



1:N REDUNDANT AMPLIFIER/SLOPE EQUALIZER SYSTEMS



FEATURES

- Fault tolerant design
- Redundant power supplies
- Remote monitor and control
- Amplifier module current fault detection
- Front panel module bias display
- Automatic/manual mode
- Time stamped event history
- Field expandable architecture
- Continuous operation during fault repair or maintenance
- Rear panel switch and amplifier access

OPTIONS

- Ethernet interface
- High gain
- Increased output power
- 50 ohm IF impedance

The 1:N Redundant Amplifier Unit (RAUN) is designed to compensate for system slope and amplitude variations due to long cable run losses. Each amplifier module offers independent gain and slope adjustment over the specified frequency bands.

The RAUN has two operating modes, manual and automatic mode. It can be controlled from the front panel or through the remote interface. With the amplifier unit in auto mode, a fault condition in a primary module would generate an automatic switch over to the backup module.

The RAUN is configured with one amplifier channel and is capable of up to a total of eight channels.

The RAUN is equipped with fully redundant power supplies.

SPECIFICATIONS

Frequency (MHz)	Model Number
50 – 90	RAUN-050009
100 – 180	RAUN-010018
950 – 1450	RAUN-095145
950 – 1750	RAUN-095175
950 – 2150	RAUN-095215

IF-BAND SPECIFICATIONS

Gain	20 dB minimum (at center frequency and 5 dB slope adjustment), 10 dB nominal (at 0 dB slope)
Gain adjustment range	20 dB minimum
Amplitude slope adjustment.....	0 to +5 dB in 0.2 dB steps
Amplitude flatness	0.5 dB p-p maximum (at 0 dB slope)
Power output (1 dB compression)	+10 dBm minimum (at maximum gain and 5 dB slope)
Third order intercept point.....	+20 dBm minimum (at maximum gain and 5 dB slope)
Channel to channel match	1 dB maximum
Noise figure.....	10 dB maximum (at maximum gain and 5 dB slope)
Spurious (signal independent)	Below thermal noise
AM/PM conversion.....	0.5°/dB maximum at 0 dBm output
Isolation	50 dB minimum
Input/output return loss	18 dB minimum
Input/output impedance	75 ohms (50 ohms optional)

L-BAND SPECIFICATIONS

Gain	15 dB minimum (at center frequency and 5 dB slope adjustment), 18 dB nominal (at 0 dB slope)
Gain adjustment range	20 dB minimum
Amplitude slope adjustment.....	0 to +5 dB in 0.2 dB steps
Amplitude flatness	1.5 dB p-p maximum (at 0 dB slope)
Power output (1 dB compression)	+10 dBm minimum (at maximum gain and 0 dB slope)
Third-order intercept point	+20 dBm minimum (at maximum gain and 0 dB slope)
Channel to channel match	2.5 dB maximum
Noise figure.....	10 dB maximum (at maximum gain and 0 dB slope)
Spurious (signal independent)	Below thermal noise
AM/PM conversion.....	0.5°/dB maximum at 0 dBm output
Isolation	50 dB minimum
Input/output return loss	18 dB minimum
Input/output impedance	50 ohms

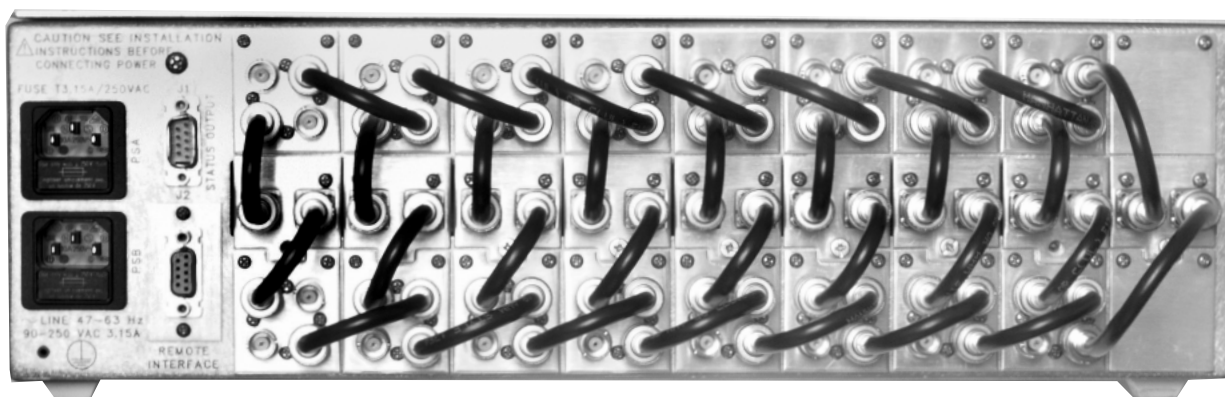
OPTIONS

- 1.** Optional configurations.
 - 1-2.** Two channels.
 - 1-3.** Three channels.
 - 1-4.** Four channels.
 - 1-5.** Five channels.
 - 1-6.** Six channels.
 - 1-7.** Seven channels.
 - 1-8.** Eight channels.
- 11.** Increased output power (L-band).
Power output (1 dB compression): +20 dBm minimum (at maximum gain and 0 dB slope).
Third-order intercept point: +30 dBm minimum (at maximum gain and 0 dB slope).
Output return loss: 14 dB minimum

Increased output power (IF-band).
Power output (1 dB compression): +20 dBm minimum (at maximum gain and 5 dB slope).
Third-order intercept point: +30 dBm minimum (at maximum gain and 5 dB slope).
- 15.** Impedance, 50 ohms (IF-band only).
- 16.** Increased gain, 30 dB minimum (at center frequency and 5 dB slope adjustment).
- 17H.** Remote control, 10/100Base-T Ethernet interface providing:
Web-browser-based configuration, SNMP 1.0 configuration, alarm reporting via SNMP trap, telnet access, password protection.

Note: Missing option numbers are not applicable to this product.

REAR PANEL VIEW



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GENERAL SPECIFICATIONS

PRIMARY POWER REQUIREMENTS

Voltage	90–250 VAC
Frequency	47–63 Hz
Power	50 W typical

SUMMARY ALARM

Contact closure, open for DC voltage and/or summary alarm
Status alarm readout on remote bus

PHYSICAL

AC input connector	IEC-320
RF connectors (IF-band)	Type BNC female
RF connectors (L-band)	Type SMA female
Summary alarm interface mating connector	DEM-9P
Remote interface	DEM-9S for RS422/RS485, RJ-45 female for Ethernet
Weight	30 pounds typical
Overall dimensions	19" x 5.25" panel x 22" maximum (chassis depth 20")

ENVIRONMENTAL

Operating	
Ambient temperature	0 to 50°C
Relative humidity	Up to 95% at 30°C
Atmospheric pressure	Up to 10,000 feet
Nonoperating	
Ambient temperature	-50 to +70°C
Relative humidity	Up to 95% at 40°C
Atmospheric pressure	Up to 40,000 feet
Shock and vibration	Normal handling by commercial carriers



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