MDU Solutions®

QCIA Isolation Amplifier:

Features:

- Wall mount style amplifier with high isolation output insertion point for local insertion
- Input signals from combined master channel lineup are coupled through an optional pad & EQ if needed and amplified by a single hybrid gain stage
- Reverse isolation of the hybrid combined with directional isolation of 15 dB coupler can provide 60 dB of signal isolation
- Prevents signal feedback that can cause co-channel interference allowing clear local access channels, customized advertising insertion channels, RF modems & Telco signals to be sent to targeted franchise areas
- External Class II UL approved power transformer included

QCIA Specifications

SPECIFICATIONS		870 MHz	1000 MHz
GAIN (dB)		19, 23	19, 23
RESPONSE		+/- 0.5 dB	
CHANNEL LOADING		128	
GAIN CONTROL RANGE (dB)		Pad	
SLOPE CONTROL RANGE (dB)		EQ	
RETURN LOSS		15 dB	
NOISE FIGURE		9 dB	
INSERTION TO OUTPUT PORT ISOLATION		15 dB	
INSERTION TO INPUT PORT ISOLATION		60 dB	
OUTPUT LEVEL (dBmV)		+30 Flat	
TECHNOLOGY		GaAs GP	
DISTORTIONS	CROSS MODULATION (-dB)	87	
	COMP. TR. BT. (-dB)	82	
	COMP. 2nd ORD. (-dB)	70	
POWER DISSIPATION @ 120 VAC (Watts)		18	
OPERATING TEMPERATURE		0^0C to +50^0C (+32^0F to +122^0F)	
HUMIDITY		20%-55% (without condensation)	
DIMENSIONS		8.25"H x 5.0"W x 2.26"D (20.96H x 12.7W x 5.74D cm)	
WEIGHT		4.0 lbs (1.81 kg)	

QCIA (front view)

Functional Schematics

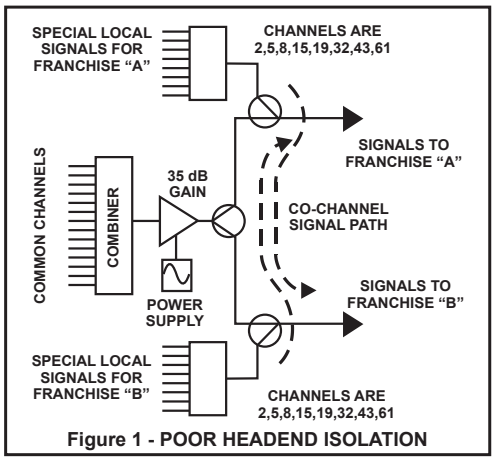


Figure 1 - POOR HEADEND ISOLATION

If your headend is wired similar to the one on the left, you may need QCIA to help eliminate the crosstalk paths shown via the splitter in the common signal path.

For drawing simplicity, only two separate signal paths are shown. In a system with RF modems & telephony this splitting process could go down to the node level or very small groups of nodes.

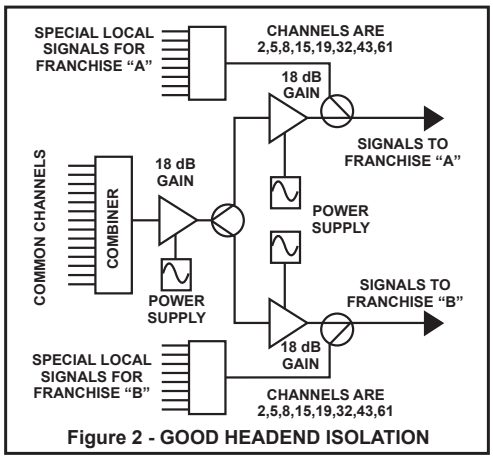
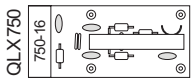
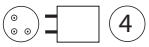
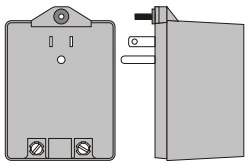


Figure 2 - GOOD HEADEND ISOLATION

QCIA Isolation Amplifier:

Ordering Information

Example Part Number: QCIA870 - 19 GP (1 2 3)	
1: Bandwidth: 870 = 870 MHz 1000 = 1 GHz	
2: Gain (See Specifications Table)	
3: Output Technology: GP = Gallium Arsenide (GaAs) Power-Doubled	
Part Number	**Description**
Options & Spares	
QLX 550-(dB)	Forward EQ values from 0-24 dB in 2 dB steps
QLX 750-(dB)	
QLX 860-(dB)	
QLX 1000-(dB)	Forward EQ values from 0-22 dB in 1 dB steps
	
SXP-**	Plug-in Attenuator Pads, ** = 0-20 dB in 1 dB steps
SXP Pads 	
#951	120 to 26 VAC, 60 Hz AC Power Transformer, 50 VA Rating
#951 Transformer 	

Specifications subject to change without notice.

ISO 9001 REGISTERED