

Linear Space Technology

Design and Manufacture of Space Qualified Linearizers, SSPAs, and Related Satellite Hardware



SSPA Linearizers | UHF, L, S, C, and X-Band

Flight Qualified with Heritage

- Drop-in / Connectorized for GaAs/GaN Flight SSPAs
- Internally temperature compensated
- Flight qualified with heritage
- External control of mag and phase nonlinear transfer
- Allows performance optimization during SSPA alignment
- Allows SSPA output stages to be temperature compensated via the linearizer



Versatile Linearized Front End Modules

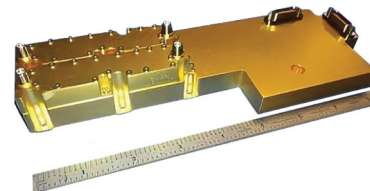
- Wideband phased array applications
- Ka and Ku downlink bands
- Allows for use of single amplifier design for all array positions
- Output power adjustable for high/low power mode to maintain linearity and efficiency



Linearized UHF SSPA

Flight Qualified with Heritage

- Low band (250 MHz) and High band (370 MHz)
- 20 W and 40 W models
- High-reliability GaAs FET output stages with a pre-distortion linearized front-end
- Linear multichannel communications including BPSK, QPSK, WSS
- 1 W per comm channel, up to 10 channels with 48 dB linear gain



Ku-2050 LCAMP

Ku Linearized Dual Channel Amplifier

- 10.7 to 12.75 GHz covers ITU 1, 2, 3, and extended D/L
- Designed for smart inventory to reduce lead time
- FG and ALC modes Pulse Bus Interface
- Serial interfaces for other platforms as needed
- First LCAMP design with microcontroller-based architecture
- Random-access setpoints
- Reconfigurable for smart channelization
- State reversion
- Rapid configuration for multiple bus interfaces
- Separate GAIN (flux) and PHASE adjustments
- Performance optimization at HPA integration



UHF GaN

200W UHF Flight SSPA with >80% PAE

- 360-380 MHz
- Linearized
- Multicarrier Communications
- 180 W Sat Power
- 78% Efficiency Including EPC



GPS GaN SSPA

- Commandable over 5 dB power range (125 to 400 W)
- Linearizer Built into HPA PreDriver Stages – optimized for single-carrier AM/PM conversion close to saturation
- Variable drain voltage maintains optimal efficiency
- VSWR Protect Circuit replaces expensive, bulky isolator
- 70 V EPC

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