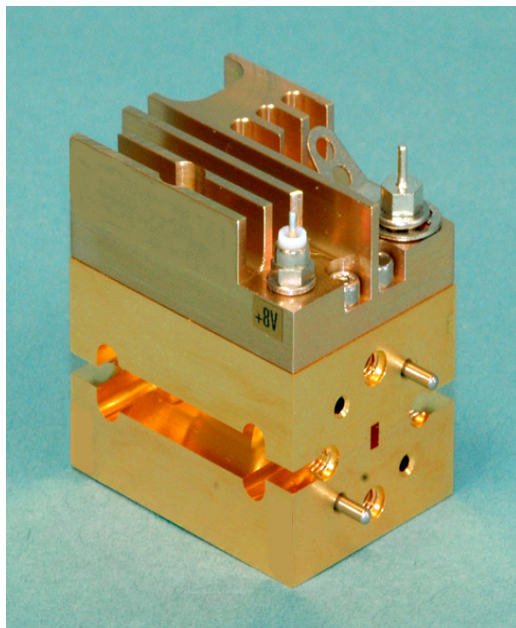


**SERIES LNA**
**LOW NOISE AMPLIFIERS**

**FEATURES:**

- Wideband coverage
- Modular compact design
- Military or commercial units available
- 2.92, 2.4, 1.85 mm or Waveguide interfaces as required
- Internal voltage regulation and bias circuitry
- State-of-the-art noise figure performance

**APPLICATIONS:**

- Sensitive receivers
- Spectrum analyzer preamplifiers
- Wideband radiometry
- Radar front-ends
- Communication subsystems
- Remote Sensing
- Radiometer Systems

**DESCRIPTION**

Millitech's series LNA low noise amplifier utilizes advanced PHEMT MMICs and transistors for state-of-the-art noise performance in the 18 to 110 GHz frequency range.

Each amplifier has internal bias circuitry that generates gate control voltages, provides proper voltage sequencing and bias.

The standard amplifier interfaces include coaxial connectors of 2.92 mm (0 to 40 GHz), 2.4 mm (0 to 50 GHz), and 1.85 mm (0 to 65 GHz), as well as waveguide interfaces ranging from WR-42 to WR-10.

Standard products offer sufficient gain for most applications but multiple MMIC amplifier chips can be combined or cascaded for applications that require higher gain or greater output power.

The broad bandwidth and low noise of the series LNA makes them perfect for a wide range of applications including radiometry, polarimetry, EW systems, instrumentation and radar systems. For applications requiring driver or power amplification, please refer to series AMP, Millitech's power amplifiers.

## SPECIFICATIONS

### Ultra Wide Bandwidth:

Part Number	F <sub>Low</sub>	F <sub>High</sub>	Gain (typ.) (dB)	NF (typ.) (dB)	Connector	Current (A) (typ.)	Input Voltage (V) (min-max)
LNA-KK-01050	5.0	40.0	12.0	5.0	2.92/2.4 mm	.060	7.5 - 15
LNA-KK-01020	24.0	40.0	23 to 15.	3.6	2.92/2.4 mm	.075	7.5 - 15
LNA-28-01050	26.5	40.0	12.0	4.0	WR-28	.060	7.5 - 15
LNA-28-01020	26.5	40.0	25 to 17	2.9	WR-28	.075	7.5 - 15
LNA-22-01020	33.0	40.0	21.5 to 17	2.9	WR-22	.075	7.5 - 15

### Very Wide Bandwidth:

Part Number	F <sub>Low</sub>	F <sub>High</sub>	Gain (typ.) (dB)	NF (typ.) (dB)	Connector	Current (A) (typ.)	Input Voltage (V) (min-max)
LNA-42-02160	19.0	21.2	19.0	2.8	WR-42	.100	7.5 - 15
LNA-42-02010	18.0	26.5	19.0	3.0	WR-42	.100	7.5 - 15
LNA-KK-02010	14.0	27.0	18.0	3.5	2.92/2.4 mm	.100	7.5 - 15
LNA-28-02170	34.0	36.0	19.0	3.1	WR-28	.075	7.5 - 15
LNA-KK-02110	26.0	40.0	17.0	4.3	2.92/2.4 mm	.075	7.5 - 15
LNA-28-02110	26.5	40.0	19.0	3.3	WR-28	.075	7.5 - 15
LNA-KK-02060	32.0	40.0	16.0	4.5	2.92/2.4 mm	.055	7.5 - 15
LNA-28-02060	32.0	40.0	16.0	3.5	WR-28	.055	7.5 - 15
LNA-KK-02070	35.0	40.0	16 to 12	4.0	2.92/2.4 mm	.100	7.5 - 15
LNA-28-02070	35.0	40.0	18 to 14	3.0	WR-28	.100	7.5 - 15
LNA-22-02070	35.0	45.0	18 to 11	3.0	WR-22	.100	7.5 - 15
LNA-22-02060	33.0	46.0	15.0	3.5	WR-22	.055	7.5 - 15
LNA-15-02080	50.0	55.0	11 to 8	3.5	WR-15	.100	7.5 - 15
LNA-12-02190	71.0	86.0	12.0	5.5	WR-12	.050	7.5 - 15
LNA-10-02200	75.0	86.0	11.0	5.5	WR-10	.050	7.5 - 15
LNA-12-02150	75.0	90.0	21.0	5.0	WR-12	.050	7.5 - 15
LNA-10-02180	92.0	96.0	22.0	4.7	WR-10	.050	7.5 - 15
LNA-10-02120	82.0	100.0	16.0	6.0	WR-10	.065	7.5 - 15
LNA-10-02130	88.0	100.0	30.0	5.5	WR-10	.100	7.5 - 15
LNA-10-02150	75.0	110.0	22.0	5.0	WR-10	.050	7.5 - 15

\*CONTACT MILLITECH FOR DETAILS

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**Wide Bandwidth:**

Part Number	F <sub>Low</sub>	F <sub>High</sub>	Gain (typ.) (dB)	NF (typ.) (dB)	Connector	Current (A) (typ.)	Input Voltage (V) (min-max)
LNA-KK-03050	26.0	34.0	22.5	3.8	K Connector	.080	7.5 – 15
LNA-28-03050	26.5	34.0	24.0	3.0	WR-28	.080	7.5 – 15
LNA-28-03110	32.0	34.0	19.0	3.0	WR-28	.075	7.5 – 15
LNA-KK-03060	27.0	36.0	18.5	4.0	K Connector	.075	7.5 – 15
LNA-28-03060	27.0	36.0	20.0	3.2	WR-28	.075	7.5 – 15
LNA-KK-03070	30.0	40.0	17.0	5.0	K Connector	.065	7.5 – 15
LNA-28-03070	30.0	40.0	19.0	4.0	WR-28	.065	7.5 – 15
LNA-22-03070	33.0	42.0	20.0	4.0	WR-22	.065	7.5 – 15
LNA-15-03090	55.0	65.0	19.0	4.8	WR-15	.080	7.5 – 15
LNA-10-03100	88.0	100.0	15.5	5.5	WR-10	.050	7.5 – 15

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\*\*Some part numbers are ITAR controlled. Please call Millitech for details.

