



LRC – 11 (RF 1+1 Switch Controller)



The Electronia RF 1+1 Switch Controller Is an efficient, protection switching system designed to provide automatic switchover protection for redundant transmit and receive satellite RF systems that utilize an L-band IF Interlace.

The 1+1 Switch Controller is in a weather resistant package and is used outdoors. It is designed to be mounted on or of the antenna.

The overall switching system Includes the RF 1+1 Switch Controller, Interconnect cabling and transmit and receive waveguide switching assemblies.

The Switch Controller has an Ethernet LAN interface, which gives a user a capability to completely control and monitor the Switch Controller using the operator Interface software that may be run on a remote or local PC.

BENEFITS

- No additional fault circuitry is required
- No additional equipment to insert DC voltage and 10 MHz ext ref oscillator signals into the TX and RX circuits is required
- Can be installed outdoors

FEATURES

- L-Band if interface
- Ability to detect failure in the controlled equipment by change of the parameters constantly monitored in the RX and TX circuits
- DC Power and 10 MHz ext ref oscillator signals distribution over the L-Band IP ports
- Complete control over an IP network
- Weather resistant package



L-BAND REDUNDANCY CONTROL

Electronia's Controller is superior to standard switching systems because- It does not require additional fault circuitry to detect a failure in the controlled equipment.

The 1 + 1 Switch Controller works in both automatic and manual modes. If the equipment does provide a summary alarm signal in the event of failure, the Controller can use it along with the other criteria to decide if the switch over is needed. The Controller considers the equipment faulty when constantly monitored parameters in transmit and receive chains go below set limits or when it receives a summary alarm signal, in the receive chain, the controller monitors a signal level received from the LNA/LNBs and in the transmit chain the controller monitors the amount of current being drawn by each of the BUC/Booster Amplifiers connected to it. In the automatic mode of operation, if the failure in an active path is detected and a redundant path is not failed, the Controller performs switching to the redundant path.

SPECIFICATIONS

Control Modes	Local or remote
Switchover Modes	Automatic or Manual
Redundancy Schemes	1 + 1

TRANSMIT PATH

Frequency	10 to 1500 MHz
Level	+20 dBm max
Insertion Loss	3.0+/-1.5 db
Connectors	
IF OUT A	N-type, female connector, 50 Ohms
IF OUT B	N-type, female connector, 50 Ohms
TX IF IN	N-type, female connector, 50 Ohms

RECEIVE PATH

Frequency	10 MHz, 950 to 1450 MHz
Level	+60 to 20 dBm max
Insertion Loss	1+3 db
Connectors	
IF IN A	F-type, female connector, 75 Ohms
IF IN B	F-type, female connector, 75 Ohms
RX IF OUT	N-type, female connector

GENERAL SPECIFICATIONS

LAN Interface	Ethernet 10/100 BaseT
Dimensions	10" x 10" x 4"
Weight	17 lbs.
Power Requirements	18/24 VDC

