

AnaCom's Protection Switch System provides a high reliability 1 for 1 Hot Standby configuration for AnaSat<sup>®</sup> transceivers, ELSAT<sup>®</sup> BUCs, Baby BUCs, SSPAs, and LNBs. The Protection Controller is designed for simple, intuitive operation. TX and RX switches function independently. RX automatic switching can be activated by monitoring either current level or LNB output noise floor. Also available in a rack-mountable case for indoor operation.

## Features

- ✓ No indoor equipment is needed for outside applications
- ✓ No extra power source is required
- ✓ Serial port for remote control
- ✓ Ethernet compatible
- ✓ Indoor controller option available

## Built-In Test Equipment

To improve and simplify maintenance routines, an external terminal (or computer) can be connected to monitor a number of critical parameters without use of additional test equipment. These include:

- ✓ Transceiver alarm status (TX, RX; A and B)
- ✓ Switch alarm and position status

## Benefits

- ✓ High reliability with independent TX and RX switching
- ✓ Simple, intuitive operation requires minimum training
- ✓ "Last Touch" controls allow for remote or local (manual) operation.

## Comprehensive Monitor & Control

The M&C feature allows you to monitor and control the Protection Controller on the same M&C bus with most indoor equipment such as modems and multiplexers. The Monitor & Control system can be used in combination with the unit's internal metering function to monitor operational parameters.

The M&C can be accessed remotely via-

Ethernet protocols:

- ✓ Internal Webpage
- ✓ Telnet
- ✓ SNMP
- ✓ AnaCom Supervisor 10

Serial protocols:

- ✓ RS-232
- ✓ RS-485
- ✓ AnaCom Supervisor 10

## Compact, Functional Design

AnaCom's Protection System integrates all necessary functions into a small outdoor package. The Protection Controller is fully contained in a small box with manual over-ride controls.

Although normally intended for un-manned, automatic operation, the switch can be locally (or remotely) overridden to place a TX or RX switch (or both) on line and defeat the normal "switch-on-alarm" mode of operation. A single push-button (or remote command) returns the unit to completely automatic operation.

## Multiple Configurations

- ✓ The AnaCom 1 + 1 TX/RX Protection Switch system comes in configurations for switching between two AnaSat<sup>®</sup> transceivers, or matching pairs of a BUC and an LNB.
- ✓ TX-only configurations are built for pairs of AnaSat<sup>®</sup> transceivers, ELSAT<sup>®</sup> BUCs, or SSPAs.
- ✓ Rx-only configuration is available for LNB 1+1 protection



TX only

TX + RX



Rackmounted TX + RX

**1+1 Protection Switch System****SPECIFICATIONS**

<b>ELECTRICAL</b>	ALARM SENSE	OPEN connection for alarm SHORT for normal (non-alarm state)
	ALARM TYPE	TX and RX independent
	RESPONSE TIME	<1 second
	TX MUTE	Active during a TX switch (0.5 seconds)
	TX IF IMPEDANCE	±20 dBm MAX
	TX IF LEVEL	-25 dBm for rated output with nominal gain
	RX IF IMPEDANCE	50 ohms (75 ohms optional); type N
	TX RF INSERTION LOSS	0.02 dB MAX (switch only)
	TX RF VSWR	< 1.05:1 MAX (switch only); WR-137 or WR-75
	RX RF INSERTION LOSS	0.02 dB MAX (switch only)
	RX RF VSWR	< 1.05:1 MAX (switch only); WR-229 or WR-75
<b>SYSTEM</b>	MANUAL OPERATION	3 push-button switches (TX-only, RX-only), 5 push-button switches (TX-RX)
	SERIAL PORT	1 RS-232 or 1 RS-485
	PROTOCOL	RS-232 port supports any "dumb terminal" or ASCII interface RS-485 and Ethernet ports support addressed packetized data per Anacom Supervisor™ software specifications
	ALARM RELAY	FORM C Summary Switch Alarm; Isolated
	VISUAL INDICATORS	GREEN LEDs indicate switch position RED LEDs indicate active alarms
	POWER	NONE (+12 amps @ 1 volt from RackSat Converters or ODUs)
	MECHANICAL	Switch Controller Box
- C-BAND INCLUDES	WR-137 and WR-229 waveguide switches plus cables (serial or Ethernet as specified by customer)	
- KU-BAND INCLUDES	WR-75 waveguide switches plus cables (serial or Ethernet as specified by customer)	
<b>ENVIRONMENTAL</b>	TEMPERATURE	-50 to +55°C operational -50 to +75°C storage
	HUMIDITY	95% at 45C
	ALTITUDE	6500 meters (21,500 ft) max
	RAIN	20 inches per hour
	WIND	150 miles per hour
	VIBRATION	1.0 g random operational, 2.5 g random survival
	SHOCK	10 g operational, 40 g survival
<b>W&amp;D</b>	RACKMOUNT PS SIZE/WEIGHT	19" x 13.875" x 1.719" (48.26 x 35.24 x 43.66) [1U] / 9.0 lbs (4.08kg)
	WR-75 SWITCH (KU Band) SIZE/WEIGHT	4.5" x 2.1" x 2.1" (114 x 53 x 53 mm) / 1.5 lbs (.68 kg)
	WR-137 SWITCH (C BAND) SIZE/WEIGHT	5.2" x 2.3" x 2.3" (132 x 58 x 58 mm) / 2.5 lbs (1.14 kg)
	WR-229 SWITCH (C BAND) SIZE/WEIGHT	8.2" x 3.5" x 3.5" (208 x 89 x 89 mm) / 6.0 lbs (2.73 kg)

\*all specifications subject to change

03/14/19

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