SLC® Series 5 Carrier System

AUA39( ) (COT) *SPOTS*® Channel Unit 5SCU8M0___(AUA39), 5SC1X0B___ (AUA39B)

Features/Functions

- Loop-start or ground-start service
- Supports *CLASS** services
- On-hook transmission (OHT) (see Table 1)
- Fast forward disconnect feature
- Faceplate test access to tip and ring of both channels
- Supports Line Side Answer Supervision (LSAS) (AUA39B)
- No option switches
- Faceplate BUSY LEDs
- Improved performance with calling number delivery (CND) and calling name delivery (CNAM) services (AUA39B)
- Conforms to appropriate industry standards
- Supports message waiting indicator service (AUA39B).

Reason for Reissue

This data sheet is reissued to include information for the AUA39 that was omitted in the previous issue. Additions are made to the ''Features/Functions'' and ''Compatibility'' sections.

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Description

The AUA39( ) channel unit is designed for 2-wire, locally switched, *SPOTS* applications with both loop-start and ground-start service. (The COMCODE for the AUA39 is 103840567, and the COMCODE for the AUA39B is 106223217.) The AUA39( ) is a current sink circuit that provides the interface between the central office line circuit and the *SLC* Series 5 system. This plug-in provides two channels of service and will always be located in the central office terminal (COT). The AUA39( ) provides a fast forward disconnect feature [the RT disconnects when the central office (CO) open battery interval is longer than 50 ms] unless it is paired with the AUA59 or AUA150. When used with the AUA59 or AUA150, the AUA39( ) provides a slow forward disconnect feature [the RT disconnects when the CO open battery interval is longer than 350 ms]. This slow forward disconnect feature is also called open interval protection.

The AUA39B differs from the AUA39 by providing increased on-hook trans-hybrid loss (improving the support of on-hook services) and by having a battery detector that is fully compatible with a floating-battery switch, such as a *5ESS*® Switch. In addition, the AUA39B recognizes reverse battery, supporting the new business POTS Line Side Answer Supervision (LSAS) feature.

The LSAS feature signals "smart" coin telephones that the called party has answered the call and to start billing. When the central office switch reverses battery, the AUA39B signals the channel unit at the remote terminal to provide reverse loop current feed (reverse battery). If the RT channel unit is an AUA159C or an AUA178, the RT channel unit provides reverse battery.

Compatibility

The AUA39( ) is compatible with all *SLC* Series 5 Carrier System feature packages and with the *SLC*-2000 Access System. The far-end termination can be any of the following channel units:

- AUA25( ) *SPOTS*
- AUA51 POTS/*SPOTS*
- AUA59( ) *SPOTS*
- AUA58( ) POTS, loop-start only
- AUA150( ) *SPOTS*
- AUA159( ) *SPOTS*
- AUA158( ) POTS, loop-start only
- AUA178 POTS, loop-start only
- AUA179 ALIC-5
- *SPQ*® 400 POTS, loop-start only (two channels only)
- *SPQ* 440( ) *SPOTS* (two channels only)

A forward disconnect feature is furnished with all configurations. The reverse battery function (LSAS feature) is supported if the AUA39B is paired with the AUA159C, AUA178, or the *SPQ* 440 CU.

When connected to the floating battery feed of a *5ESS* Switch, one of the following *5ESS* Switch options should be set for lines served by an AUA39 CU; this ensures proper operation, such as correctly recognizing the transition to off-hook during the silent interval of ringing, and supporting calling number delivery.

- **Preferred:** RANGEX=Y [up to Release 5E9(2)]
  RANGEX=EXT [Release 5E9(2) or later]
- **Acceptable:** GNDREF=Y

The AUA39B is compatible with any of the above settings but does not require them for correct operation.

The AUA39( ) can be bridged in the central office to a metallic pair or another AUA39( ) CU. When bridged to a metallic pair in a *5ESS* Switch office, the line served by an AUA39 CU must have option RANGEX=Y or RANGEX=EXT set and the bridged pair must be equipped with a 982KC ground reference circuit. Refer to AT&T 235-700-100. When an AUA39 is bridged to another AUA39( ) CU, the GNDREF=Y option must be set.

An AUA39B bridged to a metallic line or another AUA39B CU does not require special options.

In bridged line configurations, the circuit served by the AUA39( ) may not be able to recognize and repeat the off-hook transition of the telephone set after the other party has gone off-hook. The AUA39( ) can repeat the off-hook transition of the telephone set if the off-hook tip/ring resistance of the co-appearance of the other party exceeds a threshold of about 1150 ohms.

Specifications

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

Table 1. Salient AUA39( ) Electrical and Transmission Specifications

Parameter	Value
1 kHz VF loss, on-hook	
AUA39	2 dB ±0.5 dB
AUA39B	1.5 dB ±0.3 dB
Balance impedance, on-hook	
AUA39	>50k Ω
AUA39B	900 Ω + 2.16 μF
Nominal DC resistance, T/R	
Off-hook	1000 Ω
On-hook	
AUA39	>2M Ω
AUA39B	>24K Ω
Output impedance (Structural impedance, hybrid impedance)	900 Ω + 2.16 μF

Installation and Testing

There are no options or settings on this unit.

Procedures for testing the installed unit are given in AT&T 363-205-402 (TOP).

The AUA39( ) is compatible with mechanized loop testing (MLT) and the pair gain test controller (PGTC) and extended test controller (XTC) test systems.

The AUA39 is compatible with automatic line insulation (ALIT) testing. The AUA39B is not compatible with ALIT testing. (Bellcore has deleted the ALIT testing objective from Issue 2 of TR-NWT-000057).

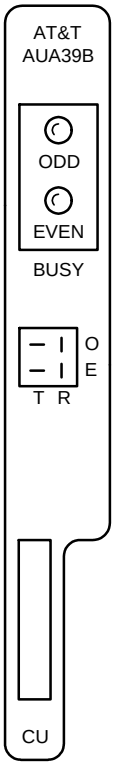
The faceplate jack provides test access to the tip and ring of both the odd and even channels.

Faceplate Features

Figure 1 shows the AUA39B faceplate and edge connections. The faceplate jack provides convenient test access to the tip and ring of both the odd and even channels through the ITT RTG16L2H15A channel unit faceplate test cord (COMCODE 405755208).

Faceplate LEDs indicate as follows:

- **ODD BUSY** (Red LED): The odd channel is busy when lighted.
- **EVEN BUSY** (Red LED): The even channel is busy when lighted.



Edge Connections	
Finger	Function
1	Frame Gnd
13, 17, 19, 20, 21	Circuit Gnd
22, 23, 25, 50	+ 5 Volts dc
29	Tip Even
30	Ring Even
31	Tip Odd
32	Ring Odd
49	-5 Volts dc

Figure 1. AUA39B Faceplate and Edge Connections

References

The following documents provide additional information about the use of this channel unit in the *SLC* Series 5 Carrier System and *SLC*-2000 Access System:

AT&T 363-205-010	***SLC** Series 5 Carrier System Applications 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 Applications, Planning, and Ordering 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

Call the Customer Information Center at 1-800-432-6600 to get additional copies of this document (AT&T 363-005-120).

Comments

Send comments about this document to:

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