



SLC® Series 5 Carrier System

AUA179 (RT) ALIC5 Channel Unit* - 5SCIHW9

Features/Functions

- Compatible with universal voice grade (UVG) requirements
- Automatic loss compensation (ALC)
- Automatically provides ground- or loop-start service
- Automatically provides POTS or special service loss profile
- Enables pre-cutover testing with 5ESS® switch and SLC® Series 5 remote terminal (RT) bridged to working circuit
- Conforms to appropriate industry standards
- Compatible with calling number delivery (CND) and calling name delivery (CNAM) services
- On-hook transmission (OHT)
- Compatible with CLASS† services
- Fast forward disconnect
- No option switches
- Faceplate test access to tip and ring for two channels
- Faceplate BUSY LED for each channel.

* This product is covered by U.S. patent number 5187733 and may also be covered by one or more additional U.S. or foreign patents or patent applications.

† Service mark of Bell Communications Research, Inc.

Description

The AUA179 ALIC5 channel unit (COMCODE 106856776) is designed for 2-wire POTS and locally-switched special services. The AUA179 allows for a benign bridging of the SLC Series 5 RT to in-service circuits on the 1A ESS™ or other analog switch in preparation for the transfer of the circuits to a SLC Series 5 RT integrated into a 5ESS switch. The AUA179 provides two channels of service and is located at the remote terminal (RT). It is equipped with ALC which adds loss when connected to shorter loops. This feature optimizes the loss level for ranges of metallic extensions up to 900 ohms for POTS, or across the carrier serving area (CSA) for locally-switched special services. If a digital loop carrier (DLC) system is replacing long metallic loops, the ALC feature minimizes the loss contrast experienced on cutover. The AUA179 furnishes a current feed interface to the customer loop and provides a fast forward disconnect feature [the RT disconnects when the central office (CO) open battery interval is longer than 50 ms]. The selection of the POTS or special services loss profile is determined by the far-end channel unit or provisioning of the digital line unit. If the special services loss characteristics shown in Table 1 are desired for a loop-start circuit (for example, CO Centrex), the CO termination must generate signaling equivalent to a SPOTS® channel unit.

The AUA179 facilitates the cutover of metallic circuits served by a 1A ESS analog switch to a DLC system integrated into a 5ESS switch. Prior to the cut, a relay on the AUA179 CU is kept open by 5ESS signaling to prevent loading of the in-service circuit. During the pre-cutover period, the 5ESS switch can momentarily close the relay to conduct automated office-to-office tests. At switch cutover, the 5ESS switch signals the AUA179 to permanently close the relay.

The AUA179 stores in nonvolatile memory an inventory record (including its 10-character CLEI* code) available for reading by a compatible operations support system (OSS).

Compatibility

Although compatible with all SLC Series 5 feature packages, the AUA179's intended use is in a cutover from an analog switch to a Feature Package B RT integrated into a 5ESS switch digital carrier line unit (DCLU) or integrated digital carrier unit (IDCU). The AUA179 is compatible with on-hook transmission services such as CND, CNAM, and meter reading.

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

Specifications

Table 1 lists specifications that supplement or highlight the information found in Chapter 6 of AT&T 363-205-010, Issue 2 or later.

Table 1. AUA179 Electrical and Transmission Specifications

<u>Parameter</u>	<u>POTS</u>	<u>Special Services</u>
<u>Loop resistance (excluding telset)</u>	<u>0 to 900 Ω</u>	<u>CSA</u>
1 kHz VF loss between CO and network interface (NIF) at customer location, customer premises equipment (CPE) off-hook	4 to 8 dB	2 to 5 dB
1 kHz VF loss, AUA179 only, CPE off-hook:		
0 Ω tip-to-ring	6.0 dB	3.4 dB
Maximum loop resistance	1.4 dB	0 dB
1 kHz VF loss, AUA179 only, CPE on-hook:		
0 Ω tip-to-ring	9.5 dB	9.5 dB
Maximum loop resistance	5 dB	6 dB
Return loss at COT (reference Z of 900 Ω + 2.16 μ F, AUA179 terminated at voice frequencies with 900 Ω + 2.16 μ F for POTS or TR-57 CSA test loops for special services, DC resistance of loop terminations < 430 Ω , CPE on-hook or off-hook)	ERL > 18 dB SRL > 10 dB	ERL > 10 dB SRL > 5 dB
Return loss at RT (reference Z of 600 Ω + 2.16 μ F, DC resistance of 0 Ω , CPE on-hook or off-hook; CO terminated with 900 Ω + 2.16 μ F)	ERL > 18 dB SRL > 10 dB	ERL > 19 dB SRL > 11 dB

Installation and Testing

There are no switches to set on this unit. Table 2 shows the edge connector input/output (I/O). Procedures for testing the unit are given in AT&T 363-205-402 (TOP).

The AUA179, in all its applications, is compatible with mechanized loop testing (MLT) and the pair gain test controller (PGTC) and extended test controller (XTC) test systems.

The faceplate jack provides easy test access to the tip (T) and ring (R) of both the odd (O) and even (E) channels through the ITT RTG16L2H15A channel unit faceplate test cord (COMCODE 405755208).

Table 2. AUA179 Edge Connector Input/Output (I/O)

<u>Function</u>	<u>Finger(s)</u>
4 MHz Clock	44
+5 Volt	22,23,25, and 50
-5 Volt	49
GND	1,13,17,20, and 21
Receive PCM	46
Transmit PCM	47
Ring A	32
Ring B	30
Tip A	31
Tip B	29

Faceplate Features

Figure 1 shows the AUA179 faceplate. Faceplate features include a test access jack to the tip and ring and two faceplate LEDs.

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

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

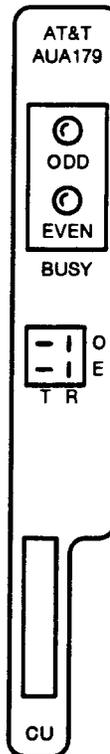


Figure 1. AUA179 Faceplate

References

The following documents provide additional information about the SLC Series 5 Carrier System.

- 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 915-710-115 *SLC Series 5 Carrier System Applications Engineering.*

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.

Additional copies of this document (AT&T 363-005-311) are available from the Customer Information Center — call 1-800-432-6600.

Comments about this document can be directed to:

AT&T
Customer Information Development and Business Translations Organization
Attention: Publishing Services Department
2400 Reynolda Road
Winston-Salem, NC 27106

Copyright © 1993 AT&T
All Rights Reserved
Printed in U.S.A.