

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, AIS and BER switching criteria, user selected priority
- Front panel manual switch control
- Central Office alarming
- Seven segment display, BER, alarms & status

The **CXR/Larus 5702 RouteSwitch™** is a DS1 automatic protection single ended switch that provides cost effective, self-healing network capabilities in the event of cable cuts, electronic or node failures. Compatible with Larus' radio systems and the AT&T DDM-1000 and DDM-2000 Multiplexers, the RouteSwitch ensure the highest quality received DS1 signal at all times.

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 redundant power modules.

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.



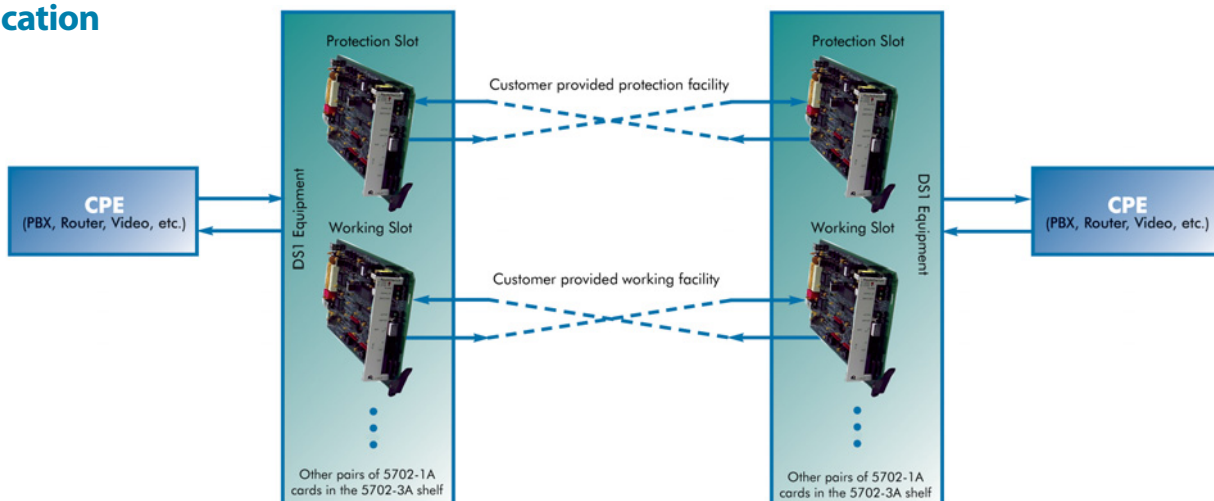
Compatible with Superframe (SF) and Extended Superframe (ESF) formats, the 5702 detects automatically the format of the input DS1 and performs the appropriate monitoring for protection switching. The system accepts both AMI and B8ZS line coding.

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, Alarm Indication Signal (AIS), or BER threshold being met or exceeded on the primary channel.

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 three shelf arrangements; the RouteSwitch Distant Terminal, a two circuit pack, horizontal mount for 19-inch racks; a 12 slot, 19-inch shelf Central Office Terminal; and a 14 slot, 23-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, ±200bps, 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 (±3V, ±0.3V)

OUTPUT PRE-COMPENSATION NETWORK

0 to 133 ft

REGENERATED LINE SIGNAL OUTPUT

- Pulse Width 324nS ±30nS
- 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

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
- Shelf Weight: 5.6 lbs. fully equipped / 5702-2/-11
14.5 lbs. fully equipped / 5702-3A

Ordering Configurations

5702 RouteSwitch

DS1 Single Ended Switch

ROUTESWITCH SYSTEMS

Model	Description
5702-1A	Circuit Pack
5702-2A	Distant Terminal, 19-in shelf, 1 DS1 (includes circuit packs)
5702-3A	CO Terminal, 19-in shelf, 6 DS1s (shelf only)
5702-11	Distant Terminal, 19-in shelf, 1 DS1 (shelf only)