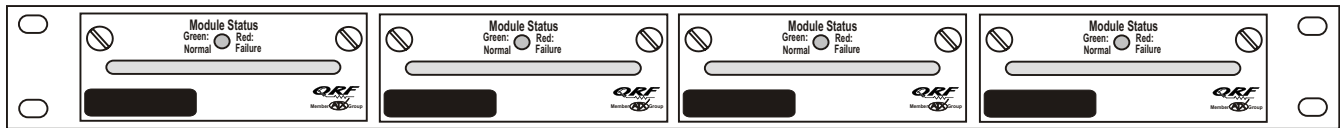
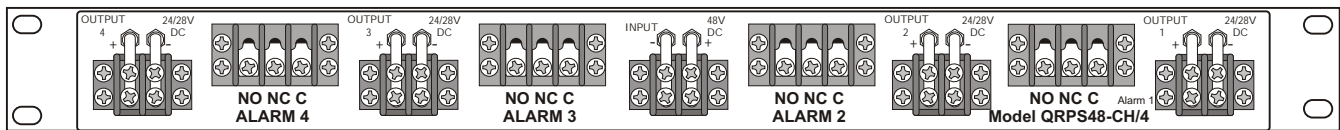


# QRPS48-24

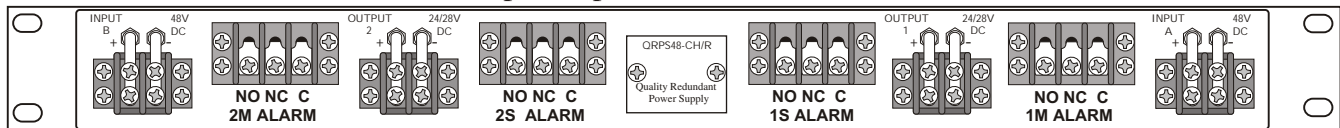
## Rack-Mount -48 to +24 or +28 VDC Power Supply



Front View--both models



Rear View--multiple output model



Rear View--redundant model

### \*\* Features \*\*

- Optional redundant 2-ampere power
- Optional redundant -48 volt inputs
- Hot-swappable power modules
- Optional Diode "OR'ed" output
- Output power monitor by LED color
- Form "C" relay alarm contacts
- 24/28 volt output jumper on module
- UL & NEBS-FR-2063-CD compliant

The QRPS48-CH/R chassis holds 1 or 2 pairs of QRPS48-CV converter modules. This chassis backplane contains the circuitry to provide either (1) or (2) redundant +24 or +28 VDC outputs from 2 separate -48 VDC inputs.

The QRPS48-CH/4 chassis holds up to (4) independent output QRPS48-CV converter modules. The backplane contains the circuitry to provide up to (4) +24 or +28 outputs from a single -48 VDC input. The converters in the multiple output model operate independently and each will provide up to 2 amperes of current output.

The rear-panel of either chassis provides access to both normally open and normally closed "form C" dry contacts for alarm status monitors. The relay is energized during normal operation. Either chassis occupies only one vertical rack unit of space. Normal rack mounting is below the amplifier or other device to be powered from the unit.

The QRPS48-CV converter modules are all identical and feature "hot-swappable" capability. The modules use an efficient switching-mode power supply configuration which requires no

large heat sinks. Selection of +24 or +28 outputs is by internal jumpers. The jumper is initially factory set for +24 VDC or +28 VDC as specified when ordering. The jumper position is easily changed in the field by removing the converter module from the chassis and moving the internal suitcase jumper. The ability to change the converter module output from +24 to +28 volts allows the power supply to be compatible with both older and newer QRF amplifiers. Any brand of RF amplifier that requires +24 or +28 volts DC at less than 2 amperes load current can be powered. Each power module has a front-panel, dual-color LED power indicator. The normal color is GREEN, with RED indicating a fault.

Each module pair in the redundant model works in a dual redundant mode with both modules diode "OR'ed" at the back plane. The two converters in the redundant pair use separate inputs from the (2) -48 V inputs. This provides redundancy for both the -48 volt inputs and the converter modules. Either unit can provide the full load rating of 2 amperes at +24 volts or +28 volts DC. This allows powering from separate -48 VDC sources. Both power modules can also be powered from a single battery bank by wiring the two -48 inputs to the same source.



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# Quality RF Services, Inc.

## Headend Power Supply -48 to +24/28 VDC

Input Voltage Range	-40 to -60	VDC
Output Voltage (Jumper Selectable)	+24 or +28 (+/- 4%)	VDC
Output Current Range 24/28 Volt output	2.0	A
Output Ripple (pk-pk, DC-30 Mhz) 24/28 Volt output	<80	mv
Output Short circuit protection 24/28 Volt output (continuous)	110-150	%
Input Over-voltage protection	62 +/- 5%	VDC
Output Over-voltage protection 28 Volt output	30 +/- 5%	VDC
Operating Temperature Range(s)	32 to 122	F
Typical Efficiency at full load	>80	%
Low Voltage cut-off (Load dependent)	34	VDC
Minimum Restart Voltage	37	VDC
Typical 48 VDC input current at 80% efficiency for full loading of 2 amps at 24 V output per module	1.25	Amps

Protection	Input Fused@3A SLO-BLO
Load Sharing	Outputs to be diode OR (redundant units)
Voltages selection (+24 or +28 VDC out)	Select by internal suitcase jumper
Front Panel LED(s)	Bi-Color LED (Green for normal and red for a failure.)
Form "C" relay outputs/output	Relay energized when output is OK
Rear Panel Terminal Blocks	Terminal Blocks to accept insulated or standard terminals
Dimensions (NEBS standard)	19"x1.75"x9.0" (inches)
UL and NEBS-FR-2063-CD compliant	Yes

### ORDERING INFORMATION:

QRPS48-24/2R

1 2

1: Output Voltage

28 VDC

24 VDC

2: Number of Output Converter Modules

1R Redundant Chassis with 2 converter modules(1 redundant output)

2R Redundant Chassis with 4 converter modules(2 redundant outputs)

01 Multi-Output Chassis with 1 converter module (1 non-redundant output)

02 Multi-Output Chassis with 2 converter modules (2 non-redundant outputs)

03 Multi-Output Chassis with 3 converter modules (3 non-redundant outputs)

04 Multi-Output Chassis with 4 converter modules (4 non-redundant outputs)

Notes: Redundant Chassis = QRPS48-CH/R

Multi-Output Chassis= QRPS48-CH/4

Converter Module = QRPS48-CV