

AUA11 POWER CONVERTER UNIT 5SCD400AXX

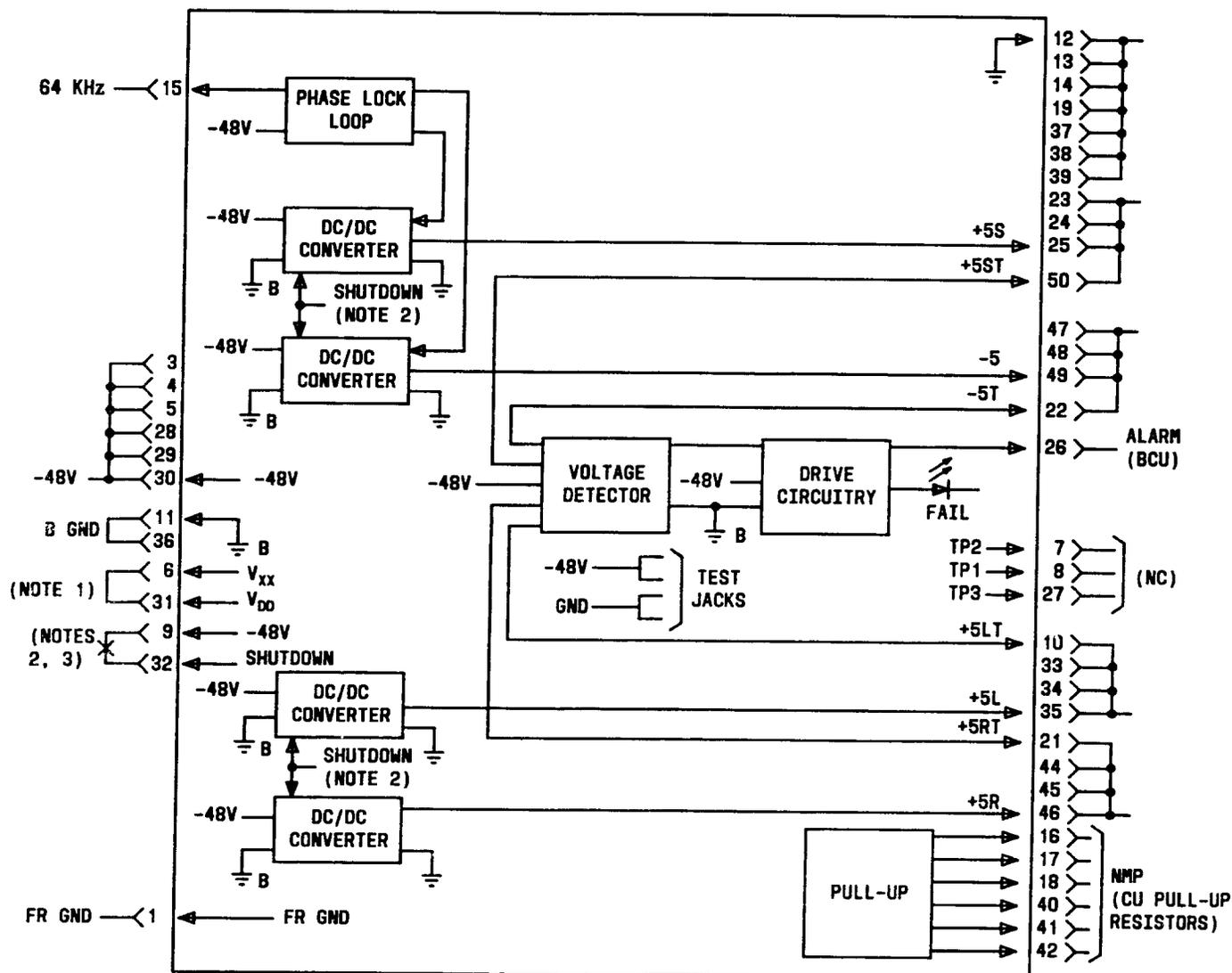
AUA11B PCU 5SCD402AXX

DATA SHEET

SLC® SERIES 5 CARRIER SYSTEM

The AUA11 (AUA11B) Power Converter Unit (PCU) converts the -48V (DC) battery supply to three +5V

and one -5V (DC) sources, each at 2 amps. This is accomplished by four DC-DC converters. The AUA11



Notes:

1. Strapped on facility shelf only to disable phase lock loop.
2. AUA11B only.
3. Isolated closure keeps converter outputs off.

Fig. 1—AUA11 Block Diagram

(AUA11B) PCU is used in the digroup shelves and the facility shelves at both the Central Office Terminal (COT) and the Remote Terminal (RT). The AUA11B is used in both the Series 5 banks and in the Digital Carrier Line Unit 5 (DCLU 5) Transmission Facility Interface Unit (TFIU).

This practice has been reissued to add the use of the AUA11B PCU in the DCLU 5.

Voltage detection circuitry will initiate an alarm whenever one or more of the +5V DC-DC converters output decreases or increases by 1/2 volt. The -5V is also alarmed. This alarm will light an LED (FAIL) on the faceplate and transmit the alarm to the bank control unit (BCU). As a security measure, the voltage detection and alarm circuitry operate from the -48V supply, thus do not rely on any of the DC-DC converter outputs.

The converter outputs of the AUA11B PCU can be shut down or kept off upon power up by providing an isolated closure to edge pins 9 and 32. This feature is used by DCLU 5.

The +5V and -5V converters that power the channel units each have their switching converters synchronized via a Phase-Lock-Loop which utilizes a 64-KHz reference from the Transmit Receive Unit (TRU) or the Timeslot Access Circuit (TAC) in DCLU 5.

In addition to the FAIL LED on the faceplate, there are two pin jacks to allow measurement of the -48V battery input to the Power Control Unit (PCU). These allow the craft to determine if the power is reaching the PCU, which is required for the detection circuitry and FAIL LED to function.

Figure 1 is a functional block diagram of the unit, and Fig. 2 shows the faceplate.

FAIL INDICATOR (RED LED): This LED lights whenever overvoltage or undervoltage condition is detected on one of the DC-DC converters.

48V AND GROUND TEST POINTS: These test points are used to measure the -48V input to the PCU.

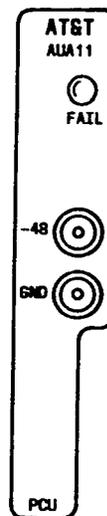


Fig. 2—AUA11 Faceplate Diagram

The following is the distribution of the converter outputs to the various Series 5 bank plug-in units:

FACILITY SHELF PCUs
-5 ALL PROT. (LIUs), CTU, DTU
+5 2 LSUs, CTU, DTU, ADU, AIU
+5 PROT. LIUs
+5 PROT. LIUs
CHANNEL UNIT SHELF PCUs
-5 CUs, LIUs
+5S CUs
+5R CUs, TRU (COT only)
+5L OTU, LIUs, TRU (RT only)

Published by
The AT&T Documentation Management Organization.