

Low Noise Amplifiers

LNA features very low noise and is normally used as pre-amplifier in HF or IF of radio receiver and amplifier circuit in high-sensitivity electronic detection equipment. In weak signal environment, LNA could lower the noise of amplifier itself and increase SNR (Signal to Noise Ratio).

Features: Broadband, Low Noise; **Applications:** Wireless, Receiver, Radar, Laboratory Test.

How To Order:

QLAV-W-X-Y-Z

Modules: Blank, Systems: S
 Start Frequency (MHz)
 Stop Frequency (MHz)
 Noise Figure * 10 (dB)
 Gain (dB)



Examples: To order a low noise amplifier module, 1~18GHz, gain 45dB, noise figure 3dB, specify **QLA-1000-18000-45-30**.

Low Noise Amplifier Modules

The sizes in the following table do not include connectors. LNA system with AC 110~250V power supply is available.

Part Number	Frequency (GHz)	Noise Figure (dB)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage* (V DC)	VSWR	Size* (mm)
QLA-9K-3000-43-30	9K~3	3	16	43	±1.5	12	1.8	38.1*21.59*9.5
QLA-0.01-15000-12-60	0.00001~15	6(typ.)	10	12	±2.5	12	2	40*35*12
QLA-0.09-2000-42-30	0.00009~2	3(typ.)	15(typ.)	42(typ.)	-	12	2(typ.)	40*32*12
QLA-0.1-500-24-30	0.0001~0.5	3	5	24	±0.5	15	1.5	50*30*15
QLA-0.1-500-30-30	0.0001~0.5	3	5	30	±0.5	5	1.5	50*30*15
QLA-0.5-1000-23-12	0.0005~1	1.2(typ.)	23(typ.)	23(typ.)	-	5	1.8(typ.)	32*30*12
QLA-1-400-50-20	0.001~0.4	2	20	50	±0.5	15	2	69.7*26.9*17.5
QLA-1-12000-30-55	0.001~12	5.5(typ.)	15	30	±2.5	12	2.5	40*35*12
QLA-1-26500-17-55	0.001~26.5	5.5(typ.)	10	17	±1.0	12	2.5	40*35*12
QLA-1.6-30-13.5-42	1.6~30	4.2	26	13.5	0.25	15	1.2	88*80*36
QLA-5-1000-46-15	0.005~1	1.5(typ.)	20(typ.)	46(typ.)	-	5	2(typ.)	44*30*15
QLA-10-60-15-50	0.01~0.06	5	23	15	±1.0	12	1.5	50*30*15
QLA-10-60-16-50	0.01~0.06	5	23	16	±1.5	5	-	48.5*29
QLA-10-2500-30-40	0.01~2.5	4(typ.)	10	30	±1.0	12	2	16.2*12.2*7.4
QLA-10-18000-25-50	0.01~18	5	10	25	±1.0	12	2.2	27.2*17.8*7.4
QLA-20-3000-30-35	0.02~3	3.5	15	30	±2.5	15	2	50*30*20
QLA-20-6000-32-15	0.02~6	1.5(typ.)	12	32	±1.5	5	2.5	40*35*12
QLA-20-8000-20-30	0.02~8	3(typ.)	12	20	±2.0	12	2(typ.)	60*45*15
QLA-25-1000-50-13	0.025~1	1.3	14	50	-	5~20	2.5	60*30*20
QLA-30-1000-15-20	0.03~1	2	18	15	±3	5.5	2	50*30*20
QLA-30-1000-50-13	0.03~1	1.3	15	50	±2.5	12	1.5	50*30*15
QLA-30-3000-40-30	0.03~3	3	12	40	±2	15	2	50*30*20
QLA-30-6000-25-50	0.03~6	5	10	25	±3	15	2	50*30*15
QLA-30-18000-15-25	0.03~18	2.5(typ.)	10	15	±1.0	12	1.8	16.2*12.2*7.4
QLA-50-90-15-32	0.05~0.09	3.2	10	15	±0.2	15	1.5	50*30*15
QLA-50-3000-17-15	0.05~3	1.5	15	17	±1.5	5	2	18.8*19.1*11.7
QLA-50-6000-25-40	0.05~6	4	22	25	±3	12	2	50*30*15
QLA-100-6000-16-10	0.1~6	1	21	16	±8	5	2	30*30*15
QLA-100-6000-25-25	0.1~6	2.5	15	25	±2	12	1.5	50*30*15
QLA-100-12000-25-25	0.1~12	2.5	15	25	±2	12	1.5	50*30*15
QLA-100-15000-45-22	0.1~15	2.2	5	45	±2.5	12	1.5	50*30*15
QLA-100-20000-25-40	0.1~20	4	20	25	±1.5	12	3	30*20*12
QLA-100-26500-30-30	0.1~26.5	3	20	30	±2.5	12	2	40*35*12
QLA-100-30000-18-55	0.1~30	5.5	15	18	±2.5	12	2.5	40*35*12
QLA-100-50000-28-50	0.1~50	5(typ.)	10	28	±3.0(max.)	12	3	21.8*17.8*7.4
QLA-200-2000-30-30	0.2~2	3	10	30	±2	5	2	50*30*20
QLA-200-6000-42-13	0.2~6	1.3	15	42	±2	12	2	50*30*15
QLA-200-10000-45-50	0.2~10	5	23	45	±2.0(max.)	12	2.2	35*40*12
QLA-300-40000-40-55	0.3~40	5.5(typ.)	14	40	±2.5	12	2.5	40*35*12
QLA-400-2000-25-20	0.4~2	2	20	25	±1.5	9	2.5	18.8*19.1*11.7
QLA-400-8000-40-25	0.4~8	2.5	14	40	±1.5	12	2	50*30*15
QLA-500-8000-20-16	0.5~8	1.6(typ.)	18(typ.)	20(typ.)	±1.0	6	3.5	18.8*19.1*11.7
QLA-500-18000-10-30	0.5~18	3(typ.)	12	10	±1.5	15	2	21.8*17.8*7.4
QLA-500-18000-14-30	0.5~18	3(typ.)	17	14	±0.75	15	2	16.2*17.8*7.4
QLA-500-18000-16-50	0.5~18	5	18	16	±1.5(max.)	12	2.2	38*20*8
QLA-500-18000-40-30	0.5~18	3	10	40	±1.5	12	2.5	40*35*12

The sizes in the following table do not include connectors. LNA system with AC 110~250V power supply is available.

Part Number	Frequency (GHz)	Noise Figure (dB)	P1dB (dBm)	Gain (dB)	Gain Flatness (dB)	Voltage* (V DC)	VSWR	Size* (mm)
QLA-500-18000-40-35	0.5~18	3.5	12	40	±2	5	2	50*30*15
QLA-500-40000-43-50	0.5~40	5	14	43	±2.5	12	2	40*35*12
QLA-600-4200-20-10	0.6~4.2	1(typ.)	21(typ.)	20(typ.)	±2(typ.)	5	2(typ.)	30*30*15
QLA-600-4200-30-08	0.6~4.2	0.8	21	30	±2.5	5	2	40*30*15
QLA-600-4200-35-10	0.6~4.2	1	21	35	±2	5	2	40*30*15
QLA-600-4200-55-11	0.6~4.2	1.1	21	55	±3	5	2	56*30*15
QLA-700-1100-20-25	0.7~1.1	2.5	13	20	±1	12	1.5	50*30*15
QLA-700-1100-25-25	0.7~1.1	2.5	13	25	±1.5	5	-	48.5*29
QLA-800-18000-25-35	0.8~18	3.5	13	25	±2.5	12	2	50*30*15
QLA-950-2150-20-20	0.95~2.15	2	15	20	±1.5	5	2	48.5*29*10
QLA-1000-6000-15-20	1~6	2	12	15	±4.5	5	2	50*30*20
QLA-1000-12000-25-50	1~12	5(typ.)	-	25	±1.5(max.)	12	2	39.1*18.8*9.27
QLA-1000-12000-28-30	1~12	3	15	28	±1.0	12	2	16.2*17.8*7.4
QLA-1000-18000-30-40	1~18	4	10	30	±1.5	12	1.5	50*30*15
QLA-1000-18000-40-32	1~18	3.2	8	40	±2	12	1.8	50*30*15
QLA-1000-18000-42-25	1~18	2.5	10	42	±1.5	9	2	21.8*17.8*7.4
QLA-1000-18000-45-30	1~18	3	10	45	±2	5, 12	1.5	50*30*15
QLA-1000-18000-47-25	1~18	2.5	10	50	±1.5	9	2	21.8*17.8*7.4
QLA-1000-18000-47-32	1~18	3.2	12	47	-	12	1.8	50*30*15
QLA-1000-18000-50-30	1~18	3	20	50	±2.5	12	2	50*30*15
QLA-1000-18000-55-22	1~18	2.2	10	55	±1.5	12	2.5	40*35*12
QLA-1000-20000-25-35	1~20	3.5	21	25	±2.5	12	2	50*30*15
QLA-1000-20000-40-40	1~20	4	16	40	±2	12	1.5	50*30*15
QLA-1000-40000-30-80	1~40	8	10	30	±3.0	12	2.5	21.8*17.8*7.4
QLA-2000-6000-30-15	2~6	1.5	2	30	±1.0	5	2	27.4*25.4*10
QLA-2000-6000-39-45	2~6	4.5	23	39	±0.8	10	2	27.508*27.762*9.703
QLA-2000-8000-20-40	2~8	4	8	20	±1.5	5	1.6	50*30*15
QLA-2000-10000-30-40	2~10	4	15	30	±1.0	12	2	40.208*27.762*9.703
QLA-2000-18000-12-32	2~18	3.2	13	12	±1.5	12	2	16.2*17.8*7.9
QLA-2000-18000-18-30	2~18	3	10	18	±1.5	12	1.5	50*30*15
QLA-2000-18000-18-40	2~18	4	19	18	±1.0	12	2	25*20*10
QLA-2000-18000-21-40	2~18	4	23	21	±1.0	12	2	34.5*16.8*7.6
QLA-2000-18000-28-30	2~18	3	10	28	±1.5	12	1.5	50*30*15
QLA-2000-18000-30-45	2~18	4.5	10	30	±2.0	12	2	16.2*17.8*7.4
QLA-2000-18000-34-30	2~18	3	22	34	±1.5	12	2.2	29.5*19.05*9.27
QLA-2000-26500-25-40	2~26.5	4	8	25	±2	12	1.8	50*30*15
QLA-2000-26500-48-50	2~26.5	5	10	48	±4.5	9	2.5	50*30*15
QLA-3000-12000-24-30	3~12	3	21	24	±1.5	12	1.5	50*30*15
QLA-3000-15000-15-30	3~15	3	8	15	±1.0	5	1.5	50*30*15
QLA-4000-8000-22-25	4~8	2.5	14	22	±1.0	12	2	16.2*17.8*7.4
QLA-4000-8000-40-11	4~8	1.1	10	40	±1.5	12	2	17.8*16.2*7.4
QLA-4000-12000-14-30	4~12	3	15	14	±2.0	12	2	27.2*17.8*7.4
QLA-4000-12000-30-15	4~12	1.5	10	30	±2.0	12	2	17.8*16.2*7.4
QLA-5000-10000-30-23	5~10	2.3	10	30	±1.2	5	1.5	50*30*15
QLA-5400-5900-35-08	5.4~5.9	0.8	10	35	±0.3	5	1.4	50*30*15
QLA-6000-18000-20-28	6~18	2.8	13	20	±1.2	12	2	27.6*27.8*9.9
QLA-6000-18000-25-50	6~18	5	10	25	±3	5	2	50*30*15
QLA-6000-18000-50-30	6~18	3	15	50	±1.5	12	2	50*30*15
QLA-8000-12000-15-40	8~12	4	13	15	±0.5	5	1.5	50*30*15
QLA-8000-12000-32-11	8~12	1.1	10	32	±1.0	12	2	17.8*16.2*7.4
QLA-8000-18000-20-40	8~18	4	8	20	±1.5	5	1.6	50*30*15
QLA-8000-26500-15-35	8~26.5	3.5	8	15	±1.5	5	1.5	50*30*15
QLA-8000-26500-40-65	8~26.5	6.5	18	40	±2	12	2	50*30*15
QLA-9000-10000-25-15	9~10	1.5	20	25	±0.5	9	1.8	50*30*15
QLA-10700-12750-25-30	10.7~12.75	3	8	25	±0.5	5	1.5	50*30*15
QLA-12000-18000-20-40	12~18	4	15	20	±1.5	12	1.5	50*30*15
QLA-12000-18000-36-18	12~18	1.8	10	36	±1.2	12	2	17.8*16.2*7.4
QLA-12000-40000-30-40	12~40	4	5	30	±2.5	12	2.5	50*30*15
QLA-16000-22000-35-25	16~22	2.5	19	35	±1.5	12	2	50*30*15
QLA-16000-40000-20-35	16~40	3.5	16	20	±3.5	5	2	50*30*15
QLA-17500-20200-20-20	17.5~20.2	2	2	20	±0.5	5	1.5	50*30*15

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QLA-17700-21200-30-80	17.7-21.2	8	10	30	±2	15-24	2	50*30*15
QLA-18000-26500-30-40	18-26.5	4	5	30	±1	12	1.8	50*30*15
QLA-18000-26500-48-25	18-26.5	2.5	10	48	±2.5	12	2.3	17.8*16.2*7.4
QLA-18000-26500-45-32	18-26.5	3.2	10	45	±2	5	1.8	50*30*15
QLA-18000-28000-20-40	18-28	4	8	20	±1.5	5	1.6	50*30*15
QLA-18000-40000-25-50	18-40	5	12	25	±1.5(max.)	12	2.5	16.2*17.8*7.4
QLA-18000-40000-25-50(P10)	18-40	5	10	25	±3	5	2	50*30*15
QLA-18000-40000-25-50(P15)	18-40	5	15	25	±2.5	12	2	50*30*15
QLA-18000-40000-30-50(P20)	18-40	5	20	30	±2.5	12	2.5	50*30*15
QLA-18000-40000-30-35	18-40	3.5	8	30	±2.5	12	2.2	17.8*16.2*7.4
QLA-18000-40000-40-45	18-40	4.5	6	40	±2.5	15	2	50*30*15
QLA-18000-40000-50-45	18-40	4.5	5	50	±3	15	2	50*30*15
QLA-20000-32000-40-25	20-32	2.5	10	40	±2.5	5	2	50*30*15
QLA-23000-25000-35-20	23-25	2	-3	35	±1.5	5	1.8	50*30*15
QLA-23000-40000-34-35	23-40	3.5	10	34	±2.5	12	2	50*30*15
QLA-24000-28000-30-40	24-28	4	10	30	±1	5	2	50*30*15
QLA-24000-30000-30-20	24-30	2	10	30	±1	5	1.5	50*30*15
QLA-25300-27200-50-18	25.3-27.2	2.1	5	49-51	±1	12	1.7	58*40*22.1
QLA-26000-40000-30-28	26-40	2.8	10	30	±2.5	12	2.3	17.8*16.2*7.4
QLA-26000-40000-30-30	26-40	3	-	30	-	15	2.2	40*40*24
QLA-26500-40000-20-30	26.5-40	3	5	20	±1.5	5	1.5	50*30*15
QLA-26500-40000-25-40	26.5-40	4	-	25	±2	5	1.8	40*19.1*19.1
QLA-39000-41000-30-32	39-41	3.2	10	30	±0.5	5	2	50*30*15
QLA-40000-53000-40-50	40-53	5	10	40	±2	5	2	50*30*15
QLA-50000-59000-40-55	50-59	5.5	10	40	±1	8	2	50.2*40*25
QLA-50000-75000-25-30	50-75	3	-	25	-	7	2	35*30*22
QLA-57000-67000-30-50	57-67	5	10	30	-	12	2	50*30*15
QLA-60000-90000-35-40	60-90	4	9	35	-	5	3	40*30*22
QLA-60000-90000-26-43	60-90	4.3	-	26	-	7	2	35*30*22
QLA-75000-110000-20.5-32	75-110	3.2	-	20.5	±2.5	10	2	35*30*24
QLA-75000-110000-38-36	75-110	3.6	-	38	-	10	2.2	35*30*22
QLA-110000-170000-16-40	110-170	4(typ.)	-	16	±3	7	2.2	35*30*22
QLA-140000-200000-15-45	140-200	4.5	-	15	±3	7	2.5	35*30*22
QLA-200000-230000-22-72	200-230	7.2	-	22	±3	8	2.5	35*30*22
QLA-230000-260000-19-85	230-260	8.5	-	19	-	8	3.5	35*30*22