



***SLC*[®] Series 5 Carrier System**

**AUA56() (RT) DPT Channel Unit—
5SCU9E0 (AUA56)
5SCU9Y0 (AUA56B)**

Features/Functions

- Meets appropriate industry standards for DID service
- Compatible with locally-switched loop reverse battery signaling requirements in TR-NWT-000057
- Faceplate test access to tip and ring for both channels (AUA56B)
- Faceplate BUSY LEDs
- UL* Recognized

* Registered trademark of Underwriters Laboratories Inc.

Description

This AUA56() channel unit COMCODE 105127252 for AUA56 and for AUA56B, COMCODE 107392300 are designed for 2-wire locally-switched direct-inward-dial service. These units provide two channels of service and are located at the remote terminal (RT).

The AUA56() is a current sink unit with two channels of service, providing the dial pulse terminating (DPT) function between it's host *SLC* Series 5 Carrier System or *SLC*-2000 Access System and the DID trunk circuit of a private branch exchange (PBX). The channel unit can be installed in the remote terminal (RT) of either carrier system or in a multi-services distant terminal homed on a *SLC* Series 5 RT (Feature Package F) or *SLC*-2000 System RT (*SLC*-2000 MSDT Feature).

The central office end of the circuit will be terminated in a dial pulse originate (DPO) type channel unit or in a switch digital carrier interface. The AUA56() detects loop reverse battery signaling from the PBX and transmits this information digitally toward the CO. Similarly, the AUA56() receives digitally encoded loop closure information from the CO end and applies this signaling toward the PBX.

For the AUA56B loop insertion loss can be selected from switches on the circuit pack for each channel for either 0 dB or 2.5 dB. This feature allows the loss level to be optimized for ranges of metallic extensions across the carrier serving area (CSA). If a digital loop carrier (DLC) is replacing long metallic loops, this control feature minimizes the loss contrast experienced on cutover.

Figure 1 is a functional block diagram of an AUA56() CU, and Figure 2 shows the faceplates. The unit stores in nonvolatile memory an inventory record (including its 10 character CLEI* code) available for reading by a compatible host.

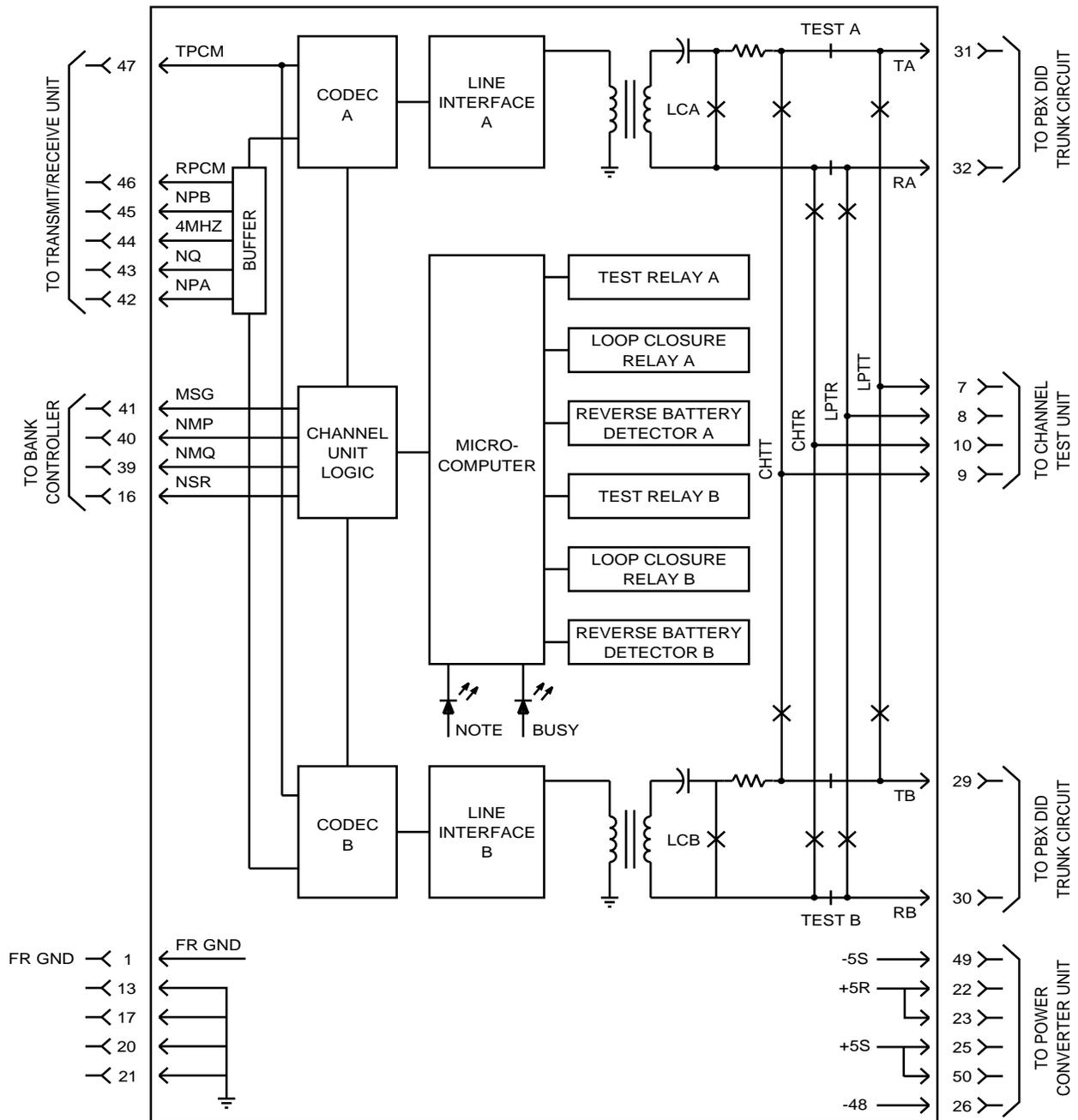


NOTE:

The AUA56B CU includes the following features not offered by the AUA56 unit:

- Each channel of the AUA56B can be attenuated by 2.5 dB in each direction of transmission by operating a board-mounted switch.
- When the AUA56B CU is receiving the switch idle signal (ABCD=0000), the CU continues to detect the battery polarity of the PBX interface and sends normal battery signal regardless of PBX battery polarity.
- When the AUA56B channel unit detects a disconnect from the PBX, the unit sends the reverse battery signal (1111) toward the switch to facilitate trouble recognition by CO staff. When the AUA56 CU is disconnected from the PBX, the AUA56 unit sends normal battery.
- The faceplate of the AUA56B CU mounts a test jack for easier test access to tip and ring leads, and a busy CU LED for each channel. The AUA56 unit's faceplate mounts only a single BUSY LED.

* COMMON LANGUAGE is a registered trademark and CLEI, CLLI, CLCI, and CLFI are trademarks of Bell Communications Research, Inc.



NOTE:
 Only one busy LED on AUA56, denoting
 when *either* channel is busy

tpa 744653/01

Figure 1. AUA56() Block Diagram

Compatibility

The AUA56() is compatible with all *SLC* Series 5 Carrier System feature packages, with the exception of Feature Package I, and with the *SLC-2000* Access System. The far-end termination can be any of the following units:

- AUA36() DPO channel unit
- AUA43 E SPOTS® channel unit
- SLC 96 WP42 DPO channel unit
- SLC 96 J98726BA() DPO channel unit
- SLC-2000 SPQ®443 E SPOTS channel unit
- 5ESS® switch integrated digital carrier unit (IDCU)

Specifications

Table 1 lists the electrical and transmission specifications that supplement or highlight the detailed information in Chapter 6 of the *SLC Series 5 Carrier System Applications And Planning Guide*, AT&T 363-205-010. Table 2 lists the environmental specifications.

**Table 1. AUA56() Electrical and Transmission Specifications
(End-to-end performance specified with AUA36() at COT, terminated with $900 \Omega + 2.16 \mu\text{F}$)**

Parameter	Value
Loop resistance (excluding telset)	CSA
1 kHz VF loss between CO and network interface (NIF) at customer location, CO off-hook	0 dB to 5 dB (AUA56) 2.5 dB to 5 dB (AUA56B)
1 kHz VF loss, AUA56() only	AUA56 – 0.0 dB AUA56B – 2.5 dB
Return loss at COT (reference Z of $900 \Omega + 2.16 \mu\text{F}$, AUA56() terminated at voice frequencies with TR-57 CSA test loops)	ERL > 10 dB SRL > 5 dB
Return loss at RT (reference Z of $600 \Omega + 2.16 \mu\text{F}$, COT terminated with $900 \Omega + 2.16 \mu\text{F}$)	ERL > 19 dB SRL > 11 dB
Frequency response (loss relative to 1004 Hz, end-to-end)	300 Hz to 3000 Hz: 3200 Hz: – 0.5 dB to 1.0 dB – 0.5 dB to 1.5 dB
Structural impedance, (hybrid impedance, output impedance)	$600 \Omega + 2.16 \mu\text{F}$
Impulse noise at a threshold of 47 dB _{rnC0} for 15 minutes	≤ 15 counts

Table 2. Environmental Specifications

Temperature Range (Ambient)	
Operating	-40° to 85°C (-40° to 185°F)
Storage	-40° to 85°C (-40° to 185°F)
Relative Humidity, Noncondensing	
5% to 95%	

Installation and Testing

Procedures for installing and testing the circuit between the COT and the RT are given in AT&T 363-205-402 (TOP).

The AUA56(), in all its applications, is compatible with mechanized loop testing (MLT) using the extended test controller (XTC) test system.

The faceplate jack provides easy test access to the tip (T) and ring (R) of both the odd (O) and even (E) channels (AUA56B).

Faceplate Features

Figure 2 shows the AUA56() faceplate. Faceplate features of the AUA56B include faceplate BUSY LEDs and faceplate jack test access to the tip (T) and ring (R) of both the odd and even channels through the ITT RTG16L2H15A channel unit faceplate test cord (COMCODE 405755208).

BUSY (RED LED) (AUA56): Either channel is busy when lighted.

ODD BUSY (Red Led): The odd channel is busy when lighted.

EVEN BUSY (Red LED): The even channel is busy when lighted.

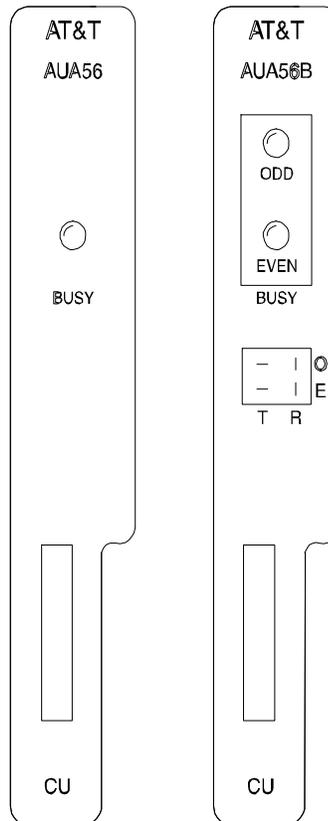


Figure 2. AUA56 Faceplate Diagram

References

The following documents provide additional information about the *SLC Series 5 Carrier System* and the *SLC-2000 Access System*:

- AT&T 363-205-004 *SLC-2000 Multi-Services Distant Terminal Feature—
User /Service Manual*
- AT&T 363-205-010 *SLC Series 5 Carrier System Application and Planning
Guide*
- AT&T 363-205-402 *SLC Series 5 Carrier System Channel Unit Installation and
Testing*
- AT&T 363-208-000 *SLC-2000 Access System Application and Planning Guide*

Technical Assistance

Follow local procedures for obtaining technical assistance. AT&T also provides in-hours or emergency out-of-hours help for the *SLC Series 5 Carrier System*. Call the AT&T Regional Technical Assistance Center at **1-800-225-RTAC**.

Ordering Information

Additional copies of this document (AT&T 363-005-115) are available from the Customer Information Center — call 1-800-432-6600.

Comments

Comments about this document can be directed to:

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