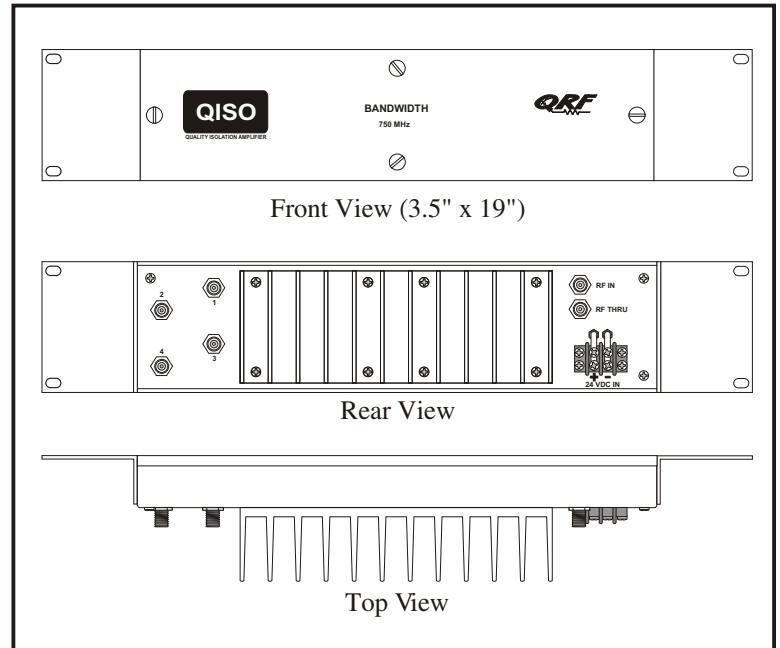


QISO

Quality Headend ISolation Amplifier

** Features **

- Eases multiple channel line-ups
- Blocks all feedback paths
- 550 & 750 MHz Models
- 50 dB port-to-port Isolation
- Loop-through input coupler
- Hybrid output on each port
- Pad for each output port
- Unity gain splitting function
- DC powered for reliability



The original QISO still provides the brute force isolation for the most complex headend multiple channel line-up problems at the master headend. Originally designed as a single-channel high level amplifier, the QISO has shown practical uses as an active splitter operating with multiple channels in the 30 to 35 dBmV output range depending on channel loading.

When an operator was faced with serving multiple systems from a single headend, standard CATV splitters and combiners were employed to route processor and modulator outputs to their respective launch destinations (each community served). The low isolation of these splitters and couplers provided the signal feedback path for channels used in one community to create co-channel on different local channels on the same frequency in the other communities served from the common headend. With the internal isolation of the push-pull hybrids and the well-matched directional couplers of QISO, the feedback path is eliminated.

The QISO directional coupler input allows several units to be lashed together to provide more than the four outputs from a single unit. **One model of QISO can be ordered without the input directional coupler to provide 18 dB of gain.** A single channel with a signal level as high as +57 dBmV is an acceptable input

level. For multiple channel usage, an input level of +30 dBmV will provide excellent CTB with a comfortable margin above the effective noise figure of the push-pull hybrid amplifiers after the directional couplers in the QISO.

All four ports of each amplifier are padded to provide unity gain (or 18 dB gain) to each output port. The values may be changed to provide the exact level to each headend combiner. This allows one adjustment at the output of the modulator or processor to set the correct level in every channel line-up. All the SXP pads are accessible from the front of the rack should the user wish to alter the loss or gain at any or all four output ports.

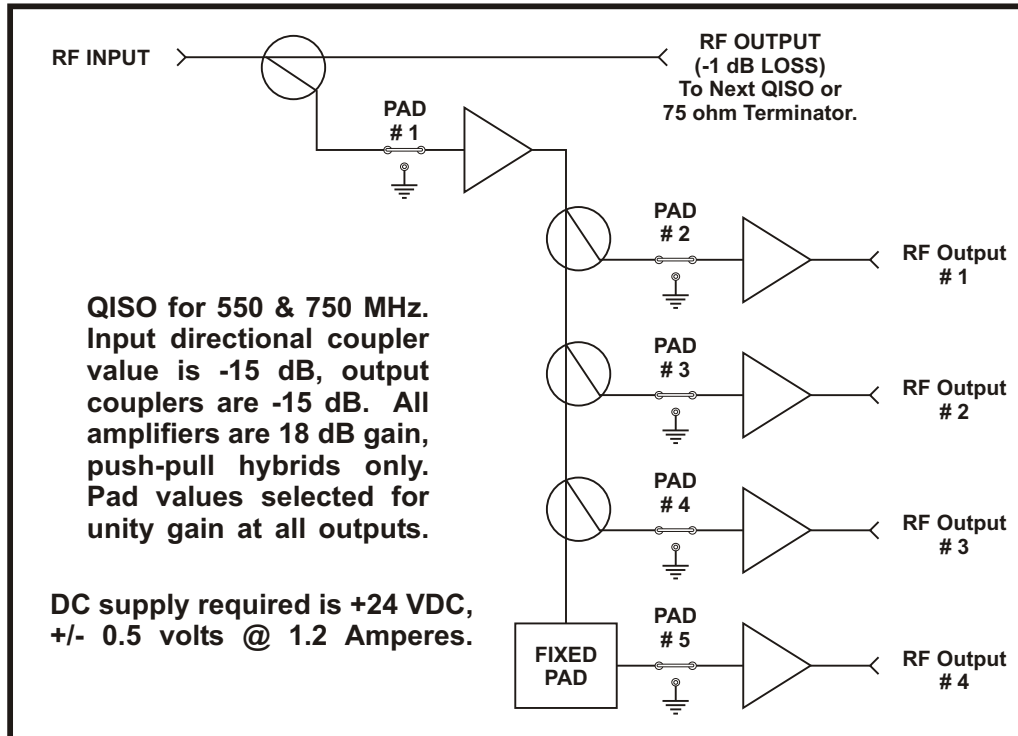
The standard QISO is powered only by +24 volts DC with less than 10 millivolts of AC ripple from battery or regulated power supply sources. An external DC powering source was chosen to power the amplifier because of the dense environment in the headends and the difficulty of providing power outlets. An **AC-powered** model is also available for systems that do not wish to provide DC powering systems.

QRF continues to provide flexible and state-of-the-art technology at the lowest possible price.

Specifications for QISO-550, -750 and -870

MODEL	QISO-550	QISO-550	QISO-750	QISO-750	QISO-870	QISO-870
Bandwidth (MHz)	50 to 550	50 to 550	50 to 750	50 to 750	50 to 870	50 to 870
Frequency Response	+/- 0.1*	+/- 0.25	+/- 0.1*	+/- 0.25	+/- 0.1*	+/- 0.25
Return Loss (-dB)	16	16	16	16	16	16
Gain (dB)	0, +/- 1	0, +/- 1	0, +/- 1	0, +/- 1	0, +/- 1	0, +/- 1
Channel Loading	ONE	77	ONE	110	ONE	128
Output Level (dBmV)	+57	+30 FLAT	+57	+30 FLAT	+57	+30 FLAT
Composite Triple Beat (-dBc)	65*	82	65*	78	65*	76
Cross-Modulation (-dB)	60*	83	60*	80	60*	78
Carrier-to-Noise Ratio (dB)	90	62	90	63	90	62.5
Current @ +24 VDC (amperes)	1.2	1.2	1.2	1.2	1.2	1.2

* Specifications for 1 channel: 3rd harmonic value listed as composite triple beat, 2nd harmonic value is listed as cross-modulation. Frequency response for a single 6 MHz channel is +/- 0.1 dB.



ORDERING INFORMATION:

QISO550-04 (50 to 550 MHz)
QISO750-04 (50 to 750 MHz)
QISO870-04 (50 to 870 MHz)
QISO870-18/4 (18 dB gain)

QISO550-04/AC
QISO750-04/AC
QISO870-04/AC
QISO870-18/4/AC

OPTIONS:

SXP-***..... Plug-in attenuator pad values are
0 (zero) to 20 dB in 1 dB steps.

Dimensions: 19" x 3.5" x 3.1"

Shipping Weight: 4 lbs.