

# Low-Noise Amplifiers – Broadband 0.1 GHz to 20.0 GHz

- ✓ **Low Cost**
- ✓ **Low-Noise**
- ✓ **Standard Package (AL Series), Small Size: 0.63 Inches Thick**
- ✓ **Aluminum Package with Removable Connectors**
- ✓ **Tig Welded Aluminum Housing**
- ✓ **Designed to Meet MIL-STD-883**
- ✓ **Custom Engineered Options (CEOs) (See page 14)**



Low-noise amplifiers (LNAs) are, by design and application, small signal amplifiers, intended to be the primary signal booster in R.F. subsystems; especially those where link-margins are critical.

Since overall LNA performance is determined largely by the first stage of amplification, CTT has combined its many years of experience in characterizing these devices

with its expertise in the design of matching circuits to optimize noise figure performance.

CTT has developed an extensive “Library” of device parameters and compatible matching solutions, which allow predictable, repeatable noise performance. This “Library” is the basis for CTT’s automated module production capability, which has been able to virtually triple module production efficiency.

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AL Series Model Number	Frequency Response (GHz)	Gain (dB)	Gain Flatness (±dB)	Noise Figure (dB)	P1dB (+dBm)	VSWR In/Out	Volts (DC)	DC Current (mA)	Case
	Min	Min	Max	Max	Min	Max	Typ	Typ	
<b>ALX/010-1030</b>	<b>.1-3</b>	<b>30</b>	<b>1.50</b>	<b>1.0</b>	<b>10</b>	<b>2:1</b>	<b>12-15</b>	<b>180</b>	<b>HC2</b>
<b>ALX/040-1530</b>	<b>.1-4</b>	<b>30</b>	<b>1.50</b>	<b>1.5</b>	<b>10</b>	<b>2:1</b>	<b>12-15</b>	<b>180</b>	<b>HC2</b>
ALX/020-2810	.2-2	10	0.75	2.8	8	2:1	12-15	60	HC2
ALX/020-2822	.2-2	22	1.25	2.8	12	2:1	12-15	80	HC2
ALX/020-2830	.2-2	30	1.25	2.8	15	2:1	12-15	160	HC2
ALX/020-5812	.2-2	12	1.00	5.8	20	2:1	12-15	150	HC2
ALX/020-3525	.2-2	25	1.25	3.5	20	2:1	12-15	220	HC2
ALX/020-3535	.2-2	35	1.50	3.5	20	2:1	12-15	260	HC2
ALM/020-1015	.5-2	15	0.75	1.0	15	2:1	12-15	80	HC2
ALM/020-1030	.5-2	30	1.00	1.0	15	2:1	12-15	160	HC2
ALM/020-1045	.5-2	45	1.50	1.0	15	2:1	12-15	240	HC2
ALM/020-1515	.5-2	15	0.75	1.5	15	2:1	12-15	80	HC2
ALM/020-1530	.5-2	30	1.00	1.5	15	2:1	12-15	160	HC2
ALM/020-2210	.5-2	10	0.75	2.2	8	2:1	12-15	60	HC2
ALM/020-2222	.5-2	22	1.00	2.2	12	2:1	12-15	80	HC2
ALM/020-2230	.5-2	30	1.00	2.2	15	2:1	12-15	160	HC2
ALM/020-2240	.5-2	40	1.25	2.2	15	2:1	12-15	240	HC4
ALM/020-5515	.5-2	15	1.00	5.5	20	2:1	12-15	150	HC2
ALM/020-3026	.5-2	26	1.00	3.0	20	2:1	12-15	220	HC2
ALM/020-3036	.5-2	36	1.50	3.0	20	2:1	12-15	260	HC2
ALM/020-3046	.5-2	46	1.50	3.0	20	2:1	12-15	340	HC4
ALM/040-2210	.5-4	10	0.75	2.2	8	2:1	12-15	70	HC2
ALM/040-2222	.5-4	22	1.00	2.2	12	2:1	12-15	100	HC2
ALM/040-2230	.5-4	30	1.25	2.2	15	2:1	12-15	160	HC2
ALM/040-2240	.5-4	40	1.25	2.2	15	2:1	12-15	200	HC2
ALM/040-5512	.5-4	12	1.00	5.5	20	2:1	12-15	150	HC2
ALM/040-3525	.5-4	25	1.25	3.5	20	2:1	12-15	200	HC2
ALM/040-3535	.5-4	35	1.25	3.5	20	2:1	12-15	250	HC2
ALO/040-1815	2-4	15	0.75	1.8	8	2:1	12-15	40	HS2
ALO/040-1830	2-4	30	1.00	1.8	15	2:1	12-15	120	HS2
ALO/040-4012	2-4	12	0.75	4.0	20	2:1	12-15	120	HS2
ALO/040-3027	2-4	27	1.00	3.0	20	2:1	12-15	200	HS2
ALO/040-3042	2-4	42	1.25	3.0	20	2:1	12-15	270	HS4

New Products