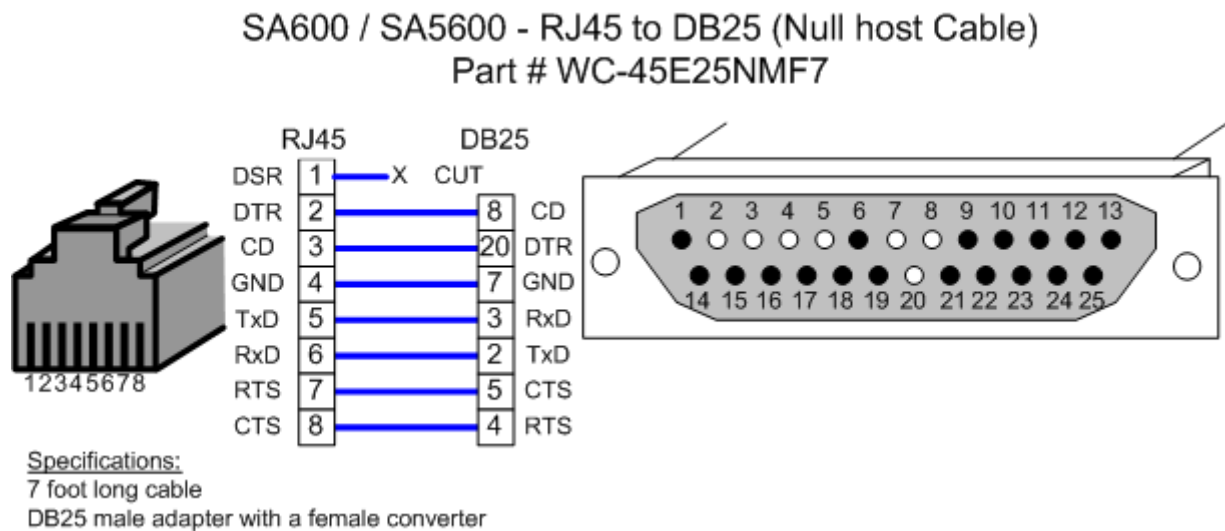


Figure 10: SA600/SA5600 – RJ45 to DB25 (Null Host) Cable, WC-45E25NMF7

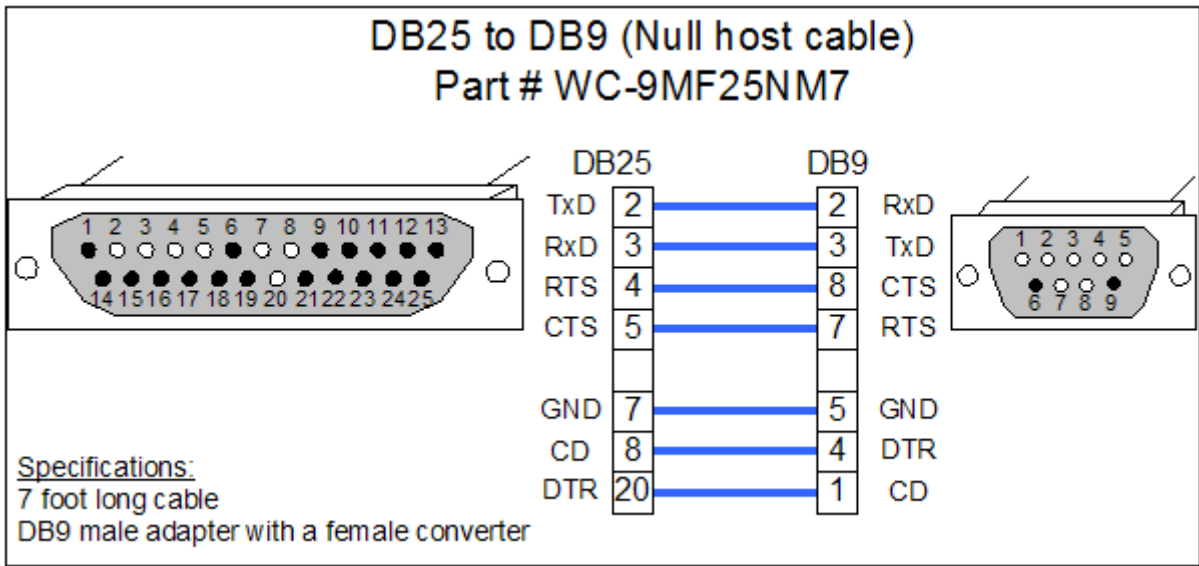


Figure 11: DB25 to DB9 (Null Host) Cable, WC-9MF25NM7

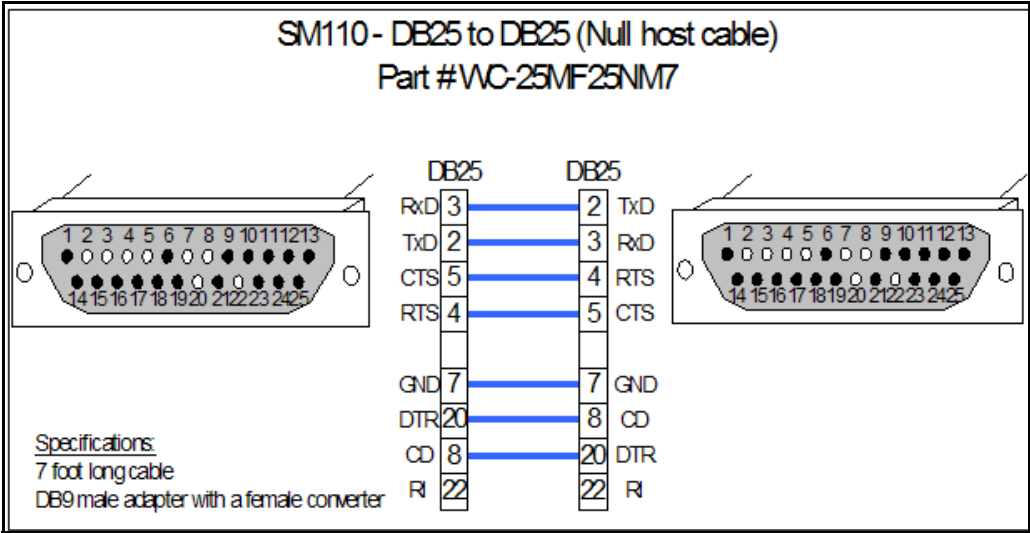


Figure 12: SM110 – DB25 to DB25 (Null Host) Cable, WC-25MF25NM7

Figures 13 through 15 are cables designed to connect an ION device with a Cisco device console port.

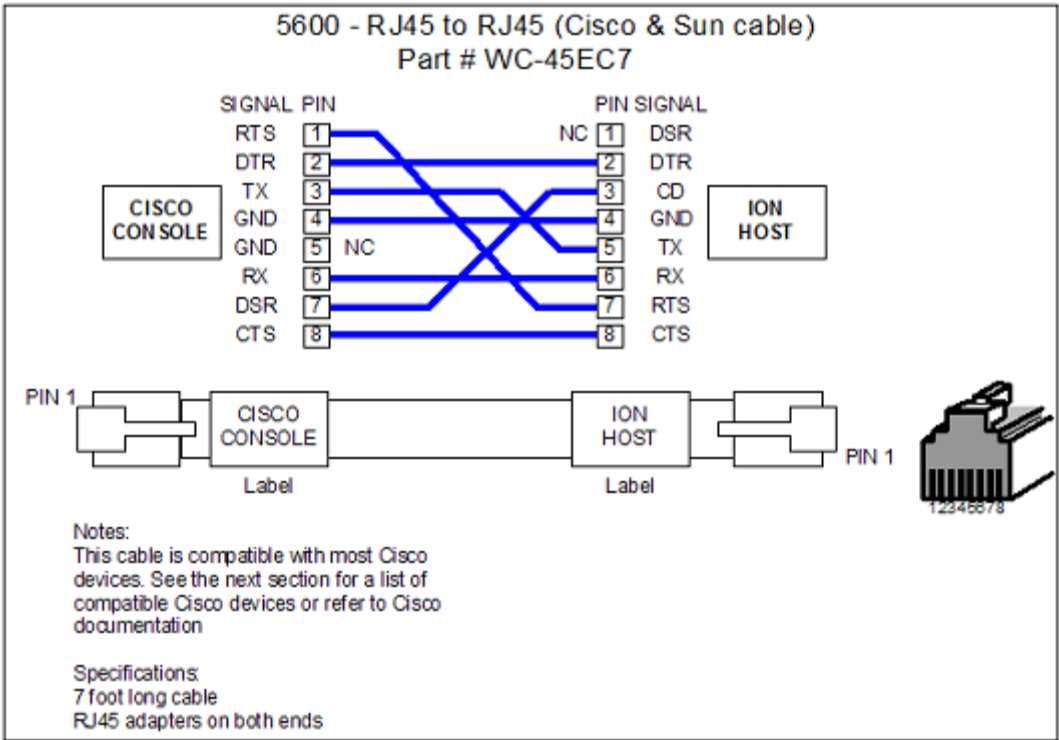


Figure 13: SA600/SA5600 – RJ45 to RJ45 (Cisco and Sun) Cable, WC-45EC7

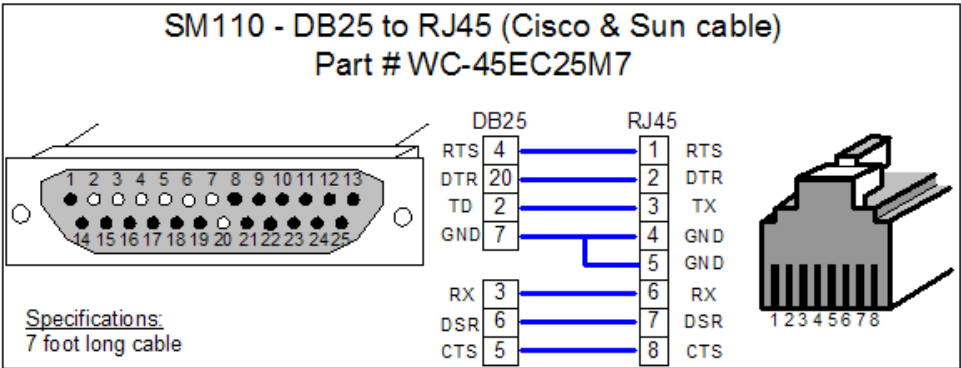


Figure 14: SM110 – DB25 to RJ45 (Cisco and Sun) Cable, WC-45EC25M7

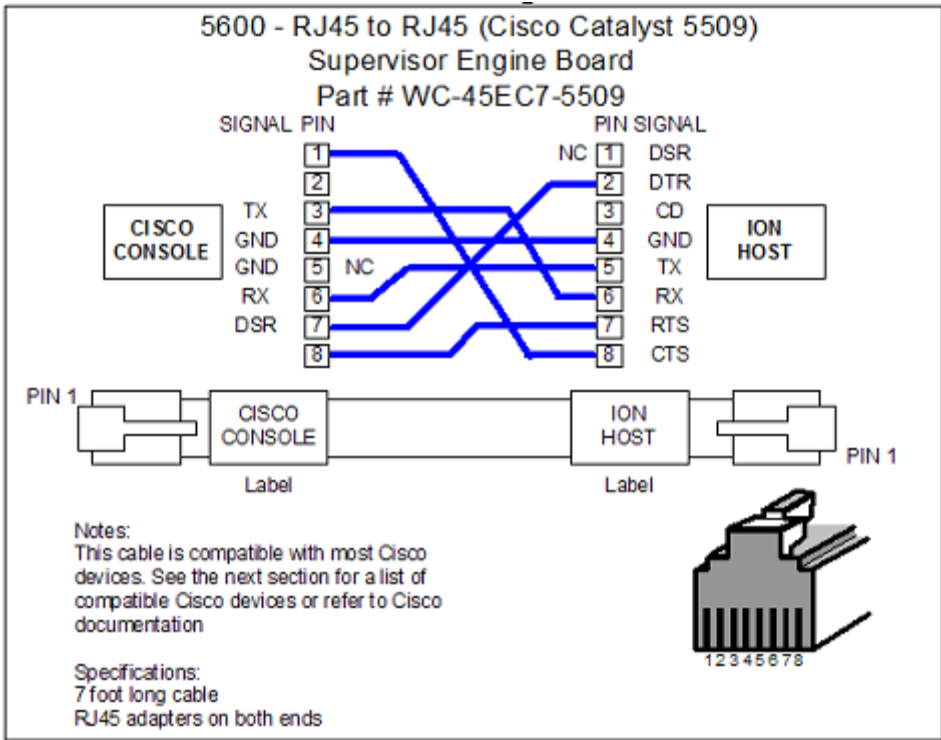


Figure 15: SA600/SA5600 – RJ45 to RJ45 (Cisco Catalyst 5509), WC-45EC7-5509

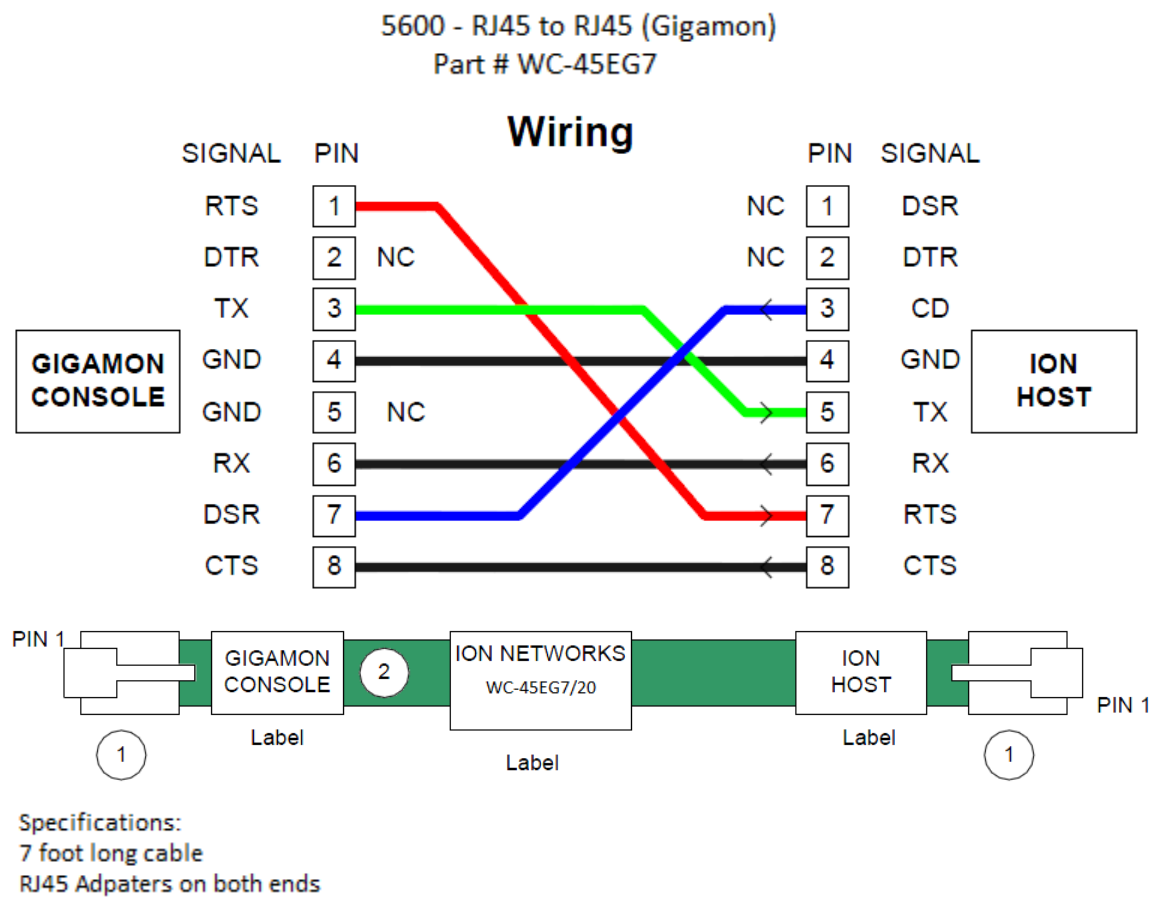


Figure 16: SA600/SA5600 – RJ45 to RJ45 (Gigamon), WC-45EG7/20

Serial Cable Pricing

Table 23: CABLE SPECIFICATIONS and PRICING						
Device Serial Port	ION Device	Cable Description ¹	Headshell with Cable ²		Headshell Only	
DB9 DTE (Straight)	SA5600	RJ45 to DB9 male/ female, 2 Straight	WC-45E9MF7		WG-45E9MF	
	5500	RJ45 to DB9 male/ female, 2 Straight	WC-45E9MF7		WG-45E9MF	
	3500	RJ45 to DB9 male/ female, 2 Straight	WC-45E9MF7		WG-45E9MF	
	SM110	DB9 male/female2 to DB25 male, Straight	WC-9MF25M7			
DB25 DTE (Straight)	SA5600	RJ45 to DB25 male/ female, 2 Straight	WC-45E25MF7		WG-45E25MF	
	5500	RJ45 to DB25 male/ female, 2 Straight	WC-45E25MF7		WG-45E25MF	
	3500/	RJ45 to DB25 male/ female, 2 Straight	WC-45E25MF7		WG-45E25MF	
	SM110	DB25 male to DB25 male/female, 2 Straight	WC-25MF25M7			
DB9 DCE (Null)	SA5600	RJ45 to DB9 male/ female, 2 Null	WC-45E9NMF7		WG-45E9NMF	
	5500	RJ45 to DB9 male/ female, 2 Null	WC-45E9NMF7		WG-45E9NMF	
	3500	RJ45 to DB9 male/ female, 2 Null	WC-45E9NMF7		WG-45E9NMF	
	SM110	DB9 male/female2 to DB25, Null	WC-9MF25NM7			
DB25 DCE (Null)	SA5600	RJ45 to DB25 male, Null	WC-45E25NMF7		WG-45E25NMF	
	5500	RJ45 to DB25 male, Null	WC-45E25NMF7		WG-45E25NMF	
	3500	RJ45 to DB25 male, Null	WC-45E25NMF7		WG-45E25NMF	
	SM110	DB25 male to DB25 male/female, ² Null	WC-25M25NMF7			
RJ45 Extension	All	RJ45 female-to-female connector (Extends WC- 45EC or other RJ45 cable)			WG-45FF	

Table 23: CABLE SPECIFICATIONS and PRICING						
Device Serial Port	ION Device	Cable Description ¹	Headshell with Cable ²		Headshell Only	
Most Cisco Sun Juniper (RJ45)	SA5600	RJ45 to RJ45 for Cisco and Sun	WC-45EC7			
	5500	RJ45 to RJ45 for Cisco and Sun	WC-45EC7			
	3500	RJ45 to RJ45 for Cisco and Sun	WC-45EC7			
	SM110	RJ45 to DB25 male for Cisco and Sun	WC-45EC25M7		WG-45EC25M	
	SA5600	WC-45EC7 and WG-45FF	WC-45ECF7			
	5500	WC-45EC7 and WG-45FF	WC-45ECF7			
	3500	WC-45EC7 and WG-45FF	WC-45ECF7			
	SM110	WC-45EC25M7 with WG-45FF	WC-45ECF25M7			
	SA5600	WC-45EC7-5509				
	5500	WC-45EC7-5509				
	3500/	WC-45EC7-5509				
Most Nortel Option/ Meridian Switch	SA5600	Custom TTY cable	WC-RJ45SL19M7		WG-RJ45SL19M	
	5500	Custom TTY cable	WC-RJ45SL19M7		WG-RJ45SL19M	
	3500	Custom TTY cable	WC-RJ45SL19M7		WG-RJ45SL19M	

1. All Cables are seven feet in length unless otherwise noted.
2. Part numbers containing "9MF" or "25MF" indicate a male 9- or 25-pin connector with a female-to-female adapter attached. You must remove the adapter to change from female to male.

Serial Cable Compatibility with Third-Party Devices

This section lists the specific cables needed for connecting third party devices to the host port of an ION appliance.

Table 24: THIRD PARTY DEVICES					
Manufacturer	Model	Console	Signal	ION Appliance Cable (SA5600, 5500, 3500)	ION Secure Modem Cable (SM110)
Alcatel	OmniSwitch 6600-U24	RJ45	DCE		
	OmniSwitch 6600-P24	RJ45	DCE		
	OmniSwitch 6602-24	RJ45	DCE		
	OmniSwitch 6602-48	RJ45	DCE		
	OmniSwitch 6624	DB9	DCE	WC-45E9NMF7	
	OmniSwitch 6648	DB9	DCE	WC-45E9NMF7	
	Lucent AMM 1200	RJ45	DTE	WC-45EC7	WC-45EC25M7
Apple	Xserv G5	DB9m	DTE	WC-45E9MF	WC-9MF25M7
Avaya	Definity G3SI	DB25	DCE	WC-45E25MF7	WC-25MF25M7
	Definity (SAT Terminal port)	DB25	DTE	WC-45E25NMF7	WC-25MF25NM7
	MapD	DB25	DTE	WC-45E25MF7	WC-25MF25M7
	Intuity (RMB Board)	DB9	DTE	WC-45E9MF7	WC-9MF25M7
	CMS	DB25	DTE	WC-45E25MF7	WC-45EC25M7
	PG230	DB25	DTE	WC-45E25MF7	WC-25MF25M7
	Octel 250	DB9	DTE	WC-45E9MF7	WC-9MF25M7
	Octel 350	DB25	DTE	WC-45E25MF7	WC-25MF25M7
	Octel (J1 port)	DB25	DCE	WC-45E25NMF7	WC-25MF25NM7
Bluecoat	6046	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	SG 300	DB9f	DTC	WC-45E9MF7	
	800-0B	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
Cache	Flow CA-645	DB9m	DTE	WC-45E9MF7	WC-9MF25M7

Table 24: THIRD PARTY DEVICES

Manufacturer	Model	Console	Signal	ION Appliance Cable (SA5600, 5500, 3500)	ION Secure Modem Cable (SM110)
Cisco (Continued next page)	871	RJ45	DTE	WC-45EC7	WC-45EC25M7
	1000 Series	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	1600 Series	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	1841	RJ45	DTE	WC-45EC7	WC-45EC25M7
	2500 / 2600 / 2800 Series	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	3015 VPN Concentrator	DB9m	DCE	WC-45E9NMF7	WC-9MF25NM7
	3600 / 3700 / 3800 Series	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	3900 Switch	RJ45f	DTE	WC-45E9MF7	WC-9MF25M7
	7200 VXR Series	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	7206	DB25m	DTE	WC-45EC7	WC-45EC25M7

Table 24: THIRD PARTY DEVICES

Manufacturer	Model	Console	Signal	ION Appliance Cable (SA5600. 5500, 3500)	ION Secure Modem Cable (SM110)
Cisco (Continued from previous page)	7304	RJ45	DTE	WC-45EC7	WC-25MF25M7
	Aironet 1200	RJ45	DTE	WC-45EC7	WC-25MF25M7
	ASA 5540	RJ45	DTE	WC-45EC7	WC-25MF25M7
	Catalyst 65xx	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Catalyst 4006	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Catalyst 2950	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Catalyst 2924	DB25m	DTE	WC-45E25MF7	WC-45E25MF25M7
	Catalyst 2948G	RJ45f	DTE	WC-45EC7	WC-45EC2
	Catalyst 2980G	RJ45f	DTE	WC-45EC7	WC-45EC2
	Catalyst 3500 / 3500 XL	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Catalyst 3524	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Catalyst 3550	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Catalyst 3745	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Catalyst 3750 / 3750 G	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Catalyst 4506	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Catalyst 5509 Supervisor Console	RJ45f	DTE	WC-45EC7-5509	
	Catalyst 5509 RSM	DB25F	DTE	WC-45E25MF7	WC-25MF25M7
	Catalyst 6500	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Content Engine 507	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Catalyst WS-C6500-E	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	FastHub 400	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	GSR	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	IP/VC 3540	RJ45 + Fem DB9 (Offline)	DTE	WC-45EC7	WC-45EC25M7
	Infoblox 1050	DB9	DTE	WC-45EC7	WC-45EC25M7
	PIX (all models)	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	WAE 600	DB9	DTE	WC-45EC7	WC-45EC25M7
	WAE 7500	DB9	DTE	WC-45EC7	WC-45EC25M7
Codian	All Models	RJ45f	DTE	WC-45EC7	WC-45EC25M7
Dell	PowerConnect 5212	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	PowerEdge	DB9m	DTE	WC-45E9MF7	WC-9MF25M7

Table 24: THIRD PARTY DEVICES					
Manufacturer	Model	Console	Signal	ION Appliance Cable (SA5600, 5500, 3500)	ION Secure Modem Cable (SM110)
Enterasys	SSR-8600	DB9m	DTE	WC-45E9NMF7	WC-9MF25NM7
	VH-series	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
F5	BigIP	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	3DNS	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	GSites	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	Big-IP 1600	DB9m	DTE	WG-R45E9F	WG-R45E9F
	Big-IP 2000s (19,200bps)	RJ45	DTE	WC45EC	
	Big-IP 3900	DB9m	DTE	WG-R45E9F	WC-9MF25M7
	Big-IP 6900	DB9m	DTE	WG-R45E9F	WC-9MF25M7
	Big-IP 8900	DB9m	DTE	WG-R45E9F	WC-9MF25M7
	Big-IP 10200v (19,200bps)	RJ45	DTE	WC45EC	
	Big-IP 11050	DB9m	DTE	WG-R45E9F	WC-9MF25M7
	6400	DB9m	DTE	WG-R45E9F	WC-9MF25M7
	B2100/VIPRION C2400	RJ45	DTE	WC-45EC7	contact ION
Foundry	BigIron MG8	DB9m	DCE	WC-45E9NMF7	WC-9MF25NM7
Fujitsu	Primepower 850/2500	DB25m	DTE	WC-45E25MF7	WC-25MF25M7
Generic	PC-based Server	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
Gigamon	GigaVue 420	RJ45	DTE	WC-45EG7	contact ION
	GigaVue 2404	RJ45	DTE	WC-45EG7	contact ION
	G-TAP	RJ45	DTE	WC-45EG7	contact ION
HP	Alpha DS10/DS10L/DS20E	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	Alpha GS140/GS160	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	4000 Procurve Switch	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	HP9000	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	Proliant DL360/DL380	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	Proliant ML370	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
IBM	H80	DB9f	DTE	WC-45E9MF7	WC-9MF25M7
	p610/660	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	p690	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	RS/6000	DB9f	DTE	WC-45E9MF7	WC-9MF25M7

Table 24: THIRD PARTY DEVICES					
Manufacturer	Model	Console	Signal	ION Appliance Cable (SA5600, 5500, 3500)	ION Secure Modem Cable (SM110)
Infobox	1050	DB9	DTE	WC-45EC7	WC-45EC25M7
	1050-A	DB9	DTE	WG-RJ45E9F	
	1552-A	DB9	DTE	WG-RJ45E9F	
	Trinzic 810	DB9	DTE	WG-RJ45E9F	
	Trinzic 820	DB9	DTE	WG-RJ45E9F	
	Trinzic 1410	DB9	DTE	WG-RJ45E9F	
	Trinzic 2210	DB9	DTE	WG-RJ45E9F	
	Trinzic 1410	DB9	DTE	WG-RJ45E9F	
Juniper Networks	M10i	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	M7i	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	E Series	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	T Series	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	J Series	RJ45f	DTE	WC-45EC	WC-45EC25M7
	NetScreen ISG & SSG, 25, 50, 204, 208, 5400, 5200	DB9m	DTE	WC-45EC	WC-45EC25M7
	SA 4000	DB9	DTE	WC-45EC7	WC-45EC25M7
Marconi	SCP-ASXHA i960ha	DB9f	DTE	WC-45E9MF7	WC-9MF25M7
	SCP-ASXP p55	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	SCP-P5-200 p 200	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
Mitel	SX200 and SX2000	DB9m	DCE	WC-45E9NMF7	WC-9MF25NM7
Netscreen	500	DB9f	DTE	WC-45E9MF7	WC-9MF25M7
NetAppliances	All models	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
Nokia	650 VPN appliance	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	IP 330 console and serial	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
Nortel	Alteon ACD	DB9m	DCE	WC-45E9NMF7	WC-9MF25NM7
	Alteon Web Switch	DB9f	DTE	WC-45E9MF7	WC-9MF25M7
	Contivity 2500/4500	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
	Contivity 5000	DB9	DTE	WC-45EC7	WC-45EC25M7
	Option Switch (Meridian)	DB25m	DTE	WC-45E25MF7	WC-25M25MF7
	Communications Server	DB25	DTE	WC-45E25MF7	WC-25M25MF7

Table 24: THIRD PARTY DEVICES

Manufacturer	Model	Console	Signal	ION Appliance Cable (SA5600. 5500, 3500)	ION Secure Modem Cable (SM110)
Packeteer	Packet Shaper 3500 / 6500	DB9	DTE	WC-45EC7	WC-45EC25M7
	Packet Shaper 4500	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
Riverbed	Steelhead 8020	DB9f	DTE	WG-R45E9F	
	Steelhead 8000	DB9f	DTE	WG-R45E9F	
	Interceptor 9200	DB9f	DTE	WG-R45E9F	
Scientific Atlanta	QPSK Demod D9492	DB9m	DCE	WC-45E9NMF7	WC-9MF25NM7
	QPSK Mod D9482	DB9m	DCE	WC-45E9NMF7	WC-9MF25NM7
SGI	Generic	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
Shiva	LanRover	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
Siemens	HiCom				
Skybox		RJ45	DTE	WC-45EC7	WC-45EC7
Sourcefire	3D 3500		DTE	WC-45EC7	
	3D 8250		DTE	WC-45EC7	
Sun <i>(Continued next page)</i>	Blade 100	DB9m	DTE	WC-45E9MF7	WC-25MF25M7
	Blade 1000	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Enterprise (all models)	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Fire v100/v120	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Fire v210/v240/v280	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Fire 280r	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Fire 420r	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Fire v440	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Fire v480/v490	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Fire v880/v890	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Fire v1280	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Fire 3800/4800/4810	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Fire 6800	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	LX50	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Netra 20	DB25f	DTE	WC-45E25MF7	WC-25MF25M7

Table 24: THIRD PARTY DEVICES					
Manufacturer	Model	Console	Signal	ION Appliance Cable (SA5600. 5500, 3500)	ION Secure Modem Cable (SM110)
<i>(Continued from previous page)</i> Sun	Netra ft 1800	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Netra t 1120/1125	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Netra t 1400/1405	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Netra t1 (all models)	RJ45f	DTE	WC-45EC7	WC-45EC25M7
	Netra X1	RJ45f	DTE	WC-45EC	WC-45EC25M7
	SPARCstation 10	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	StorEdge 3000/3310	DB9f	DTE	WC-45E9MF7	WC-9MF25M7
	StorEdge 3510/3511	DB9f	DTE	WC-45E9MF7	WC-9MF25M7
	Ultra 1/2/5/10/30/60/80	DB25f	DTE	WC-45E25MF7	WC-25MF25M7
	Cobalt RaQ 1/2/3	DB9m	DTE	WC-45E9MF7	WC-9MF25M7
X-Pedition	8600	DB9m	DTE	WC-45E9MF7	WC-9MF25M7

United States Department of Commerce Commodity Classification Information

For exporting some ION equipment you may find the information in the table below necessary for Commerce Department procedures.

Table 25: EXPORT LICENSE CLASSIFICATION NUMBERS			
ION Product	ECCN Number	HTS Code	CCATS Number
Secure Appliance SA5600	5D002	8517690000	G043439
Rack Mount Kit RM-56	—	8302498085	
Host Expansion Modules EXP8-56 and EXP16-56	5A991	8637109090	—
Secure Modem SM110	5A991	8517620010	—
ST530 — Software Token personal authenticator	5D922	8523402010	—
PRIISMS	EAR99	8523402010	—
Dataprobe Intelligent Power Controllers	5A002	8471801000	G065444
IEC Power Cords	EAR99	8544420000	—
Data Cable WC-45E9MF7	EAR99	8517180000	
Data Cable WC-45EC25M7	EAR99	8517180000	
Data Cable WC-45EC7	EAR99	8517800050	