

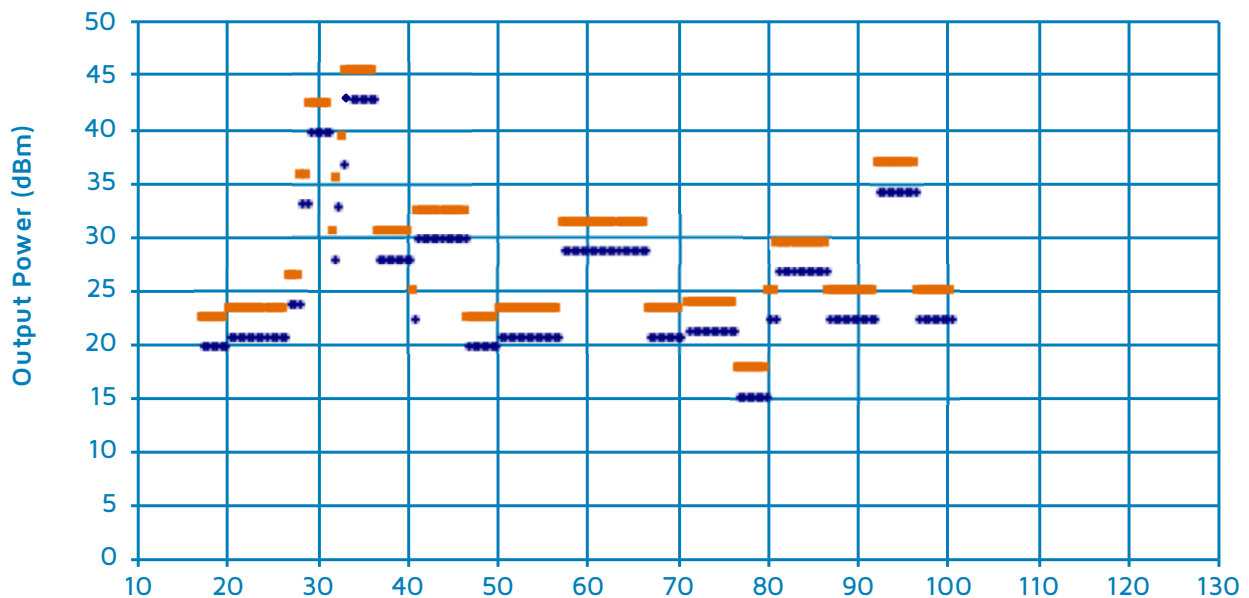
Technical Characteristics

Popular Models

Model Number	Frequency Range (GHz)	Gain (Typ.)(dB)	1dBCP (Typ.)(dBm)	PSAT (Typ.) (dBm)
AMP-28-40050	32.5 – 35.5	31	35	38
AMP-28-01090	33 - 35	17	30.5	32.5
AMP-15-02100	50 – 66	22	15	20
AMP-15-02640	57 – 70	15	24	28
AMP-15-40120	57 – 66	37	28	31
AMP-12-02280	71 – 76	22	15	18.5
AMP-12-02330	76 – 81	20	13	*
AMP-12-02290	80 – 90	20	14	16
AMP-10-02260	90 – 99	20	13	16
AMP-10-02680	80 – 100	10	20	22.5
AMP-10-03310	80 – 100	9	22.5	25
AMP-10-03290	80 – 105	15	*	15.5
AMP-10-02130	75 – 110	15	*	13

See specifications section for in-depth model descriptions

AMP Capabilities



Technical Characteristics

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Model Number	Flow (GHz)	F _{HIGH} (GHz)	Gain (typ.) (dB)	1dBCP (typ.) (dBm)	P _{SAT} (typ.) (dBm)	Connector	Current (A) (typ. at Psat) 3	Input Voltage (V) (min-max)	Max RF Input Power (dBm)	Outline Drawing
AMP-KK-01190 ²	18	23	23	30	*	2.92/2.4 mm	1.2	9 - 12	26	Fig. 1
AMP-42-01190	18	23	24	30.5	*	WR-42	1.2	9 - 12	26	Fig. 2
AMP-KK-01270 ²	17	24	19	29	*	2.92/2.4 mm	1.2	8.5 - 10	26	Fig. 1
AMP-42-02030	18	26.5	23 to 18	23	*	WR-42	0.8	7.5 - 15	23	Fig. 2
AMP-42-02230	18	26.5	19	26.5	*	WR-42	1.3	8 - 12	23	Fig. 2
AMP-KK-01020 ²	18.5	26.5	11	28	*	2.92/2.4 mm	1.15	8 - 12	*	Fig. 1
AMP-42-01020	18.5	26.5	12	28.5	*	WR-42	1.15	8 - 12	*	Fig. 2
AMP-42-02040	20	26.5	23	21	*	WR-42	0.6	8 - 15	23	Fig. 2
AMP-28-22330	25	27	26	28	*	WR-28	1.35	9 - 12	20	Fig. 4
AMP-KK-02230 ²	18	28	18	26	*	2.92/2.4 mm	1.3	8 - 12	23	Fig. 1
AMP-KK-01200 ²	28	31	21.5	33.5	34	2.92/2.4 mm	3.3	7 - 7.5	26	Fig. 1
AMP-28-01200	28	31	22.5	33.5	34	WR-28	3.3	7 - 7.5	26	Fig. 3
AMP-KK-01050 ²	28	31	20.5	26.5	*	2.92/2.4 mm	0.5	9 - 15	23	Fig. 1
AMP-28-01050	28	31	22	27	*	WR-28	0.5	9 - 15	23	Fig. 3
AMP-KK-01210 ²	28.5	31	18	28.5	29	2.92/2.4 mm	1.1	8 - 12	22	Fig. 1
AMP-28-01210	28.5	31	19.5	29	29.5	WR-28	1.1	8 - 12	22	Fig. 3
AMP-28-01290 ⁵	29	31	21	*	36	WR-28	1	22 - 26	30	*
AMP-28-61290 ⁵	29	31	40	*	43	WR-28	7	22 - 26	27	*
AMP-KK-02030 ²	18	32	22 to 16.5	23	*	2.92/2.4 mm	0.8	7.5 - 15	23	Fig. 1
AMP-28-02030	26.5	32	17	24	*	WR-28	0.8	7.5 - 15	23	Fig. 3
AMP-KK-02050 ²	27	35	16.5	22	*	2.92/2.4 mm	0.5	9 - 15	*	Fig. 1
AMP-28-02050	27	35	18	23	*	WR-28	0.5	9 - 15	*	Fig. 3
AMP-KK-01090 ²	31	35	15.5	30	32	2.92/2.4 mm	1.5	8 - 12	27	Fig. 1
AMP-28-01090	31	35	17	30.5	32.5	WR-28	1.5	8 - 12	27	Fig. 3
AMP-28-21180	31	35	37	28	*	WR-28	1.65	8 - 12	12	Fig. 4
AMP-22-01090	33	35	17	30.5	32.5	WR-22	1.5	8 - 12	27	Fig. 5
AMP-28-40040 ¹	32.5	35.5	33	37	40	WR-28	22	7.5 - 8	*	*
AMP-28-40050 ¹	32.5	35.5	31	35	38	WR-28	8	7.5 - 8	*	*
AMP-28-02320	30	36	21	23	*	WR-28	1.3	8 - 12	23	Fig. 3

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Model Number	Flow (GHz)	F _{HIGH} (GHz)	Gain (typ.) (dB)	1dBCP (typ.) (dBm)	PsAT (typ.) (dBm)	Connector	Current (A) (typ. at Psat) ³	Input Voltage (V) (min-max)	Max RF Input Power (dBm)	Outline Drawing
AMP-28-01230	32	36	17	33	35	WR-28	4	7.5 - 8	*	Fig. 3
AMP-KK-01170 ²	33	36	13.5	29	30.5	2.92/2.4 mm	1.4	9 - 12	27	Fig. 1
AMP-28-01170	33	36	15	30	31.5	WR-28	1.4	9 - 12	27	Fig. 3
AMP-22-01170	33	36	15	30	31.5	WR-22	1.4	9 - 12	27	Fig. 5
AMP-28-01280 ⁵	33	36	11	*	41	WR-28	2	30 - 34	37	*
AMP-28-41280 ⁵	33	36	21	*	46.5	WR-28	10	30 - 34	37	*
AMP-28-01260	34	36	17	*	35	WR-28	*	9 - 12	*	Fig. 3
AMP-KK-02410 ²	17	40	20	20	*	2.92/2.4 mm	0.4	8 - 15	20	Fig. 1
AMP-KK-02040 ²	20	40	18	19	*	2.92/2.4 mm	1.3	8 - 15	23	Fig. 1
AMP-28-02410	26	40	22	20	*	WR-28	0.4	8 - 15	20	Fig. 3
AMP-28-02040	26.5	40	24@26.5 GHz 20@40 GHz	24	*	WR-28	1.3	8 - 15	23	Fig. 3
AMP-KK-01180 ²	30	40	13	28	30	2.92/2.4 mm	2	7.5 - 8	24	Fig. 1
AMP-28-01180	30	40	15	28	31	WR-28	2	7.5 - 8	24	Fig. 3
AMP-28-22320	30	40	36	19	*	WR-28	0.35	8 - 15	12	Fig. 4
AMP-22-01180	33	40	15	28	31	WR-22	2	7.5 - 8	24	Fig. 5
AMP-KK-01100 ²	36	40	11	26.5	*	2.92/2.4 mm	1.5	9 - 12	27	Fig. 1
AMP-28-01100	36	40	13	27.5	*	WR-28	1.5	9 - 12	27	Fig. 3
AMP-22-01100	36	40	13	27.5	*	WR-22	1.5	9 - 12	27	Fig. 5
AMP-22-02250	36	42.5	13.5	25.5	*	WR-22	1.1	8 - 12	20	Fig. 5
AMP-28-02460	32	45	14	22.5	25	WR-28	0.45	7.5 - 12	20	Fig. 3
AMP-22-02040	33	45	18	19	*	WR-22	1.3	6 - 15	23	Fig. 5
AMP-22-02070	37	45	20	21.5	*	WR-22	0.6	7.5 - 15	10	Fig. 5
AMP-22-22070	37	45	40	20	*	WR-22	1.2	6 - 12	-10	*
AMP-22-01160	40	45	9	26.5	*	WR-22	1	9 - 10	27	Fig. 5
AMP-22-01120	41	46	13	30	31	WR-22	2.7	8 - 10	29	Fig. 5
AMP-19-01120	41	46	13	30	31	WR-19	2.7	8 - 10	29	Fig. 6
AMP-22-01240	42	47	22	*	32.5	WR-22	*	8 - 10	*	Fig. 5
AMP-VV-02470	42	47	34	30	33	1.85 mm	2	7.5 - 10	10	Fig. 1
AMP-22-40060 ¹	42	47	41	*	37.5	WR-22	*	* - *	*	*

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Model Number	F _{LOW} (GHz)	F _{HIGH} (GHz)	Gain (typ.) (dB)	1dBCP (typ.) (dBm)	P _{SAT} (typ.) (dBm)	Connector	Current (A) (typ. at P _{sat}) 3	Input Voltage (V) (min-max)	Max RF Input Power (dBm)	Outline Drawing
AMP-19-40090 ¹	47	52	29	18.5	21	WR-19	*	* - *	-10	*
AMP-VV-02420	40	60	17	12.5	*	1.85 mm	0.35	6 - 8	10	Fig. 1
AMP-19-02420	40	60	16	13.5	*	WR-19	0.35	6 - 8	10	Fig. 6
AMP-19-02100	50	60	22	15	*	WR-19	0.25	7.5 - 15	2	Fig. 6
AMP-15-41050 ¹	59	63	36	19	*	WR-15	*	7.5 - 12	*	*
AMP-15-03200	60	64	20	*	27.5	WR-15	0.8	7.5 - 10	*	*
AMP-15-02100	50	66	22	15	*	WR-15	0.25	7.5 - 15	2	Fig. 7
AMP-15-02550 ⁴	55	66	20.5	14.5	17	WR-15	0.2	8 - 15	0	Fig. 7
AMP-15-20060	57	66	14	25.5	28.5	WR-15	1.5	7.5 - 15	0	*
AMP-15-40120 ¹	57	66	37 (57 - 63 GHz) 33@66 GHz	28	31	WR-15	4.5	* - *	6	*
AMP-15-03100	60	66	20	17.5	19.5	WR-15	0.5	7.5 - 12	2	*
AMP-15-02390	60	68	20 (60-65 GHz) 17.5 (66-68 GHz)	*	25	WR-15	0.8	6 - 12	*	Fig. 7
AMP-15-03300	60	68	20 (60-65 GHz) 17.5 (66-68 GHz)	*	27.5	WR-15	1.6	6 - 12	0	*
AMP-15-02630	50	70	17	17 (50-60GHz) 21 (60-70GHz)	18 (50-57GHz) 22 (57-70GHz)	WR-15	0.35	7.5 - 15	*	Fig. 7
AMP-15-02640	53	70	20 @ 53 GHz 18 @ 62 GHz 15 @70 GHz	21 @ 53 GHz 24 (57-68 GHz) 23.5 @ 70 GHz	24 @ 53 GHz 26 (57-68 GHz) 25 @ 70 GHz	WR-15	0.75	7.5 - 15	*	Fig. 7
AMP-15-20050	53	70	13 - 22 See plot	25 (53-57 GHz) 27 (57-70 GHz)	26 (53-57 GHz) 28 (57-70 GHz)	WR-15	1.5	7.5 - 15	*	*
AMP-12-02280	71	76	22	15	18.5	WR-12	0.25	7.5 - 15	3	Fig. 8
AMP-12-03120	71	76	20	17.5	21	WR-12	0.5	7.5 - 15	3	*
AMP-12-02480	71	76	11	21.5	23	WR-12	0.5	7.5 - 12	13	*
AMP-12-02530	71	76	17.0 @ 71 GHz 17.0 @ 73.5 GHz 16.0 @ 76 GHz	24.5 @ 71GHz 24.5 @ 73.5 GHz 23.0 @ 76 GHz	27.0 @ 71 GHz 26.5 @ 73.5 GHz 26.0 @ 76 GHz	WR-12	0.73	7.5 - 12	15	Fig. 8
AMP-12-02540	71	76	17.0 @ 71 GHz 17.0 @ 73.5 GHz 16.0 @ 76 GHz	26.0 @ 71 GHz 27.0 @ 73.5 GHz 23.0 @ 76 GHz	29.5 @ 71 GHz 29.0 @ 73.5 GHz 28.0 @ 76 GHz	WR-12	1.5	7.5 - 12	18	*
AMP-12-03270 ¹	71	76	33	28.5 @ 71 GHz 29.5 @ 73.5 GHz 28.0 @ 76 GHz	31.5 @ 71 GHz 31.5 @ 73.5 GHz 30.5 @ 76 GHz	WR-12	3.75	7.5 - 9	-5	*
AMP-12-10010 ⁵	71	76	15.5	26	28.5	WR-12	0.36	14 - 18	*	Fig. 8
AMP-12-20010 ⁵	71	76	15	28.6	31.1	WR-12	0.71	14 - 18	*	*
AMP-12-41010 ⁵	71	76	28	31.3	33.8	WR-12	1.78	14 - 18	*	*
AMP-12-10010 ⁵	71	76	15.5	26	28.5	WR-12	0.36	14 - 18	*	Fig. 8
AMP-12-20010 ⁵	71	76	15	28.6	31.1	WR-12	0.71	14 - 18	*	*

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Model Number	F _{LOW} (GHz)	F _{HIGH} (GHz)	Gain (typ.) (dB)	1dBCP (typ.) (dBm)	P _{SAT} (typ.) (dBm)	Connector	Current (A) (typ. at P _{sat}) 3	Input Voltage (V) (min-max)	Max RF Input Power (dBm)	Outline Drawing
AMP-12-41010 ⁵	71	76	28	31.3	33.8	WR-12	1.78	14 - 18	*	*
AMP-12-02610	71	76	15	19	21	WR-12	0.37	7.5 - 12	12	Fig. 8
AMP-12-02650	68	78	24	24 @ 68 GHz 24 @ 73.5 GHz 22 @ 78 GHz	26 @ 68 GHz 26.5 @ 73.5 GHz 24 @ 78 GHz	WR-12	1	7.5 - 15	*	Fig. 8
AMP-12-20070	68	78	22	26 @ 68 GHz 26 @ 73.5 GHz 24 @ 78 GHz	28 @ 68 GHz 28.5 @ 73.5 GHz 26 @ 78 GHz	WR-12	2	7.5 - 15	*	*
AMP-12-02330	76	81	20	13	*	WR-12	0.2	7.5 - 15	5	Fig. 8
AMP-12-03130	76	84	15	15.5	17.5	WR-12	0.4	7.5 - 15	*	*
AMP-12-02520	81	86	12.5	21.5	24.5	WR-12	0.7	7.5 - 10	16	Fig. 8
AMP-10-02520	81	86	12.5	21.5	24.5	WR-10	0.7	7.5 - 10	16	Fig. 9
AMP-12-02490	81	86	10	21	22.5	WR-12	0.5	7.5 - 12	12	*
AMP-10-02510	81	86	12	24	27	WR-10	1.6	7.5 - 12	19	*
AMP-12-02510	81	86	12	24	27	WR-12	1.6	7.5 - 12	19	Fig. 12
AMP-12-40100 ¹	81	86	29	27	29.5	WR-12	*	* - *	*	*
AMP-10-02440	81	86	9	17.5	20.5	WR-10	0.24	7.5 - 15	13	Fig. 9
AMP-12-10020 ⁵	81	86	17.5	25.4	29	WR-12	0.39	14 - 18	*	Fig. 8
AMP-12-20020 ⁵	81	86	16.5	28	31.6	WR-12	0.77	14 - 18	*	Fig. 12
AMP-12-41020 ⁵	81	86	32	30.7	34.3	WR-12	1.93	* - *	0	*
AMP-12-02620	81	86	12.5	18.5	20	WR-12	0.4	7.5 - 12	12	Fig. 8
AMP-12-41021 ⁵	81	86	16	30.7	34.3	WR-12	1.6	* - *	0	*
AMP-12-02310	75	87	21 @ 75 GHz 16 @ 87 GHz	12	15	WR-12	0.2	7.5 - 15	5	Fig. 8
AMP-10-02310	75	87	21 @ 75 GHz 16 @ 87 GHz	12	15	WR-10	0.2	7.5 - 15	5	Fig. 9
AMP-12-02660	76	87	18 @ 76 GHz 20 @ 81 GHz 17 @ 87 GHz	20 @ 76 GHz 23 @ 81 GHz 22 @ 87 GHz	22 @ 76 GHz 25 @ 80 GHz 24 @ 87 GHz	WR-12	0.9	7.5 - 15	*	Fig. 8
AMP-12-20080	76	87	17 @ 75 GHz 19 @ 81 GHz 16 @ 87 GHz	22.5 @ 76 GHz 25.5 @ 81 GHz 24.5 @ 87 GHz	24.5 @ 76 GHz 27.5 @ 80 GHz 26.5 @ 87 GHz	WR-12	1.8	7.5 - 15	*	*
AMP-12-02670	69	89	21	14 to 18 (69-85 GHz) 18 to 16 (85-90 GHz)	16 to 20 (69-85 GHz) 20 to 17 (85-90 GHz)	WR-12	0.3	7.5 - 15	2	Fig. 8
AMP-12-20090	69	89	19	16 to 20 (69-85 GHz) 20 to 18 (85-90 GHz)	18 to 22 (69-85 GHz) 22 to 19 (85-90 GHz)	WR-12	0.9	7.5 - 15	8	*
AMP-12-02500	75	90	15	10	13	WR-12	0.25	7.5 - 15	10	Fig. 8
AMP-12-02290	80	90	20	14	16	WR-12	0.25	7.5 - 15	3	Fig. 8
AMP-10-02290	80	90	20	14	16	WR-10	0.25	7.5 - 15	3	Fig. 9

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Model Number	Flow (GHz)	F _{HIGH} (GHz)	Gain (typ.) (dB)	1dBCP (typ.) (dBm)	P _{SAT} (typ.) (dBm)	Connector	Current (A) (typ. at Psat) 3	Input Voltage (V) (min-max)	Max RF Input Power (dBm)	Outline Drawing
AMP-10-02150	91	95	9	*	22	WR-10	0.3	7.5 - 15	15	Fig. 9
AMP-10-22191	91	95	30	*	22	WR-10	0.6	7.5 - 15	5	Fig. 10
AMP-10-40080 ¹	91	95	15	*	27	WR-10	1.5	* - *	*	*
AMP-10-03220	92	95	9	22	24.5	WR-10	0.7	7.5 - 15	15	*
AMP-10-03250	93	95	10	30.5	33	WR-10	6	7.5 - 8.5	15	*
AMP-10-03260	93.5	95	18	27	30	WR-10	5	7 - 8.5	5	*
AMP-10-10030 ⁵	90	96	14	23.5	29	WR-10	0.35	14 - 18	*	Fig. 9
AMP-10-20030 ⁵	90	96	13	26	31.6	WR-10	0.7	14 - 18	*	*
AMP-10-41030 ⁵	90	96	27	28.5	34	WR-10	1.75	14 - 18	*	*
AMP-10-02370	92	96	14.5	17	20	WR-10	0.3	7.5 - 15	12	Fig. 9
AMP-10-22381	92	96	33	17	20	WR-10	0.6	7.5 - 15	*	Fig. 10
AMP-10-01300 ⁵	92	96	15	*	30	WR-10	0.4	19 - 23	25	*
AMP-10-41300 ⁵	92	96	29	*	35	WR-10	2	19 - 23	25	*
AMP-10-22361	84	98	26 @ 84GHz 32 @ 90 GHz 43 @ 98 GHz	16.5	18.5	WR-10	0.5	7.5 - 15	-14	Fig. 10
AMP-10-03230	92	98	20	18.5	21	WR-10	0.6	7.5 - 15	8	*
AMP-10-40130 ¹	92	98	38	*	21	WR-10	1.5	* - *	*	*
AMP-10-02260	90	99	20	13	16	WR-10	0.3	7.5 - 15	5	Fig. 9
AMP-10-02680 ⁵	80	100	10	20	22.5	WR-10	0.9	7.5 - 15	23	Fig. 9
AMP-10-22311 ⁵	80	100	20	20	22.5	WR-10	1.8	7.5 - 12	10	Fig. 10
AMP-10-03310 ⁵	80	100	9	22.5	25	WR-10	1.8	7.5 - 12	25	*
AMP-10-03290	80	105	15	*	15.5	WR-10	0.4	7.5 - 10	2	*
AMP-10-02580	80	105	16	*	13.5	WR-10	0.2	7.5 - 10	0	Fig. 9
AMP-10-02130	75	110	17 @ 75 GHz 12.5 @ 95 GHz 12.0 @ 110 GHz	*	13.5 @ 75 GHz 12.5 @ 95 GHz 13.5 @ 110 GHz	WR-10	0.2	7.5 - 15	10	Fig. 9
AMP-10-03280	75	110	16 @ 75 GHz 11.5 @ 95 GHz 11.0 @ 110 GHz	*	15.5 @ 75 GHz 14.5 @ 95 GHz 15.5 @ 110 GHz	WR-10	0.4	7.5 - 15	12	*

* Please contact our Northampton, MA office for details.

1. These models require an additional negative bias at -5V, not exceeding 500 mA.

2. For 2.4 mm, substitute "QQ" for "KK" in the model number.

3. Quiescent current is 50-70% of current at Psat.

4. Doubles as an LNA with 5 dB NF.

5. Preliminary data. Final specs to come soon.

Some model numbers are ITAR controlled. Please contact our Northampton, MA office for details.