
SLC[®]-2000 MSDT**AUA422 Power Converter Unit —
5SPQABW**

This data sheet describes the AUA422 power converter unit (PCU) (COMCODE 107086399) and is intended for the end-user of the unit. The AUA422 PCU is designed to be used at a SLC[®]-2000 multi-services distant terminal (MSDT) to support the 60 V AC powering application. The AUA422 PCU accepts input voltage from the AUA424 power interface unit (PIU) and converts it to the specified voltage levels required by the electronics in the MSDT.

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

The AUA422 PCU converts the PIU supplied voltage of -48 V DC (nominal) to -45 V, $+5$ V and -5 V sources to be used by the narrowband electronics and ringing generator in the MSDT. Table 1 lists the distribution of the converter outputs to the various MSDT units. The maximum total output power of the AUA422 PCU is 58 Watts.

In order to protect the narrowband electronics in the MSDT from overvoltages caused by an AUA422 PCU failure, the control circuit monitors the $+5$ V, -5 V and -48 V outputs; and in case of overvoltage, it sends a shutdown signal to the main and 5 V DC/DC converters. The shutdown signal will not latch the unit in the shutdown mode, but the unit will cycle on and off at a slow rate as long as the overvoltage condition exists. The control circuit also monitors these same outputs for the presence of low voltage; and if low voltage is detected with input power present, the AUA422 PCU will issue a failure that causes the FAIL LED indicator to light.

Table 1. Distribution of PCU Output

<u>Output Lead</u>	<u>MSDT Units(s)</u>
-48S	All circuit packs except BYB1B optical unit (OU)
-48R	AUA413 ringing generator unit (RGU)
+5S	All circuit packs
-5	All circuit packs
+5R	All circuit packs except BYB1B OU and AUA424 PIU

The inventory and alarm circuit contains factory-installed information peculiar to the AUA422 PCU (for example, the COMCODE number) that can be remotely accessed using an operation interface processor. This circuit also gathers alarm information from the PCU and transmits it to the FHA1 backplane interface unit (BIU) over a serial interface.

Removal of the AUA422 PCU from the slot in the MSDT will interrupt all narrowband services.

Unit Indicators

FAIL (Red LED): When lighted, indicates that an undervoltage condition is detected at +5 V, -5 V, or -48 V output.

-48V, -48V RTN (Faceplate test points): These test points are used to measure the input voltage (-28 to -60 V DC) to the PCU.

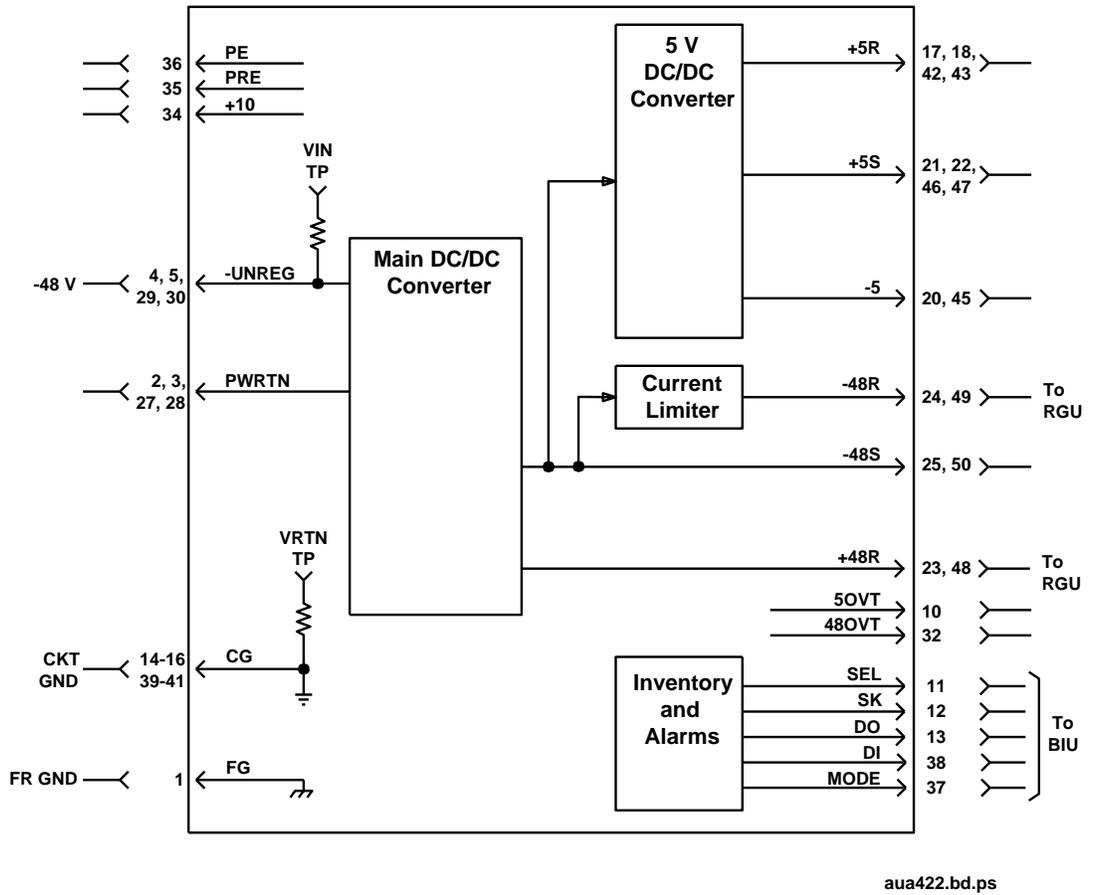
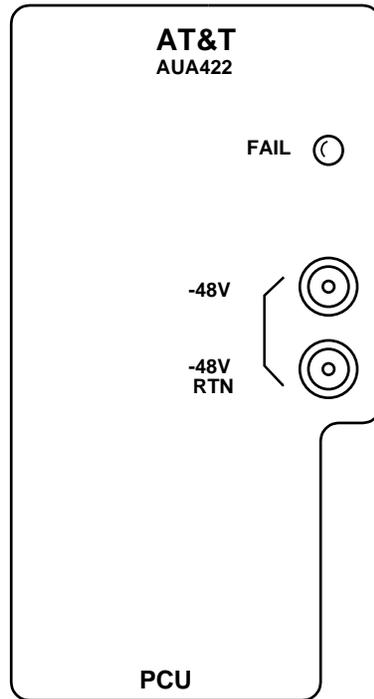


Figure 1. AUA422 PCU Block Diagram



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Figure 2. AUA422 PCU Faceplate

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