



SLC[®] 240 Network Access System

XAUA454 Quad Channel Unit—

Features/Functions

- Conforms to appropriate industry standards
- Automatic level compensation (ALC)
- Supports *CLIP** services
- Faceplate test access to tip and ring for four channels
- Faceplate BUSY LEDs
- On-hook transmission (OHT)
- Enhanced inventory
- No option switches

* Calling Line Identification Presentation.

Description

This data sheet describes the XAUA454 Quad POTS channel unit (CU) (COMCODE 108238031) and is intended for the end-user of the unit.

The XAUA454 Quad channel unit is designed for 2-wire, single-party direct exchange lines with loop-start and forward disconnect signaling. The unit provides four channels of service and is used at the customer service multiplexer (CSM) (remote terminal), providing a current feed interface toward the customer drop. This unit is a voice-frequency (VF) transmission channel unit having an electronic line interface circuit with 900 Ohms + 1 μ F structural and balance impedances. The XAUA454 CU features automatic loss control (ALC) which provides loss between 0 dB and 4 dB in the receive (D-A) and transmit (A-D) directions depending on the DC loop resistance.

During the idle condition, on-hook transmission is enabled, while the microcomputer continuously monitors signaling and bank controller information. This provides support for calling line identification presentation (CLIP) services as specified in ETS 300-648 and ETS 300-659-1.

Depending on the ABCD signaling code received from the far end, the unit applies either normal battery, forward disconnect, or ringing to the customer loop. The battery condition consists of ground on the A-wire and battery on the B-wire. Forward disconnect denies loop current to the customer.

The channel unit detects a 50% make /break < 22 pulses per second (pps) dial pulses over the range of loop resistance and capacitive loading.

During the off-hook condition, when the unit is feeding current to the line, the transmission path is powered up. The line feed circuit provides a nominal constant current of 30 mA loops from 0 to 1330 ohms.

The XAUA454 CU is equipped with test relays that provide full splitting metallic access. The unit also contains over-voltage protection against lightning and power surges.

The unit provides four channels of service and is normally installed at the customer service multiplexer remote terminal (RT). The CU is equipped with automatic level compensation (ALC) which adds loss when connected to shorter loops. This feature optimizes the loss level for ranges of metallic extensions up to 900 ohms. If a digital loop carrier (DLC) system or channel is replacing long metallic loops, the ALC feature minimizes the loss contrast experienced on cutover. The XAUA454 CU furnishes a current feed interface to the customer loop and provides a fast forward disconnect feature (repeats the central office's (CO) open battery interval toward customer premises equipment (CPE), up to a maximum of 1.5 seconds if the central office interval is at least 50 ms).

The unit responds to the integrated status, inventory, test and alarm (SITA) operation administration and maintenance (OA&M) package.

Figure 1 shows the faceplate diagram for the XAUA454 POTS CU. Table 1 lists the edge connections for the XAUA454 (RT) POTS CU.

Compatibility

The XAUA454 channel unit provides the same service capabilities as the XAUA254 CU with the additional capability to provide on-hook transmission to support CLIP.

Specifications

For complete transmission specifications consult Chapter 5 of Lucent Technologies 363-207-011, *SLC 240 Network Access System Turnup and Maintenance Manual*.

IFaceplate Features

The XAUA454 quad channel unit faceplate is shown in Figure 1. The faceplate jack provides convenient test access to the tip and ring through a channel unit faceplate test cord adapter part number 400395M, available from Telecom Assistance Group, Inc., West Berlin, New Jersey; (1-800-824-7005). The following LED indicators are located on the faceplate:

BUSY 1 (Red LED): The channel 1 is busy when lit.

BUSY 2 (Red LED): The channel 2 is busy when lit.

BUSY 3 (Red LED): The channel 3 is busy when lit.

BUSY 4 (Red LED): The channel 4 is busy when lit.

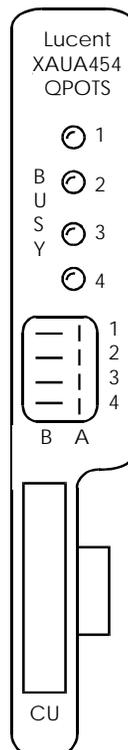


Figure 1. XAUA454 Faceplate Diagram

Table 1. Edge Connections For XAUA455 Quad Channel Unit

Finger	Function
1	Ringing Ground
2, 27	Frame Ground
3	A3 (3rd channel)
4	B3 (3rd channel)
5	A4 (4th channel)
6	B4 (4th channel)
7, 32	Protect Ground
8, 33	- 48 Volts DC
13, 38	- 5 Volts DC
17, 20, 42, 45, 48	Circuit Ground
25, 50	+ 5 Volts DC
26	- RNG (25 Hz)
28	A1 (1st channel)
29	B1 (1st channel)
30	A2 (2nd channel)
31	B2 (2nd channel)

References

The following documents provide additional information about the use of this channel unit in the *SLC 240 Network Access System*:

363-207-004	<i>SLC 120/240 Network Access System Integrated SITA System User's Guide</i>
363-207-011	<i>SLC 240 Network Access System Turnup and Maintenance Manual</i>
363-207-013	<i>SLC 240 Network Access System Installation Manual</i>

Technical Assistance

Follow local procedures for obtaining technical assistance. Lucent Technologies also provides in-hours or emergency out-of-hours help for the *SLC 240 Network Access System*. Call the Lucent Technologies Regional Technical Assistance Center at 1 800 225 RTAC.

Ordering Information

Additional copies of this document (363-005-414) are available from the Customer Information Center — call 1 888 582 3688.

Comments

Comments about this document can be directed to:

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