

LD-13S series Ku-Band Line Driver Amplifiers (LDAs) are specifically designed for use in satellite earth stations and general purpose telecommunications applications.

Utilizing proven GaAs FET technology, these amplifiers have been designed for reliable operation in both fixed and transportable applications.

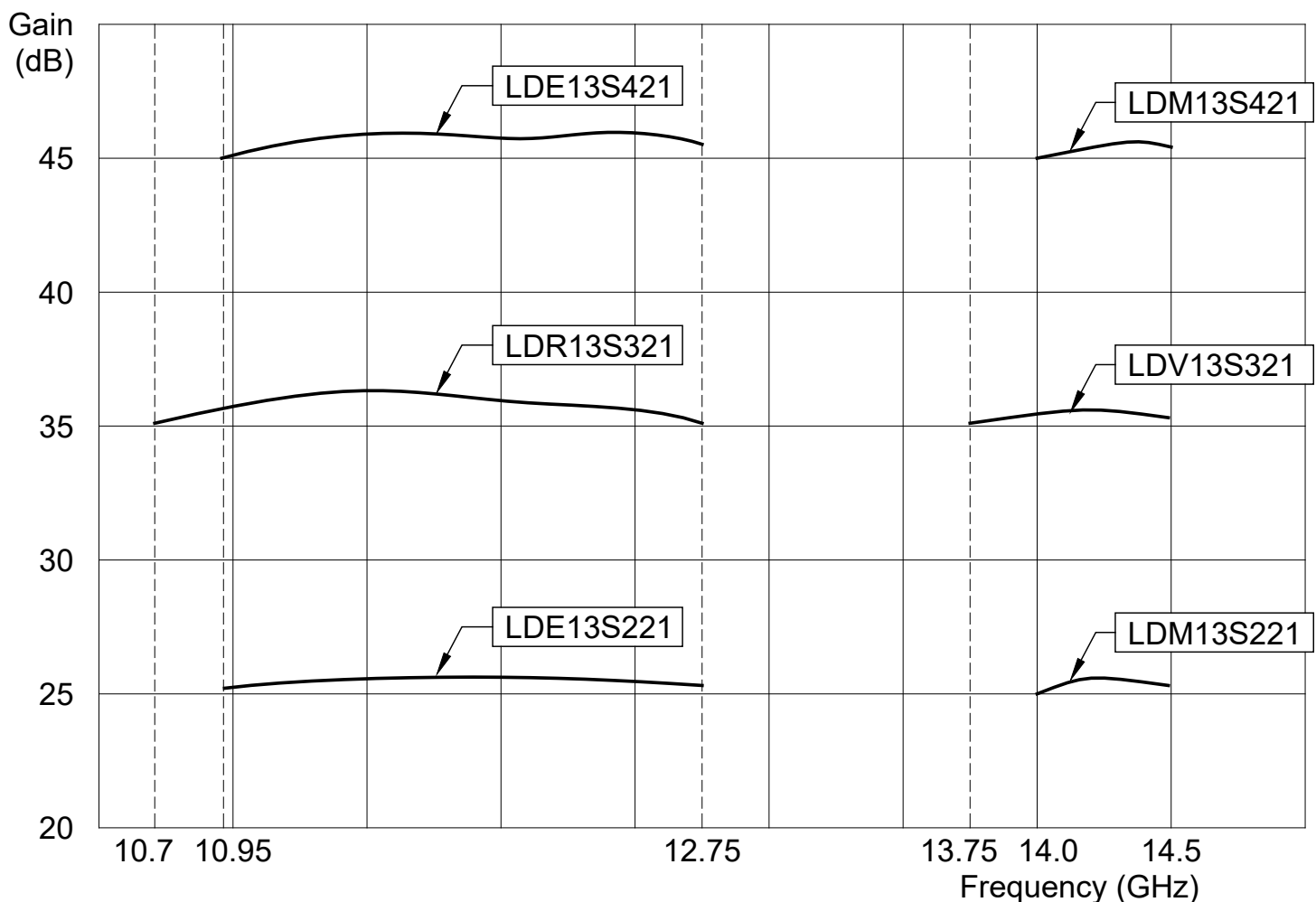
FEATURES:

- GaAs FET design
- Internal regulator
- Reverse polarity protection
- Input/output isolators
- High reliability
- SMA (F) connectors

OPTIONS:

- 22, 32, or 42 dB minimum gain
- +15 or +20 dBm min. output power at P1dB
- Transmit or receive frequency bands

LD-13S Series Typical Gain vs. Frequency



Specifications

Parameter	Notes	Specification
Frequency Range	Band "E" Band "R" Band "M" Band "V"	10.95 to 12.75 GHz 10.70 to 12.75 GHz 14.00 to 14.50 GHz 13.75 to 14.50 GHz
Gain	"-13S22x" "-13S32x" "-13S42x"	22 dB min., 25 dB typical 32 dB min., 35 dB typical 42 dB min., 45 dB typical
Gain Flatness		±0.75 dB max. over the full band ±0.25 dB max. per 40 MHz
Noise Figure		3.5 dB typical, 4.0 dB max.
Power Output at 1dB compression (P _{1dB})	"-13Sxx1" (Standard) "-13Sxx2" (High Power)	+15 dBm min., +17 dBm typical +20 dBm min., +21 dBm typical
3 rd Order Output Intercept Point (OIP ₃)	"-13Sxx1" (Standard) "-13Sxx2" (High Power)	+25 dBm min., +27 dBm typical +30 dBm min., +31 dBm typical
Group Delay per 40 MHz	Linear Parabolic Ripple	0.03 ns/MHz max. 0.003 ns/MHz ² max. 1.0 ns peak to peak max.
VSWR	Input Output	1.35:1 typical, 1.50:1 max. 1.35:1 typical, 1.50:1 max.
Maximum Input Power	Damage threshold	+10 dBm max.
Connectors	Input/Output Power	SMA Female RFI Filter Solder Terminal
Power Requirements	Voltage Current (Standard)	11 VDC min., 12 VDC typical, 16 VDC max. 240 mA typical, 330 mA max.
Temperature Range	Operating; case	0°C to +60°C

Part Number/Ordering Information

LD 13S

Frequency Range

10.95–12.75 GHz = E
10.70–12.75 GHz = R
14.00–14.50 GHz = M
13.75–14.50 GHz = V

Min. Gain

22 dB = 22
32 dB = 32
42 dB = 42

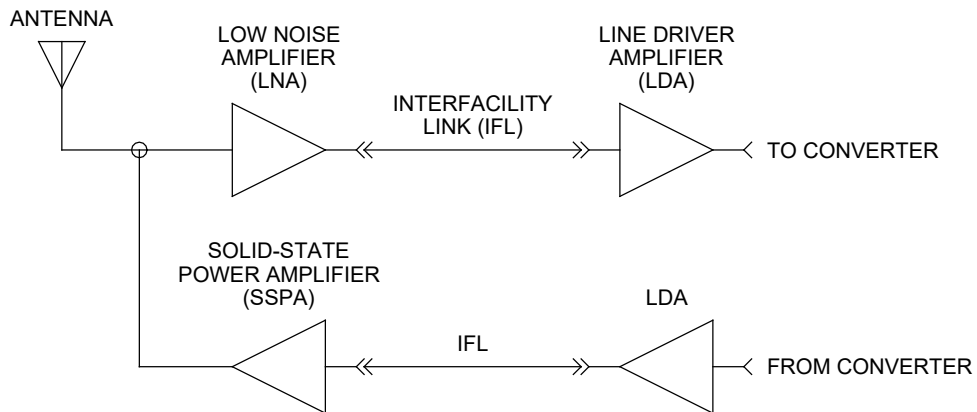
Min. Output Power (at P_{1dB})

+15 dBm = 1
+20 dBm = 2

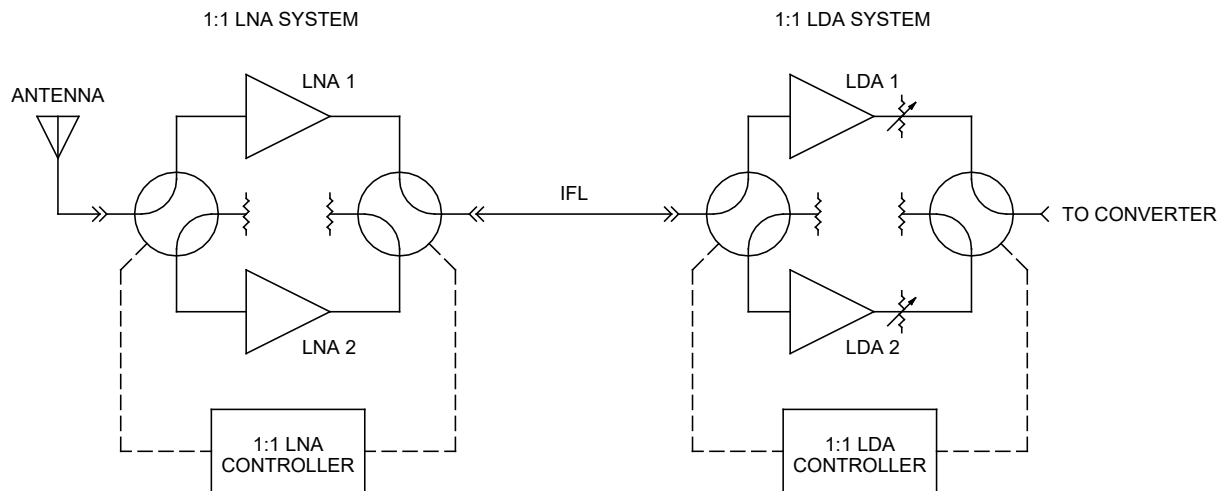
Example: **LDE13S321** = 10.95-12.75 GHz, 32 dB min. gain, +15 dBm min. P_{1dB}.

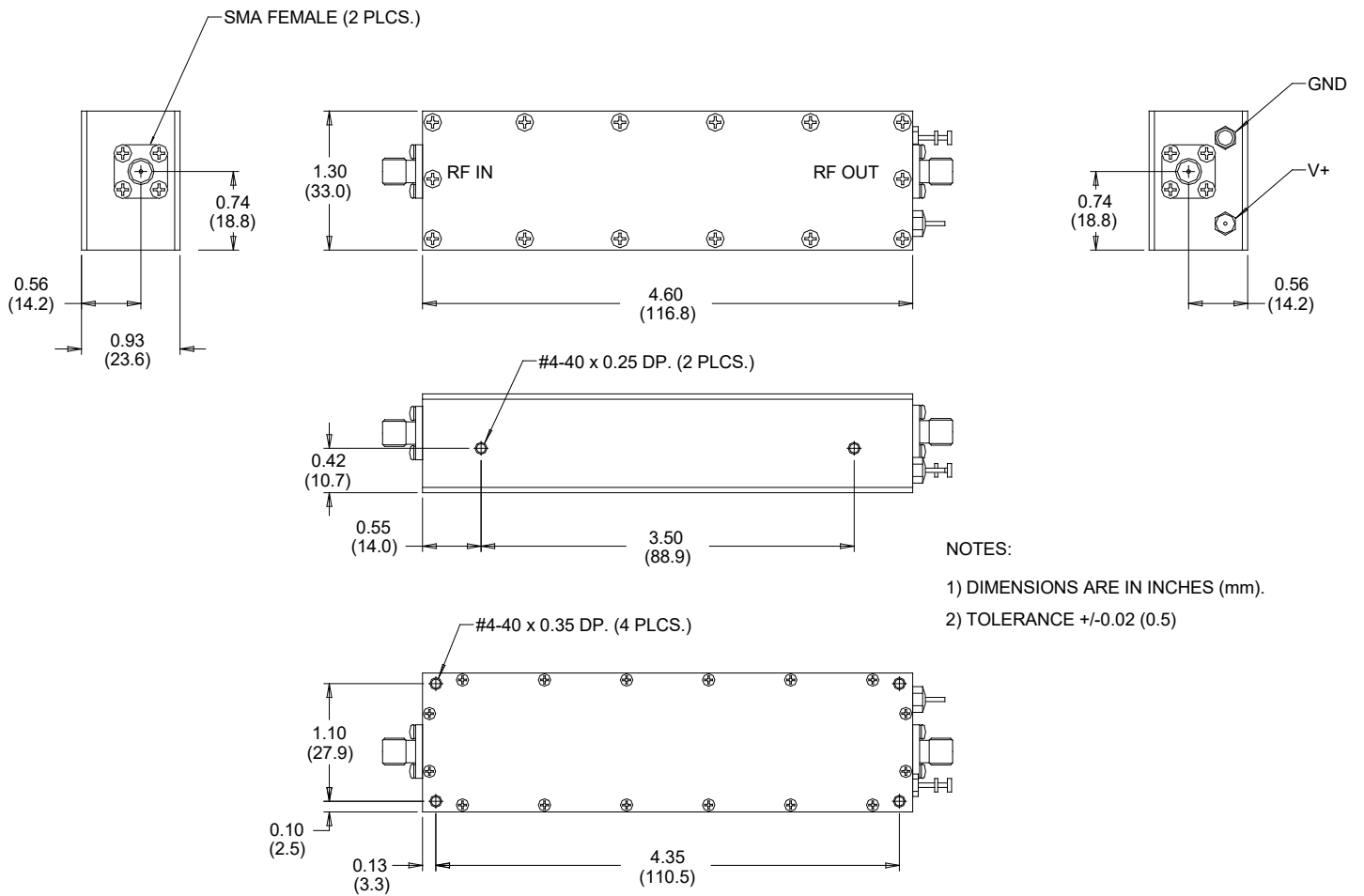
Typical Applications

Single-Thread Rx/Tx System:



1:1 Redundant System (Rx)





Outline 5413