Redundancy Control Unit 1+1
BUC <70W and LNA/LNB
C, X and Ku Band

For LNB redundancy and Buc Redundancy <70W (BUC’s above 80W have redundancy built in)

Key Features
- Provides power supply and reference signal to redundant LNB units
- Power supply in 1:1 redundant mode is available
- Supports C, X and Ku-Band LNB, LNA and BUC units
- Programmable attenuation on each path to equalize the path gains for reliable and outstanding operation performance
- Built-in 1:1 extremely stable 10MHz OCXO (Optional)
- 10MHz reference available in 1:1 redundant mode
- Redundant 90-260 VAC power supply input
- Fault indication by LED display
- King post / pole mount outdoor unit with IP65 rated
- RS232/RS485 serial and SNMP for remote monitoring & control
- Form C contact closure outputs
- Field programmable firmware
- Indoor rack mount version available
- 48VDC isolated power supply optional

Reliability
Field proven with system deployed worldwide, The RCU can withstand temperature from -40°C to +60°C up to 100% humidity. This IDU can withstand temperature from 0°C to +50°C up to 95% non-condensing humidity.

Order Examples: RRCU-L-BUC-1+1-IDU-g11
Description: (Redundancy Control Unit, L-Band (950-1700MHz) BUC, 1+1 Redundancy Rack mount System Indoor Unit)
Additional Options: Down Converter, C, X, Ku Band (LNA/LNB) (outdoor)

Note; This Redundancy Control Unit Used for LNA LNB and BUCs under 80Watts
## Specifications

### Input Characteristics

<table>
<thead>
<tr>
<th></th>
<th>L Band</th>
<th>C Band</th>
<th>X Band</th>
<th>Ku Band</th>
</tr>
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<tr>
<td>Frequency Range</td>
<td>950-1700MHz (For LNB &amp; BUC)</td>
<td>3.4-4.2GHz (for C Band LNA)</td>
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### Output Characteristics

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### Receive Transfer Parameters for LNA/LNB

- Insertion loss: 3dB Max
- Full band Gain Flatness: 1.5dB Max
- 36MHz Gain Flatness: 0.5dB Max
- Isolation LNA/LNB-A to LNA/LNB-B: 30dB Min
- 10MHz Output Power Level: 0dBm Typical
- DC Voltage Supply to LNA/LNB: 24V // 48V (optional)
- DC Current Supply to LNA/LNB: 8A max

### Transmit Transfer Parameters for BUC

- Insertion loss: 6dB Max
- Full band Gain Flatness: 1.5dB Max
- 36MHz Gain Flatness: 0.5dB Max
- Isolation LNA/LNB-A to LNA/LNB-B: 30dB Min
- 10MHz Output Power Level: 0dBm Typical
- DC Voltage Supply to LNA/LNB: 14-16V // 24V (optional)
- DC Current Supply to LNA/LNB: 8A@24V max
  - 4A@48V max

### Monitor & Control Features

- Interfaces: RS232- RS 485 and Ethernet SNMP (Optional)
- Monitoring Parameters: LNB/LNA/BUC Alarms; Power Supply Alarms
- Control Parameters: Units Online / Offline Gain adjustment
- Switch over time: 100mS

### Power Supply Requirement

- AC Input Voltage: 110 / 220 ±10% VAC 47/63Hz
- Power Consumption: 30W typ

### Environmental

- Operating temperature: -40 to 60°C Outdoor Unit
  - 0 to 50°C Indoor Unit
- Relative Humidity: up to 95% (non-condensing)
  - up to 100% (non-condensing)

### Mechanical

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<th>Weight</th>
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<tr>
<td>In door</td>
<td>19&quot; Rack 480L x 330W x 44H mm</td>
<td>3.5Kg</td>
</tr>
<tr>
<td>Out door</td>
<td>280L x 215W x 95H mm (outdoor)</td>
<td>4.0Kg</td>
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BUC <70W and LNA/LNB C, X and Ku Band

System Block Diagram for RCU-Receive
1:1 Redundant system for LNB units with RCU -R controller

```
PC

AC1
AC2
IF OUT
M&C
FormC

RCU-R
REDUNDANT
CONTROLLER

RCU-R
REDUNDANT
CONTROLLER

RX SW

LNB_A

Port 2

230V AC

230V AC

Port 3

50 ohm
Match Load

Port 1

Port 4

OMT

LNB_B

Rx Sw

```

System Block Diagram for RCU-Transmit
1:1 Redundant system for BUC units with RCU -T controller

```
PC

AC1
AC2
IF IN
M&C
FormC

RCU-T
REDUNDANT
CONTROLLER

RCU-T
REDUNDANT
CONTROLLER

TX SW

BUC_A

Port 2

230V AC

230V AC

Port 3

50 ohm
Match Load

Port 1

Port 4

OMT

BUC_B

Tx Sw
```