

# Hub-mounting redundancy systems

A range of 1:1 hub-mounting redundancy systems is available for Codan's 5700 series C-Band and 5900 series Ku-Band transceivers and high power SSPAs.

Codan satellite transceivers have been setting industry standards for performance and reliability since the early 1990's. However, there are still critical applications where 1:1 redundancy protection is required.

## TRANSCEIVER REDUNDANCY

Codan offers a range of switching equipment that integrates easily with the 5700 series C-Band or 5900 series Ku-Band transceivers. The systems include interconnecting cables, mounting hardware and waveguide connections.

### Simple configuration

A complete system comprises two standard transceivers, of any power rating, and the outdoor mounting Redundancy Controller 5586 that provides integral IF relays and simultaneously controls the RF switches. This configuration, also called stream redundancy, ensures unambiguous, simultaneous switchover of both IF and RF paths in the transmit and receive directions.

The Controller is powered from both transceiver power supplies for high reliability.

### Flexible configuration

Flexible operating modes allow 'warm' or 'hot' standby operation. Automatic or manual control is easily selected.

Generously rated terminations allow the off-line SSPA to be continuously activated for true hot standby capability. Test ports permit independent RF testing of the off-line stream, without interruption to the on-line traffic.

Owing to the unique design of control cables and connectors, the system can be reconfigured as a non-redundant system to restore operation should the controller require service.

### Monitor and control

The optional one rack unit high Redundant System Monitor 5587 provides clear system status indication at all times, and remote manual control over SSPA activation and stream selection.

The individual transceivers' serial control ports are accessible at the rear of the 5587, enabling connection of ASCII (RS232) or Packet mode (RS485) control systems. Alternatively, a dual Remote Controller 5570D may be connected giving full control of both transceivers from the indoor equipment.



Redundant C-Band 5700 series 20 W transceiver on a 3.8 m antenna boom



Redundant C-Band 60 W high power transceiver system

## STAND-ALONE SSPA REDUNDANCY

An increasing number of customers are choosing Codan high power outdoor antenna mounted SSPAs, fed from rack-mounted up converter systems, for their hub station installations.

Codan offers compact 60 W (5760) and 120 W (5712H) C-Band and 40 W (5940) Ku-Band SSPAs designed for operation in harsh outdoor environments. A 1:1 switching system is available to provide redundancy protection for these SSPAs.

### SSPAs with 1:1 protection

Codan's high power SSPAs are easily integrated into a 1:1 system. The small SSPA Redundancy Interface Unit 5588 is mounted between the SSPAs and connects to a combination waveguide/coaxial switch to enable simultaneous switching of RF input and output paths. Waveguide bends, connecting cables and mounting hardware are provided.

### Indoor monitor and control

Indoor status monitoring and manual/automatic control of the outdoor 1:1 SSPA system is achieved via the one rack unit high SSPA Redundancy Monitor 5589. The SSPAs can also be activated or muted from this panel.

## MAJOR CONFIGURATION OPTIONS

### 5586 based redundancy system for C-Band transceivers

Combined WR229/N-connector waveguide switch for SSPAs with N-type outputs

Separate WR137 and WR229 waveguide switches for SSPAs with waveguide outputs

### 5586 based redundancy system for Ku-Band transceivers

Dual WR75 waveguide switches for Ku-Band SSPAs with waveguide outputs

### 5588 based redundancy system for high power C-Band SSPAs\*

Combined WR137/N-connector waveguide switch for C-Band SSPAs with waveguide outputs

### 5588 based redundancy system for high power Ku-Band SSPAs\*

Combined WR75/SMA-connector waveguide switch for Ku-Band SSPAs with waveguide outputs

### Accessories

Redundant System Monitor 5587 (for 5586 based systems)

Dual Remote Controller 5570D (for 5586 based systems)

SSPA Redundancy Monitor 5589 (for 5588 based systems)\*

Interconnecting cables for 5587 and 5589 units

\*5588/5589 system is not CE approved



Redundant Switching System: 5586, 5587 and combined WR137/N switch



5570D Dual Remote Controller

## CODAN QUALITY AND SERVICE

The redundancy equipment is built and tested in Codan's ISO9001 quality certified manufacturing facility.

Codan's fully trained staff and agents provide in-factory and in-country training services, and complete installation and on-site assistance. This service is backed up by a 24 hour customer service line and a warranty of three years on manufacturing, design or component defects.



Redundant C-Band 5760 60 W high power SSPA system

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Equipment descriptions and specifications are subject to change without notice or obligation

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