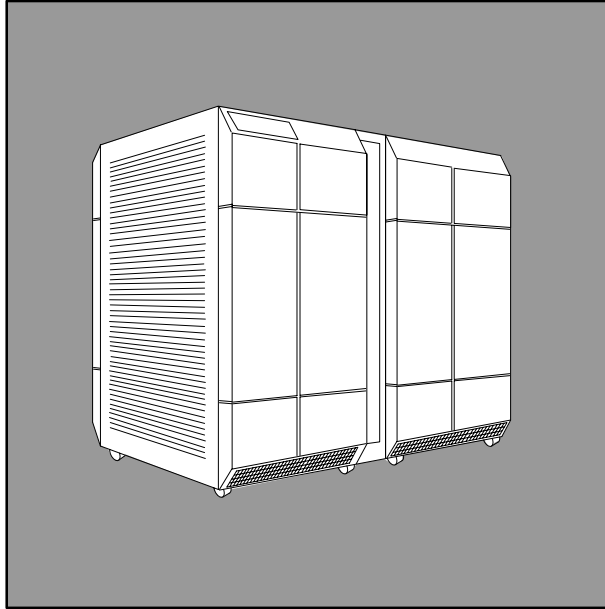


# XA/R-S Systems

## Service Announcement



The Stratus XA/R-S systems are seven new FTX-based entry-level (8-slot) and mid-range (12-slot) open systems servers. They are configured to support mission-critical applications or to function as open distributed communications gateways connecting wide area networks (WANs).

XA/R-S systems provide support for two additional slots in the logic chassis on both the entry-level and mid-range systems. This means that all 8 slots in the entry-level models and all 12 slots in the mid-range models can be configured.

The seven XA/R-S systems replace five of the existing XA/R models configured with FTX and extend the series by two new models.

The new XA/R-S systems provide up to twice the memory and disk capacity as previous XA/R systems. They also support more I/O devices.

### Operating System Requirements

XA/R-S systems require a minimum operating system release of FTX 2.2.1.

### Hardware Components

#### Main Chassis Boards

Model	Type	Description	Min. Revision		Model	Type	Description	Min. Revision	
			ID Prom	Micro-code				ID Prom	Micro-code
G860-10	H 10	CPU	25	25	M604**	F	Mem. (128 MB)	24	
G861-20	J1 20	CPU	44	39	M604-10**	F 10	Mem. (128 MB)	27	
G862-20	J2 20	CPU	44	39	M611	G	Mem. (64 MB)	09	
M601*	E	Mem. (32 MB)	23		M612	G	Mem. (128 MB)	09	
M601-10*	E 10	Mem. (32 MB)	27		M613	G	Mem. (256 MB)	09	
M602*	E	Mem. (128 MB)	23		M614	H	Mem. (64 MB)	09	
M602-10*	E 10	Mem. (128 MB)	27		M615	H	Mem. (128 MB)	09	
M603	F	Mem. (32 MB)	24		M616	H	Mem. (256 MB)	12	
M603-10	F 10	Mem. (32 MB)	27		K200-10	B 10	IOP	41	45

\* Supported on upgrades of mid-range systems.

\*\* Supported on upgrades of entry-level systems.



## IOA Chassis Boards

Model	Type	Chassis Label	Description	Min. Revision	
				ID Prom	Micro-code
K101	1	COMM ADAPTER	Async/sync full modem adapter	10	16
K102	2	COMM ADAPTER	RS-232/422 adapter	12	18
K102-10	2A	COMM ADAPTER	RS-232/422 adapter (low-power)	06	20
K103	3	COMM ADAPTER	Clock/RS-232 adapter	08	16
K104	1	ETHERNET ADAPTER	Ethernet adapter	09	18
K104-10	1A	ETHERNET ADAPTER	Ethernet adapter (low-power)	00	18
K107	1	TAPE ADAPTER	T103/T203 tape drive adapter	01	08
K108-10	2	TERMINATOR	Terminator	00	—
K109	4	COMM ADAPTER	RS-232/423 adapter	22	18
K110	1	PRINTER ADAPTER	IBM printer L322 adapter	07	03
K111	5	COMM ADAPTER	Async null modem adapter	10	16
K112	6	COMM ADAPTER	RS-232/V.35 adapter	00	18
K114	8	COMM ADAPTER	X.21 comm adapter	0	12
K116	2	SCSI ADAPTER	T502 SCSI tape adapter	03	06
K118	9	COMM ADAPTER	16-port async adapter	18	05
K121-10	3A	SCSI ADAPTER	D60X SCSI II disk adapter	01	23

## Disk and Tape Drives

Model	Type	Description	Model	Type	Description
D603	K	665 MB disk drive	T502	G	150 MB 1/4" cartridge tape drive (includes bracket)
D604	L	1.46 GB disk drive	T502-02	G	150 MB 1/4" cartridge tape drive (mounted in logic cabinet)
T203-002	F	1600/6250 bpi 1/2" tape drive (cabinet mounted)	T601-001	J	4-mm DAT tape drive for D600 peripheral subsystem
T203-003	F	1600/6250 bpi 1/2" tape drive (table mounted)			

## Specifications

Physical		Electrical	
Height	137.2 cm (54 in)	Input voltage	200–208/220–240 V ac
Width	60 cm (23.5 in)	Operating frequency	50/60 Hz
Depth	106.7 cm (42 in)	Maximum current per line cord	
Weight (max.)	499 kg (1100 lbs)	8-slot logic cabinet	12 A
		12-slot logic cabinet	15 A
<b>Environmental</b>		Maximum current per logic cabinet	
Temperature		8-slot logic cabinet	22 A
operating	10 to 40°C (50 to 104°F)	12-slot logic cabinet	28 A
non-operating	–40 to 60°C (–40 to 140°F)	IOP expansion cabinet	21 A
Relative humidity		Power (cabinet maximum)	
operating	20% to 80% non-condensing	8-slot logic cabinet	3961 Watts (3.96 KVA)
non-operating	5% to 95% non-condensing	12-slot logic cabinet	4961 Watts (4.96 KVA)
Altitude	3050 m (10,000 ft) maximum	IOP expansion cabinet	3692 Watts (3.69 KVA)
Max. heat dissipation		Power Cable	
8-slot logic cabinet	10,812 Btu/hr	Length	4.5 m (15 ft)
12-slot logic cabinet	13,541 Btu/hr	Input conductors	3-wire
IOP expansion cabinet	8,189 Btu/hr		

## 8-Slot System Configurations

Model	XA/R5-S	XA/R10-S	XA/R15-S
<b>Slots</b>	8	8	8
<b>CPU board</b>	G860-10	G861-20	G862-20
<b># CPU boards</b>	2	2	2
<b># Logical CPUs</b>	1	1	2
<b>Memory boards*</b>	M603/M603-10 (32 MB) M614 (64 MB) M615 (128 MB) M616 (256 MB)	M614 (64 MB) M615 (128 MB) M616 (256 MB)	M614 (64 MB) M615 (128 MB) M616 (256 MB)
<b>Duplexed memory</b>	Min. = 32 MB Max. = 256 MB	Min. = 64 MB Max. = 256 MB	Min. = 64 MB Max. = 256 MB
<b>IOP board</b>	K200-10	K200-10	K200-10
<b># IOA chassis</b>	Min. = 1 Max. = 2	Min. = 1 Max. = 2	Min. = 1 Max. = 2
<b>Disk drives</b>	D603 (665 MB) D604 (1.46 GB)	D603 (665 MB) D604 (1.46 GB)	D603 (665 MB) D604 (1.46 GB)
<b>Max. # disk drives</b>	36	36	36
<b>Max. # tape drives</b>	2	2	2
<b>Duplexed disk storage</b>	Min. = 665 MB Max. = 26.28 GB	Min. = 665 MB Max. = 26.28 GB	Min. = 665 MB Max. = 26.28 GB
<b># Expansion cabinets</b>	Min. = 0 Max. = 2	Min. = 0 Max. = 2	Min. = 0 Max. = 2

\* On upgrades, the M604/M604-10 (128 MB) memory boards are also supported.

## 8-Slot System Slot Assignments

Slot No.	XA/R5-S	XA/R10-S	XA/R15-S
<b>24</b>	IOP	IOP	IOP
<b>25</b>	IOP	IOP	IOP
<b>26</b>	IOP	IOP	IOP
<b>27</b>	IOP	IOP	IOP
<b>28</b>	Memory	Memory	Memory
<b>29</b>	Memory	Memory	Memory
<b>30</b>	CPU	CPU	CPU
<b>31</b>	CPU	CPU	CPU

## 12-Slot System Configurations

Model	XA/R25-S	XA/R35-S	XA/R45-S	XA/R55-S
<b>Slots</b>	12	12	12	12
<b>CPU board</b>	G860-10	G861-20	G862-20	G862-20
<b># CPU boards</b>	2	2	2	4
<b># Logical CPUs</b>	1	1	2	4
<b>Memory boards*</b>	M611 (64 MB) M612 (128 MB) M613 (256 MB)	M611 (64 MB) M612 (128 MB) M613 (256 MB)	M611 (64 MB) M612 (128 MB) M613 (256 MB)	M611 (64 MB) M612 (128 MB) M613 (256 MB)
<b>Duplexed memory</b>	Min. = 64 MB Max. = 512 MB	Min. = 64 MB Max. = 512 MB	Min. = 64 MB Max. = 512 MB	Min. = 128 MB Max. = 512 MB
<b>IOP board</b>	K200-10	K200-10	K200-10	K200-10
<b># IOA chassis</b>	Min. = 1 Max. = 4	Min. = 1 Max. = 4	Min. = 1 Max. = 4	Min. = 1 Max. = 3
<b>Disk drives</b>	D603 (665 MB) D604 (1.46 GB)	D603 (665 MB) D604 (1.46 GB)	D603 (665 MB) D604 (1.46 GB)	D603 (665 MB) D604 (1.46 GB)
<b>Max. # disk drives</b>	72	72	72	54
<b>Max. # tape drives</b>	3	3	3	3
<b>Duplexed disk storage</b>	Min. = 665 MB Max. = 52.56 GB	Min. = 665 MB Max. = 52.56 GB	Min. = 665 MB Max. = 52.56 GB	Min. = 665 MB Max. = 39.42 GB
<b># Expansion cabinets</b>	Min. = 0 Max. = 4	Min. = 0 Max. = 4	Min. = 0 Max. = 4	Min. = 0 Max. = 3

\* On upgrades, the M601/M601-10 (32 MB) and M602/M602-10 (128 MB) memory boards are also supported.

## 12-Slot System Slot Assignments

Slot No.	XA/R25-S	XA/R35-S	XA/R45-S	XA/R55-S
<b>20</b>	IOP	IOP	IOP	IOP
<b>21</b>	IOP	IOP	IOP	IOP
<b>22</b>	IOP	IOP	IOP	IOP
<b>23</b>	IOP	IOP	IOP	IOP
<b>24</b>	Memory/IOP	Memory/IOP	Memory/IOP	Memory/IOP
<b>25</b>	Memory/IOP	Memory/IOP	Memory/IOP	Memory/IOP
<b>26</b>	Memory/IOP	Memory/IOP	Memory/IOP	Memory
<b>27</b>	Memory/IOP	Memory/IOP	Memory/IOP	Memory
<b>28</b>	Memory	Memory	Memory	CPU
<b>29</b>	Memory	Memory	Memory	CPU
<b>30</b>	CPU	CPU	CPU	CPU
<b>31</b>	CPU	CPU	CPU	CPU

## Upgrades

The XA/R5-S can be upgraded to a XA/R10-S or XA/R15-S by swapping the G860-10 CPU boards for G861-20 or G862-20 CPU boards. The XA/R10-S can be upgraded to a XA/R15-S by swapping the G861-20 CPU boards for G862-20 CPU boards.

The XA/R25-S can be upgraded to a XA/R35-S or XA/R45-S by swapping the G860-10 CPU boards for G861-20 or G862-20 CPU boards.

A XA/R35-S can be upgraded to a XA/R45-S by swapping the G861-20 CPU boards for G862-20 CPU boards. A XA/R35-S to XA/R55-S upgrade involves swapping the G861-20 CPU boards for G862-20 CPU boards, and adding an additional pair of G862-20 CPU boards and a CPU C-connector and cable.

A XA/R45-S can be upgraded to a XA/R55-S by adding an additional pair of G862-20 CPU boards and a CPU C-connector and cable.

## Upgrade Kits

Part No.	Upgrade	Contents	Returns
UPC1000	XA/R5-S to XA/R10-S	Two G861-20s	Two G860-10s
UPC1010	XA/R5-S to XA/R15-S	Two G862-20s	Two G860-10s
UPC1011	XA/R10-S to XA/R15-S	Two G862-20s	Two G861-20s
UPC1020	XA/R25-S to XA/R35-S	Two G861-20s	Two G860-10s
UPC1023	XA/R25-S to XA/R45-S	Two G862-20s	Two G860-10s
UPC1030	XA/R35-S to XA/R45-S	Two G862-20s	Two G861-20s
UPC1031	XA/R35-S to XA/R55-S	Four G862-20s, One CPU C-connector kit (AK-000099-15) One 2-position CPU c-connector (AA-G20202)	Two G861-20s
UPC1040	XA/R45-S to XA/R55-S	Two G862-20s One CPU C-connector kit (AK-000099-15) One 2-position CPU c-connector (AA-G20202)	

## Training Strategy

XA/R-S systems training will be incorporated into the standard hardware training courses and made available to customers as well as Stratus employees.

## Maintenance Strategy

Service and support for the XA/R-S systems is consistent with current XA/R systems co-active maintenance. Installation is to be performed by Stratus-trained personnel. Warranty and maintenance is provided on a co-active basis.

Customers are expected to replace parts designated as customer replaceable units (CRUs). Stratus-trained personnel will replace non-CRUs. Customers are also expected to assist Stratus-trained personnel in the diagnosis and isolation of system problems.

## Logistics Strategy

Spares are stocked in Marlboro, Ma. (Elm St.) for Domestic and Canadian support. After hours and weekends, the Federal Express Parts Bank provides added U.S. coverage. Other locations may be utilized as required to satisfy specific contractual obligations or to avoid potential delays through customs. Replacement parts are shipped overnight express directly to the customer who is expected to replace Customer Replaceable Units (CRUs) in the system.

Internationally, each country stocks an initial provisioning kit locally. Spares are distributed directly to the customer in response to a call. Ireland serves as the replenishment source to replace depleted inventories.

## Documentation Strategy

The following table lists related documentation.

Document Title	Order Number
<i>G861/G862 Systems Service Bulletin</i>	HB038
<i>Stratus XA/R Model 5 and 25 Installation Guide</i>	HI025
<i>Stratus XA/R Model 5 and 25 Maintenance Guide</i>	HM025

## Part Numbers

The following table lists the FRUs and CRUs (indicated by ☞) associated with XA/R-S systems.

Description	Part Number	Description	Part Number
G860-10 CPU board ☞	AA-G86010	DC bulk power drawer	AS-E21400
G861-20 CPU board ☞	AA-G86110	Fault tolerant clock card *	AA-E15105
G862-20 CPU board ☞	AA-G86210	Non fault tolerant clock card	AA-E15104
M601 memory board ☞	AA-M60100	IOA chassis backpanel	AA-E32100
M601-10 memory board ☞	AA-M60110	IOA fan pack	AA-E30014
M602 memory board ☞	AA-M60200	2-position CPU c-connector	AA-G20202
M602-10 memory board ☞	AA-M60210	CPU c-connector kit containing:	AK-000099-15
M603 memory board ☞	AA-M60300	CPU c-connector cable	AW-000611
M603-10 memory board ☞	AA-M60310	2-pos. CPU c-connector	AA-G20204
M604 memory board ☞	AA-M60400	CPU c-connector cable	AW-000610
M604-10 memory board ☞	AA-M60410	8-fan module ☞	AA-E22408
M611 memory board ☞	AA-M61100	Module control panel ☞	AA-E30035
M612 memory board ☞	AA-M61200	Sequencing cable	AW-010084-04
M613 memory board ☞	AA-M61300	D603 disk drive ☞	AA-D60300
M614 memory board ☞	AA-M61400	D604 disk drive ☞	AA-D60400
M615 memory board ☞	AA-M61500	D600 disk enclosure	AA-D60000
M616 memory board ☞	AA-M61600	Disk drive retainer clip ☞	MM-000098
K200-10 IOP controller ☞	AA-K20010	T203 tape drive	AA-T20300
Backpanel	AA-E33055	Tabletop T203 tape drive	AA-T20310
Backpanel power supply	AA-E33058	T502 tape drive ☞	AA-T50200
Upper power backpanel	AA-E21133	T601-001 DAT tape drive ☞	AA-T60101
Lower power backpanel	AA-E21113		

\* XA/R5-S systems only.



Stratus Computer, Inc.  
55 Fairbanks Boulevard  
Marlboro, MA 01752-1298

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