

FEATURES

- 750 MHz EXPANDED BANDWIDTH
- OPTIONAL AUTOMATIC LEVEL CONTROL
- EQUIPPED WITH 1GHz DIPLEX FILTERS
- MANUAL GAIN CONTROL

INTRODUCTION

As today's cable television systems expand bandwidth and deploy various architectures, there is a need for state-of-the-art devices to meet the 750 MHz challenge. The JLX-* -750P/LC fulfills the requirements of 750 MHz system builds and rebuilds. The JLX-* -750P/LC offers expanded bandwidth channel capacity, manual gain control, as well as AGC capability. The JLX-* -750P/LC series is an addition to our current STARLINE JLX line extender series and offers the following technical features.

Backward Compatibility

The JLX-750 electronics provide complete compatibility/upgradability with all Jerrold STARLINE JLX series line extender housings.

1 GHz Support

The housing supports operation up to 1 GHz. This translates into a longer operating life for upgrades.

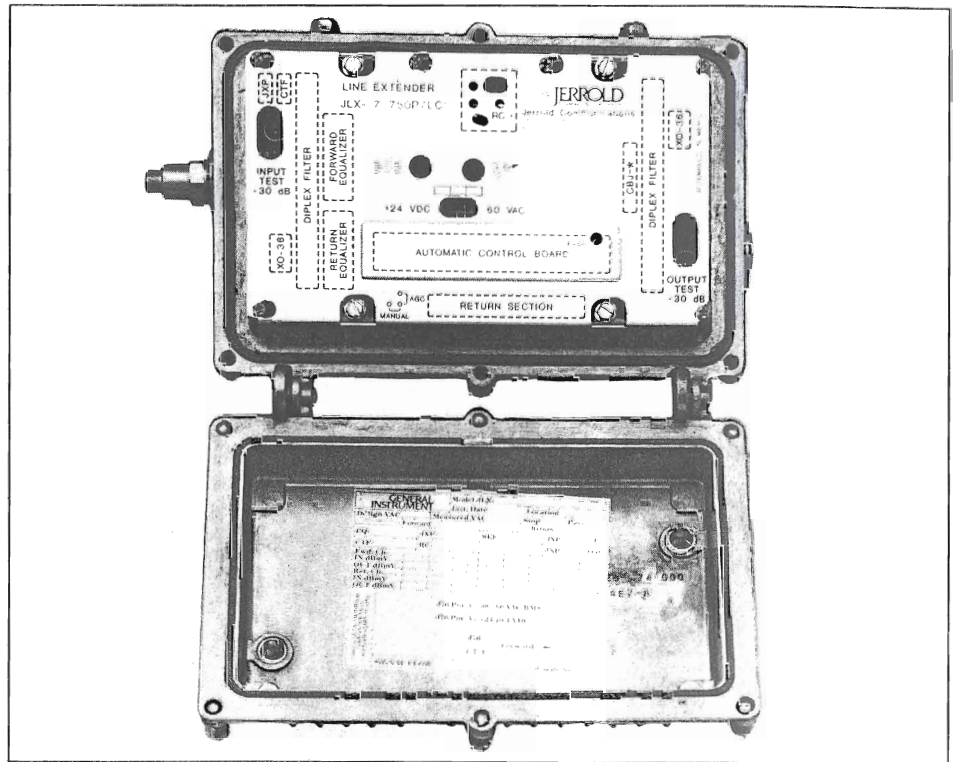
Design Flexibility

The JLX-* -750P/LC offers a high degree of flexibility and versatility required in today's cable television system builds. The JLX-* -750P/LC can be employed as a standard, manually controlled gain amplifier or as an AGC line extender with the installation of the ACB board. This versatility allows the 750 MHz product to be used in various system architectures.

The 750 MHz product is equipped with DF-1-SS diplex filters used for passband splitting. It has a directional coupler output test point for improved accuracy and is equipped with X0-36 plug-in surge arrestors at the input and output.

The JLX-* -750P/LC line extender will be shipped as a manual gain amplifier with one-way operational capability and offers the following accessories.

- RA-KIT Return Amplifier Kit. Each kit is equipped with a high-gain, low-current hybrid, two return equalizers, jumpers and two JXP-ZX's.
- CBJ-5 circuit breaker for power passing or the alternate CFJ-7A, seven amp fuse.
- JXP-* A pads, used for signal reduction.
- EQ-750-* forward equalizers.
- CTF-JLX-750 thermal compensation network.
- MB-ACB-* automatic gain control board.



Automatic Control Board

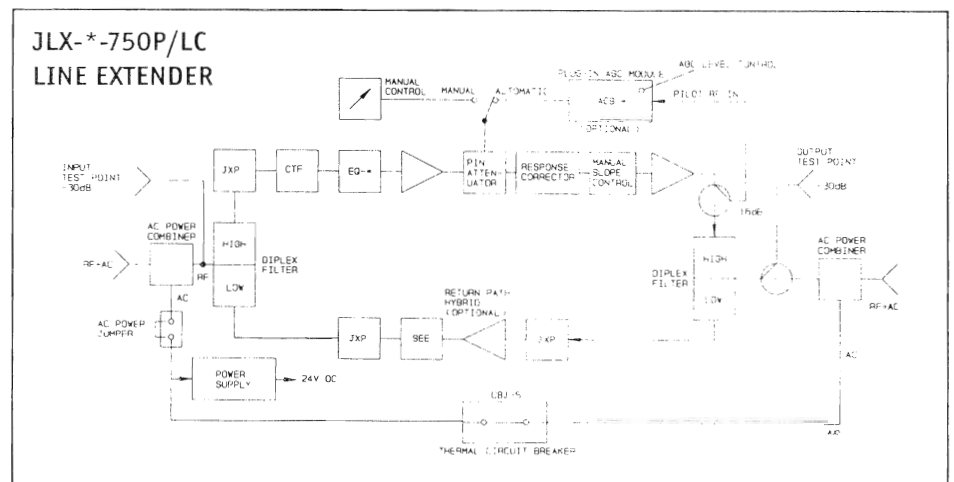
The JLX-* -750P/LC product incorporates automatic gain control through the installation of an automatic control board. This is the same board used in the STARLINE Mini-Bridger.

The optional automatic control board monitors a designated pilot frequency and automatically adjusts the gain to maintain a constant output level. To convert from manual to automatic, you simply insert the optional ACB board into the main board and relocate the suitcase jumper. The JLX-* /LC

is equipped with a varilossor that receives its control voltage from the optional ACB board.

Additional Features

Each JLX-* -750P/LC ships with a response correction board located interstage for improved flatness at 750 MHz. An AC power jumper has also been added. This can be removed to block power from the input port where power is applied to the output port.



Specifications

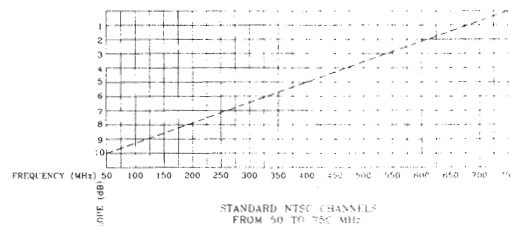
PARAMETERS	UNITS	NOTES	SPECIFICATIONS			
			JLX-7-750P/LC		JLX-6-750P/LC	
MODEL #						
Passband Forward	MHz		50-750			
Response Flatness	dB	1	±0.75			
Minimum Full Gain	dB	2	29.5		31.5	
Operational Gain	dB	3	25.5		27.5	
Manual Control Range						
Gain	dB	4	0-6			
Slope	dB	5	0-4			
Noise Figure	dB	6	13			
Levels		7,8,9	REFERENCE SLOPE CHART S1 110 NTSC analog channels 750/50 47/37 S2 77 NTSC analog channels with 200 MHz compressed data 750/550/50 37/44/37			
Frequency Reference Output Level	MHz dBmV					
Distortion Performance			JLX-7-750P/LC	JLX-6-750P/LC	JLX-7-750P/LC	JLX-6-750P/LC
CTB	dB	10	-57.0	-57.0	-69.0	-68.0
XMOD	dB	11	-59.0	-58.0	-68.0	-67.0
CSO	dB	10	-59.0	-57.0	-65.0	-63.0
CIN	dB	14	N/A	N/A	-71.0	-71.0
Return Loss @ 75 Ohms	dB	12	14			
Hum Modulation	dB	13	-60			
DC Current at +24 VDC	mA		625			
Power Requirements			38/60			
Input Range (min/max) Current	VAC		One Way	W/RA-KIT	W/ACB	W/ACB & RA
@ 60 VAC	AMPS		0.46	0.54	0.51	0.59
@ 52 VAC	AMPS		0.49	0.58	0.54	0.63
@ 45 VAC	AMPS		0.52	0.62	0.57	0.67
@ 38 VAC	AMPS		0.58	0.69	0.63	0.75
AC Bypass Capacity	AMPS		7			
Operating Temperature	Degrees F		-40 to + 140 °F (-40 to + 60 °C)			
Weight	Pounds		7.2			
Dimensions (JLX-HSG/A housing)	Inches		L = 10.5" W = 8.0" H = 4.5"			

Specifications subject to change without notice.

NOTES:

- Over operating bandpass.
- Gain without equalizer and CTF-JLX-750 or MB-ACB/***.
- Operational gain, includes chassis, equalizer, MB-ACB, and filter losses. Operational gain with chassis, equalizer, CTF-JLX-750, and filter losses is 24.5 dB.
- At 750 MHz.
- dB of cable at 750 MHz.
- Noise figure includes chassis, equalizer, CTF-JLX-750, and filter losses. Noise figure with chassis, equalizer, MB-ACB, filter losses is 12 dB.
- Reference output level includes chassis, equalizer and filter losses.
- Operating levels for digital channel applications illustrate analog carrier levels between 552 and 750 MHz. These levels will be operated 10 dB lower.
- Distortions illustrated for analog/digital loading are referenced at the highest analog carrier level (552 MHz).
- Measured with C.W. carriers and spectrum analyzer, reference worst case channel.
- Measured with wave analyzer and synchronous 100% depth modulated channels, at worst case channel.
- Measured at station input and output at operating bandpass and levels.
- Measured with stated AC bypass current.
- C/IMN (carrier to intermodulation noise). Contribution of data compression to noise floor. Performance varies on a two for one basis with amplifier output, but should be added to the C/N calculation on a 10 log basis.

SLOPE CHART S1



SLOPE CHART S2

