TSC Trunk Signaling Converter

The TSC100™ Trunk Signaling Converter is an advanced signaling protocol converter that provides connectivity between incompatible switches or network components. The system supports both protocol and rate conversion. As such, the TSC100 is a premier signaling converter that can be used to solve a range of interoperability challenges stemming from disparate telecommunications equipment.

FLEXIBLE SYSTEM CAPACITY AND CONFIGURATION OPTIONS

A number of features make the TSC100 highly adaptable to your specific protocol needs. The TSC100, which supports multiple signaling protocols, including R1, R2, DTMF, C5, and DECADIC, is easily configured for custom protocols. The system's modular design lets you expand system capacity to as many as 15 T1 or 12 E1 trunks, with each module containing one T1 or one E1 trunk. The system provides dual operation of T1 and/or E1 interfaces. It can be configured as a rate converter, and permits cross-mapping of E1 trunks to T1 trunks without channel loss. It also supports a number of interface options: T1 to T1, T1 to E1, E1 to T1, and E1 to E1, all of which are user configurable for framing and signaling parameters. Configuration is easy: a user-friendly configuration menu allows you to select functionality, choose country protocols, and provision the system.

USER-FRIENDLY MAINTENANCE AND SUPPORT

The TSC100 is designed to make maintaining and supporting the system both easy and efficient. The TSC100 comes with Network Diagnostic Software already installed, a feature that provides a quick and accurate method of isolating system problems. The system includes a powerful trace analysis diagnostic function that displays all of the states and events that occur on any channel, or group of channels, during a specific period of time. It also provides real-time monitoring of the line signal bits for channel groups to determine channel states and conditions. The TSC100 can also be equipped with partial or full redundancy to minimize system downtime in the event of a problem.

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To order, call 1-847-252-7100

FEATURES

✦ A wide variety of signaling protocols from over 80 countries

✦ Full E1 to T1 rate conversion without channel loss

✦ Flexible interface with capacity of up to 15 T1 or 12 E1 trunks

✦ Network management software for administration and alarms

✦ Line signaling configurable on a per channel basis

✦ Network diagnostic capability

✦ Supports μ-law to A-law conversion

✦ Supports custom applications

✦ Redundancy options available

TECHNICAL SPECIFICATIONS

SPECIFICATIONS

T1 Interface

Framing:	D3/D4 or ESF
Bit Rate:	1.544 Mbps
Clocking:	+ 30 ppm internal
	+ 150 ppm external
Impedance:	100 ohms
Coding:	AMI or B8ZS
Alarms.:	Loss of signal, bipolar violation, CRC error, framing error, remote alarm
Diagnostics:	Signaling state report, digit report
Performance:	ATT Pub. 62411, ITU-T G.703, G.733

E1 Interface

Framing:	ITU-T G.732, G.704
Bit Rate:	2.048 Mbps
Clocking:	± 30 ppm internal
	± 100 ppm external
Impedance:	70 or 120 ohms
Coding:	AMI/HDB3
Alarms.:	Loss of signal, bipolar violation, CRC error, framing error, remote alarm
Diagnostics:	Signaling state report, digit report
Performance:	ITU-T G.703, G.732

Capacity

Channels per Chassis:	360 maximum (15 T1/12 E1)
Incremental Capacity:	In either 24 or 30 channels (1 T1 or 1 E1)

Common Equipment

Chassis, Model CHS114	19 in. (26.7 cm), rack-mountable
DC/DC Converter, Model PSU200	Operates from -48 VDC input power supply unit
CPU Card, Model CPU100	Links to control terminal, master controller
Clock/PCM Card, Model CLK100	Provides timing for chassis clock module

Channel Modules

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Trunk Signaling, Model TSM100	Trunk signaling module
DSP Card, Model DSP100	Provides signaling detection/ generation function
Trunk Interface, Model TIM100	Interfaces up to 4 T1 (DS1) trunks for rate conversion only

Physical

Height:	5.25 in. (13.3 cm)
Width:	19 in. (48.26 cm)
Depth:	12.6 in. (32 cm)

Input Power

-42 to -56 VDC

Environmental

Temperature:	32° to 122° F (0° to 50° C)
Humidity:	Up to 95% non-condensing
Altitude:	Up to 10,000 ft. (3,048 m)
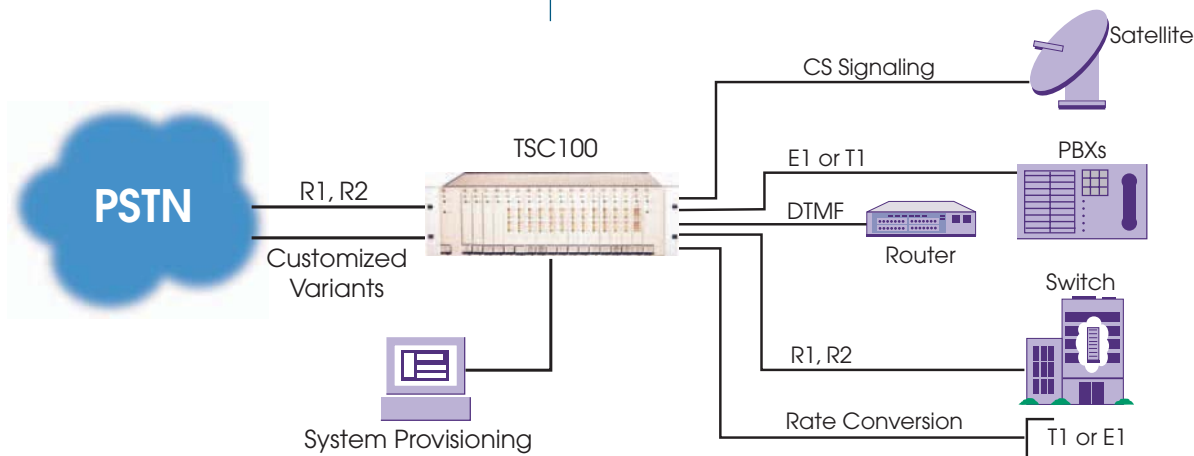
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Specifications are subject to change without notice. Other protocols or variants may be under development or could be considered for development based on customer requirements.