

C-Band Line Driver Amplifiers

LD-5S Series

LD-5S series C-Band Line Driver Amplifiers (LDAs) are specially 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.

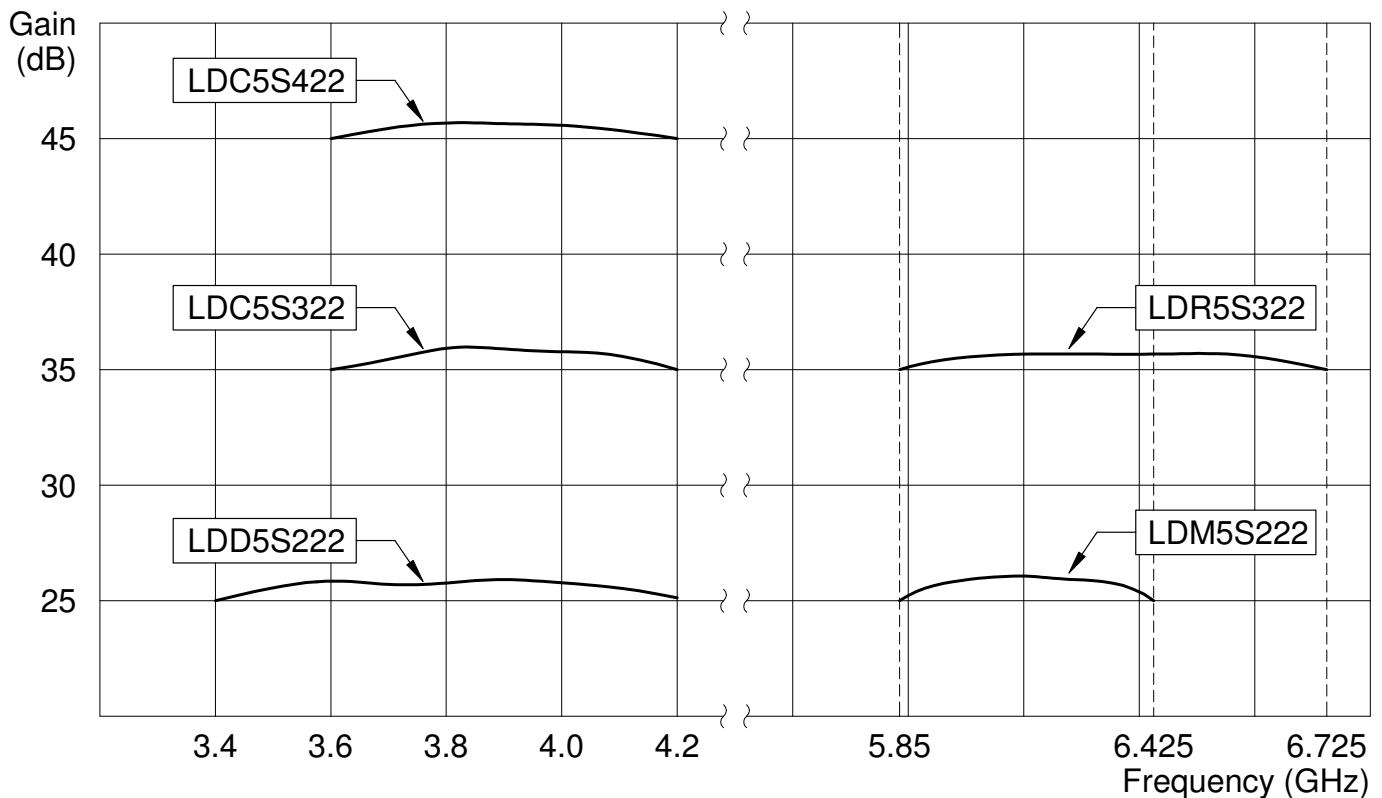
Features

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

Options

- 22, 32, or 42 dB minimum gain
- +20 or +25 dBm min. output power at $P_{1\text{ dB}}$
- Transmit or receive frequency bands

LD-5S Series Typical Gain vs. Frequency



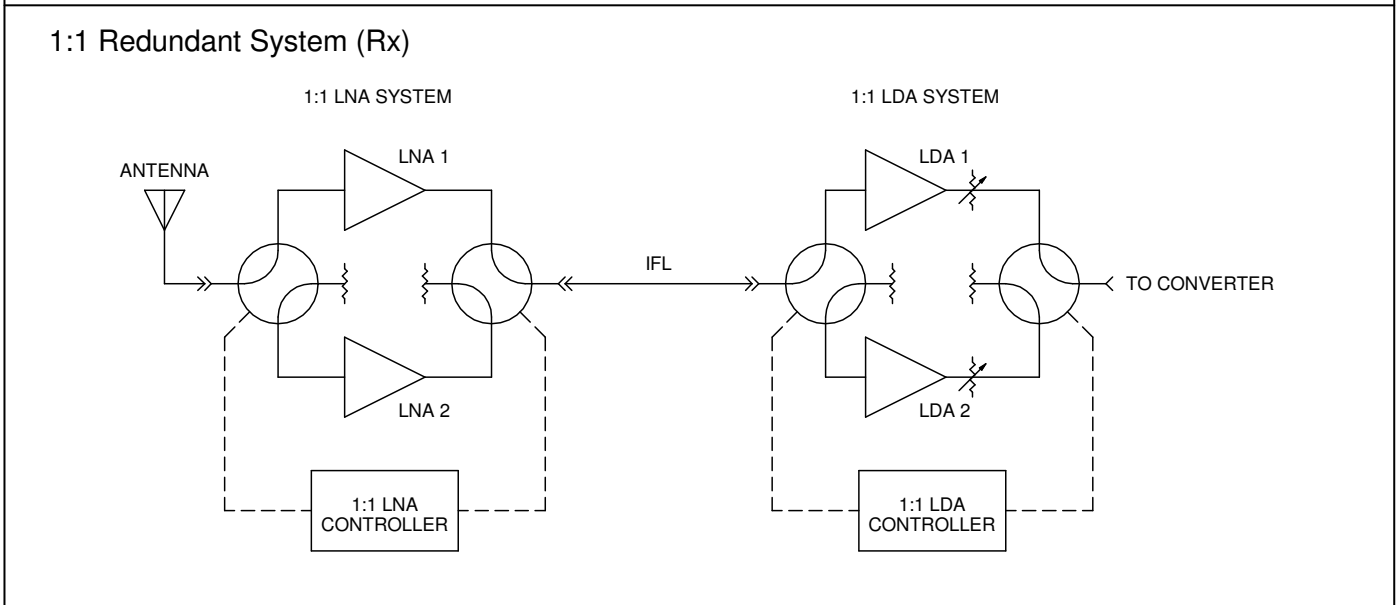
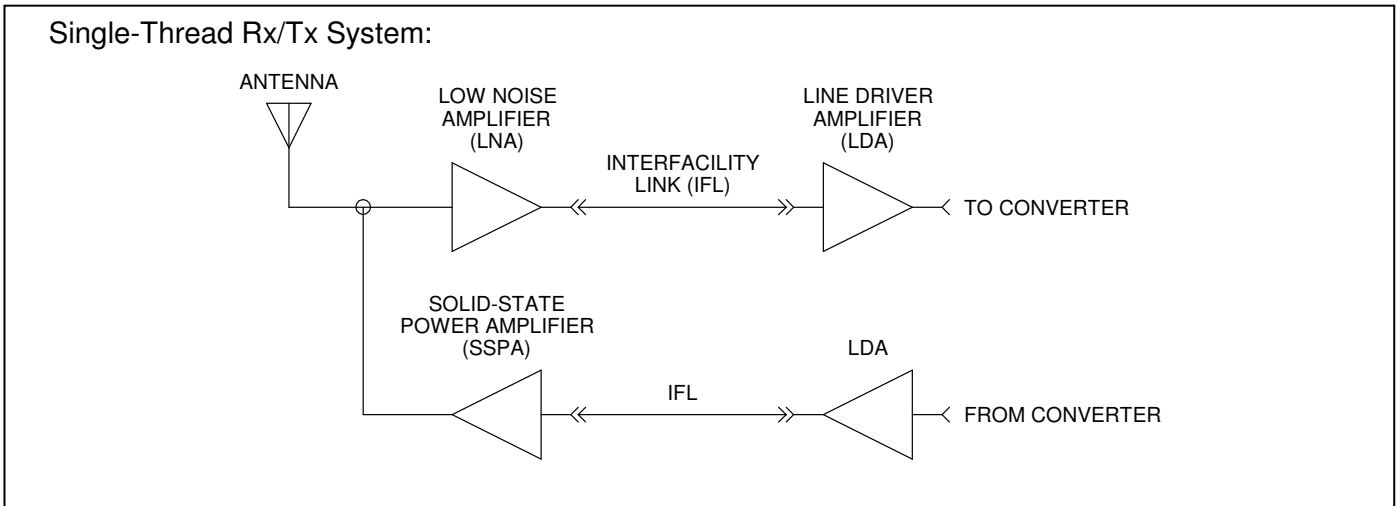
Part Number/Ordering Information

LD **5S**

Frequency Range	Min. Gain	Min. Output Power (at P _{1 dB})
3.60–4.20 GHz = C	22 dB = 22	+20 dBm = 2
3.40–4.20 GHz = D	32 dB = 32	+25 dBm = 3
5.85–6.425 GHz = M	42 dB = 42	
5.85–6.725 GHz = R		

Example: **LDC5S222** = 3.60-4.20 GHz, 22 dB min. gain, +20 dBm min. P_{1 dB}.

Typical Applications



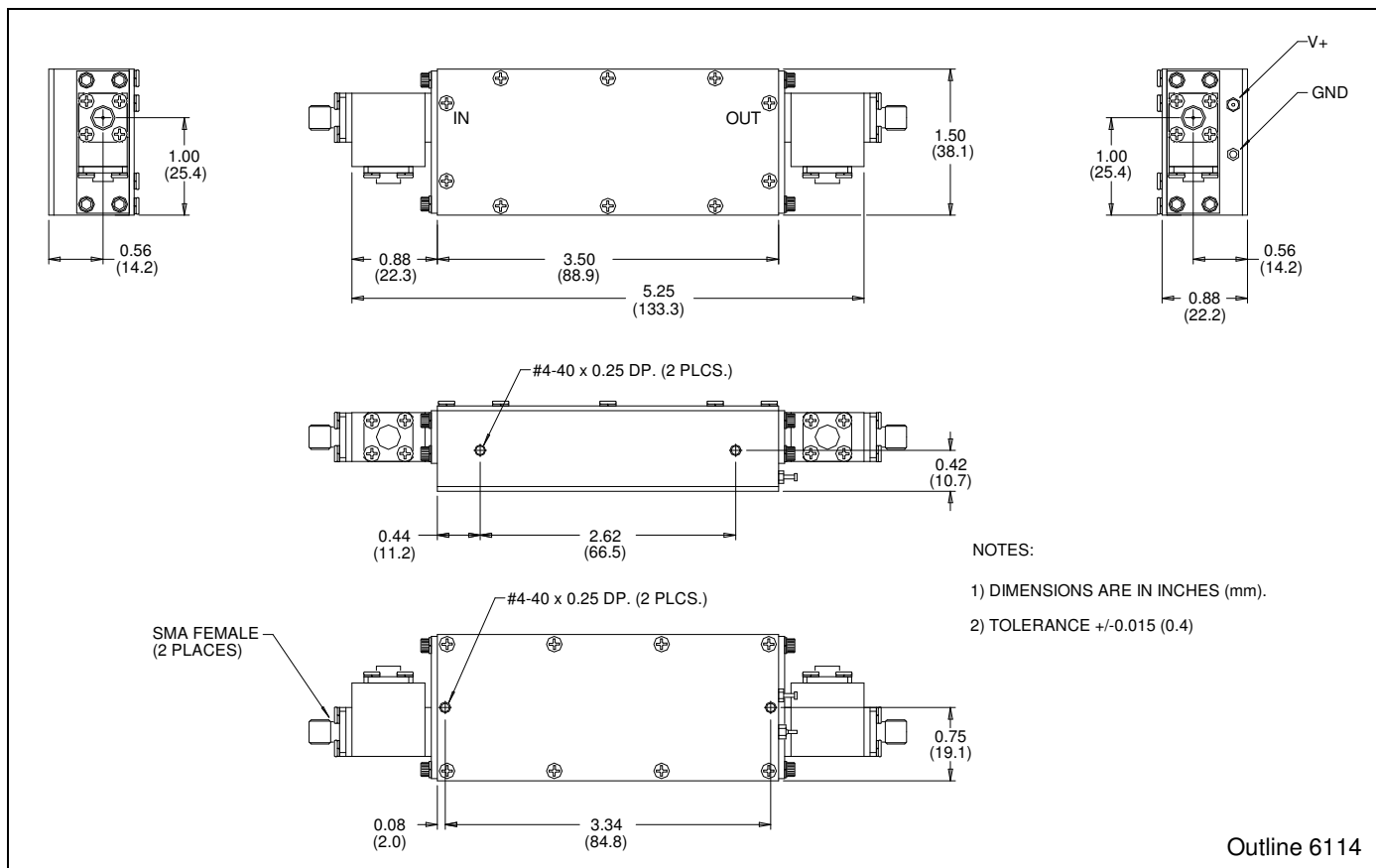
Specifications

LD-5S Series

Parameter	Notes	Min.	Nom./Typ. [†]	Max.	Units
Frequency	Band "C"	3.60		4.20	GHz
	Band "D"	3.40		4.20	GHz
	Band "M"	5.85		6.425	GHz
	Band "R"	5.85		6.725	GHz
Gain	"-5S22x"	22	25		dB
	"-5S32x"	32	35		dB
	"-5S42x"	42	45		dB
Gain Flatness	Full band Per 40 MHz			±0.5	dB
				±0.2	dB
Noise Figure			2.7	3.5	dB
Power Output at 1 dB compression	"-5Sxx2" (Standard)	+20	+21		dBm
	"-5Sxx3" (High power)	+25	+26		dBm
Third Order Output Intercept Point	"-5Sxx2" (Standard)	+30	+31		dBm
	"-5Sxx3" (High power)	+35	+36		dBm
Group Delay per 40 MHz	Linear			0.03	ns/MHz
	Parabolic			0.003	ns/MHz ²
	Ripple			1.0	ns p-p
VSWR	Input		1.25	1.35	:1
	Output		1.25	1.35	:1
Maximum Input Power	Damage threshold			+10	dBm
Connectors	Input/Output Power		SMA Female RFI Filter Solder Terminal		
Power Requirements	Voltage	+11	+12	+16	Vdc
	Current (Standard)		200	250	mA
	Current (High power)		300	350	mA
Temperature Range	Operating; case	0		+60	°C

[†] When there is only one value on a line, the Nom./Typ. column is a nominal value; otherwise it is a typical value. Typical values are intended to illustrate typical performance, but are not guaranteed.

Outline Drawing



Other Products

- Solid-State Power Amplifiers and SSPA Systems
- Solid-State Power BUCs and SSPB Systems
- Low Noise Amplifiers and LNA Systems
- Low Noise Block Converters and LNB Systems
- Block Up and Block Down Converters
- Synthesized Converters
- Line Drive Amplifiers
- Power Supply Monitors
- Redundant Control Panels for SSPAs, SSPBs, and LNAs

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