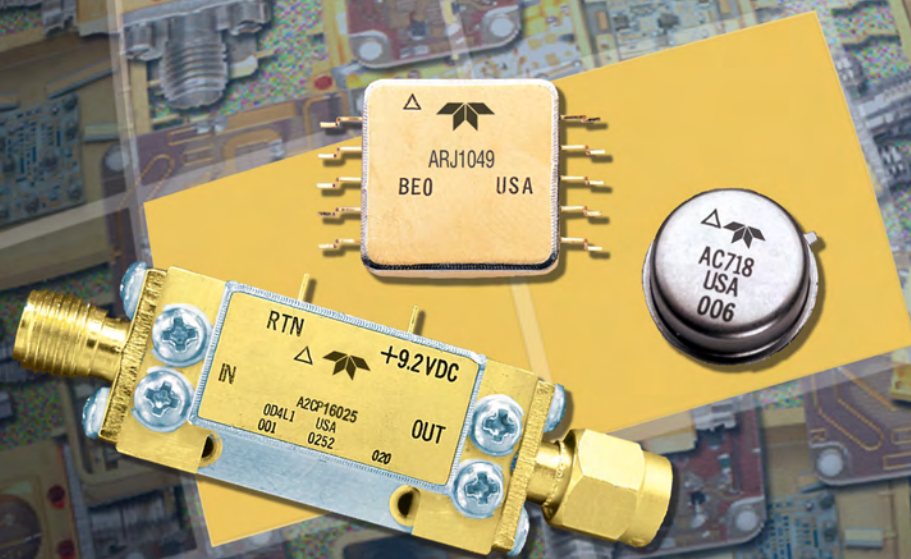


Amplifiers

Catalog Products (EAR99/Non-ITAR)



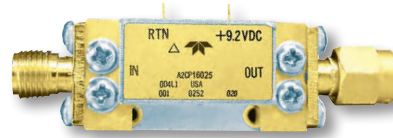
Teledyne Microwave Solutions (TMS) offers a variety of high power cascadable amplifiers operating over a 1MHz to 20GHz range. Operating over many octaves, with many customized power and noise ranges, TMS has amplifier products to meet your demanding needs. Markets include: aerospace, space, military, industrial and commercial.



TELEDYNE MICROWAVE SOLUTIONS
Everywhereyoulook™

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System



Model	Frequency Range MHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB			Power Output At 1dB Compression dBm			Rev. Iso. dB	Intercept Point dBm	SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Typ.	Max. 0/50C	Max. -55/85C	Typ.	Min. 0/50C	Min. -55/85C			Typ.	3rd/2nd Typ.	Max. 0/50C	Max. -55/85C
Listed by model number																		
UTO-103	10-100	27.0	25.5	24.5	1.0	1.0	1.6	2.1	2.4	11.0	9.5	9.0	31	22/33	2.0	2.0	5	15
A2CP104	1-100	8.4	7.8	7.3	0.3	0.7	1.5	1.9	2.4	22.5	21.0	21.0	11	40/55	1.5	1.6	15	43
AC105	1-150	15.0	14.0	13.5	0.5	0.7	2.5	3.0	3.5	15.0	14.5	14.0	27	30/42	1.9	2.0	5	35
ACH107	10-200	18.0	17.0	16.5	0.4	0.7	2.2	2.7	3.2	16.0	15.5	15.0	36	31/38	1.8/1.5	2.0/1.7	15	33
AP108	1-150	15.0	14.5	14.0	0.4	0.5	3.3	4.0	4.5	25.0	24.0	23.5	28	43/60	1.9	2.0	15	109
ARJ109	0.5-200	10.8	10.0	9.5	0.5	0.7	4.5	5.2	5.7	28.5	27.5	27.0	17	44/75	1.8	1.9	15	235
UTO-111	10-100	11.5	10.5	10.0	0.3	0.5	1.4	1.7	2.0	16.8	15.5	15.5	15	33/47	2.0	2.0	15	14
AP148	1-200	11.0	10.5	10.0	0.4	0.6	3.5	4.2	4.7	25.0	24.5	24.0	19	43/59	1.7	1.8	15	109
AC155	5-150	14.8	14.0	13.5	0.6	0.8	2.2	2.6	3.0	15.5	14.5	14.0	27	30/41	1.8/1.7	2.0/1.9	5	34
ARS169	1-150	28.3	27.0	26.0	0.5	0.8	2.3	3.2	3.8	23.0	22.0	21.5	65	40/62	1.7	2.0	15	147
ARH209	10-250	10.8	10.0	9.5	0.8	1.0	5.0	5.7	6.3	28.0	27.0	26.5	17	44/70	1.8	1.9	15	235
UTO-210	10-200	9.0	8.0	7.5	1.0	1.0	1.5	2.0	2.5	13.0	11.0	11.0	11	29/40	2.0	2.0	15	15
UTO-211	10-200	8.5	7.5	7.5	1.0	1.0	2.0	2.7	3.0	20.0	17.0	16.0	11	31/45	2.0	2.0	15	30
UTO-221	10-200	28.5	27.0	26.0	0.7	1.0	2.0	2.5	3.0	15.5	13.5	13.0	33	23/28	2.0	2.0	15	29
UTO-222	20-200	29.5	28.0	27.0	0.7	1.0	2.9	3.6	4.5	21.0	18.0	17.0	35	28/34	2.0	2.0	15	47
AC238	5-200	32.0	31.0	30.0	0.4	0.7	2.6	3.0	3.5	15.5	14.5	14.0	38	30/48.5	1.3	1.4	5	64
AC251	10-200	8.0	7.5	7.0	0.3	0.4	1.2	1.7	2.2	13.2	12.0	11.5	11	30/49	1.5	1.7	5	11
AC262	30-250	8.0	7.5	6.8	0.5	0.7	1.3	1.8	2.3	19.3	17.0	16.5	11	35/54	1.9	2.0	15	23
AC263	30-200	8.3	7.5	6.8	0.5	0.7	1.5	2.0	2.5	22.5	21.5	20.5	11	37/53	2.0	2.0	15	37
AC264	30-250	8.3	7.5	6.8	0.5	0.7	2.0	2.3	2.7	22.5	21.8	21.3	11	43/55	2.0	2.0	15	45
AC271	10-250	8.0	7.5	7.0	0.5	0.7	1.5	1.9	2.3	14.0	13.0	12.5	11	30/49	1.8	2.0	15	14.5
AC272	10-250	8.0	7.5	7.0	0.5	0.7	2.0	2.5	3.0	18.5	17.5	17.0	11	32/46	2.0	2.1	15	23
AC273	30-250	8.0	7.5	7.0	0.5	0.7	2.4	3.0	3.5	20.5	20.0	19.5	11	36/50	2.0	2.0	15	37
AC281	10-250	28.5	27.5	27.0	0.5	0.7	2.3	2.6	3.0	16.2	15.5	14.5	34	29/33	1.8/2.0	2.0/2.1	15	27
AC282	10-250	29.0	28.5	28.0	0.5	0.7	3.0	3.4	3.8	21.0	20.0	19.5	35	33/40	1.8/2.0	2.0/2.1	15	47
AC293	10-200	28.8	28.3	27.8	0.4	0.5	2.0	2.5	3.0	17.5	17.0	16.5	34	28/35	1.8	1.9	15	33
AP294	10-200	29.3	28.5	28.0	0.4	0.5	3.5	4.0	4.5	22.5	21.5	21.0	36	32/44	1.7/1.9	1.8/2.0	15	60
AC305	10-250	11.8	11.0	10.5	0.4	0.6	2.1	2.6	3.1	15.5	15.0	14.5	18	31/46	1.8/1.5	2.0/1.6	5	36
AP308	10-250	13.0	12.5	12.0	0.5	0.7	3.7	4.0	4.5	23.0	22.0	21.5	17	35/48	1.9/1.7	2.0/1.8	8	93
AC345	5-250	13.0	12.5	12.0	0.5	0.7	2.0	2.5	3.0	12.0	11.0	10.5	17	25/33	1.6/1.3	1.7/1.5	15	30
AC347	5-250	13.0	12.5	12.0	0.5	0.7	2.3	2.7	3.2	15.5	14.5	14.0	17	28/41	1.6/1.3	1.7/1.5	15	46
AP348	10-250	13.5	12.5	12.0	0.4	0.6	3.2	4.0	4.5	25.0	24.0	23.5	17	42/57	1.7	1.8	15	108
ARH356 [^]	10-300	15.5	15.0	14.5	0.3	0.4	2.5	3.0	3.5	15.0	14.5	14.0	23	32/40	1.9	2.0	5	30
AC378	5-300	14.0	13.2	13.0	0.5	0.7	5.0	6.0	6.5	19.5	18.0	17.5	18	34/49	1.7	1.8	15	65
AC379	5-300	14.0	13.2	13.0	0.5	0.7	5.0	6.0	6.5	22.5	21.5	20.5	18	39/51	1.7	1.8	15	88
AC380	10-250	25.0	24.0	23.7	0.5	0.7	1.7	2.3	2.8	9.0	7.5	7.0	30	22/31	2.0	2.0	15	17
AC381	10-250	24.0	23.0	22.7	0.5	0.7	2.7	3.3	3.8	16.0	15.0	14.5	29	29/38	2.0/1.7	2.0/1.8	15	27
AC382	10-250	24.0	23.0	22.7	0.5	0.7	3.3	4.0	4.5	21.0	20.0	19.0	29	34/43	2.0/1.7	2.0/1.8	15	47
AC383	10-250	35.0	34.0	33.0	0.7	1.0	1.7	2.5	3.0	0.5	-1.0	-2.0	47	11/19	1.7	1.9	5	14
AC386	10-250	28.0	27.0	26.5	0.7	0.8	2.6	3.3	3.8	8.0	7.5	7.0	40	20/33	1.7	1.8	5	21
AP388	10-250	14.0	13.0	12.5	0.5	0.7	5.0	5.5	6.0	23.0	22.0	21.5	20	37/45	1.9	2.0	15	65
AP389	10-250	24.5	23.0	22.5	0.7	0.8	3.3	4.3	4.8	23.0	22.0	21.5	29	36/46	1.8	1.8	15	65
AC391	10-250	24.0	23.0	22.7	0.5	0.7	3.0	3.5	4.0	19.0	18.0	17.5	29	31/40	2.0/1.7	2.0/1.8	15	37

Current data sheets available on website. Shaded models indicate typical output power ≥+20 dBm.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB			Power Output At 1dB Compression dBm			Rev. Iso. dB	Intercept Point dBm	SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Typ.	Max. 0/50C	Max. -55/85C	Typ.	Min. 0/50C	Min. -55/85C			Typ.	3rd/2nd Typ.	Max. 0/50C	Max. -55/85C
Listed by model number																		
AC437	10-400	12.7	12.0	11.5	0.5	0.7	4.7	5.3	6.0	16.5	15.5	15.0	19	32/44	1.7/2.0	1.9/2.0	15	33
UTO-440	10-400	13.0	12.5	12.0	0.7	0.7	3.6	4.5	5.0	9.0	8.0	7.5	19	23/26	2.0	2.0	15	15
UTO-441	20-400	14.4	13.5	13.0	0.7	0.7	3.7	4.5	5.0	16.0	15.0	15.0	21	32/44	2.0	2.0	15	32
UTO-442	20-400	14.0	13.0	12.5	0.7	0.7	4.7	5.5	6.0	21.5	20.0	19.0	19	33/47	2.0	2.0	15	62
UTO-443	10-400	13.2	12.5	12.0	0.7	0.7	3.6	4.5	5.0	5.5	4.5	4.0	20	19/25	2.0	2.0	5	10
UTO-444	10-400	13.0	12.5	12.0	0.7	0.7	4.0	5.0	5.5	8.7	8.0	7.5	20	22/35	2.0	2.0	5	15
AP448	10-400	10.5	10.0	9.5	0.5	0.6	4.3	4.8	5.3	24.8	24.0	23.5	17	42/53	1.7/1.5	1.8/1.6	15	110
AC453	10-400	14.8	13.5	13.0	0.5	0.7	2.8	4.0	4.5	5.5	4.5	4.0	18	17/24	1.8/2.0	1.9/2.0	5	10.5
AC457	10-400	15.3	14.5	14.0	0.7	0.9	3.0	3.5	4.0	10.5	9.0	8.5	21	25/37	1.8/2.0	1.9/2.0	5	15.5
AC487	10-400	15.5	14.5	14.0	0.7	0.9	3.6	4.0	4.5	17.0	15.5	15.0	21	32/44	1.7/2.0	1.9/2.0	15	33
AC501	5-500	16.2	15.0	14.3	0.5	0.7	2.1	3.0	3.5	-1.5	-2.0	-3.5	20	11/10	1.8	2.0	15	10
UTO-502	5-500	14.5	14.0	13.5	1.0	1.0	3.5	4.0	4.5	8.0	7.0	7.0	21	21/30	2.0	2.0	15	23
UTO-503	5-500	10.0	9.0	8.5	1.0	1.0	4.5	5.0	6.0	15.0	13.0	13.0	17	29/42	2.0	2.0	24	50
AC505	0.3-500	15.0	14.0	13.5	0.5	0.7	3.3	4.0	4.5	10.0	8.0	7.0	20	21/36	2.0	2.0	15	24
UTO-505	10-500	10.5	9.0	9.0	1.0	1.0	6.0	7.0	7.5	20.0	18.0	18.0	18	29/35	2.0	2.0	15	100
AC508	10-500	13.5	13.0	12.5	0.5	0.7	3.5	5.0	5.5	19.5	18.5	18.0	18	33/46	1.7	1.9	15	65
AC509	5-500	13.3	12.5	12.0	0.5	0.7	4.2	5.0	5.5	21.5	20.5	20.0	18	34/45	1.7	1.9	15	88
UTO-509	5-500	14.3	13.0	12.0	0.7	1.0	4.5	5.5	6.0	22.3	20.0	20.0	18	35/45	2.0	2.0	15	90
UTO-511	5-500	16.0	15.0	15.0	1.0	1.0	2.3	2.5	3.0	1.0	-2.0	-3.0	23	12/16	2.0	2.0	15	10
UTO-512	5-500	21.0	20.0	19.0	1.0	1.0	2.5	3.0	3.0	8.0	7.0	7.0	27	20/25	2.0	2.0	15	23
AC513	5-500	20.0	19.5	19.0	0.5	0.8	1.9	2.3	2.8	3.5	2.0	1.5	24	16/17	1.7	2.0	15	14
UTO-514	30-200	16.0	15.0	14.5	0.8	1.0	1.9	2.0	2.5	-2.0	-3.0	-4.0	22	7/6	2.0	2.0	15	8
AC514	5-500	21.0	20.0	19.5	0.5	0.8	2.9	3.5	4.0	13.0	11.5	11.0	25	24/37	1.7	2.0	15	32
UTO-516	5-500	14.5	14.0	13.5	1.0	1.0	4.0	4.5	5.0	12.5	10.0	9.5	22	24/37	2.0	2.0	15	35
UTO-517	5-500	22.5	22.0	21.0	1.0	1.0	2.0	2.5	3.0	6.5	5.0	4.0	29	15/22	2.0	2.0	15	22
AC518	5-500	28.0	26.5	26.0	0.5	0.7	4.0	4.7	5.2	19.3	18.5	17.0	36	32/50	1.7	1.8	15	96
UTO-518	5-500	13.7	13.0	12.0	0.7	1.0	5.5	6.0	6.5	24.5	22.5	22.0	17	35/36	2.0	2.0	15	130
AC519	5-500	27.5	26.5	26.0	0.5	0.7	3.5	4.5	5.0	21.8	20.5	20.0	36	33/44	1.7	1.8	15	127
UTO-519	5-500	14.3	13.0	12.0	0.7	1.0	4.4	5.5	6.0	19.0	18.0	17.0	19	29/31	2.0	2.0	15	70
UTO-520	5-500	14.5	14.0	13.0	0.7	1.0	3.5	4.5	5.0	13.0	11.0	10.0	19	22/21	2.0	2.0	5	33
UTO-521	50-500	30.0	27.0	27.0	1.0	1.0	3.0	4.0	4.5	7.0	6.0	5.5	41	18/25	2.0	2.0	15	38
UTO-523	5-500	25.5	23.0	23.0	1.0	1.0	3.5	7.0	7.0	13.5	12.0	12.0	42	25/33	2.0	2.0	15	80
AC524	5-500	31.5	30.0	29.0	0.7	1.0	3.0	4.0	4.5	8.5	7.5	7.0	40	20/33	1.7	2.0	15	35
UTO-524	5-500	31.0	30.0	30.0	1.0	1.0	3.0	4.0	4.0	17.0	14.0	14.0	40	27/34	2.0	2.0	15	70
AC525	5-500	31.5	30.0	29.0	0.7	1.0	3.2	4.2	4.7	12.0	10.5	10.0	40	24/37	1.7	2.0	15	48
UTO-526	10-500	28.0	26.5	26.0	0.7	1.0	3.0	4.0	4.5	21.0	19.0	18.5	33	32/42	2.0	2.0	15	93
AS529	100-500	29.5	28.0	27.0	0.7	0.9	1.0	1.2	1.4	19.5	18.0	17.5	45	32/54	1.4	1.5	5	185
UTO-533	5-500	17.0	16.0	15.0	0.7	1.0	3.5	5.0	5.5	17.0	14.0	13.0	23	30/43	2.0	2.0	15	53
AC534	5-500	26.5	26.0	25.5	0.5	0.8	2.7	3.3	3.8	4.0	3.5	3.0	38	12/30	1.7	1.8	5	16
AC536	5-500	28.0	27.5	27.0	0.5	0.8	3.3	3.8	4.3	15.5	15.0	14.5	37	28/46	1.7	1.8	8	62
AC538	5-500	27.5	27.0	26.5	0.5	0.8	2.8	3.5	4.0	12.5	11.5	11.0	37	27/50	1.7	1.8	5	47
AC540	10-500	12.5	11.5	11.0	0.5	0.8	1.8	2.5	3.0	4.5	3.5	3.0	18	17/24	1.8	2.0	15	15
AC541	20-500	15.5	14.5	14.0	0.7	1.0	2.8	3.3	4.0	6.5	5.5	5.0	37	20/26	2.0/1.5	2.0/1.5	15	27
AC542	20-500	17.5	16.5	16.0	0.7	1.0	3.3	3.8	4.5	14.0	13.5	13.0	36	28/35	2.0/1.5	2.0/1.5	15	47
AC543	10-500	11.3	10.5	10.0	0.4	0.6	2.5	3.0	3.5	10.0	9.0	8.5	19	26/38	1.8	2.0	15	24
UTO-543	10-500	11.0	10.0	9.0	1.0	1.0	2.5	2.5	3.0	8.0	6.0	6.0	17	22/30	2.0	2.0	15	25
AC544	10-500	11.5	10.5	10.0	0.4	0.6	2.7	3.3	3.8	13.5	12.5	12.0	18	29/42	1.8	2.0	15	35
UTO-544	10-500	11.0	10.0	9.0	1.0	1.0	2.5	3.0	3.5	13.0	12.0	11.0	15	28/40	2.0	2.0	15	36
AC545	10-500	12.8	12.5	12.0	0.5	0.8	2.5	3.0	3.5	9.3	8.0	7.5	17	25/33	1.8	2.0	15	24
UTO-545	10-500	10.5	10.0	10.0	0.5	0.5	4.5	5.0	5.5	19.0	17.0	16.0	21	32/45	2.0	2.0	15	60

Current data sheets available on website. Shaded models indicate typical output power $\geq +20$ dBm.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB			Power Output At 1dB Compression dBm			Rev. Iso. dB	Intercept Point dBm	SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Typ.	Max. 0/50C	Max. -55/85C	Typ.	Min. 0/50C	Min. -55/85C			Typ.	3rd/2nd Typ.	Max. 0/50C	Max. -55/85C
Listed by model number																		
UTO-546	20-500	11.5	10.0	10.0	0.5	0.5	4.0	5.5	6.0	23.5	23.0	22.0	20	35/40	2.0	2.0	15	110
AC547	10-500	13.0	12.5	12.0	0.5	0.8	3.3	3.8	4.5	15.5	14.5	14.0	17	30/42	1.8	2.0	15	44
UTO-547	10-500	12.5	11.5	11.0	0.7	0.7	2.8	3.5	4.0	19.0	18.0	17.5	16	31/47	2.0	2.0	15	55
AC548	5-500	12.5	11.5	11.0	0.4	0.6	3.7	4.5	5.0	19.0	17.8	17.0	18	35/48	1.9/1.4	2.0/1.5	15	58
AC552	30-500	22.0	21.0	20.5	0.5	0.7	2.4	3.0	3.5	10.0	9.0	8.0	29	22/28	1.9	2.0	5	16
UTO-554	5-500	29.0	28.0	27.0	0.7	0.7	2.7	3.0	3.5	10.0	9.0	8.5	26	21/38	2.0	2.0	5	40
AC555	0.3-500	15.0	14.0	13.5	0.5	0.7	3.8	4.5	5.0	12.5	11.0	10.5	20	25/39	2.0	2.0	15	34
AC556	5-500	28.5	27.5	27.0	0.5	0.7	3.5	4.2	4.7	14.5	14.0	13.5	38	28/38	1.8	2.0	15	65
AC557	0.3-500	15.0	14.0	13.5	0.5	0.8	4.0	5.0	5.5	14.7	13.5	13.0	20	28.5/36	1.8	2.0	15	44
AC558	5-500	11.0	10.5	10.0	0.5	0.7	5.2	6.0	6.5	19.0	18.0	17.5	16	32/50	1.8	1.9	15	65
AC559	5-500	11.0	10.5	10.0	0.5	0.7	5.7	6.5	7.0	22.0	21.0	20.5	16	35/49	1.8	1.9	15	88
AP560	10-500	13.0	12.5	12.0	0.5	0.7	4.6	5.5	6.0	24.5	23.5	23.0	17	36/35	1.7	2.0	15	130
AP561	10-500	13.5	12.5	12.0	0.5	0.7	5.0	6.5	7.0	27.0	25.0	24.5	17	41/48	1.7/1.9	1.8/2.0	15	175
UTO-561	10-500	13.0	11.0	10.0	0.7	1.0	5.5	9.0	9.5	27.0	26.0	25.5	20	39/51	2.0	2.0	15	190
AC564	5-500	36.2	35.5	35.0	0.5	0.7	2.5	3.5	4.0	11.5	10.5	10.0	46	23/35	1.7	1.8	15	48
AC566	5-500	32.5	32.0	31.5	0.5	0.7	2.8	3.5	4.0	16.0	15.0	14.5	40	30/47	1.7	1.8	15	65
AC572	5-500	15.2	14.0	13.5	0.5	0.7	3.4	4.0	5.0	12.5	11.5	11.0	19	27/35	1.7	1.8	5	29
UTO-572	5-500	18.5	18.0	17.0	0.5	1.0	3.0	3.5	3.7	12.0	11.0	10.0	46	24/34	2.0	2.0	15	32
AC573	5-500	31.5	30.0	29.0	0.7	0.9	2.4	2.8	3.3	3.0	1.0	0.5	40	15/25	1.7	1.9	15	20
UTO-573	10-500	14.5	13.0	12.5	0.5	0.7	3.4	4.3	4.5	13.0	11.0	10.0	33	23/32	1.5	1.7	15	33
AC575	5-500	21.0	20.0	19.5	0.5	0.8	2.6	3.0	3.5	10.0	8.5	8.0	25	21/31	1.7	2.0	15	24
AC576	5-500	29.0	28.0	27.5	0.5	0.7	3.3	4.0	4.5	15.0	14.5	14.0	37	29/42	1.8	2.0	15	65
AC577	5-500	16.5	16.0	15.0	0.5	0.9	4.0	5.5	6.0	16.5	15.0	14.5	20	30/43	1.7	2.0	15	48
AC580	10-500	22.8	21.8	21.3	0.7	0.8	2.2	2.7	3.2	9.7	7.5	7.0	29	22/27	2.0	2.0	15	17
AC581	20-500	23.0	22.0	21.5	0.7	1.0	2.8	3.7	4.3	15.0	14.0	13.5	31	27/35	1.9	2.0	15	31
AC582	20-500	23.0	22.0	21.5	0.7	1.0	3.3	4.2	4.7	20.0	19.0	18.5	31	33/40	1.9	2.0	15	53
AC583	10-500	30.0	29.0	28.5	0.5	0.7	1.8	2.5	3.0	0.0	-1.0	-2.0	41	11.5/22	1.7	1.8	5	14
ARH609^	10-600	13.8	13.0	12.0	0.6	0.7	5.0	5.5	6.0	26.0	24.5	24.0	17	41/74	1.7	1.9	15	235
AC618	10-600	32.0	31.0	30.0	0.7	0.8	2.8	3.2	3.7	19.0	18.0	17.5	39	32/50	1.5	1.7	12	85
AC652	10-600	10.8	10.0	9.5	0.9	1.0	1.3	1.7	2.0	18.8	18.0	17.5	17.5	32/45	1.8	2.0	5	50
AC658	10-600	31.0	30.0	29.0	0.7	0.8	2.5	3.1	3.6	15.0	14.0	13.5	39	32/38	1.5	1.7	5	120
AC688	200-600	21.0	20.3	20.0	0.8	1.0	0.9	1.1	1.4	21.5	20.5	20.0	28	33/45	1.9	2.0	5	85
AP718	100-700	33.5	32.0	31.5	0.7	0.8	2.6	3.2	3.7	19.0	18.0	17.5	40	33/44	1.5	1.7	12	86
AP719	10-700	27.5	26.5	26.0	0.5	0.7	3.5	4.2	4.7	24.3	23.5	23.0	38	36/50	1.9	2.0	15	165
AC751	200-700	13.0	12.5	12.0	0.4	0.6	1.9	2.4	2.9	4.8	4.0	3.5	20	20/27	1.7/1.9	1.9/2.0	5	11
AC829	10-800	12.0	11.5	11.0	0.3	0.4	3.0	4.0	4.7	18.5	17.0	16.5	18.5	33/41	1.8	1.9	5	50
AC838	10-800	30.0	29.0	28.0	0.7	0.9	3.0	3.5	4.0	16.0	15.0	14.5	37	30/50	1.7	1.9	5	73
AC847	10-800	13.3	12.5	12.0	0.5	0.7	3.0	3.5	4.0	17.0	16.0	15.5	17.5	32/47	1.7	1.9	15	44
AC848	10-800	13.2	12.5	12.0	0.4	0.5	4.0	4.5	5.0	19.3	18.5	18.0	17	34/43	1.8	2.0	15	58
AC885	800-900	20.0	18.5	17.5	0.7	0.9	1.0	1.3	1.6	13.0	12.0	11.5	36	27/42	2.0	2.0	5	90
AC936	10-900	27.5	27.0	26.5	0.6	0.8	3.3	3.8	4.5	10.0	9.0	8.5	38	22/40	1.6	1.8	5	35
AC986	800-900	30.3	29.8	29.3	0.3	0.4	1.3	1.8	2.3	22.5	21.0	20.5	44	33/50	1.7	1.8	15	135
UTO-1005	5-1000	12.6	11.0	10.5	1.0	1.0	5.0	6.0	6.5	21.0	20.0	19.0	18	35/45	2.0	2.0	15	90
AC1008	5-1000	15.5	14.8	14.3	0.4	0.5	4.5	5.5	6.0	18.5	18.0	17.5	20	33/44	1.7	1.8	15	85
AC1012	0.3-1000	16.0	15.0	14.5	0.7	0.8	3.2	3.7	4.2	9.0	7.0	7.0	20	21/33	1.7	2.0	15	24
UTO-1013	5-1000	16.0	15.0	14.0	1.0	1.0	3.0	4.5	5.0	10.5	9.0	8.0	22	20/27	2.0	2.0	15	29
AC1015	0.3-1000	15.0	14.0	13.5	0.7	0.8	3.4	4.0	4.5	9.0	7.0	7.0	20	21/33	1.7	2.0	15	24

Current data sheets available on website. Shaded models indicate typical output power ≥+20 dBm.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB			Power Output At 1dB Compression dBm			Rev. Iso. dB	Intercept Point dBm	SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Typ.	Max. 0/50C	Max. -55/85C	Typ.	Min. 0/50C	Min. -55/85C			Typ.	3rd/2nd Typ.	Max. 0/50C	Max. -55/85C
Listed by model number																		
AC1017	10-1000	12.0	11.5	11.0	0.5	0.7	4.2	5.0	5.5	15.2	14.5	14.0	17	30/45	1.5	1.8	15	44
AC1018	10-1000	14.5	14.0	13.5	0.5	0.8	3.8	5.0	5.5	15.8	15.0	14.5	18	30/44	1.8	2.0	15	44
AC1019	10-1000	11.5	10.5	10.0	0.5	0.8	4.5	6.0	6.5	22.0	20.0	19.5	16	35/44	1.8	2.0	15	90
UTO-1021	5-1000	23.0	22.0	21.0	1.0	1.0	3.8	4.5	5.0	14.0	12.0	11.0	39	25/30	2.0	2.0	15	85
AC1022	5-1000	16.2	15.5	15.0	0.5	0.7	2.3	2.8	3.5	-2.0	-2.5	-3.0	20	11/11	1.5	1.8	15	9
UTO-1023	10-1000	13.0	12.0	12.0	1.0	1.0	8.0	8.5	9.5	26.5	24.5	24.0	20	36/42	2.0	2.0	15	205
UTO-1024	10-1000	13.0	12.0	12.0	1.0	1.0	5.5	6.5	7.0	24.0	22.0	21.5	21	35/42	2.0	2.0	15	155
AC1035	10-1000	25.0	24.5	24.0	0.8	1.0	2.5	3.0	3.5	5.0	3.0	2.5	37	15/38	2.0	2.1	5	18
AC1036	10-1000	26.0	24.5	24.0	0.8	1.0	2.7	3.5	4.0	10.5	8.5	8.0	36	22/40	1.9	2.0	5	34
AC1038	5-1000	25.5	24.5	24.0	0.6	0.7	3.6	4.1	4.7	16.5	15.0	14.5	34	28/41	1.8	1.9	5	70
UTO-1043	10-1000	10.5	10.0	9.0	1.0	1.0	2.5	4.0	4.5	8.0	6.0	6.0	17	19/28	2.0	2.0	15	25
ARS1047	100-1000	11.0	10.0	9.0	0.65	0.75	4.0	4.5	6.0	28.0	27.0	26.0	20	43/72	2.3	2.3	12	350
ARJ1049	20-1000	11.0	10.0	9.5	1.3	1.5	4.0	4.5	5.0	32.5	30.0	(29.5)	22	42/74	2.0	2.1	15	600
AP1051	10-1000	11.5	10.3	10.0	0.8	1.0	1.5	2.5	3.0	23.0	20.0	19.0	17	35/52	2.0	2.1	8	89
AP1053	10-1000	11.0	10.5	10.0	0.8	1.0	1.5	2.5	3.0	26.0	25.0	24.5	18	39/58	1.9	2.0	15	100
AC1054	5-1000	13.2	12.7	12.0	0.5	0.7	5.0	5.5	6.0	7.0	6.0	5.5	60	20/26	1.8	2.0	15	30
AC1057	0.3-1000	9.8	9.0	8.5	0.5	0.9	5.0	6.5	7.0	14.0	13.0	13.0	17	27.5/36	1.8	2.0	15	44
UTO-1058	5-1000	24.5	23.5	22.5	0.7	1.0	3.7	4.2	4.7	13.5	13.0	12.0	34	22/23	2.0	2.0	5	70
AP1060	10-1000	13.0	12.3	11.8	0.4	0.5	4.2	4.7	5.2	24.0	23.0	22.5	18	38/43	1.9	2.0	15	125
AC1063	5-1000	16.2	15.5	15.0	0.5	0.7	2.5	3.0	4.0	5.5	3.0	2.5	20	15/20	1.5	1.8	15	14
UTO-1065	10-1000	14.5	12.5	12.0	1.0	1.5	9.0	11.0	12.0	30.0	28.0	27.5	28	40/58	2.2	2.5	18	470
AC1066	10-1000	27.5	26.5	25.5	0.5	0.8	3.3	4.0	4.5	15.5	14.5	14.0	36	28/45	1.8	2.0	15	65
AC1068	10-1000	24.5	23.5	22.5	0.5	0.7	3.7	5.0	5.5	18.5	17.5	17.0	34	32/48	1.7	1.8	15	97
AC1069	10-1000	24.5	23.5	22.5	0.5	0.7	4.0	5.5	6.0	21.5	20.0	19.5	34	34/45	1.7	1.8	15	129
UTO-1076	10-1000	13.0	11.5	11.0	0.5	0.7	4.2	5.5	6.0	11.5	10.0	9.0	22	22/23	1.8	2.0	15	34
AC1082	10-1000	14.8	14.0	13.5	0.5	0.7	3.5	4.5	5.0	12.8	12.0	11.5	18	26.5/37	1.8	1.8	5	30
AC1088	100-1000	18.5	17.5	17.0	0.6	0.7	1.1	1.2	1.5	21.0	20.5	20.0	24	35/50	1.9	2.0	5	80
AR1094	650-1100	14.0	13.5	12.7	0.3	0.4	2.1	2.6	3.1	26.5	25.5	25.0	20	40/55	1.8/1.9	1.9/2.0	15	175
AR1096	600-1000	14.2	13.5	13.0	0.4	0.5	2.1	2.7	3.2	28.0	27.0	26.5	21	42/58	1.7/1.9	1.9/2.1	15	230
AP1097	10-1000	13.2	12.5	11.5	1.0	1.1	3.5	4.5	5.0	26.5	25.5	25.0	22	39/55	1.8/1.9	1.9/2.0	15	175
AP1207	10-1200	11.5	10.5	10.0	0.5	0.7	2.8	3.5	4.0	25.5	24.5	24.0	18	41/65	1.8	2.0	15	188
ARS1208	10-1200	13.0	11.8	11.3	0.7	0.9	4.3	5.5	6.0	18.0	17.5	17.0	18	31/64	1.7/2.0	1.8/2.1	15	93
AS1209	100-1200	28.0	27.0	26.5	0.6	0.8	1.0	1.5	1.7	19.8	19.0	18.5	40	33/49	1.8/1.5	2.0/1.7	5	171
AC1215	0.3-1200	15.0	14.5	14.0	0.5	0.7	3.7	4.2	4.7	12.5	12.0	11.5	20	26/37	1.7	1.9	15	35
AC1218	10-1200	11.5	10.5	10.0	0.5	0.7	4.5	5.5	6.5	19.0	17.5	17.0	16	33/45	1.8	2.0	15	65
AC1219	10-1200	11.5	10.5	10.0	0.5	0.7	4.5	5.5	6.5	22.0	20.5	20.0	16	32/37	1.8	2.0	15	88
AC1226	10-1200	22.5	21.0	20.0	0.6	0.9	3.6	4.5	5.0	16.5	16.0	15.5	33	30/45	1.6	1.8	15	72
AC1227	0.3-1200	12.3	11.0	10.5	0.5	0.8	4.3	5.0	5.5	14.0	13.0	12.5	18	28/40	1.8	1.8	15	44
AC1228	10-1200	11.0	10.5	10.0	0.5	0.7	4.5	5.5	6.0	17.5	16.5	16.0	16	29/36	1.8	2.0	15	55
AC1264	10-1200	26.0	25.0	24.5	0.6	0.8	2.9	3.5	4.0	8.0	7.0	7.0	35	21/44	1.7	1.9	15	35
AC1266	10-1200	23.5	22.0	21.5	0.6	0.9	3.5	4.0	4.5	14.9	14.0	13.5	34	28/46	1.7	1.9	15	65
AC1269	10-1200	21.0	20.0	19.0	0.5	0.8	4.2	5.5	6.0	21.0	20.0	19.5	32	34/50	1.8	2.0	15	130
AC1286	650-1200	31.0	28.0	27.0	0.6	0.7	1.0	1.3	1.7	12.0	10.5	9.5	42	23/35	1.8/1.9	2.0	15	62
AC1291	30-1400	18.0	16.5	16.0	0.9	1.0	<1.3	1.5	1.8	19.5	18.5	18.0	22	32/45	1.8	1.9	5	63
AC1292	30-1400	18.5	17.0	16.5	0.7	0.8	<1.3	1.5	1.8	22.0	21.0	20.5	23	36/50	1.8	1.9	5	100
AP1296	30-1200	17.5	16.5	15.5	0.7	0.8	<1.6	2.0	2.5	26.5	25.0	24.5	22.5	38/58	1.7	1.8	15	195
AR1298	10-1200	11.5	11.0	10.5	1.0	1.0	4.0	4.5	5.0	30.5	29.5	(29.0)	19	45/63	1.9/2.0	2.0/2.1	15	410
AP1309	10-1300	12.5	12.0	11.5	0.4	0.5	2.5	3.0	3.5	23.0	22.0	21.5	19.5	36/49	1.7/1.9	1.9/2.0	15	100
AC1486	900-1400	24.5	23.0	22.5	0.6	0.7	1.1	1.3	1.7	14.0	12.0	11.0	40	26/32	2.0	2.0	15	58

Current data sheets available on website. Shaded models indicate typical output power $\geq +20$ dBm. () Indicates maximum temperature of $+71^{\circ}\text{C}$.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB			Power Output At 1dB Compression dBm			Rev. Iso. dB	Intercept Point dBm	SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Typ.	Max. 0/50C	Max. -55/85C	Typ.	Min. 0/50C	Min. -55/85C			Typ.	3rd/2nd Typ.	Max. 0/50C	Max. -55/85C
Listed by model number																		
UTO-1502	5-1500	10.5	9.0	8.5	0.5	1.0	5.0	7.5	7.5	8.0	6.0	6.0	16	19/--	2.0	2.0	15	23
AC1508	10-1500	12.5	11.5	11.0	0.4	0.6	4.0	4.5	5.0	16.5	15.5	15.0	17	30/45	1.8	2.0	15	50
UTO-1509	10-1500	12.0	11.5	11.0	1.0	1.0	2.5	3.0	3.5	23.0	22.0	20.0	18	35/55	2.2	2.2	15	100
UTO-1522	5-1500	20.0	18.0	17.0	1.5	1.5	4.5	5.5	6.0	13.0	11.0	10.0	36	23/--	2.0	2.0	15	85
AC1523	5-1500	14.4	13.5	13.0	0.4	0.6	2.9	3.8	4.5	4.0	2.5	2.0	19	17/23	1.8	2.0	15	15
UTO-1524	10-1500	22.0	21.0	20.0	1.5	1.5	4.0	4.5	5.0	10.0	7.0	6.0	35	19/22	2.0	2.0	15	60
AC1525	5-1500	13.6	12.5	12.0	0.4	0.6	3.8	4.8	5.5	9.5	8.0	7.5	19	23/32	1.8	2.0	15	24
AC1526	10-1500	21.5	20.0	19.0	0.7	1.0	3.8	4.5	5.0	15.0	14.0	13.5	32	28/45	1.8	2.0	15	65
AR1526	10-1500	29.0	27.5	27.0	1.0	1.2	4.0	5.0	5.5	14.5	13.5	13.0	46	27/42	1.7	1.8	15	80
AC1527	10-1500	9.5	8.5	8.0	0.5	0.8	5.0	5.5	6.0	15.0	14.0	13.0	15	31/45	1.8	2.0	15	45
AC1528	10-1500	11.0	10.0	9.5	0.5	0.8	5.0	5.5	6.0	15.0	14.0	13.0	16	30/45	1.8	2.0	15	45
AC1529	10-1500	9.0	8.5	8.0	0.4	0.5	5.5	7.0	7.5	21.0	19.5	19.0	14	34/43	1.8	2.0	15	88
AC1532	1200-1600	12.5	12.0	11.5	0.4	0.5	2.7	3.3	4.0	12.5	12.0	11.5	19	25/33	2.0/1.8	2.2/2.0	15	27
AC1556	1200-1700	28.0	26.5	26.0	1.0	1.5	1.0	1.5	2.0	14.0	13.0	12.5	42	29/42	1.9	2.0	5	63
AC1569	10-1500	17.0	16.0	15.5	0.5	0.8	5.5	7.0	7.5	21.0	19.0	19.0	29	33/52	1.7/2.0	1.8/2.1	15	130
UTO-1576	10-1500	11.5	10.5	10.0	0.5	0.7	4.2	5.0	5.5	10.5	9.0	8.5	29	20/25	2.0	2.0	15	30
AC1582	5-1500	12.5	11.8	11.0	0.5	0.7	4.0	5.0	5.5	11.0	10.5	10.0	17	24/34	1.7	2.0	5	31
AC1586	1200-1700	26.0	25.5	25.0	0.4	0.5	1.1	1.3	1.8	14.0	13.0	12.5	40	27/45	1.8	2.0	15	58
AP1588	1200-1600	25.0	24.0	23.5	1.4	1.6	1.4	2.0	2.5	24.5	24.0	23.5	45	35/58	1.8	1.9	15	145
AC1691	900-1600	17.5	16.5	16.0	0.7	0.8	1.0	1.2	1.4	21.0	20.0	29.5	22	33/47	1.3/1.6	1.5/1.8	5	105
AC2005	0.3-2000	10.8	10.0	9.5	0.7	0.8	4.4	5.0	5.5	9.0	7.5	7.0	17	21/32	2.0	2.2	15	24
ACP2005	1000-2000	32.0	29.5	29.0	0.7	0.8	0.75	1.1	1.2	18.0	15.5	15.0	50	30/45	2.0/1.9	2.0/2.0	5	95
AC2006	0.3-2000	10.8	10.0	9.0	0.7	0.8	5.0	5.5	6.0	11.0	10.0	9.5	17	22/35	2.0	2.2/2.0	15	34
AP2008	10-2000	11.5	11.0	10.5	0.5	0.7	3.0	3.5	4.0	24.5	24.0	23.0	19	39/55	1.6/1.8	1.8/1.9	15	165
AP2009	10-2000	11.0	10.5	10.0	0.5	0.8	3.5	4.5	5.5	28.0	26.5	26.0	19	40/50	2.0	2.0	15	188
UTO-2012	500-2000	11.0	9.0	8.5	1.0	1.0	3.0	4.0	4.5	14.0	12.0	11.0	16	23/33	2.0	2.0	15	50
AC2017	1-2000	9.0	8.0	7.5	0.7	1.0	6.5	8.0	8.5	15.0	14.0	13.5	14	30/43	1.8	2.0	15	47
AC2023	5-2000	12.5	12.0	11.5	0.5	0.7	3.2	4.0	4.5	4.0	2.5	2.0	17	16/21	2.0	2.0	15	15
UTO-2023	10-2000	8.5	8.0	7.5	1.0	1.0	6.5	8.5	9.5	14.5	14.0	14.0	16	25/40	2.2	2.2	15	50
UTO-2024	5-2000	16.0	15.0	14.0	1.0	1.0	4.5	5.5	6.0	6.0	5.0	4.0	31	18/30	2.0	2.0	15	38
AC2025	5-2000	12.5	12.0	11.5	0.5	0.8	3.4	4.2	4.7	8.5	7.0	7.0	18	22.5/33	2.0	2.0	15	24
UTO-2025	100-2000	11.0	9.5	9.0	1.0	1.0	3.0	4.5	5.5	27.0	25.0	24.0	20	37/47	1.7/2.0	2.2	15	175
UTO-2026	10-2000	15.0	13.5	13.0	1.0	1.5	6.5	7.0	7.5	20.5	19.0	18.5	28	31/45	2.0	2.0	15	155
UTO-2027	10-2000	15.0	13.5	12.5	1.0	1.5	6.3	7.0	7.5	17.5	16.0	16.0	28	30/45	2.0	2.0	15	108
AC2028	10-2000	19.8	19.0	18.5	0.6	0.8	5.0	5.5	6.0	15.0	13.5	13.0	29	28/50	1.7	1.8	5	60
UTO-2033	1-2000	8.5	8.0	7.5	1.0	1.0	6.5	8.5	9.5	16.0	14.0	14.0	15	30/41	2.0	2.0	15	50
AC2034	10-2000	18.0	17.0	16.0	0.7	1.0	4.0	4.8	5.3	7.0	6.5	6.0	32	20/41	1.8	2.0	15	34
AR2036	10-2000	26.5	25.5	24.0	1.2	1.4	5.5	6.5	7.0	14.5	13.0	13.0	45	27.5/43	2.0	2.0	15	81
AC2037	10-2000	9.0	8.5	7.5	0.5	0.8	5.5	6.0	6.5	15.0	14.0	13.5	15	30/43	1.8	2.0	15	46
AC2038	10-2000	9.0	8.0	7.5	0.7	1.0	5.5	6.5	7.0	18.0	17.0	17.0	14	32/47	2.0	2.0	15	65
AC2039	10-2000	9.0	8.0	7.5	0.7	1.0	6.0	7.5	8.0	20.5	19.5	19.0	14	34/44	2.0	2.0	15	90
AC2046	10-2000	20.5	19.5	19.0	0.7	1.0	4.5	5.5	6.0	15.0	14.0	13.5	32	25/41	1.8/2.0	2.0	15	58
AP2048	10-2000	9.0	8.0	7.5	0.5	0.8	4.8	5.5	6.0	23.5	23.0	22.5	17	39/50	2.0	2.0	15	150
UTO-2055	10-2000	9.5	8.5	7.5	0.7	1.0	5.0	6.0	6.5	11.5	10.0	9.0	15	22/30	2.0	2.0	5	32
AC2056	10-2000	19.0	18.0	17.5	0.7	1.0	4.0	5.0	5.5	9.5	7.5	7.0	31	21/38	1.8/2.0	2.0	5	34
AC2058	200-2000	10.5	10.0	9.5	0.5	0.7	4.0	4.5	5.0	19.0	17.0	16.5	19	33/42	1.7	1.8	15	75
AC2066	10-2000	17.0	16.0	15.0	0.7	1.0	5.3	6.2	6.7	15.0	14.0	14.0	29	27.5/43	1.8	2.0	15	65
AR2066	100-2000	19.0	18.5	18.0	0.5	0.6	3.0	3.8	4.3	20.5	19.5	19.0	37	32/55	1.7	1.9	15	125
AR2067	100-2000	21.5	20.0	19.5	0.8	1.0	2.5	3.8	4.2	22.0	21.5	21.0	36	33/62	1.9	2.0	15	160
AC2069	10-2000	15.0	14.0	13.0	0.7	1.0	6.0	7.5	8.0	20.0	18.5	18.0	28	32/48	2.0	2.0	15	130
AC2075	10-2000	10.3	9.7	9.0	0.6	0.7	2.7	3.2	3.7	16.5	15.5	15.0	19	29.5/34	1.9	2.0	15	50

Current data sheets available on website. Shaded models indicate typical output power $\geq +20$ dBm.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB			Power Output At 1dB Compression dBm			Rev. Iso. dB	Intercept Point dBm	SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Typ.	Max. 0/50C	Max. -55/85C	Typ.	Min. 0/50C	Min. -55/85C			Typ.	3rd/2nd Typ.	Max. 0/50C	Max. -55/85C
Listed by model number																		
AC2078	10-2000	10.0	9.0	8.5	0.5	0.6	4.0	4.8	5.3	20.5	19.5	19.0	18	34/50	2.0	2.2	15	100
AP2079	10-2000	10.3	9.7	9.0	0.6	0.7	3.1	3.6	4.3	24.5	23.5	23.0	17	38/54	1.8	2.0	15	125
AR2087	10-2000	16.0	15.0	14.5	0.8	1.0	4.5	5.5	6.0	21.0	20.0	19.5	30	34/54	1.7	2.0	15	115
AC2088	100-2000	21.0	20.0	19.5	0.7	0.9	2.3	2.7	3.2	22.5	20.0	19.5	38	34/44	2.0	2.0	15	109
AC2091	30-2000	17.0	16.0	15.5	0.6	0.7	<1.5	1.7	2.0	19.5	19.0	18.5	22	33/43	1.9	2.0	5	60
AC2092	30-2000	18.0	16.5	16.0	0.6	0.7	<1.5	1.7	2.0	21.5	20.5	20.0	23	38/50	1.9	2.0	5	100
AR2098	30-2000	10.8	10.0	9.5	0.5	0.7	5.2	6.0	6.5	30.0	29.0	(28.5)	20	42/55	1.8	2.0	15	370
AC2205	100-2200	12.0	11.0	10.5	0.7	0.9	2.0	2.4	2.8	13.5	12.5	12.0	20	28/48	2.0	2.1	5	50
UTO-2321	1700-2300	15.0	14.0	13.0	1.0	1.0	7.0	8.0	8.5	12.0	10.0	9.0	37	20/35	2.0	2.0	15	70
AC2327	1-2300	8	7.5	7	0.7	1	7	8.5	9	13.5	12.5	12	16	27.5/37	2.2	2.4	15	44
AC2348	10-2300	9.0	8.5	8.0	0.5	0.8	4.0	4.8	5.3	18.0	17.5	17.0	17	30/40	2.0/1.7	2.0/1.8	15	66
AC2356	1700-2300	22.0	21.0	20.5	0.9	1.0	1.3	1.6	1.9	13.0	12.0	11.0	39	25/42	1.6	1.8	5	40
AC2366	10-2300	16.0	15.0	14.0	0.7	1.0	5.4	6.2	6.7	14.5	13.5	13.5	29	27/43	2.0	2.0	15	65
AC2386	1700-2300	22.0	21.0	20.5	0.9	1.0	1.3	1.6	1.9	13.0	12.0	11.0	39	25/42	1.6	1.8	15	40
AC2426	10-2400	16.0	15.0	14.0	0.7	0.9	5.0	6.0	6.5	13.5	12.5	12.5	29	23/33	2.0	2.0	15	58
AP2509	10-2500	8.5	8.0	7.5	0.5	0.8	4.3	5.0	5.5	27.5	26.0	25.5	17	40/52	1.7	1.8	15	185
AR2538	20-2500	21.0	20.0	19.5	0.8	1.0	3.5	4.0	4.5	26.0	24.5	24.0	37	39/52	1.8	2.0	15	190
AC2546	10-2500	11.8	11.0	10.5	0.5	0.8	2.7	3.5	4.0	18.5	17.5	17.0	18	31.5/42	1.9	2.0	15	56
AC2554	1000-2500	25.0	24.0	23.5	0.8	1.0	1.9	2.3	2.6	15.5	14.5	14.0	38	26/45	1.9/1.7	2.0/1.8	5	75
AC2556	2000-2500	21.5	20.5	20.0	0.8	1.0	1.5	1.7	2.0	13.5	12.5	11.5	42	27/42	1.8	1.9	5	52
AC2564	100-2500	18.0	17.5	17.0	0.8	1.0	3.3	4.5	5.0	16.5	15.5	15.0	36	27/40	1.7	2.0	15	80
AR2564	20-2500	19.0	18.0	17.5	0.6	0.7	3.5	4.0	4.5	16.5	15.5	15.0	35	27/39	1.7	1.8	15	50
AC2566	200-2500	18.5	17.5	17.0	0.7	1.0	4.7	5.2	5.7	18.5	17.5	17.0	34	31/50	2.0	2.0	15	133
AR2568	50-2500	17.0	16.5	15.5	0.7	0.9	5.0	5.3	5.8	24.0	23.0	22.5	33	35/54	1.8/1.7	2.0/1.9	15	185
AR2569	50-2500	16.8	15.8	15.0	0.5	0.7	5.3	6.0	6.5	28.0	27.0	26.5	33	40/56	1.8	2.0	15	283
AC2577	10-2500	10.8	10.0	9.5	0.5	0.7	3.3	4.0	4.5	21.0	20.0	19.5	17	30/42	1.7	1.8	15	100
AC2578	10-2500	9.0	8.5	8.0	0.5	0.6	3.8	4.5	5.0	21.0	20.0	19.5	18	34/48	2.0/1.7	2.0/1.8	15	100
AR2584	20-2500	18.5	18.0	17.0	0.7	0.8	3.0	3.5	4.0	15.0	14.5	14.0	36	26/41	1.7	1.8	8	41
AC2586	2000-2500	21.5	20.5	20.0	0.8	1.0	1.5	1.7	2.0	15.5	14.5	13.5	42	27/42	1.8	1.9	15	452
AR2588	50-2500	19.0	18.0	17.0	0.5	1.0	5.0	6.0	6.5	25.0	24.5	23.5	34	38.5/58	1.8	1.9	8	245
AR2589	100-2500	20.5	19.0	18.5	0.7	0.8	3.4	4.0	5.0	28.3	27.5	27.0	34	39/55	1.8	1.9	15	283
A2CP2596	20-2500	23.5	22.0	21.0	0.8	1.0	4.3	5.0	5.5	34.5	34.0	34.0	37	45/46	2.0	2.0	28	530
AR2634	10-2600	21.0	20.0	18.5	1.0	1.2	5.5	6.7	7.2	12.5	11.5	11.5	42	23/30	2.0	2.0	15	76
AP3007	20-3000	11.5	10.5	10.0	0.5	0.7	2.7	3.3	3.8	24.5	23.0	22.0	18.5	36/45	1.9	2.0	15	126
AP3008	20-3000	12.5	11.0	10.5	0.7	0.9	3.0	3.8	4.3	26.0	25.0	24.5	21	40/58	1.9	2.0	15	167
AP3009	20-3000	12.0	11.0	10.5	0.6	0.7	3.0	4.2	4.8	27.5	26.5	26.0	19	41/54	1.9	2.0	15	190
AP3028	20-3000	12.0	11.0	10.5	0.5	0.8	3.0	3.7	4.2	25.5	24.5	24.0	19	41/56	1.9	2.0	8	195
AC3033	1000-3000	21.0	20.0	19.5	0.8	1.0	2.4	2.7	3.1	4.5	4.0	3.5	36	16/28	1.7	1.9	3	35
AC3035	1000-3000	21.5	20.5	20.0	0.8	1.0	2.5	2.8	3.2	8.0	6.0	5.0	36	17/34	1.7	1.9	5	35
AC3046	10-3000	10.5	10.0	9.5	0.5	0.8	2.7	3.5	4.0	16.0	15.5	15.0	17	27/35	1.9	2.0	15	56
AC3055	10-3000	10.5	10.0	9.5	0.5	0.8	2.6	3.0	3.5	17.5	17.0	16.5	18	27/35	1.9	2.0	5	66
AC3056	500-3000	19.0	18.0	17.5	0.7	0.9	3.2	4.0	4.5	17.0	15.0	14.5	36	29/45	1.7	2.0	5	80
AR3056	100-3000	19.5	18.0	17.5	0.7	0.9	3.0	4.0	4.5	17.5	16.5	16.0	33	26/46	1.8	2.0	5	80
AC3057	10-3000	11.0	10.5	10.0	0.7	0.9	3.8	5.5	6.0	20.0	19.0	18.5	17	32/43	1.9	2.0	5	95
AC3064	100-3000	18.5	17.5	16.5	0.6	0.8	3.3	4.0	4.5	16.5	15.5	15.0	36	27/46	1.9	2.1	15	80
AR3069	100-3000	18.0	17.5	17.0	0.7	0.8	5.2	6.0	6.5	27.5	27.0	26.5	35	40/55	1.8	1.9	15	270
ARS3087	200-3000	19.0	18.5	18.0	0.8	1.0	4.0	5.5	6.0	24.0	23.0	22.5	33	35/51	1.7	1.8	15	165
AS3093	400-3000	14.8	14.0	13.5	0.6	0.7	<1.7	2.0	2.5	18.5	17.5	17.0	20.5	31/42	1.8	1.9	15	55

Current data sheets available on website. Shaded models indicate typical output power ≥+20 dBm. () Indicates maximum temperature of +71°C.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB			Power Output At 1dB Compression dBm			Rev. Iso. dB	Intercept Point dBm	SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Typ.	Max. 0/50C	Max. -55/85C	Typ.	Min. 0/50C	Min. -55/85C			Typ.	3rd/2nd Typ.	Max. 0/50C	Max. -55/85C
Listed by model number																		
AS3094	400-3000	14.8	14.0	13.5	0.6	0.7	<1.7	2.2	2.7	23.8	22.5	22.0	20.5	37.5/45	1.8	1.9	15	108
AR3098	500-3000	11.5	11.0	10.5	0.8	1.2	3.5	4.5	5.0	29.5	28.5	28.0	21	43/57	1.7	1.8	15	335
AP3509	100-3500	8.5	8.0	7.5	0.6	0.7	5.5	6.5	7.0	27.0	26.0	25.5	16	38/48	1.8/2.2	2.0/2.3	15	190
AC3547	10-3500	11.0	10.0	9.5	0.7	0.8	3.5	4.5	5.0	20.0	18.5	1.0	17	33/48	1.9	2.0	15	75
AC3556	3000-3600	20.5	19.5	19.0	0.8	1.0	1.2	1.4	1.7	12.5	11.5	11.0	43	25/42	1.8	1.9	5	45
AR3569	100-3500	17.5	16.0	15.5	0.7	0.8	5.2	6.0	6.5	27.5	26.5	26.0	36	36/44	1.8	1.9	15	275
AC3579	10-3500	8.3	7.5	7.0	0.5	0.8	4.8	5.5	6.0	22.0	20.5	19.5	16	36/52	1.8	2.0	15	115
AC3586	3000-3600	19.0	18.0	17.5	0.8	1.0	1.2	1.4	1.7	12.5	11.5	11.0	43	25/42	1.8	1.9	15	45
AS3594	20-3500	13.8	13.3	12.8	0.5	0.7	1.9	2.5	2.8	24.0	22.5	22.0	19	35/45	1.7	1.8	15	105
AR4019	10-4000	16.0	15.0	14.5	0.6	0.8	5.0	6.5	7.0	21.8	19.0	18.5	31	34/55	1.8	2.0	15	200
AR4029	200-4000	22.0	20.5	20.0	0.8	1.0	2.5	3.0	3.5	26.0	25.0	24.5	40	38/53	1.9	2.0	15	188
AC4041	1000-4000	10.3	9.5	9.0	0.5	0.6	2.8	3.5	4.3	18.0	17.0	16.5	18	30/45	1.8	1.9	15	62
AC4045	800-4000	18.5	17.0	16.0	0.8	1.0	3.5	4.5	5.0	20.0	19.0	18.5	40	30/43	1.8	1.9	15	120
AP4048	1000-4000	16.8	16.0	15.5	0.6	0.7	4.0	4.5	5.0	24.0	23.0	22.5	38	35/52	1.9	2.0	15	225
AR4048	1000-4000	16.8	16.0	15.5	0.6	0.7	4.0	4.5	5.0	24.0	23.0	22.5	38	35/52	1.9	2.0	15	225
AC4052	1000-4000	25.0	23.0	22.5	0.8	0.9	2.2	3.2	3.6	15.0	13.0	13.0	38	26/36	1.8	1.9	5	68
AC4054	800-4000	20.0	19.0	18.0	0.7	0.9	3.0	3.5	4.0	16.5	15.5	15.0	41	25/36	1.7	1.9	5	70
AC4056	800-4000	17.5	16.5	15.5	0.8	0.9	3.5	4.0	4.5	14.5	13.0	12.5	41	24/42	1.8	2.0	5	65
AC4064	800-4000	20.0	19.0	18.0	0.7	0.9	3.0	3.5	4.0	16.0	15.0	14.5	39	23/37	1.8	2.0	15	85
AC4066	800-4000	20.0	19.0	17.5	0.7	0.9	3.3	4.0	4.5	20.0	19.5	19.0	41	31/54	1.7	1.9	15	135
AC4079	100-4000	8.3	7.5	7.0	0.5	0.8	4.8	5.5	6.0	22.0	20.5	20.0	16	35/55	1.8	2.0	15	115
AC4083	1000-4000	18.5	18.0	17.0	0.7	0.8	3.0	3.5	4.0	12.5	12.0	11.5	40	24/41	1.7	1.9	8	30
AC4086	800-4000	20.0	19.0	18.0	0.7	1.0	3.8	4.3	4.8	20.5	20.0	19.5	39	30/42	1.8/2.0	1.9/2.1	15	60
AC4088	800-4000	19.5	19.0	18.5	0.7	0.9	4.3	4.8	5.2	21.5	20.5	20.0	38	34/52	1.8	1.9	15	92
A2CP4121	300-4000	29.0	27.0	25.5	0.8	1.2	2.2	3.0	3.5	21.5	20.0	19.0	55	31/40	1.9	2.0	15	205
A2CP4122	800-4000	37.5	36.5	35.0	1.0	1.2	2.3	3.0	3.5	21.5	20.0	19.0	60	33/47	1.9	2.0	15	207
PSA-4132	1000-4000	22.0	20.0	19.0	1.0	1.0	4.5	5.5	6.5	18.5	17.0	16.0	34	29/50	2.0	2.0	8	150
AS4221	1000-4200	13.0	12.0	11.5	0.8	1.0	1.8	2.3	2.7	14.0	13.0	12.5	20	26/42	2.0	2.0	15	40
AC4545	800-4500	17.2	16.5	15.5	0.8	0.9	4.0	5.0	5.5	17.5	16.5	15.5	36	29/40	1.8	1.9	15	85
AS5002	300-5000	21.0	19.5	19.0	0.8	0.9	2.2	2.7	3.2	16.0	15.0	14.5	39	25/32	1.9/1.7	2.0/1.8	15	88
A2CP5008	2000-5000	12.0	10.5	10.0	1.0	1.2	3.0	3.7	4.2	24.5	23.5	23.0	24	35/50	1.7	1.7	12	250
A2CP5009	2000-5000	8.5	7.5	7.0	1.0	1.2	5.5	6.0	6.5	29.5	28.5	28.0	22	42/60	2.0	2.0	15	370
A2CP5021	1000-5000	34.0	32.0	31.0	0.8	1.2	2.3	3.0	3.5	21.5	20.0	19.0	79	34/49	1.9	2.0	15	250
AS5066	1000-5000	19.5	18.5	17.0	0.7	0.85	4.0	4.5	5.0	20.0	19.0	17.5	36	35/60	1.9	2.0	15	160
AC5079	100-5000	7.5	6.8	6.0	0.8	0.9	4.7	5.7	6.3	20.5	17.5	16.5	15	33/55	1.9	2.0	15	115
A2CP5121	300-5000	28.5	26.0	24.0	1.0	1.2	2.2	3.0	3.5	20.5	19.5	18.0	54	30/40	1.9	2.0	15	205
AS6004	2000-6000	20.5	19.5	19.0	0.8	1.0	2.7	3.0	3.5	19.0	17.0	16.0	35	30/38	2.0	2.1	15	138
A2CP6005	2000-6000	23.0	21.5	21.0	1.1	1.2	0.95	1.3	1.5	12.5	10.5	10.0	>40	24/32	1.95/1.9	2.0/1.95	5	97
A2CP6008	2000-6000	11.0	10.0	9.5	1.5	1.8	3.0	3.7	4.2	24.0	23.0	22.5	23	34/50	1.7	1.7	12	250
A3CP6025	10-6000	24.0	23.5	22.5	1.3	1.4	4.5	5.0	5.5	25.0	24.0	23.5	50	34/54	2.2/2.6	2.4/2.8	15	300
AS6043	10-6000	15.0	14.5	14.0	0.7	0.9	4.2	4.8	5.3	15.5	14.5	14.0	34	27/45	1.9	2.0	15	105
AS6045	10-6000	14.0	12.5	12.0	0.8	1.0	5.0	5.5	6.0	19.0	18.0	17.5	34	30/48	1.7	1.9	20	140

Current data sheets available on website. Shaded models indicate typical output power ≥+20 dBm.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB			Power Output At 1dB Compression dBm			Rev. Iso. dB	Intercept Point dBm	SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Typ.	Max. 0/50C	Max. -55/85C	Typ.	Min. 0/50C	Min. -55/85C			Typ.	3rd/2nd Typ.	Max. 0/50C	Max. -55/85C
Listed by model number																		
AS6054	1000-6000	17.5	16.5	16.0	1.0	1.4	4.3	4.8	5.2	19.0	17.5	17.0	33	30/58	1.9	2.0	5	110
AS6063	2000-6000	16.0	15.0	14.5	0.8	0.9	4.5	5.5	6.0	19.0	18.0	17.5	35	31/50	2.0/1.9	2.1/2.0	15	105
AS6064	1000-6000	17.5	16.5	16.0	1.0	1.4	3.5	4.8	5.2	19.0	17.5	17.0	37	28/41	1.9	2.0	15	110
AS6066	1000-6000	17.5	16.0	15.5	1.0	1.4	<4.5	5.5	6.0	20.0	19.0	18.5	37	30/56	2.0	2.1	15	132
A2CP6115	500-6000	27.0	25.0	23.5	0.8	1.2	4.5	5.5	6.0	15.5	14.0	13.5	71	27/45	1.9	2.0	15	210
A2CP6120	1000-6000	29.0	27.0	25.0	0.8	1.2	4.5	5.5	6.0	21.0	19.0	18.5	70	31/54	1.9	2.0	15	240
PSA-6232	2000-6000	20.0	18.0	17.0	1.0	1.5	4.3	5.5	7.0	19.0	17.0	16.0	36	27/45	2.0	2.0	8	150
A2CP6239	2000-6000	20.0	19.0	18.5	1.25	1.5	4.0	4.5	5.0	32.0	31.5	31.0	40	42/57	1.8	2.0	10	800
AS7004	100-7000	20.0	18.5	18.0	1.0	1.1	2.5	3.0	3.5	19.5	18.5	18.0	40	27/38	1.9	2.0	15	135
ACP7019	3000-7000	14.0	13.2	12.7	0.8	1.0	3.6	4.5	5.2	27.5	26.5	26.0	24	35/55	1.9	2.0	12	250
A3CP7029	3000-7000	28.5	26.5	25.5	1.0	1.2	2.8	4.0	4.5	27.5	26.5	26.0	48	35/45	1.9	2.0	12	411
AS8002	100-8000	19.5	18.0	17.5	0.8	1.2	2.5	3.3	3.8	17.0	15.5	15.0	40	28/39	1.9	2.0	15	92
ACP8017	3000-8000	11.5	11.0	10.5	0.7	1.0	4.2	5.2	5.7	21.5	20.0	21.0	27	31/48	1.9	2.0	12	125
A3CP8027	3000-8000	23.0	22.0	21.3	1.25	1.4	4.0	5.0	5.5	21.0	20.0	19.5	50	32/48	1.9	2.0	12	225
ACP8036	2000-8000	12.0	11.0	10.5	0.8	1.5	4.2	4.8	5.3	25.5	24.0	23.5	28	35/52	1.9	2.0	12	150
ACP8037	2000-8000	12.0	11.0	10.5	0.8	1.5	4.2	4.8	5.3	28.0	26.5	26.0	28	34/50	2.0	2.0	12	250
ACP8039	2000-8000	10.8	10.0	9.5	0.8	1.5	4.0	4.5	5.0	30.0	28.5	28.0	27	38/56	1.6	1.7	12	410
A3CP8048	2000-8000	23.0	20.5	20.0	1.1	1.3	4.7	6.5	7.5	28.0	26.5	26.0	46	35/45	2.0	2.0	12	400
A3CP8049	2000-8000	22.5	21.5	20.5	0.8	1.0	4.4	5.0	5.5	29.5	28.5	28.0	42	38/55	2.0	2.1	12	550
A3CP8200	4000-8000	33.0	31.0	30.0	0.7	0.9	3.0	3.8	4.1	25.5	24.0	23.5	70	37/60	2.0	2.0	12	475
Frequency Range GHz																		
ACP11039	6.0-11.0	8.5	7.5	7.0	0.8	1.0	4.0	6.0	6.5	30.0	28.5	28.0	25	38/56	1.9	2.0	12	410
A2CP11039	5.0-10.0	12.0	11.5	11.0	0.9	1.0	4.0	4.5	5.0	33.0	32.5	32.0	50	42/57	2.0	2.1	12	1650
A2CP11049	6.0-11.0	18.5	17.5	16.5	0.8	1.0	4.0	4.5	5.0	30.0	28.5	28.0	52	38/56	1.8	2.0	12	590
ACP12013	6.0-12.0	13.0	11.5	12.0	0.8	1.0	3.2	3.7	4.2	14.0	13.5	13.0	22	28/47	2.0	2.0	8	44
ACP12015	6.0-12.0	12.5	11.5	11.0	0.8	1.0	2.5	3.0	3.5	21.0	20.0	19.5	25	32/43	1.9	2.0	8	75
ACP12017	6.0-12.0	12.5	11.0	10.5	1.0	1.2	3.3	3.8	4.5	25.5	23.5	22.5	23	37/50	1.9	2.0	10	105
ACP12019	6.0-12.0	10.5	9.5	8.5	1.0	1.2	4.1	4.6	5.1	28.0	26.5	26.0	24	39/52	2.0	2.0	10	210
A2CP12024	6.0-12.0	24.0	23.0	22.5	1.5	1.7	3.2	3.7	4.2	13.5	12.5	12.0	35	20/30	2.0	2.0	8	84
A2CP12026	6.0-12.0	25.0	24.0	23.5	1.5	1.7	2.5	3.0	3.5	21.0	20.0	19.5	50	27/45	2.0	2.0	8	130
A2CP12028	6.0-12.0	24.5	23.0	22.5	1.5	1.6	3.3	3.8	4.5	25.0	23.5	23.0	45	34/52	1.8	1.9	10	162
A2CP12029	6.0-12.0	23.0	20.5	20.0	1.0	1.2	4.0	4.5	5.0	27.5	26.5	26	35	37/51	2.0	2.0	10	335
ACP14012	6.0-14.0	10.5	10.0	9.5	1.0	1.0	3.0	4.0	4.5	14.5	13.0	12.5	20	26/35	2.0	2.0	5	43
ACP14016	6.0-14.0	11.2	10.5	9.5	0.8	1.3	3.2	4.0	4.5	16.0	14.0	13.5	21	26/45	2.0	2.0	5	65
ACP14021	6.0-14.0	10.3	9.7	9.0	0.6	0.6	3.8	4.5	6.0	25.0	23.5	23.0	25	33/50	2.0/1.8	2.0/1.9	12	117
ACP14025	8.0-14.0	7.5	6.5	6.0	0.8	1.0	3.8	5.0	5.5	28.5	27.5	27.0	25	34/53	2.0/1.7	2.0/1.8	10	300
ACP14029	8.0-14.0	6.5	5.5	5.0	1.0	1.0	5.0	6.5	7.0	29.0	28.3	27.9	25	37/60	2.0	2.0	12	350
A2CP14212	8.0-14.0	21.0	20.5	19.5	1.0	1.0	2.8	3.8	4.2	15.5	15.0	14.0	43	28/40	2.0	2.0	5	85
A2CP14216	8.0-14.0	21.0	20.0	19.5	1.0	1.0	4.3	5.0	5.0	19.0	18.0	17.0	45	27/32	2.0	2.0	5	130
A2CP14221	8.0-14.0	21.3	20.2	19.0	1.5	1.5	3.2	4.0	5.0	25.0	23.0	22.5	45	33/43	2.0	2.0	12	185
A2CP14225	8.0-14.0	18.0	16.5	15.0	0.8	1.0	4.5	5.0	6.0	28.0	27.0	26.5	45	40/54	2.0	2.0	12	330
A2CP14229	8.0-14.0	14.0	12.0	11.5	1.0	1.0	6.0	6.5	7.0	29.0	28.3	27.9	25	42/60	1.8	2.0	12	560
A2CP14639	6.0-14.0	11.0	10.5	10.0	0.8	1.0	4.0	4.5	5.0	33.0	32.5	32.0	40	42/57	1.8	2.0	15	1500

Current data sheets available on website. Shaded models indicate typical output power ≥+20 dBm. *Class H and Class K not available.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range GHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB			Power Output At 1dB Compression dBm			Rev. Iso. dB	Intercept Point dBm	SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Typ.	Max. 0/50C	Max. -55/85C	Typ.	Min. 0/50C	Min. -55/85C			Typ.	3rd/2nd Typ.	Max. 0/50C	Max. -55/85C
Listed by model number																		
ACP16012	6.0-16.0	9.5	8.5	8.0	1.0	1.0	3.5	4.7	5.2	15.2	13.5	13.0	23	27/40	2.0	2.0	5	45
ACP16016	6.0-16.0	10.5	9.5	8.5	1.0	1.0	3.5	4.5	5.6	15.3	14.0	13.5	27	24/38	2.0	2.0	5	65
ACP16021	8.0-16.0	9.5	8.5	8.0	1.0	1.0	3.4	4.5	5.2	24.0	22.0	21.5	25	30/45	2.0/1.7	2.0/1.8	12	117
ACP18025	8.0-16.0	7.5	6.5	6.0	0.8	1.0	4.3	5.5	6.0	29.0	28.0	27.5	20	42/65	1.6	1.8	12	253
A2CP16212	6.0-16.0	19.0	18.4	17.0	1.5	1.5	3.2	3.7	4.2	15.0	13.5	13.0	45	28/39	2.0	2.1	5	90
A2CP16216	6.0-16.0	19.0	18.0	17.0	1.5	1.5	3.5	4.2	5.0	19.0	18.0	17.0	35	25/37	2.0	2.0	12	125
A2CP16221	8.0-16.0	20.0	18.5	17.5	1.1	1.2	3.8	4.5	5.0	24.0	22.7	21.7	50	32/40	2.0	2.1	12	179
A2CP16225	8.0-16.0	17.0	15.0	14.5	1.5	1.5	4.2	4.7	5.2	28.0	26.5	26.0	35	36/48	2.0	2.0	12	325
ACP17149	14.0-17.0	8.0	7.0	6.0	0.8	1.0	7.0	8.0	9.0	32.5	32.0	31.5	20	39/50	2.0	2.0	12/5	700
ACP18012	8.0-18.0	8.5	7.5	7.0	0.8	1.0	4.0	5.0	5.5	15.0	13.5	13.0	23	25/38	2.0	2.0	5	45
ACP18015	8.0-18.0	9.2	8.5	8.0	0.8	1.0	4.5	7.0	7.5	14.0	12.0	11.5	25	23/31	2.0	2.0	5	63
ACP18021	10.0-18.0	9.5	8.0	7.5	1.0	1.0	4.0	5.7	6.2	23.5	21.5	21.0	20	32/45	2.0	2.0	8	115
ACP18025	10.0-18.0	6.5	5.7	5.2	1.2	1.2	5.0	6.8	7.6	28.0	26.5	26.0	20	36/45	2.0	2.0	12	250
A2CP18212	8.0-18.0	17.0	16.0	15.0	1.5	1.5	4.4	5.7	7.3	15.0	13.0	11.5	35	24/39	2.0	2.0	12	90
A2CP18216	8.0-18.0	18.0	17.0	15.0	1.5	1.5	4.4	5.7	7.3	15.5	14.0	13.0	35	22/31	2.0	2.0	12	110
A2CP18221	10.0-18.0	17.5	16.5	16.0	1.5	1.5	4.4	5.7	7.5	23.5	21.5	21.0	35	30/41	2.0	2.0	12	185
A2CP18225	10.0-18.0	16.0	14.5	14.0	1.5	1.5	4.5	5.5	6.0	24.5	23.5	23.0	45	31/41	2.0	2.0	10	250
ACP18603	6.0-18.0	9.0	8.0	7.0	1.0	1.0	4.5	5.0	5.5	15.0	13.5	13.0	20	23/31	2.0	2.0	8	60
ACP18605	6.0-18.0	8.0	7.5	6.0	1.0	1.0	4.5	6.0	7.0	25.0	23.5	23.0	20	30/41	2.0	2.0	8	110
ACP18606	6.0-18.0	12.0	11.0	10.0	1.0	1.0	4.5	5.5	6.0	20.0	18.5	17.5	20	26/33	2.0	2.0	8	80
ACP18609	6.0-18.0	6.0	5.5	5.0	1.0	1.0	5.0	6.5	7.0	28.5	27.0	26.0	20	36/45	2.0	2.0	10	300
ACP18610	6.0-18.0	8.0	6.5	6.0	1.0	1.0	1.8	2.0	2.5	10.0	8.0	6.0	20	16/30	2.0	2.0	5	20
A2CP18615	6.0-18.0	21.0	19.0	18.0	1.5	1.5	3.0	5.0	5.5	20.0	18.5	17.5	55	26/33	2.0	2.0	8	210
A2CP18620	6.0-18.0	16.0	14.0	13.0	1.5	1.5	1.8	2.3	2.7	7.5	6.5	6.0	35	16/30	2.2	2.5	5	70
A2CP18625	6.0-18.0	17.0	15.5	14.0	1.5	1.5	4.5	5.5	6.0	25.0	23.5	23.0	35	30/41	2.0	2.0	8	170
A2CP18629	6.0-18.0	15.0	13.5	12.5	1.5	1.5	4.5	6.5	7.0	28.5	27.0	26.0	35	36/45	2.0	2.0	8	350
ACP20012	6.0-20.0	9.0	8.0	7.0	1.5	1.5	4.5	5.5	6.0	15.0	13.5	13.0	20	23/31	2.0	2.0	8	60
ACP20015	2.0-20.0	17	15	14.5	1.8	2.0	5.5	5.5	6.5	16.5	15.0	15.0	45	27/32	2.1	2.2	5	106
ACP20215	2.0-20.0	20.0	18.5	17.0	1.5	1.6	4.8	5.8	6.3	18.0	15.0	14.0	55	28/45	2.0	2.1	5	156

High Performance Medium Broadband Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Gain dB Typ.	Noise Figure dB Typ.	P1dB dBm Typ.	P3dB dBm Typ.	P3dB Watts Typ.	IP3/IP2/Pout dBm Typ.	Preamp D.C. Volts Nom.	Preamp D.C. mA Max.	D.C. Volt Nom.	DC Amps Q/@P3dB Typ.	Pkg. Type
Listed by model number												
AVP598	20-400	16.5	2.5	38	43.2	20.9	50/64/40	N/A	N/A	28	0.85/1.5	A
AVP514	20-400	40	3.5*	38	43.2	20.9	50/62/40	12	185	28	1.25/1.95	A
AVP2515	600-2600	17	4.5	35	41	12.6	48/50/37	N/A	N/A	28	0.85/1.50	B
AVP2524	600-2600	41	4.5	35	41	12.6	47/48/37	15	185	28	1.25/1.9	B
AVP2030	650-2200	16	4.5	39	44	25.1	53/65/40	N/A	N/A	28	0.85/2.6	B
AVP2034	650-2200	40	4.5	39	44	25.1	52/62/40	15	370	28	1.25/3.1	B
AVP2050^	900-2000	14	4	42	48	63.1	55/68/43	N/A	N/A	28	1.6/5.50	C

All specifications subject to change. * Freq ≥ 100 MHz ^ Case temp. should not exceed +55°C long term with DC current above 3 amps

Current data sheets available on website. Shaded models indicate typical output power ≥ +20 dBm. *Class H and Class K not available.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range GHz	Small Signal Gain dB Typ.	Gain Flatness ±dB Max. 0/50C	Noise Figure dB Typ.	Power Output At 1dB Comp. dBm Typ.	SWR In/Out Typ.	D.C. Volts Max. Nom.	mA
Discrete Devices - Models listed by model number								
CTS6001	DC-5.5	15	N/A	4.0	13.5	2.0/2.0	4	45
CTS6002 (SiGe RF Transistor)	2.0-20.0	21/10 (21dB @ 2 GHz, 10 dB @ 6 GHz)	N/A	1.0	N/A	N/A	3	30

Model	Frequency Response (Mhz) Min.	Gain Over 0° to 50° C (dB) Min.	Gain Over -55° to 85° C (dB) Min.	Noise Figure (dB) Typical	Power Output at 1 dB Gain Comp (dBm) Typical	Gain Flatness (±dB) Typical	3rd Order Intercept (dBm) Typical	Input Power (±1% Reg.) Voltage (VDC) Typical	Current (mA)
GPD Series TO-39 Package - Typical Specifications at 25°C - Models listed by Model Number									
GPD-110	0.1-400	—	12	4.0	-2.0	1.0	12	2.5	10
GPD-120	0.1-400	—	13	5.5	8.0	1.0	24	5.5	25
GPD-130	0.1-400	—	12	7.0	17.0	1.0	27	6.0	60
GPD-311	0.1-1000	12	11	4.5	3.0	1.0	15	2.7	15
GPD-321	0.1-1000	12	11	4.7	8.0	1.0	20	3.5	25
GPD-320	0.1-1000	8	7	5.0	8.0	1.0	18	3.0	25
GPD-331	0.1-1000	10	9	6.0	16.0	1.0	28	5.5	60
GPD-410	0.1-1500	12	11	4.2	2.5	1.0	15	2.5	15
GPD-420	0.1-1500	11	10	4.7	8.0	1.0	20	2.8	25
GPD-430	0.1-1500	10	9	6.3	16.0	1.0	28	5.0	60

GPD/GPM Series TO-12 Package - Guaranteed Specifications at 0 to 50°C Case Temperature									
Typical Values at 25°C - Models listed by Frequency, then by Model Number									
GPD-201	5-200	30	26	3.0	5.0	1.0	13	15.0	30
GPD-202	5-200	25	23	5.5	11.0	1.0	18	15.0	60
GPD-251	5-200	25	23	4.0	1.0	1.0	10	5.0	30
GPD-401	5-400	13	12	4.0	-2.0	1.0	9	15.0	10
GPD-402	5-400	13	12	8.0	8.0	1.0	18	15.0	24
GPD-403	5-400	9	8	7.5	16.0	1.0	25	24.0	65
GPD-404	5-400	9	8	7.5	17.0	1.0	26	15.0	70
GPD-461	5-400	13	12	4.0	-2.0	1.0	9	15.0	10
GPD-462	5-400	13	12	8.0	8.0	1.0	18	15.0	24
GPD-463	5-400	9	8	7.5	16.0	1.0	25	24.0	65
GPD-464	5-400	9	8	7.5	17.0	1.0	26	15.0	70
GPD-405	10-400	13	12	6.5	23.0	1.0	36	15.0	90
GPD-1001	5-1000	12	11	6.0	0.0	1.0	12	15.0	15
GPD-1003	5-1000	10	9	7.0	14.0	1.0	25	15.0	55
GPD-1061	5-1000	12	11	6.0	0.0	1.0	12	15.0	15
GPD-1063	5-1000	10	9	7.0	14.0	1.0	25	15.0	55

Current data sheets available on website. Shaded models indicate typical output power ≥+20 dBm.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Small Signal Gain dB			Gain Flatness ±dB		Noise Figure dB			Power Output At 1dB Compression dBm			Rev. Iso. dB	Intercept Point dBm	SWR In/Out		D.C.	
		Typ.	Min. 0/50C	Min. -55/85C	Max. 0/50C	Max. -55/85C	Typ.	Max. 0/50C	Max. -55/85C	Typ.	Min. 0/50C	Min. -55/85C	Typ.	3rd/2nd Typ.	Max. 0/50C	Max. -55/85C	Volts Nom.	mA Typ.
Cascaded Amplifiers • Standard and Power Pack SMA Connectorized Packages																		
A2C1221	10-1000	40.5	39.0	37.0	0.9	1.0	2.6	3.5	4.0	21.5	19.5	19.0	55	33/42	1.8	2.0	15	143
A4C1222	10-1000	46.0	44.0	42.0	0.9	1.2	3.6	4.5	5.0	22.0	20.0	19.5	65	34/44	1.8	2.0	15	206
A2P1220	30-1200	31.5	29.0	27.5	0.7	1.0	4.3	5.5	6.0	29.7	29.0	(28.5)	53	40/53	1.8	2.0	15	500
A2C1611	1200-1700	38.0	37.0	36.0	0.6	0.7	1.0	1.3	1.8	17.5	16.8	16.0	58	27/30	1.9	2.0	8	122
A2P2010	30-2000	19.2	17.5	16.5	0.7	0.8	5.0	7.0	7.5	29.5	29.0	28.5	37	40/55	1.9	2.0	15	555
A2P2020	50-2000	27.5	25.5	24.5	0.7	0.8	5.4	7.0	7.5	29.5	29.0	28.5	52	42/55	1.9	2.0	15	653
A2C2115	10-2000	27.5	25.5	24.5	0.8	1.0	3.0	3.5	4.0	15.0	14.0	14.0	49	27/43	1.9	2.0	15	115
A4C2123	10-2000	42.0	38.0	36.0	0.9	1.2	3.1	3.7	4.2	23.5	22.5	22.0	53	33/50	1.9	2.0	15	233
A4C2124	10-2000	32.4	30.0	28.0	1.5	1.6	2.9	3.5	4.0	24.5	22.5	22.0	50	36/51	1.9	2.0	15	230
A2P2127	10-2000	22.0	20.0	18.5	0.9	1.0	3.3	3.8	4.3	27.0	25.5	25.0	37	39/47	1.9	2.0	15	315
A2P2128	50-2000	27.0	25.0	23.5	0.7	1.0	3.2	3.7	4.2	27.5	26.3	25.8	49	39/55	1.9	2.0	15	333
A2P2130	30-2000	21.0	19.0	17.5	0.9	1.2	3.5	4.0	4.5	30.0	29.0	(28.5)	40	41/55	1.9	2.0	15	495
A2P2510	10-2500	19.0	18.0	17.0	0.8	0.9	4.7	5.2	5.7	27.5	26.0	(25.5)	35	37/52	1.9	2.0	15	285
A2P2520	100-2500	36.0	33.0	32.0	1.0	1.2	3.5	4.5	5.0	27.5	26.5	(26.0)	63	38/53	1.9	2.0	15	363
A2C3110	10-3000	19.0	17.5	17.0	1.0	1.2	3.0	4.0	4.5	22.0	20.5	20.0	33	33/43	1.9	2.0	15	172
A4C3120	10-3000	30.0	28.0	27.0	1.0	1.2	3.4	4.5	5.0	21.0	20.0	19.5	50	35/65	1.9	2.0	15	240
A4C3125	10-3000	33.0	31.0	29.0	2.0	2.5	3.8	4.0	4.5	25.5	24.5	24.0	52	39/52	2.2	2.3	15	301
A4P3129	500-3000	28.3	27.0	25.0	0.8	1.0	4.0	5.0	5.5	29.0	28.3	(27.8)	50	37/42	1.9	2.0	15	575
A2P3527	100-3500	28.5	26.5	24.0	0.8	1.0	3.5	4.5	5.0	27.0	26.0	25.5	50	36/42	1.9	2.0	15	355
A2P4022	800-4000	33.0	30.0	29.0	1.0	1.2	4.0	5.0	5.5	21.8	20.5	20.0	60	34/53	1.9	2.0	15	285
A2C4110	100-4000	16.6	15.0	14.0	1.0	1.2	5.2	6.0	6.5	21.5	20.5	20.0	33	34/54	1.9	2.0	15	230
A2C5119	10-500	23.8	23.0	22.0	0.6	0.8	2.7	3.4	3.7	19.0	17.5	17.0	35	33/46	1.7	1.9	15	82
A2C5120	10-800	26.5	25.0	23.5	0.7	0.9	3.2	4.0	4.5	19.0	18.0	17.5	34	34/43	1.9	2.0	15	102
A2C5127	10-500	26.5	25.0	24.0	0.7	0.9	2.5	3.5	4.0	27.0	25.0	24.5	36	39/45	1.9	2.0	15	220
A4P5130	10-500	37.5	36.0	35.0	0.7	0.9	2.7	3.2	3.7	30.0	29.0	28.0	55	42/54	2.2	2.4	15	522
A5P8250	2000-8000	40.0	40.0	40.0	0.5	1.0	4.4	4.5	4.7	29.0	29.0	29.0	55	42/58	1.9	2.0	15	680

Model	Frequency Range MHz	Small Signal Gain dB		Gain Flatness ±dB	Noise Figure dB	Power Output dBm	Intercept Point dBm	SWR In/Out	D.C.	
		Typ.	Min. 0/50C	Max. 0/50C	Max. 0/50C	Min. 0/50C	3rd/2nd Typ.	Max. 0/50C	Volts Nom.	mA Typ.
UTC Models listed by Model Number										
UTC5-200-X	10-500	26.5	25.0	1.5	2.7	6.0	22/--	2.0	15	35
UTC5-201-X	10-500	37.0	35.0	1.5	2.7	7.0	22/--	2.0	15	33
UTC5-202-X	10-500	51.5	48.0	1.5	2.7	6.0	18/--	2.0	15	60
UTC5-203-X	10-500	64.5	62.0	2.0	2.7	6.0	18/--	2.0	15	70
UTC5-210-X	10-500	27.5	26.0	1.5	3.0	14.0	30/--	2.0	15	78
UTC5-211-X	10-500	38.0	36.0	1.5	3.5	14.0	30/--	2.0	15	76
UTC5-212-X	10-500	47.0	45.0	1.5	2.7	14.0	27/--	2.0	15	80
UTC5-213-X	10-500	54.0	52.0	2.0	2.7	14.0	27/--	2.0	15	92
UTC5-214-X	10-500	67.0	65.0	2.0	2.7	14.0	29/--	2.0	15	103
UTC5-220-X	10-500	24.5	23.0	1.5	3.5	22.5	30/--	2.0	15	165
UTC5-221-X	10-500	35.0	33.0	2.0	3.0	22.5	30/--	2.0	15	190
UTC5-222-X	10-500	46.0	44.0	2.0	3.0	22.5	30/--	2.0	15	193
UTC5-223-X	10-500	60.5	58.0	2.0	3.0	22.5	30/--	2.0	15	210

Current data sheets available on website. Shaded models indicate typical output power ≥+20 dBm. () Indicates maximum temperature of +71°C.

High Performance Amplifiers

Typical and Guaranteed Specifications—50 Ω System

Model	Frequency Range MHz	Small Signal Gain dB		Gain Flatness ±dB	Noise Figure dB	Power Output dBm		Intercept Point dBm	SWR In/Out	D.C.	
		Typ.	Min. 0/50C	Max. 0/50C	Max. 0/50C	Min. 0/50C	3rd/2nd Typ.	Max. 0/50C	Volts Nom.	mA Typ.	
UTC Models listed by Model Number											
UTC10-210-X	10-1000	21.5	20.0	2.0	4.5	11.0	28/--	2.0	2.0	15	60
UTC10-211-X	10-1000	31.0	29.0	1.5	3.7	9.0	20/--	2.0	2.0	15	37
UTC10-212-X	10-1000	41.0	39.0	2.0	3.7	9.0	20/--	2.0	2.0	15	62
UTC10-213-X	10-1000	52.0	50.0	2.0	3.7	12.0	27/--	2.0	2.0	15	101
UTC10-220-X	20-1000	22.5	21.0	1.5	5.0	20.0	30/--	2.0	2.0	15	125
UTC10-221-X	10-1000	33.0	31.0	2.0	4.5	20.0	30/--	2.0	2.0	15	150
UTC10-222-X	10-1000	42.0	40.0	2.0	3.7	20.0	30/--	2.0	2.0	2	155
UTC10-223-X	10-1000	49.0	47.0	2.0	3.7	20.0	30/--	2.0	2.0	15	163
UTC20-210-X	10-2000	19.5	18.0	1.5	5.0	7.0	17/--	2.2	2.2	15	41
UTC20-211-X	10-2000	28.0	26.0	2.0	5.0	14.0	29/--	2.2	2.2	15	91
UTC20-212-X	10-2000	34.0	32.0	2.0	6.0	14.0	29/--	2.2	2.2	15	104
UTC20-213-X	10-2000	40.0	38.0	2.0	6.0	12.0	29/--	2.2	2.2	15	126

Dash No.	Type	RF In	RF Out
-1	SMA	FEMALE	FEMALE
-2	N	FEMALE	FEMALE
-3	BNC	FEMALE	FEMALE
-4	TNC	FEMALE	FEMALE

Dash No.	Type	RF In	RF Out
-5	SMA	MALE	MALE
-6	SMA	MALE	FEMALE
-7	SMA	FEMALE	MALE
-8	SMA/N	FEMALE	FEMALE

Standard Hi-Rel Up-Screen Devices

Model P/N	Basic P/N	Comparable Hi-Rel Parts	Product Type	Max Frequency	Package Type
Ceramic Packaged Up-screened Devices					
PHT-64020B	AT-64020	HRT-64020TX	LINEAR POWER TRANSISTOR	6.0 GHz	200 Mil BeO
PHT-64023B	AT-64023	HRT-64023TX	LINEAR POWER TRANSISTOR	4.0 GHz	230 Mil BeO
PHT-41470B	AT-41470	HRT-41470TX	LOW NOISE BIPOLAR TRANSISTOR	6.0 GHz	70 Mil
PHT-41435B	AT-41435	HRT-41435TX	LOW NOISE BIPOLAR TRANSISTOR	6.0 GHz	35 Micro X
PHA-0270B	MSA-0270	HRMA-0270	CASCADABLE MMIC AMPLIFIER	3.0 GHz	70 Mil
PHA-0370B	MSA-0370	HRMA-0370	CASCADABLE MMIC AMPLIFIER	3.0 GHz	70 Mil
PHA-0670B	MSA-0670	HRMA-0670	CASCADABLE MMIC AMPLIFIER	3.0 GHz	70 Mil
PHA-0770B	MSA-0770	HRMA-0770	CASCADABLE MMIC AMPLIFIER	3.0 GHz	70 Mil
PHA-0870B	MSA-0870	HRMA-1110	CASCADABLE MMIC AMPLIFIER	3.0 GHz	100 Mil
PHA-1110B	MSA-1110	HRMA-0370	CASCADABLE MMIC AMPLIFIER	3.0 GHz	70 Mil
PHA-0420B	MSA-0420	HRMA-0420	CASCADABLE MMIC AMPLIFIER	3.0 GHz	200 Mil BeO
PHA-02170B	INA-02170	HRNA-02170	CASCADABLE MMIC AMPLIFIER	3.0 GHz	70 Mil

NOTES:

- Individual datasheets are available online.
- Although Teledyne Cougar parts meet the intent of comparable part number's screening, they are not considered direct replacements.
- Teledyne Cougar part numbers have standardized 100% screening and Group A Testing.
- Teledyne Cougar purchases standard Hewlett Packard devices and upscreens per Teledyne Cougar process flows. Prefixes MSA, HRT, AT, INA, HRMA and HRNA are registered trademarks of the Hewlett Packard Company.
- Each device is subjected to a standardized screening flow. Teledyne Cougar uses the appropriate method of MIL-STD-750 & MIL-STD-883 to set the duration and limits of the test procedure.

Current data sheets available on website. Shaded models indicate typical output power $\geq +20$ dBm.




TELEDYNE MICROWAVE SOLUTIONS
Everywhere you look™



Teledyne Microwave Solutions designs and manufactures the most extensive line of hybrid amplifiers and signal processing components on the market today.

- Strong heritage of pushing the envelope of performance
- Flexibility to tune for application/customer specific requirements
- Unparalleled experience in the Hi-Rel arena

The Power of Consolidation  Cougar • Defence • Labtech • MEC • Microwave • Paradise Datacom

800.832.6869

Microwave@Teledyne.com

TeledyneMicrowave.com