

CIRCUIT DESCRIPTION

CD-4C127-01
ISSUE 2B
APPENDIX 5B
DWG ISSUE 15B
DIST CODE RN98

COMMON SYSTEM
3B20D MODEL 3 COMPUTER
COMPUTER SYSTEM
CIRCUIT

CHANGES

B. CHANGES IN APPARATUS

- B.1 A 3 1/2" 1GB SCSI disk drive has been added to the drawings because the current 5 1/4" 600MB disk drive has been manufacturing discontinued by the manufacturer.

D. DESCRIPTION OF CHANGES

- D.1 Added additional list numbers for the 3 1/2" SCSI drive to the Application Figure Summary application figures, 570 - 577.
- D.2 Correct FS 7.

E. REASON FOR CHANGE

- E.1 Changes D.1 provide additional information to support the 3 1/2" 1GB SCSI Disk Drive for 5E US, Int'l and 4ESS applications.
- E.2 Change D.2 is to correct a documentation error.

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**COMMON SYSTEMS
3B20D MODEL 3 COMPUTER
COMPUTER SYSTEM
CIRCUIT**

CHANGES

D. Description of Changes

Added apparatus figure 632 which adds MC4C052A1C (TN82B) BX.25 high speed data link controller.

Added apparatus figure 633 which adds MC4C052A1D (TN82B) BX.25 high speed data link controller.

Added apparatus figure 634 which adds MC4C052A1D (TN82B) BX.25 high speed data link controller, Cable (ED-4C352-30,G41) and Patch Panel (ED-4C490-35,G20B).

Added apparatus figure 635 which adds UN52B 1600 BPI high speed tape for second tape unit.

Added apparatus figure 640 which adds TN1839 two channel synchronous link (for Network Systems International [NSI] applications only).

E. Reason for Changes

Added apparatus figures 632, 633, 634, and 635, to the "Apparatus Figure Summary" and "Information Notes" to bring the schematic drawing (SD) into agreement with J4C188A-1.

Added apparatus figure 640 to the "Apparatus Figure Summary" and "Information Notes" for new circuit packs (CPs).

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CIRCUIT DESCRIPTION

CD-4C127-01
ISSUE 2B
APPENDIX 3B
DWG ISSUE 13B
DISTN CODE RN98

COMMON SYSTEMS
3B20D MODEL 3 COMPUTER
COMPUTER SYSTEM
CIRCUIT

CHANGES

D. Description of Changes

- D.1 Added SCSI Cabinet equipped with Power Distribution Unit, SCSI Growth/Converter Unit, Cooling Unit and sixteen DUPs to 3B20D Model 3 Computer System.
- D.2 Added intra-cabinet cables.
- D.3 Added inter-cabinet cables.

E. Reason for Change

- E.1 New feature added for 4ESS System.

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CIRCUIT DESCRIPTION

CD-4C127-01
ISSUE 2
APPENDIX 3B
DWG ISSUE 12B
DISTN CODE RN98

COMMON SYSTEMS
3B20D MODEL 3 COMPUTER
COMPUTER SYSTEM
CIRCUIT

CHANGES

D. Description of Changes

- D.1 Added Apparatus Figures to include VLMM feature.
- D.2 Added Information and Equipment Notes for VLMM reference and clarity.
- D.3 Updated Information Notes 302, 305, 308, 309, 318, and 325 to include VLMM information.

E. Reason for Change

- E.1 Added documentation changes to include the VLMM feature on 3B20D Model 3 Processor.

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CIRCUIT DESCRIPTION

CD-4C127-01
ISSUE 2B
APPENDIX 1B
DWG ISSUE 11B
DISTN CODE 7N98

COMMON SYSTEMS

3B20D MODEL 3 COMPUTER

COMPUTER SYSTEM
CIRCUIT

CHANGES

D. Description of Changes

D.1 Expanded the scope of the extended (17 Mb to 32 Mb) memory feature to all 3B20D Model 3 applications.

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COMMON SYSTEMS
3B20 MODEL 3 COMPUTER
COMPUTER SYSTEM
CIRCUIT

SECTION I - GENERAL DESCRIPTION

1. PURPOSE OF CIRCUIT

1.01 This circuit provides the system configurations for the 3B20 Model 3 computer.

2. GENERAL DESCRIPTION OF OPERATION

2.01 A standard DMERT <2> 3B20 Model 3 computer includes a duplex processor (one active and one standby) one tape/disk cabinet and a man/machine interface. This configuration has 4 megabytes of memory, 4K of microcode, 4K of writable microstore, a cache memory, maintenance channel, disk file controller, one direct memory access unit and dual serial channel, and a basic IOP unit with maintenance channel all duplicated. In addition the processor contains 2 scan/SD circuit packs with non duplicated fields, a nine track tape controller and a port switch unit. The tape/disk cabinet for this system provides one 1600 BPI tape unit and two 340 MB fixed media disk drives. The man/machine interface consists of one MTTY (video terminal) and one ROP each mounted on pedestals.

2.02 This standard system may be expanded through the addition of feature options and peripherals.

In the processor the main store may be increased to 32 megabytes of memory if the expanded memory feature is provided. In addition up to 48K of writable microstore, a floating point accelerator, coprocessing capability, a second DMA controller, up to 6 dual serial channel packs, 3B Net and 16 IOP growth

slots may be added. Some of these features are keyed to UNIX performance improvements and/or UNIX RTR Release 1 or 2 software.

Additional tape/disk cabinets may include a second tape drive and 340 MB disk drives for a maximum of 8 disks per processor 0 and 1.

A power distribution cabinet for -48 volt customer provided DC or rectified 208 volt 3 phases 60 HZ AC may be added to the system.

IOP growth beyond the 32 controller positions available in the processor are provided in a peripheral interface cabinet. Thirty-two controller slots split between two IOP controllers per cabinet are available for customer use.

Controller circuits may be added to non dedicated positions in the IOP basic and growth units in the processor and peripheral interface cabinet per host system requirements. The controller circuits available include: a 1 channel 8 port asynchronous PC (TN4), a 2 channel 2 port asynchronous TTY PC (MC4C011A), a 2 channel plus ACU port synchronous link PC (MC4C048A), a 1 channel 1 port BX.25 high speed data link controller (MC4C052A), a one channel one port direct user interface controller (MC4C051A) 2 channel medium speed line printer PC (TN85), a scan/SD circuit (UN33), a high speed tape controller (UN52) and an extended memory data link controller (UN53) for remote job entry (this circuit is used in concert with a data link interface circuit MC4C057A).

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SECTION II - DETAILED DESCRIPTION OF OPERATION

1.01 The detailed description of the processor is contained in the following CDs: CD4C065-01, CD4C097-01, CD4C098-01, CD4C099-01, CD4C101-01 and CD4C102-01.

1.02 The detailed description of the tape/disk cabinet is contained in CD4C126-01.

1.03 The detailed description of the power distribution cabinet is contained in CD82398-01 and CD82518-02.

1.04 The detailed description of the peripheral interface cabinet is contained in CD4C115-01.

SECTION III - REFERENCE DATA

1. WORKING LIMITS

1.01 DC Input Voltage

48 Volts nominal
52 Volts maximum
42.75 Volts minimum

1.02 AC Input Voltage

208 volt 3 phase, 60± 3HZ nominal
220 volt 3 phase, 60± 3HZ maximum
184 volt 3 phase, 60± 3HZ minimum

2. FUNCTIONAL DESIGNATIONS

2.01 None.

3. FUNCTIONS

3.01 None.

4. CONNECTING CIRCUITS

4.01 When this circuit is listed on a keysheet the connecting information thereon is to be followed.

- (a) Power distribution circuit SD4C053-01
- (b) Tape/disk cabinet SD4C126-01
- (c) Filter/fuse panel SD82518-02
- (d) Alarm/control panel SD82518-02
- (e) 208 volt AC in/-48 volt DC out rectifier SD82398-01
- (f) IO processor and DFC controller circuit SD4C115-01
- (g) Port switch circuit SD4C065-01
- (h) Main store IOP growth circuit SD4C097-01
- (i) Central processor circuit SD4C098-01
- (j) Main store IO DFC circuit SD4C099-01
- (k) IO processor basic circuit SD4C101-01
- (l) Power distribution circuit SD4C102-01

5. MANUFACTURING TESTING REQUIREMENTS

The manufacturing testing requirements are specified in the X79516 specification.

6. TAKING EQUIPMENT OUT OF SERVICE

6.01 This information is contained in the task oriented practice for 3B20D Model 3 BSP 254-301-811.

SECTION IV - REASONS FOR REISSUE

A. Changed and Added Functions

A. Provide alarm, scan, power and IOP growth cabling information for the Peripheral Interface Cabinet (PIC).

D. Description of Changes

D. This document has been completely rewritten to add information to all sections.

D.2 This reissue also covers information authorized by the following appendixes to Issue 1 of this CD.

<u>Appendix</u>	<u>Drawing Issue</u>
1B	2B
2B	3B
3B	4B
4B	5B
5B	6B
6B	7B
7B	8B
8B	9B

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