

## **Full Ku-Band 1:2 Redundancy Control System**

### **Overview**

The RCU200 with a L532S Stand By unit will provide redundancy for any combination of Peak Communications Ku-Band down converters (L520, L521 and the L522) in one system.

The RCU200 takes in any 2 frequencies within the Ku-Band range from 2 separate feeds - for example horizontal and vertical polarisations. The incoming Ku Band signals are routed internally through a switch system so that the appropriate signal exits from the unit to BDC1 or BDC2.

The RCU200 Microprocessor controls the internal routing and change over switches. The output of the change over switch system is fed out to the rear panel to the Stand-By BDC Unit.

The RCU200 BDC1 Output is connected to the Ku Band input of the Ku Band Downconverter designated as BDC1 by the interface cable on the rear of the units. The output from the BDC1 at L Band is connected to the BDC1 IN input on the RCU200. Connections for BDC2 and Standby are made in a similar way.

The inputs at L Band are connected to BDC1, BDC2 and Standby as appropriate. The Standby input to the RCU200 at L Band is passed to the change over switch. The outputs of the switch are passed to 2 more changeover switches. The change-over switches switch between the feed from the Standby unit or BDC1 (or BDC2) and these common are output on the rear panel as L Band Out 1 and L Band out 2 respectively.

With the standby unit not selected Ku Band input 1 exits from Ku Band output BDC1 passes through the BDC1 converter, re-enters the RCU200 on BDC1 IN and exits as L Band Out 1. The path is similar for BDC2.

If STANDBY is selected in place of BDC1 the path is as follows - Ku Band input 1 exits from Ku Band output STANDBY passes through the STANDBY converter, re-enters the RCU200 on STANDBY IN and exits as L Band Out 1.

**The effective system gain of any of the Ku Band to L Band links is 30dB**

**Block Diagram For RCU200 with L532S Ku-Band Stand By Down Converter**

