

T1/E1 AUTOMATIC PROTECTION SWITCH



Front

Back

T68-009-075 FEATURES

- ◆ 1:1 Full duplex automatic protection switching
- ◆ Revertive or non-revertive switch prevents toggling
- ◆ Remote far-end switching
- ◆ All T1 and E1 formats and line codes supported: 0-4, ESF, SLC 96, CEPT E1 formats and AMI, B8ZS, HDB3 line codes
- ◆ Selectable BER threshold switching
- ◆ Less than one bit time switchover
- ◆ Cut-through mode for power loss or module failure
- ◆ No separate power and alarm units
- ◆ Manual transfer switch
- ◆ Line build-out per ANSI T.403 and G. 703

MODULE OVERVIEW

Quintron's Transmission Products offers two models of **Automatic Protection Switches (APS)**: One model for T1 transmission lines and one for E1 transmission lines. Both offer economical, reliable and effective transmission line or trunk protection. The APS can be field configured to provide revertive or non-revertive 1:1 automatic protection switching T1 or E1 lines. Field configured far-end remote switching enables the services to be on the same routing in the event the near end switches over.

The APS Basic version automatically reroutes T1 or E1 circuits on the occurrence of detected bi-polar violations (BPV), AIS, and loss of signal conditions. The APS Plus version adds cyclic redundancy check errors, framing errors, loss of frame and logic errors in addition to the Basic version criteria.

BENEFITS

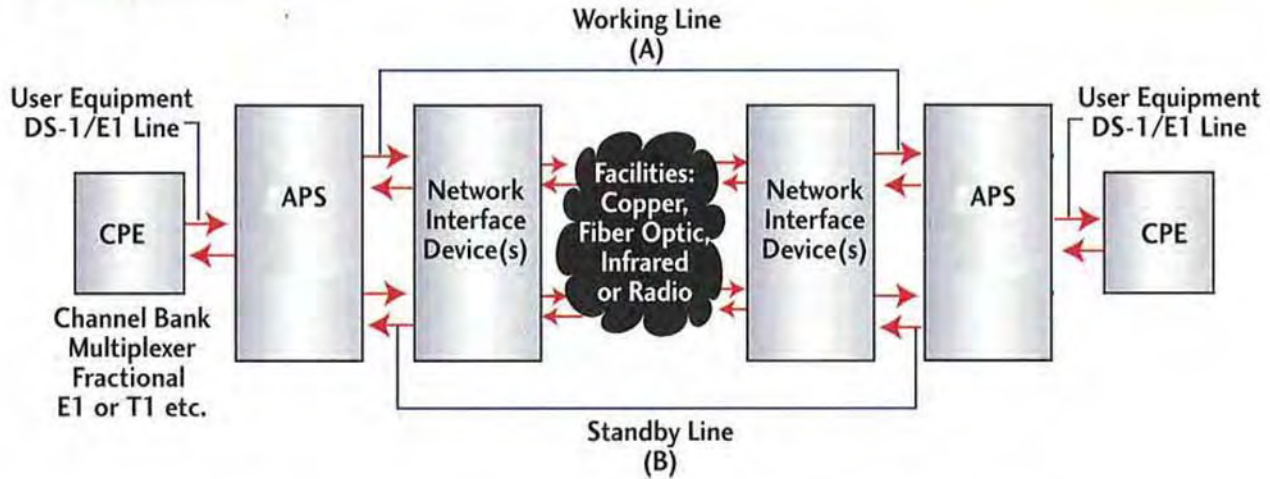
- Single module for 1:1 protection
- Revertive mode working line BER threshold must be at least one magnitude higher before switch over: Prevents toggling
- Far-end switching: Service remains on one route at all times; especially important should the working and protection line be on two different types of transmission systems, such as satellite and land lines
- Major and minor alarms. Field configurable
- Cut-thru relays prevent loss of service in event of module failure or power loss
- Manual switch requires two consecutive pushes within S seconds to initiate transfer. Prevents accidental manual transfer

ORDERING INFORMATION



P/N	DESCRIPTION	P/N	DESCRIPTION
P68-001-075-1	T-I APS (8202-03)	T68-009-075-3	4 SLOT, 2RU, DC CHASSIS
P68-001-075-2	E-I APS (9202-03)	T68-009-075-4	4 SLOT, 2RU, AC CHASSIS
T68-001-075-1	T-I APS PLUS (8202-13)		
T68-001-075-2	E-I APS PLUS (9202-13)		

SPECIFICATIONS



APS SWITCHING CRITERIA:

- Loss of signal (LOS) upon detection of up to 175 consecutive zeros
- Alarm integration signal (AIS) upon detection of all ones with a BER $10E-3$ for ~ 6 milliseconds
- BER exceeds selectable threshold ($10E3$, $10E4$, $10E5$ or $10E6$)
- Loss of frame (LOF) *
- cyclic redundancy check errors *
- Frame & logic errors *

Note: "*" for APS Plus Version only

APS ALARMS:

The APS extends the detected alarms through relay contacts which can be field configured as normally open or normally closed under the following conditions:

- APS failure ————— Major Alarm
- Working line failure ————— Minor Alarm
- Stand-by line failure ————— Minor Alarm
- Both line failure ————— Major Alarm
- Power failure ————— Major Alarm

FRONT PANEL INDICATORS/CONTROLS:

CONDITION	ABBREVIATION	LED COLOR
On-line	O/L	Green
B8ZS/HDB3 detected	LC#	Green
Loss of signal	LOS	Red
All ones detected (AIS)	AIS	Red
Bit error rate exceeded	BER	Red
Manual transfer	TFR	Push button switch

POWER REQUIREMENTS:

80 mA @ -48 VDC:
 Input Range -20 VDC to -60 VDC
 AC Version 90 - 260 VAC

ENVIRONMENTAL:

Temperature 0° to 50° C.
 0 to 95% humidity, non-condensing

OVERALL DIMENSION:

19" (L) x 3.5" (W) x 17.5" (D)

