

# L-Series



Linearizer Technology  
Product Brief  
Rev 1

The **L-Series** linearizer is a frontend mini-system used in conjunction with a TWTA, MPM, or SSPA amplifier to provide superior HPA linearity performance. It provides RF gain, predistortion, input and output level control, and RF output power to drive an amplifier to saturation. It typically provides a 4x power increase with multicarrier traffic and advanced digital modulation. The **L-Series** is available but not limited to all Satcom uplink bands L- through V-band.



L-Series (Model: BAFL or BLFE)  
2.50" L x 0.85" W x 0.69" H  
(cm) 6.4 L x 2.2 W x 1.75 H

### Typical Uplink Frequency Bands

Frequency Range:	5.850 to 6.725 GHz (C)
	7.900 to 8.400 GHz (X)
	13.75 to 14.50 GHz (Ku)
	17.30 to 18.40 GHz (K)
	27.00 to 31.00 GHz (Ka)
	43.50 to 46.00 GHz (Q)
	47.20 to 51.40 GHz (V)

### General Performance

Input Power Level for HPA Rated Power:	-30 to -5 dBm
Output Power for HPA Saturation:	> than +15 dBm
Gain:	> 30 dB (typ.)
Gain Flatness:	< ± 0.5 dB over any 500 MHz
Gain Slope:	< 0.02 dB/MHz
Gain Stability:	< ± 0.75 dB, -20 to +85°C
User Gain Attenuator Range:	32 dB
Control:	0 to +5 Volts
Static Phase Shift to HPA Rated Power:	< ± 5 degrees
AM/PM Conversion to HPA Rated Power:	± 2 degrees
Spurious/Noise:	< -135 dBW/4 KHz (max Gain)
Input and Output VSWR:	1.8:1
RF Interface Connectors:	SMA/2.92/2.4mm Female
DC Interface:	.020 dia. Feedthru Terminals
Interface:	0-5 Volt Controls
DC Power:	+8 Volts, 500 mA (typ.)

### Typical Performance w/ TWTA

Intermodulation (C/I):	>25 dBc @ 3 dB OPBO
	>30 dBc @ ≥4 dB OPBO

### FEATURES/OPTIONS

**Compact Package**

**Temperature Compensation**  
Extended Range -55 to +85°C

**Input Gain Attenuator**

**TTL MUTE Function**

**O/P Power Detector**

*Contact us for additional custom features.*

