SLC®-2000 Access System

XAUA413 Ringing Generator Unit—

Features/Functions

- Conforms to appropriate industry standards
- Unique keying to prevent erroneous insertion in shelf
- Faceplate test access to 25 Hz, - 48 Vdc input and ground
- Enhanced inventory
- No option switches

Description

This data sheet describes the XAUA413 ringing generator unit (RGU) (COMCODE 107989527, XAUA413) and is intended for the end-user of the unit.

The XAUA413 ringing generator unit is designed to be used in Release 2.0 (or higher) in a DDM-2000 FiberReach Narrowband Shelf (NBS) optical network unit (ONU) to provide 25 Hz negative-superimposed ringing voltage. Release 4.4 (or higher) is required in the *SLC*-2000 Access System host digital terminal. This can nominally support the ringing requirements for loop applications up to 3000 feet of AWG 26 (Loop resistance up to 250 ohms).

The XAUA413 RGU receives an input voltage in the - 42 to - 60 Vdc range from the power convertor unit (PCU) and supplies a ringing voltage of 25 Hz, 80 Vrms sine wave, superimposed on the negative input voltage, to three lines simultaneously. Each line is allowed to have a maximum load of three ringer equivalence numbers (RENs). The RGU and rectifier in the optical network unit are designed to support the ringing needs of a full complement of channel units. The channel units are listed in the 363-208-000, *SLC*-2000 *Access System Application, Planning, and Ordering Guide*.

The output alarm monitor circuit in the XAUA413 RGU monitors the output ringing voltage for an over or under voltage condition. If either condition is present, the FAIL LED on the RGU faceplate is lighted and the alarm information is fed to the inventory circuit, which stores the information.

The XAUA413 RGU output is protected from lightning and power surges by the output surge protection circuit. The output is also current limited to 350 mA rms. The inventory and alarm circuit contains factory installed information peculiar to the XAUA413 RGU that can be remotely accessed from the RGU and makes it available upstream.

The channel unit stores a plug-in inventory record in non-volatile memory available for reading by an inventory compatible host (e.g., *SLC*-2000 Access System). The inventory record includes apparatus code, 10-character COMCODE, Function, Loss, and ID codes.

Figure 1 shows the faceplate diagram for the XAUA413 ringing generator unit. Table 1 lists the environmental specifications and Table 2 lists the edge connections for the XAUA413 RGU.

Table 1. Environmental Specifications

A. Temperature Range (Ambient)
1. Operating, per TR-NWT-000057*: in Lucent Technologies cabinet mounted RT, outside ambient temperatures of -40° F with no solar load to +115° F with maximum solar load and maximum power dissipation. Lucent Technologies cabinets are designed to assure that the components within do not exceed their rated temperatures for the above conditions.
2. Storage, per TR-NWT-000057: ambient temperatures of -40° to 140° F.
B. Relative Humidity
1. Operating, per TR-NWT-000057. For outside ambient temperature 84° F or less, relative humidity of 5% to 95%. For ambient temperatures above 84° F, the relative humidity is limited to that corresponding to a specific humidity of 0.024 pounds of water per pound of dry air.
2. Storage, per TR-NWT-000057: ambient temperatures 84° F or less, 10% to 95%. For ambient temperatures above 84° F, the relative humidity is limited to that corresponding to a specific humidity of 0.024 pounds of water per pound of dry air.

* Bellcore Technical Reference TR-NWT-000057, Issue 2, January 1993, and all Revisions and Supplements, "*Functional Criteria For Digital Loop Carrier Systems*," Bell Communications Research

Installation and Testing

There are no switches to set on this unit. Procedures for testing the unit are given in 363-208-001, *SLC* -2000 *Access System User/Service Manual*.

Faceplate Features

The XAUA413 ringing generator unit faceplate is shown in Figure 1.

FAIL (Red LED): When lit indicates that an under or overvoltage condition exists on the 25 Hz ringing voltage leads or a failure has occurred in the primary side of the RGU.

25 Hz, -48V, GND (Test Points): These test points are provided on the faceplate to allow access to the 25 Hz ringing voltage, -48 Vdc input, and ground.

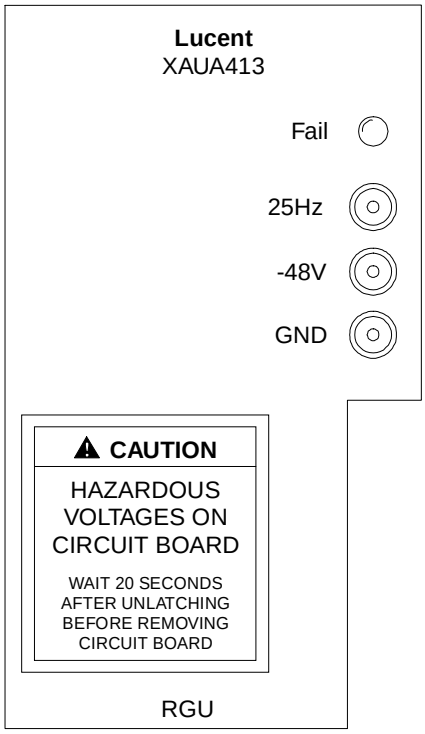

Figure 1. *X*AUA413 Faceplate Diagram

Table 2. Edge Connections For XAUA413 ringing generator unit

Finger	Function
1	Frame Ground
2, 27	- RNG (25 Hz)
3, 28	Ringing Ground
10, 14, 15, 16, 39, 40, 41	Circuit Ground
17, 18, 42, 43	+ 5R Volts DC
21, 22, 46, 47	+ 5S Volts DC
20, 45	- 5 Volts DC
23, 48	- 48 Volts DC (Return)
24, 49	- 48 Volts DC

References

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

363-208-000	*SLC*-2000 *Access System Application, Planning, and Ordering Guide*
363-208-001	*SLC*-2000 *Access System User/Service Manual*
363-208-003	*SLC*-2000 *Access System Command and Message Manual*

Technical Assistance

Follow local procedures for obtaining technical assistance. Lucent Technologies also provides in-hours or emergency out-of-hours help for the *SLC* Series 5 Carrier System and the *SLC*-2000 Access System. Call the Lucent Technologies Regional Technical Assistance Center at 1 800 225 RTAC.

Ordering Information

Additional copies of this document (363-005-346) are available from the Customer Information Center — call 1 888 582 3688.

Comments

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