

# N-Series



Linearizer Technology  
Product Brief  
Rev 1

The **N-Series** linearizer is a Tri-band frontend mini-system used in conjunction with a TWTA, MPM, or SSPA amplifier to provide superior HPA linearity performance for 3 uplink bands in a single unit. Each switchable path provides RF gain, predistortion, output level control, and RF output power to drive an amplifier to saturation. The **N-Series** is available but not limited to Satcom uplink C-, X-, and Ku-bands.



## Typical Uplink Frequency Bands

Frequency Range:	5.850 to 6.450 GHz
	7.900 to 8.400 GHz
	13.75 to 14.50 GHz

## General Performance

Input Power Level for HPA Rated Power:	-15 to -5 dBm
Output Power for HPA Saturation:	> than +18 dBm
Gain:	> 30 dB (typ.)
Gain Flatness:	< $\pm 0.5$ dB over any 500 MHz
Gain Slope:	< 0.02 dB/MHz
Gain Stability:	< $\pm 0.75$ dB, -25 to +85°C
Static Phase Shift to HPA Rated Power:	< $\pm 5$ degrees
AM/PM Conversion to HPA Rated Power:	$\pm 2$ degrees
Spurious/Noise:	< -135 dBw/4 KHz (max Gain)
Input and Output VSWR:	1.8:1
RF Interface:	SMA Female Connectors
DC Interface:	Solder Terminals
DC Power:	+16 Volts, 500 mA (typ.)

## Performance w/ TWTA

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

## Tri-Band

N-Series (Models: BAFL or BLFE)  
3.75" L x 1.55" W x 0.70" H  
(cm) 9.53 L x 3.94 W x 1.78 H

## FEATURES/OPTIONS

### Compact Package

Each switchable band can be optimized for optimum performance.

### Temperature Compensation

Extended Range -25 to +85°C

### TTL MUTE Function

### O/P Power Detector

Contact us for additional custom features.

