

## SignalPath™ 201-SA Universal Signaling Adapter

The SignalPath™ 201-SA (SP201-SA) is a universal signaling adapter designed to provide low-cost, optimal signaling conversion in PBX, IP-PBX, and video-conferencing applications. Enterprise vendors with customers that require connectivity between their PBX applications and networks in countries using R2 signaling are rewarded with immediate business opportunities that were previously inaccessible due to signaling incompatibilities.

The SP201-SA, designed for fast, easy, economical integration of IP and CAS networks, quite simply connects PBX type equipment with a digital T1 or E1 interface to R2 or legacy signaling equipment with a digital T1 or E1 interface in the PSTN.

Its very small desktop footprint makes it easy to co-locate the SP201-SA with PBX equipment. With its single, bi-directional T1/E1 interface, this signaling solution is the best cost-effective choice for enterprise applications, while offering unsurpassed flexibility. Software-selectable menu options for connections simplify installation so much that setup time is minimal. Standard RJ48 and BNC interfaces provide T1 and E1 connectivity to equipment on the customer premises.



### INTERNATIONAL PROTOCOL SUPPORT

The following protocols are available, as well as a wide variety of custom variants:

- R2 to ETSI ISDN
- DTMF to ETSI ISDN
- R2 to NI2 ISDN
- DTMF to NI2 ISDN
- R1 to NI2 ISDN

### COMPACT DESIGN

- The SP201-SA is an extremely compact unit designed for limited space. It is easily placed on top of existing PBX equipment.
- The SP201-SA satisfies the need for T1 and E1 connection via one bi-directional interface.

### STANDARD INTERFACES

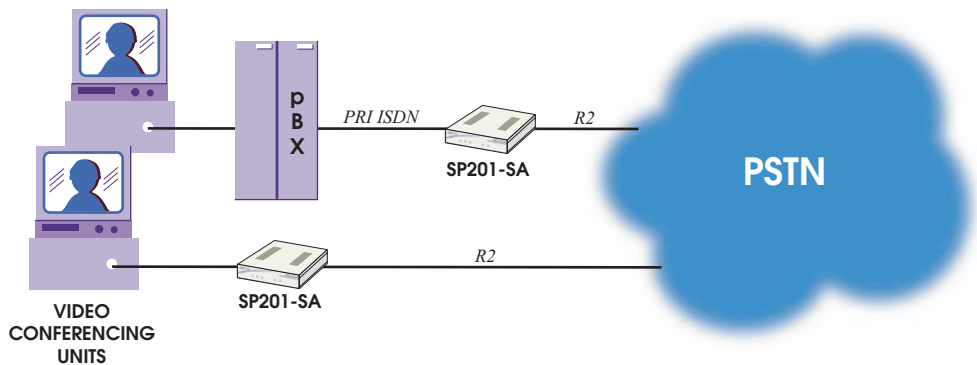
- RJ48 connector for T1
- RJ48 connector for E1-120 ohm
- BNC connector for E1-75 ohm

### STANDARD PORT CONNECTIONS

- T1 to E1-75 ohm
- E1-75 ohm to E1-75 ohm
- T1 to T1
- E1-120 ohm to E1-75 ohm
- E1-120 ohm to E1-120 ohm
- T1 to E1-120 ohm

### OTHER FEATURES

- ISDN rate conversion
- Dynamic bi-directional A-Law to  $\mu$ -Law T1/E1 conversion



## STANDARDS CONFORMANCE

<b>R1</b>	Q.310–Q.331
<b>R2</b>	Q.400–Q.490
<b>DTMF</b>	BellCore TR-TSV-002275, Subsection 6.13
<b>ISDN-ETSI</b>	ETSI 300-102, Q.931, Q.921
<b>ISDN-NI2</b>	BellCore TR-NWT-001268, TR-NWT-002343; Q.931, Q.921

## DESIGNED FOR COMPLIANCE WITH

<b>Safety</b>	EN 60950, European Safety (CE Mark)
<b>Emissions</b>	UL 1950 3rd Edition, U.S. Safety FCC Part 15, Sub-part B, Class A
<b>Immunity</b>	EN 55024; 1998

## HARDWARE SPECIFICATIONS

### Physical

<i>Height</i>	1.7 in. (4.32 cm)
<i>Width</i>	8.36 in. (21.34 cm)
<i>Depth</i>	9.0 in. (22.86 cm)

### Input

<i>Power</i>	100 to 240 VAC, 50 to 60 Hz
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### Environmental

<i>Temperature</i>	32° to 104° F (0° to 40° C)
<i>Humidity</i>	10% to 85% non-condensing
<i>Altitude</i>	Up to 10,000 ft. (3,048 m)

## SYSTEM CAPACITY

<b>Interfaces</b>	One E1/T1 in, One E1/T1 out, any combination
<b>Channels</b>	Up to 30

## INTERFACE SPECIFICATIONS

<b>Framing</b>	E1: G.732/G.704 T1: D4SF/D4ESF
<b>Bit Rate</b>	E1: 2.048 Mbps T1: 1.544 Mbps
<b>Clocking</b>	E1: ± 30 ppm internal E1: ± 100 ppm external T1: ± 30 ppm internal T1: ± 150 ppm external
<b>Impedance</b>	E1: 120 ohm balanced E1: 75 ohm unbalanced T1: 100 ohm balanced
<b>Coding</b>	E1: AMI or HDB3 T1: AMI or B8ZS
<b>Alarms</b>	E1: Loss of carrier signal, multi-frame carrier signal, sync; alarm indication signal (AIS); receipt of remote alarm; receipt of multi-frame remote alarm T1: Loss of carrier signal; loss of frame; receipt of alarm indication signal (AIS); receipt of remote alarm
<b>Diagnostics</b>	E1/T1: signaling state report, digit report
<b>Performance</b>	E1: G.703, G.704, G.732, G.823 T1: ATT Pub. 62411

