Line Extender Amplifiers

Station Performance* 450 MHz, 28 and 33 dB Gain

	Notes	6-LE94/28	6-LE94/33	Units
Technology		Power Doubling	Power Doubling	
Bandwidth - Forward and Return		Check the Ordering Information for available bandsplits. For bandsplit-specific information, see page RF Amplifiers - 74.		
Response Flatness (at operating gain and slope)		± 0.5	± 0.5	dB
Minimum Full Gain (with 6-2E600-0 equalizer)		29	34	dB
Typical Operating Gain--includes 1 dB equalizer loss with AGC (without AGC)		25 (28)	30 (33)	dB
Gain Control Range		6	6	dB
Slope Control Range (cable at 450 MHz)		1-7	1-7	dB
Return Loss--Forward and Return (75-ohm reference at operating gain and slope)		16	16	dB
Distortion at Referenced Level (per NCTA test methods; NTSC System M)	a			
Referenced Output Level		38/46	38/46	dBmV
Number of Analog Channels (NTSC)	b	Check the Ordering Information for available bandsplits.		
26/45, 33/50, and 42/54 Splits		60	60	
50/70 Split		57	57	
65/85 Split		55	55	
Composite Triple Beat with AGC (without AGC)	b	-70 (-72)	-70 (-72)	dB
Cross Modulation with AGC (without AGC)	b	-71 (-73)	-71 (-73)	dB
Composite Second Order with AGC (without AGC)		-71 (-72)	-71 (-72)	dB
DIN 45004B	c	124	124	dBµV
Noise Figure, Full Gain (For system calculations, add 1 dB for equalizer loss.)		7	6	dB
Hum Modulation (at 6 amps maximum operating current)		-65	-65	dB
AC Bypass Current Damage Limit		15	15	A
AC Power Consumption				
1-Way Manual		19.4	19.4	W
1-Way Automatic		21.0	21.0	W
2-Way Manual		21.8	21.8	W
2-Way Automatic		23.4	23.4	W
AC Current Requirement—60 VAC	d	AC power consumption in watts divided by a factor of 43 = amps required		
AC Current Requirement—90 VAC	d	For ≤67 VAC: 1.03 x (AC power consumption in watts divided by voltage) = amps required. For 67-90 VAC: AC power consumption in watts divided by 65 = amps required.		
Amplifier Dimensions--Module Excluding Housing (length x width x height)		6.45 x 3.00 x 4.10 (16.38 x 7.62 x 10.41)		in. (cm)
Amplifier Weight--Module Excluding Housing		1.93 (0.88)		lb (kg)
Plug-in Circuits (Required ■ Optional □)				
Attenuator		9-A □	9-A □	
Thermal Attenuator		7-A/T15 □	7-A/T15 □	
Equalizer		6-2E450 ■	6-2E450 ■	
Automatic Gain Control		LE90/AGC □	LE90/AGC □	
Solid-state Surge Arrestor		CBR-LE □	CBR-LE □	
Return Amplifier		4-LER90 □	4-LER90 □	

* All specifications are subject to change without notice. Measured in a 9-LH housing at 70° F ambient.

Notes:

a. Distortion specifications are worst case for system performance calculations; individual module performance may vary.

b. For performance using other channel spacing and loading schemes, see "Distortion Conversion Factors for International TV Standards" on page *RF Amplifiers-1*.

c. Intermodulation distortion = -60 dB [DIN 45004B, para 6.3: 3 tone test].

d. Factor is based on engineering studies of Philips power supplies.