The **S-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 **S-Series** is available but not limited to all Satcom uplink bands L thru Q band.

### Typical Uplink Frequency Bands

- **Frequency Range:**
  - 5.85 to 6.725 GHz (C)
  - 7.90 to 8.40 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)

### General Performance

- **Input Power Level for HPA Rated Power:** -30 to -5 dBm
- **Output Power for HPA Saturation:** up to +30 dBm
- **Gain:** > 40 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 (typ.)
  - Control: 0 to X Volts or 8/9 Bit Digital (.25/.15 dB step)
- **Static Phase Shift to HPA Rated Power:** < ± 5 degrees
- **AM/PM Conversion to HPA Rated Power:** < 2 degrees/dB
- **Spurious/Noise:** < -135 dBw/4 KHz (max Gain)
- **Input and Output VSWR:** 1.5:1
- **RF Interface Connectors:** SMA, 2.92, 2.4 mm Female
- **DC Interface:** 15 or 25 Pin Male D-Sub
- **Controller Interface:** Analog, I2C, RS232, RS485
- **DC Power:** +12 Volts, 600 mA (typ.)
- **Typical Performance w/ TWTA**
  - **Intermodulation (C/I):**
    - >25 dBc @ 3 dB OPBO
    - >30 dBc @ ≥4 dB OPBO

### FEATURES/OPTIONS

- **Compact Package**
- **Multiple Interface Options**
- **Temperature Compensation**
- **Analog or Digital User Attenuator**
- **TTL MUTE Function**
- **O/P Power Detector**

Contact us for additional custom features.