

## Data Sheet

The most important thing we build is trust

### Multiplexing Capability

The RCU is a switch matrix that provides signal multiplexing to either 32 uplink channels and 32 downlink channels or 64 dedicated uplink or downlink channels. Combine up to six RCUs for a total of 384 calibrated paths are available.

### Qualified to Operate in a Thermal Vacuum Chamber

The RCU utilizes fully vacuum compliant components. The RCU has been qualified to operate in hard vacuum at temperatures ranging from 0° C to +50° C.

### Unique Calibration Features

The RCU includes a vacuum compliant, NIST-traceable power standard and internal loop paths for fully automated calibration alignment. These features facilitate a simplified calibration of all 64 ports while in a remote location without the requirement to disconnect any cables. The amplitude and phase drift due to temperature changes between the rack and the RCU in TVAC can be automatically corrected in all measurements.



32 Uplink channels and 32 Downlink channels

Thermal vacuum (TVAC) qualified

Qualified vacuum Hard vacuum  $1 \times 10^{-9}$  Torr

Temperature Range Qualified operational: 0° C to +50° C  
Storage: -40° C to +85° C

Remote TVAC compatible power sensor included in the RCU for calibration

Weight 27.5 lbs

Dimensions 15" (h) x 10" (w) x 10" (d)

Mounting holes Four (4) rivet nuts use 1/4 x 20 bolts

### Performance Specifications

Frequency Range	0.1 to 32 GHz
Maximum Power	Uplink +30 dBm (max) Downlink +30 dBm (max)
Repeatability	Magnitude: 0.1 dB typical Phase: 2 degrees typical
VSWR	1.5:1 typical
Insertion Loss	<12 dB typical
Isolation	>70 dB typical
Dual Interface Ports	Standard CAN bus control RS-232

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