



Model LH7S-40/50-RP is designed to add bi-directional capability to CATV forward distribution amplifiers (DA). It consists of two diplexers filters with 40/50 MHz split. The LH7S-40/50-RP connects to the DA using two jumper cables (see fig.1), this allows the DA to be used with systems with cable modems and digital boxes.

Features

- Excellent RF frequency response (see graphs 1 thru 4)
- Bandwidth DC to 40 MHz and 50 to 1000 MHz
- 80dB isolation between return path and forward path
- Low thru loss with good return loss
- Easy to install, includes jumper cables
- Active return path can be accommodated (see fig.3)
- Sturdy RF shielded metal enclosures on mounting plate
- Special order for other frequency splits, e.g., 48/54 MHz, 112/150 MHz, and, 174/234 MHz.
- Includes final production graphs

Specifications

Return Path Filters (RP)	
Frequency (MHz):	0 to 40 (INPUT to OUTPUT)
Insertion Loss:	0.75 dB (except 1.75 dB at 40MHz)
Flatness:	± .25 dB
Isolation of TV band:	> 80 dB TV band rejection
Return Loss (min):	16 dB minimum
Forward Path Filters	
Frequency (MHz):	50 to 1000 MHz (TV band)
Insertion Loss:	.75 dB (except 1dB at 50 MHz)
Flatness:	± .25 dB
Input to RP Isolation:	>50 dB (Output to RP is similar)
Return Loss (min):	16 dB minimum
General	
Operating temperature	-15 to+50 °C
Connectors / Impedance	F-type female all ports, 75 ohms
Power Passing	1 amp max
Dimensions: (in):	7L x 2.5W x 3H
Enclosure / Weight:	metal, RF shielded; 1.0 lb
Return Path jumper	Connected 5" coax—75 ohm F-type
Jumpers to Distribution Amp	Includes two 8" RG-59 coax cables



LH7S-40/50-RP Dim (in): 7L x 2.5W x 3H

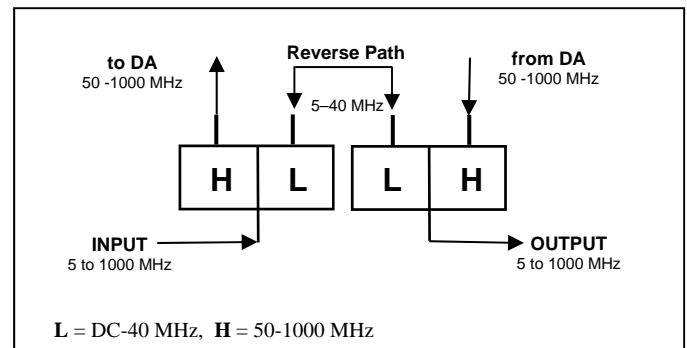


Fig. 1 Block diagram LH7S 40/50-RP

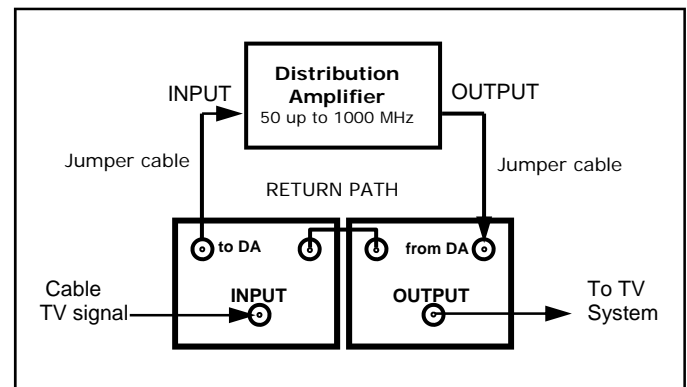


Fig.2 Hookup to Forward Amplifier

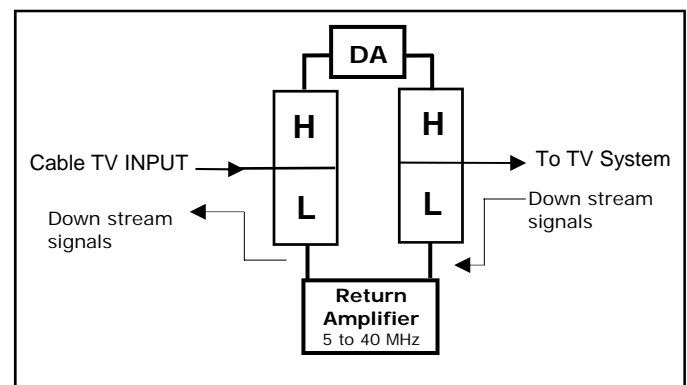
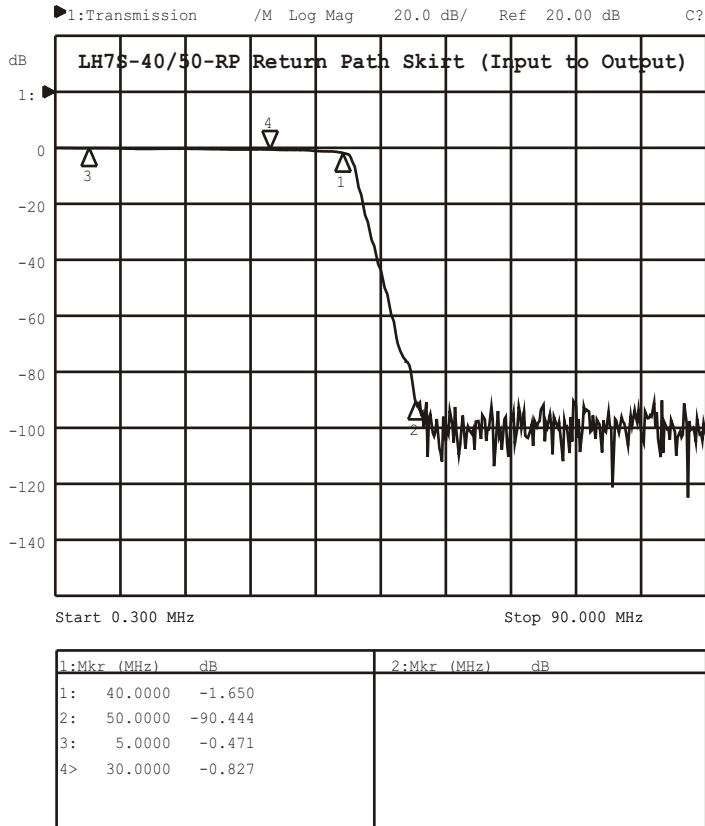


Fig.3 Hookup to Forward & Return Amplifiers

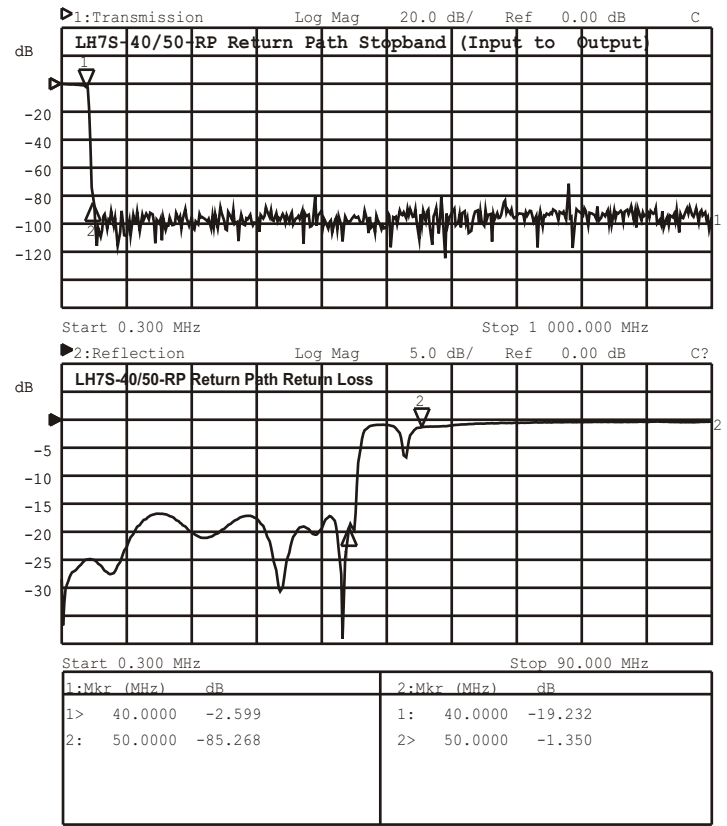




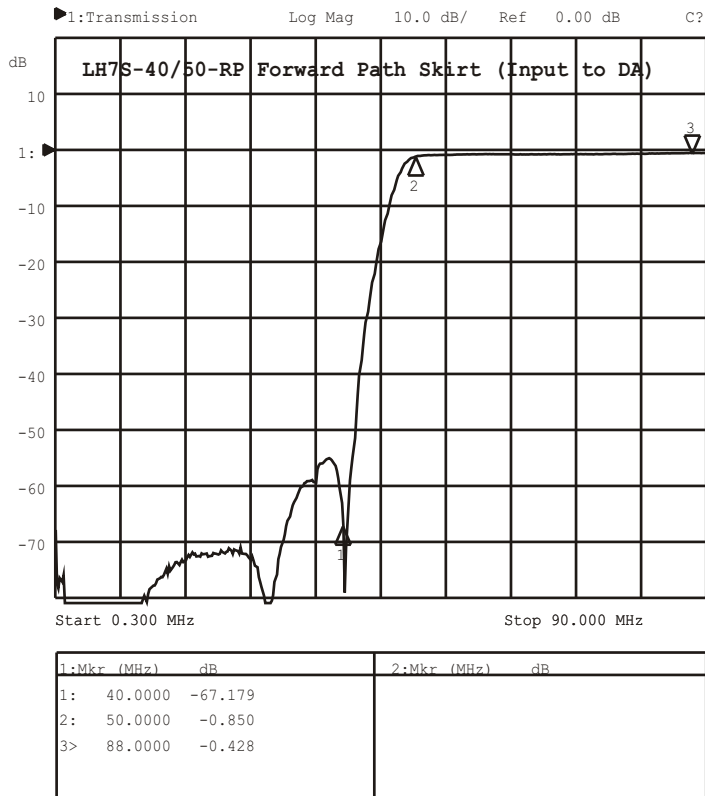
Model LH7S-40/50-RP (5-40, 50-1000 MHz) Return Path Filter for Cable TV Distribution Amplifier



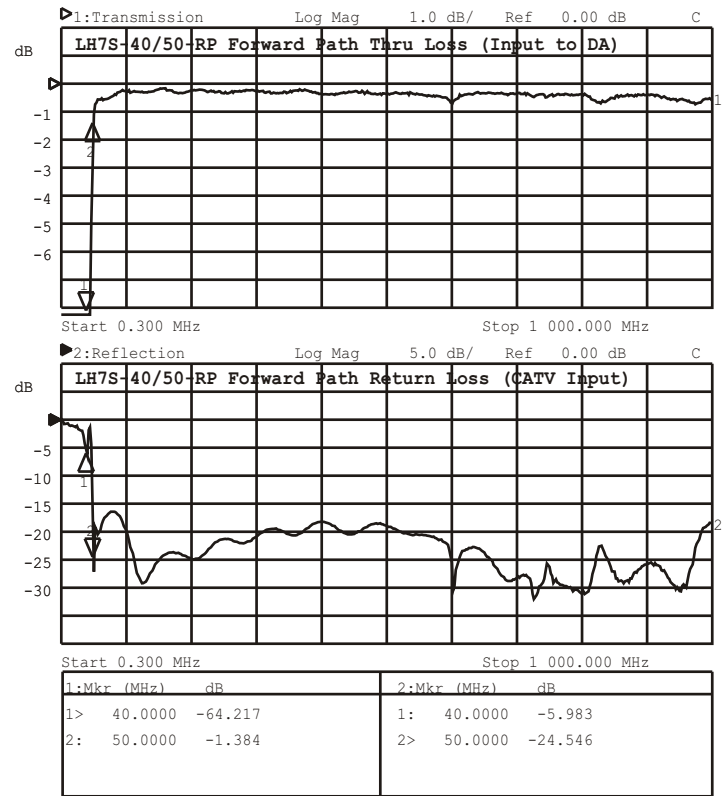
Graph 1: Return path skirt (Input to Output) features low thru loss and 80 dB isolation from forward path.



Graph 2: Return path stopband provides >80 dB forward path rejection (isolation); return loss >16 dB.



Graph 3: Input port (forward path) skirt features low thru and >50 dB return path isolation. Output port is similar.



Graph 4: Input port (forward path) - bandwidth is 5-1000 MHz, thru loss is <1 dB, and, return loss is >16dB. Output port is similar.

