

5ESS[®] SWITCHING SYSTEMS
ADMINISTRATIVE
WORKSTATION / SWITCHING
MODULE 2000 APPLICATION
SCHEMATIC

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1. GENERAL DESCRIPTION

1.1 PURPOSE OF CIRCUIT

This 5ESS Switching Equipment Application Schematic For The Administrative Workstation Switching Module 2000 (AWS/SM2000) defines at a high level the engineering rules, interconnections, and floorplans for the Administrative Workstation Switching Module 2000. The AWS/SM2000 is composed of a Workstation (AWS) and a Switching Module 2000 (SM2000). The SM2000 requires one Switching Module Control (SMC) cabinet and one to fourteen Line Trunk Peripheral (LTP) cabinets within the same line-up, or one to twenty-eight LTP cabinets if cross-aisle arrangements are used. The SM2000 configuration is defined by the number of peripheral units and the office floorplan.

2. DETAILED DESCRIPTION**2.1 ADMINISTRATIVE WORKSTATION**

The Workstation (ED5D764-30) is composed of the SPARCSTATION 5. The SPARCSTATION 5 is made up of the following:

- A 2.1 Giga byte external disk and 64 Mega bytes of RAM.
- A "4mm DAT Tape Unit".
- Eight Serial Parallel Controller Ports numbered 0-7. Port 0 provides the RS232 interface to side 0 of the SMPU4 while port 1 provides the RS232 interface to side 1 of the SMPU4. Ports 2-7 can be used to interface with modems, Supplementary Trunk Line Work Stations, etc..
- Four High Speed Interface ports.
- A Ethernet Transceiver which provides the primary interface to the Switching Module.
- A monitor with a keyboard and a printer.

The the Workstation is located on a table which is specified by the office engineer. Table recommendations are provided in the Floorplan Data portion of the drawing.

2.2 SWITCHING MODULE CONTROL CABINET

The switching module control (SMC) cabinet in SM2000 is composed of five units and a cabinet:

J5D003N-()	5E2000 Cabinet
J5D003FJ-()	Modular Fuse Filter Unit
J5D003FH-()	Bi-Directional Fan Unit
J5D003NA-()	Switching Module Processor Unit model 4 (SMPU4)
J5D003NB-()	Time Slot Interchange Unit model 4 (TSIU4)
J5D003NC-()	Digital Service Unit model 3 (DSU3)

The SMC cabinet is always required in an AWS/SM2000 and is designated as cabinet "0". The 5E2000 cabinet is approximately 30 inches wide (762mm) x 24 inches deep (600mm) and 72 inches high (1828mm). An SMC2000 provides for 30,000 time slots per side of which no more than 50% can be used on the network side. There are 144 electrical PIDB per side and 92 electrical PICB per side. Of these, 24 PIDBs and 12 PICBs are dedicated for local digital service functions. The cabinet provides seven 8.5 inch spaces used to mount various peripheral units. One of the spaces is usually equipped with a fan unit:

J5D003BE-()	three fan unit
J5D003BN-()	six fan unit
J5D003FH-()	bi-direction fan unit (or for special configurations a second fan unit)
J5D003BW-()	six fan exhaust unit at EQL 62

The LTP cabinets are numbered "1" to "14" alternating left and right of the SMC cabinet, with even numbered LTP cabinets to the right as viewed from the equipment side, and the odd numbered cabinets to

the left. LTP cabinets are allowed across the equipment and wiring aisles. The numbering and quantity are as follows:

- Across Equipment Aisle - starting at LTP "100" directly across the SMC with LTPs "101, 102, 103, and 104" alternating out from the "100" cabinet.
- Across Wiring Aisle - starting at LTP "200" directly across from the SMC with LTPs "201 through 208" alternating out from the "200" cabinet.

The cross-aisle LTP cabinets, as viewed from their equipment side, are always numbered in even numbers to the right and odd numbers to the left.

2.3 LTP PERIPHERAL UNITS

The units which may be equipped in the LTP cabinets of an SM are:

Analog Trunk Unit - Export (ATUE)	J5D003AG-()
Digital Carrier Line Unit (DCLU)	J5D003AR-()
Supplementary DCLU	J5D003AS-()
Directly Connected Test Unit (DCTU)	J5D023AM-()
Digital Service Unit model 2 (DSU2)	J5D003EA-()
Digital Line Trunk Unit Model 3 (DLTU3)	J5D003FN-()
Echo Canceler Signaling Unit (ECSU)	J5D003JD-()
Global Digital Service Unit - Export (GDSUE)	J5D003BC-()
Integrated Digital Carrier Unit (IDCU)	J5D003FL-()
Integrated Services Line Unit model 2 (ISLU2)	J5D004AL-()
Line Unit model 3 (LU3)	J5D004AD-()
Modular Metallic Service Unit (MMSU)	J5D003BD-()
Periodic Pulse Metering Unit (PPMU)	J5D003AW-()
Packet Switch Unit (PSU)	J5D003BL-()

Supporting functional information is found in the CDs of the individual Peripheral Units.

Each LTP cabinet is equipped with a modular fuse filter unit (MFFU) in a configuration which supports the

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peripheral units in that LTP. The appropriate fan unit or units are also equipped in the LTP. The cabinet is six feet high and provides space for an MFFU and seven 8 1/2-inch shelves. One of these shelves is usually equipped with a fan unit.

The SMC cabinet is fully equipped with three units and a fan unit. The fan in the SMC cabinet is mounted in the middle of the cabinet with three shelves above and three below.

The LTP cabinet is equipped as the peripheral units' individual requirements dictate. The fan unit is mounted as required by the peripherals it is cooling.

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3. REFERENCE DATA

None.

4. ACRONYMS

ATUE - Analog Trunk Unit - Export
AWS - Administrative Workstation
DCLU - Digital Carrier Line Unit
DCTU - Directly Connected Test Unit
DLTU3 - Digital Line Trunk Unit Model 3
DSU2 - Digital Service Unit model 2
DSU3 - Digital Service Unit model 3
ECSU - Echo Canceler Signaling Unit
EQL - Equipment Location
GDSUE - Global Digital Service Unit - Export
IDCU - Integrated Digital Carrier Unit
ISLU2 - Integrated Services Line Unit model 2
LTP - Line Trunk Peripheral
LU3 - Line Unit 3
MFFU - Modular Fuse Filter Unit
MMSU - Modular Metallic Service Unit
PICB - Peripheral Interface Control Bus
PIDB - Peripheral Interface Data Bus
PPMU - Periodic Pulse Metering Unit
PSU - Packet Switch Unit
SM2000 - Switching Module 2000
SM - Switching Module
SMC - Switching Module Control
SMPU4 - Switching Module Processor Unit model 4
TSIU4 - Time Slot Interchange Unit model 4

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