



SLC[®]-2000 Access System

SPQ[®]318 Quad Current Sink Coin Channel Unit — SAC1AR0

Features/Functions

- Coin-first and dial-tone-first coin service
- Quad channel current sink unit
- On-hook transmission (OHT)
- No option switches
- Faceplate BUSY LED for each channel
- Faceplate test access to tip and ring for each channel
- Enhanced inventory readout
- Conforms to appropriate industry standards

Description

This data sheet describes the *SPQ318* quad current sink coin channel unit (COMCODE 107590119) usable in a Release 3.3 (or higher) *SLC-2000* Access System central office terminal (COT), and is intended for the end-user of the unit.

The *SPQ318* channel unit provides four channels of coin-first service using ground-start signaling or dial-tone-first service using loop-start signaling. Transmission parameters are fixed and the signaling mode is selected automatically. The channel unit stores a plug-in inventory record in non-volatile memory. The inventory record includes 10-character *COMMON LANGUAGE*^{*} *CLEI*, COMCODE, ECI, Function, Loss, and ID codes. During a switch event to

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

a protection line, the channel unit maintains the existing signaling state. In the event of a permanent carrier failure, the channel unit assumes the on-hook state.

Figure 1 shows the faceplate diagram and edge connector functions for the *SPQ318* quad current sink coin CU. Table 1 lists signaling and transmission specifications and Table 2 lists the edge connections for the *SPQ318* CU.

Compatibility

The *SPQ318* quad current sink coin channel unit is end-to-end compatible with coin current feed channel units that conform to the signaling requirements of TR-TSY-000008* and that are hosted by a compatible remote terminal (RT). The *SPQ318* CU is compatible with the *SPQ419* quad coin CU, *SPQ453* dual coin CU, and the *AUA53*() single coin CU when each is hosted by a *SLC-2000* RT. The term "host" denotes that the channel unit is installed either in the RT or in a subtended terminal such as a multi-services distant terminal (MSDT).

The *SPQ318* quad current sink coin channel unit is compatible with any switch that complies with Bellcore's *local access and transport area (LATA) switching system generic requirements (LSSGR)*† for coin service, but must be co-located with the switch since the *SPQ318* CU is not designed to face the outside plant.

* TR-TSY-000008, "Digital Interface Between the *SLC*[®]-96 Digital Loop Carrier System And A Local Digital Switch," Bell Communications Research.

† FR-NWT-000064, of which the following sections include requirements for a coin line interface: TR-NWT-000505, LSSGR, Call Processing, Section 5; TR-NWT-000506, LSSGR, Signaling, Section 6; TR-NWT-000507, LSSGR, Transmission, Section 7.

Specifications

The *SPQ318* quad current sink coin channel unit conforms to the appropriate criteria of ANSI^{*}, Bellcore, FCC, GTE, REA, and UL[†] standards.

Table 1 gives the electrical and transmission specifications for *SPQ318* channel units. The end-to-end values are specified with an *SPQ419* CU at the RT end.

Table 1. *SPQ318* Quad CS Coin CU Electrical and Transmission Specifications[‡]

Parameter	Value
T-to-R DC Resistance	≤ 1300 Ω off-hook
Coin-Ground DC Resistance	≤ 1600 Ω T-to-G, [†] R-to-G
1 kHz VF Loss	0.0 dB off-hook
	1.5 dB on-hook
Input/output impedance (Structural impedance, hybrid impedance)	900 Ω + 2.16 μF
Balance Impedance	900 Ω + 2.16 μF
Return loss at COT (reference Z of 900 ohms + 2.16 μF) (RT terminated in 900 ohms + 2.16 μF)	ERL > 18 dB, SRL > 10 dB
Return loss at RT (reference Z of 900 ohms + 2.16 μF) (COT terminated in 900 ohms + 2.16 μF)	ERL > 18 dB, SRL > 10 dB
Idle channel noise, end-to-end	≤ 20 dBrc
Frequency response (loss relative to 1004 Hz) End to end, off-hook	at 400, 2800 Hz; - 0.5 dB to +1.0 dB
	End to end, on-hook
60 Hz rejection	≥ 20 dB
Crosstalk (0 dBm0 input, 200 to 3400 Hz)	≤ - 65 dBm0
Impulse noise at a threshold of 47 dBmC0 for 15 min.	≤ 15 counts
Data pulse distortion (PAR) End to end	≥ 90
Single frequency distortion with input of: 0 - 12 kHz, 0 dBm0 1004 - 1020 kHz, 0 dBm0	< - 28 dBm0 at 0 Hz to 12 kHz
	< - 40 dBm0 at 0 Hz to 4 kHz

* Registered trademark of American National Standards Institute, Inc.

† Registered trademark of Underwriters Laboratories, Inc.

Parameter	Value
Signal-to-distortion with input of: 0 dBm0 to -30 dBm0 -30 dBm0 to -40 dBm0 -40 dBm0 to -45 dBm0	> 33 dB > 27 dB > 22 dB
System generated tones 0 < f < 16 kHz	< - 50 dBm0
Gain Tracking at 1004 Hz, relative to 0dBm0 - 37 dBm0 to + 3 dBm0 - 50 dBm0 to - 37 dBm0 - 55 dBm0 to - 50 dBm0	± 0.5 dB max. (± 0.25 dB avg.) ± 1.0 dB max. (± 0.5 dB avg.) ± 3.0 dB max. (± 1.5 dB avg.)
Intermodulation distortion (4-tone method, -13 dBm0 input)	A - B (R2) product > 43 dB 2A - B (R3) product > 44 dB

1 When switch applies coin check or coin control signal.

‡ Note: Off hook unless specified. End-to-end performance with a SPQ419 CU at the RT.

Installation and Testing

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

One of the following 5ESS[®] Switch option settings is required for proper operation:

1. 5E9(2) or later, preferred: RANGEX=EXT
2. Prior generics, RANGEX=Y
3. All generics, acceptable: GNDREF=Y

The SPQ318 CU is compatible with mechanized loop testing (MLT) and the pair gain test controller (PGTC) and the extended test controller (XTC) test systems. The SPQ318 CU is not compatible with automatic line insulation testing (ALIT).

Faceplate Features

The SPQ318 Quad current sink coin 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, part number CiPT-5, available from CI Network Products; (708-806-6300). The following LED indicators are located on the faceplate:

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

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

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

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

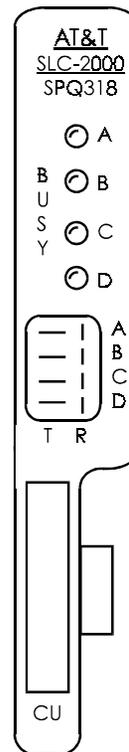


Figure 1. SPQ318 Faceplate Diagram

Table 2. Edge Connections For SPQ318 Quad Current Sink Channel Unit

Finger	Function
1	Frame Ground
3	T2 (3rd channel)
4	R2 (3rd channel)
5	T3 (4th channel)
6	R3 (4th channel)
13, 17, 19, 20, 21	Circuit Ground
22, 23, 25, 50	+5 Volts DC
26	-48 Volts DC (RT only)
29	T1 (2nd channel)
30	R1 (2nd channel)
31	T (1st channel)
32	R (1st channel)
49	-5 Volts DC

References

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

AT&T 363-208-000 *SLC-2000 Access System Application, Planning, and Ordering Guide*

AT&T 363-208-001 *SLC-2000 Access System User/Service 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-2000 Access System. Call the Lucent Technologies Regional Technical Assistance Center at 1-800-225-RTAC.

Ordering Information

Additional copies of this document (363-005-330) are available from the Customer Information Center — call 1-888-582-3688.

Comments

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