



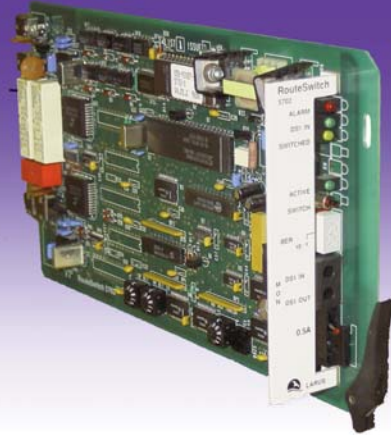
Highlights

- Point-to-Point diverse route and self-healing ring applications
- One ended switch for self-healing ring loop applications
- Switch selectable revertive and non-revertive loop applications
- Switch selectable delays and BER thresholds
- Automatic detection of SF and ESF formats
- Switch selectable B8ZS or AMI line coding
- Line Status monitoring
- Local and remote control of switching function
- Connectorized user connections
- One DS1 and 6 DS1 terminal configurations
- OOF, LOS, and BER switching criteria, AIS Optional
- Front panel manual switch control
- Central Office alarming, Plus Discrete E2A Alarms
- Seven segment display, BER, alarms & status

The **CXR Larus 5702 RouteSwitch™** is a DS1 automatic protection single ended 1+1 switch system that provides cost effective, self-healing network capabilities in the event of cable cuts, electronic or node failures. The RouteSwitch ensures the highest quality received DS1 signal at all times.

The RouteSwitch offers the advantages of one end switching, non-revertive and revertive, selectable switching delays, and selectable Bit Error Rate (BER) switching thresholds. The RouteSwitch also features default switching criteria and full power supply redundancy.

The RouteSwitch provides protection for specific DS1s by duplicating transmitted signals over separately routed diverse physical facilities or different transmission media. The 5702 delivers the better of the two received signals to the DS1 equipment. Compatible with Superframe (SF) and



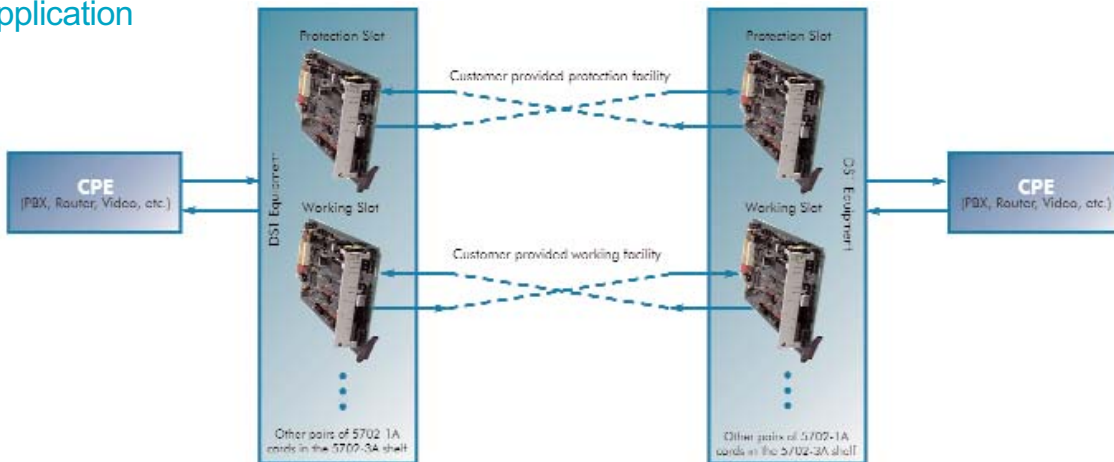
Extended Superframe (ESF) formats, the 5702 detects automatically the format of the input DS1 and performs the appropriate monitoring for protection switching. The system accepts both AMI and B8ZS line coding.

A seven segment display, visible on the front panel of the 5702, indicates BER and also displays other characters, to indicate alarm and circuit pack status to aid in troubleshooting.

Switching criteria can be configured to user requirements. The criteria to switch from a primary channel to a protection channel are the detection of a Loss of Signal (LOS), Out of Frame (OOF) event, BER threshold being met or exceeded on the primary channel, or Alarm Indication Signal (AIS) (5702-1B only).

Two RouteSwitch circuit packs are required at each end of the facilities, one to monitor the primary channel and one to monitor the protection channel. Shelf position determines the primary or protection function.

Application



CXR Larus 5702 RouteSwitch

The 5702 is available in two shelf arrangements; the RouteSwitch Distant Terminal, a two circuit pack, horizontal mount for 19-inch racks; and a 12 slot, 19-inch shelf Central Office Terminal

Specifications

DATA FORMAT

SF or ESF (auto detection)
AMI or B8ZS

PORT IMPEDANCE

100 ohms nominal @ 772 kHz

INPUT BIT RATE

1.544Mbps, ± 200 bps, bipolar

INPUT SIGNAL RATE

-7.5dBV to +3dBV, DSX transmission level point
0 dBV = 6 volts P-P across 100 ohms

OUTPUT PULSE AMPLITUDE

6 V P-P (± 3 V, ± 0.3 V)

OUTPUT PRE-COMPENSATION NETWORK

0 to 133 ft

REGENERATED LINE SIGNAL OUTPUT

Pulse Width	324nS ± 30 nS
Pulse Width Imbalance	15nS maximum
Pulse Overshoot	10% to 30%
	20% nominal
Pulse Rise & Fall Time	100nS maximum

CENTRAL OFFICE ALARMS

Major audible and visual
Minor audible and visual
Discrete E2A alarms

FUSE ALARMS

Local (CO)	Closure to battery
Remote (E2A)	Closure to ground

FRONT PANEL INDICATORS

ALARM:	LED	Red
DS1 IN:	LED	Green
SWITCHED:	LED	Yellow
ACTIVE:	LED	Green
BER:	Seven segment display	
DIAGNOSTICS:	Seven segment display	

CIRCUIT PACK SELECTABLE FEATURES

SWITCH/MANUAL
REVERTIVE/NON REVERTIVE
AMI/B8ZS
HARD FAIL DELAY
SOFT FAIL DELAY

RESET SWITCH (CO TERMINAL SHELVES)

Audible Alarm Cutoff (ACO)

ACO INDICATOR (CO TERMINAL SHELVES)

LED: Yellow

ENVIRONMENTAL

Operating Temperature:	-40° to 167°F (-40° to +75°C)
Storage Temperature:	-40° to +175°F (-40° to +85°C)

RELATIVE HUMIDITY

0 to 95% noncondensing

PHYSICAL

Power:	48 VDC, 110 mA per circuit pack, alarmed
Power Consumption:	5.5 W per circuit pack
Power Fuse (Circuit Pack):	0.5 A
Circuit Pack Dimensions (Dimensions [L x H x W]/ Part Number):	9.5 in x 5.0 in x 1.40 in / 5702-1A
Shelf Dimensions (W x D x H):	19.0 in x 12.0 in x 1.75 in (1 DS1) / 5702-2A-11 19.0 in x 12.0 in x 5.25 in (6 DS1s) / 5702-3A
Circuit Pack Weight (Weight/Part Number):	12 oz. / 5702-1A/1B
Shelf Weight:	5.6 lbs. fully equipped / 5702-2/-11 14.5 lbs. fully equipped / 5702-3A

Ordering Configurations

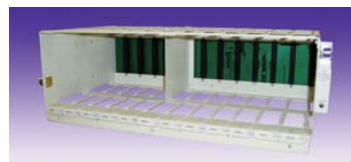
5702 RouteSwitch

DS1 1+1 Automatic Protection Switch System

Model	Description
5702-1A	DS1 APS Circuit Pack, No switch on Facility AIS
5702-1B	DS1 APS Circuit Pack, Switch on Facility AIS
5702-2A	Distant Terminal, 19/23-in shelf, 1 DS1 (includes 2 each 5702-1A circuit packs)
5702-2B	Distant Terminal, 19/23-in shelf, 1DS1 (includes 2 ea 5702-1B circuit packs)
5702-3A	CO Terminal, 19/23-in shelf, 6 DS1s (shelf only)
5702-11	Distant Terminal, 19/23-in shelf, 1 DS1 (shelf only)



5702-2A/2B APS System



5702-3A 19/23-In Shelf

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