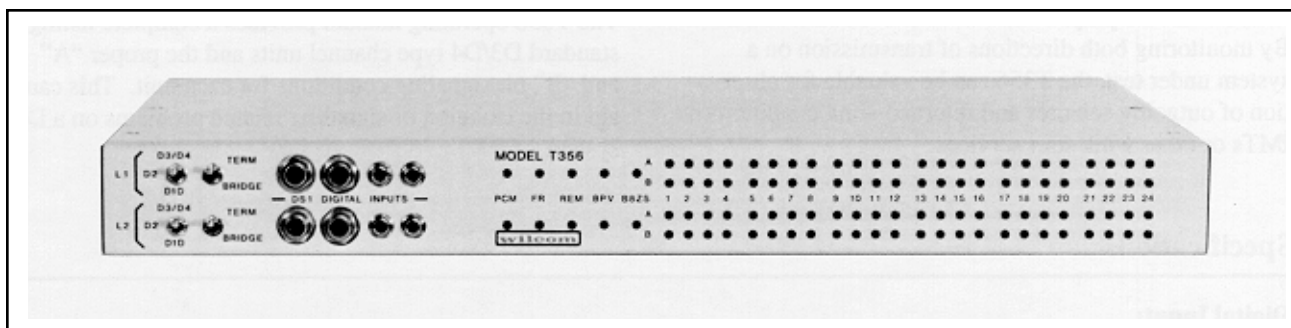


T1 dual channel signaling monitor

T356



Features:

- Two independent DS1 inputs monitor signaling bits in directions simultaneously
- Dual Line Status Indicators:
 - BPV - Bi-Polar Violation indicator
 - FRAME - Frame Error Present
 - PCM - loss of signal indicator
 - REM - Remote Alarm indicator
 - B8ZS - indicates format being received
 - D3/D4, D2, D1D compatible
- LED displays On-Hook, Off-Hook, Ringing, Winks, etc.
- SLC-96* Mode 1 Compatible
- Bridge/Terminate input selection
- 310 and Bantam (Miniature) Jacks with duplicate appearances for bridging other test equipment onto DS1 stream
- Rack Mounting-1 3/4" Panel Height-19" or 23"

Description

The Wilcom Model T356 Dual T1 Channel Signaling Monitor provides two independent DS1 inputs and presents a display of all 24 "A" bits and 24 "B" bits for each of the inputs. These bits carry the signaling information for each channel and thus, on-hook and off-hook status can be determined for each channel. The T356 is useful for locating channels with permanent seizures and also provides a quick visual check of traffic on a system prior to patching or other redirection of a DS1 system. In some configurations analysis of an individual channel bank is possible by bridging a test set such as the Wilcom T316B.

The Model T356 also provides DS1 line status indicators for both lines to indicate the presence of a valid PCM signal, framing errors, bipolar violations, remote alarms and B8ZS line format. The B8ZS indicator can be useful in isolating troubles on systems with B8ZS at one end and standard AMI at the other.

The T356 will frame properly on SLC-96 mode 1 systems and will display "A" and "B" bit "O" and "1" states. The T356 can prove useful in locating signaling problems on POTS type services provided by SLC-96. The T356 is AC line powered and simply requires a single 1 3/4 inch rack space for proper mounting. The use of high efficiency LED indicators on the front panel provides for excellent visibility under all indoor lighting conditions.

Applications

The T356 is normally applied to the monitor jack at a digital cross connect jackfield (DSX). In recognition of the existence of non-standard monitor jacks (without bridging resistors built in), the T356 has a bridge position which inserts two 450 ohm resistors, one each in series with tip and ring, to prevent double termination of the system under test. The wide input range of the T356 digital inputs provides for proper operation under either situation. Some of the potential applications for the T356 include:

Traffic Monitor:

Provides a quick visual check of the traffic (on/off hook) conditions on the system under test prior to a patch or redirection of the system for maintenance or in response to changing route allocation requirements. Prevents loss of a system with calls in progress.

Permanent Seizure Detector:

Provides a quick indication of channels which have permanent seizures, identifying such channels for maintenance purposes.

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Wink Start Display:

By monitoring both directions of transmission on a system under test, the T356 can be valuable for observation of outgoing seizures and returned wink conditions on IMTs or other wink start services.

The T356 operating manual provides a complete listing of standard D3/D4 type channel units and the proper "A" and "B" bit signaling conditions for each unit. This can aid in the isolation of signaling related problems on a DS1 system.

Specifications

Digital Input:

Code: Standard DS1 AMI and B8ZS, 1.544 mg/s

Impedance:

Termination: 100 ohms $\pm 10\%$ at 1.544 MHz

Bridge: 1000 ohms

Level Sensitivity:

$\pm 3V$ P-P Bi-Polar to 300 MV P-P

(26 dB below $\pm 3V$ P-P)

Channel Numbering:

Selectable; SLC/D1D, D2, D3/D4

Jack Input:

Two type 310 and two Bantam

(Miniature) Parallel Jacks provided per line.

Decoding:

Standard 7-5/6 robbed bit signaling

Measurements:

A/B bits (each line) 48 high intensity LED's

LED ON indicates A or B = "1"

LED OFF indicates A or B = "0"

Line Status Indications:

BPV- one or more Bi-Polar Violations

FR (Frame Error)-one or more frame bit errors

PCM (level)-loss of Bi-Polar Signal

REM (Alarm Detection)-bit 2 of all channels set to zero for five or more frames

B8ZS (8 zero substitution)-one or more clear channel code words

Standards:

Conforms to applicable decoding sections of PUB 43801

Conforms to Technical Advisory No. 69 for B8ZS Clear Channel Format

Power:

110 Vac 50/60 Hz

0.5 AMP Max.

Fuse: 2 AMP Nominal

Power Cord plug-in and Fuse mounted on rear panel

Environmental:

Operating Temperature: 0°C to +40°C

Storage Temperature: -40°C to +70°C

Humidity: 90% non-condensing

Altitude: (non-operating): 15000 Meters

Physical:

Width: 17" 431.8 (mm)

Height: 1.72" 43.7 (mm)

Depth: 11.6" 294.6 (mm)

Weight: 6 lbs 2.72 (kg)

Ordering Information:

Model T356 T1 Dual Channel Signaling Monitor

(19" or 23" Rack Mounting)

