



**MTS Cascadable Amplifiers**  
Guaranteed Specifications at 0° to 50° C Case Temperature

Model	Frequency Response (Mhz) Min.	Gain (dB) Min.	Noise Figure (dB) Max.	Power Output at 1 dB Gain Comp (dBm) Min.	Gain Flatness (±dB) Max.	3rd Order Intercept (dBm) Typical	Input Power (±1% Reg.) Voltage (VDC)	Current (mA) Typical	Case* Type
<b>Models listed by Model Number</b>									
UTO or PSA-101	10-100	26.5	2.2	14.5	1.0	26	15	20	TO-8T or SM-45
UTO or PSA-102	20-150	23.5	3.2	18.0	1.0	32	15	31	TO-8T or SM-45
UTO or PSA-103	10-100	25.5	2.1	9.5	1.0	22	5	15	TO-8T or SM-45
UTO or PSA-104	10-150	24.0	2.3	9.0	1.0	22	5	20	TO-8T or SM-45
UTO or PSA-111	10-100	10.5	1.7	15.5	0.3	28	15	14	TO-8T or SM-45
UTO or PSA-210	10-200	8.0	2.0	11.0	1.0	29	15	15	TO-8T or SM-45
UTO or PSA-211	10-200	7.5	2.7	17.0	1.0	28	15	30	TO-8T or SM-45
UTO or PSA-221	10-200	27.0	2.5	13.5	0.7	23	15	29	TO-8T or SM-45
UTO or PSA-222	20-200	28.0	3.6	18.0	0.7	28	15	47	TO-8T or SM-45
UTO or PSA-250	5-200	30.0	4.0	-3.0	1.0	14	5	13	TO-8T or SM-45
UTO or PSA-440	10-400	12.5	4.5	8.0	0.7	23	15	15	TO-8T or SM-38/SM-45
UTO or PSA-441	20-400	13.5	4.5	15.0	0.7	32	15	32	TO-8T or SM-38/SM-45
UTO or PSA-442	20-400	13.0	5.5	20.0	0.7	33	15	62	TO-8T or SM-38/SM-45
UTO or PSA-443	10-400	12.5	4.5	4.5	0.7	19	5	10	TO-8T or SM-38/SM-45
UTO or PSA-444	10-400	12.5	5.0	8.0	0.7	22	5	15	TO-8T or SM-38/SM-45
UTO or PSA-501	5-500	14.0	4.0	1.0	1.0	2	15	10	TO-8T or SM-45
UTO or PSA-502	5-500	14.0	4.0	7.0	1.0	21	15	23	TO-8U or SM-45
UTO or PSA-503	5-500	9.0	7.0	13.0	1.0	29	24	50	TO-8U or SM-45
UTO or PSA-504	5-500	6.0	11.0	17.0	1.0	34	24	100	TO-8U or SM-45
UTO or PSA-505	10-500	9.0	7.0	18.0	1.0	29	15	100	TO-8T or SM-45
UTO or PSA-509	5-500	13.0	5.5	20.0	0.7	30	15	90	TO-8T or SM-45
UTO or PSA-511	5-500	15.0	2.5	-2.0	1.0	12	15	10	TO-8U or SM-45
UTO or PSA-512	5-500	20.0	3.0	7.0	1.0	20	15	23	TO-8U or SM-45
UTO or PSA-513	5-500	16.0	6.0	14.0	1.0	29	24	50	TO-8U or SM-45
UTO or PSA-514	30-200	15.0	2.0	-3.0	0.8	7	15	8	TO-8U or SM-45
UTO or PSA-515	2-500	12.0	7.0	14.0	0.5	24	15	65	TO-8U or SM-45
UTO or PSA-516	5-500	14.0	4.5	10.0	1.0	23	15	35	TO-8U or SM-45
UTO or PSA-517	5-500	22.0	2.5	5.0	1.0	15	15	22	TO-8U or SM-45
UTO or PSA-518	5-500	13.0	6.0	22.5	0.7	35	15	130	TO-8T or SM-45
UTO or PSA-519	5-500	13.0	5.5	18.0	0.7	29	15	70	TO-8T or SM-45
UTO or PSA-520	5-500	14.0	4.5	11.0	0.7	22	5	33	TO-8T or SM-45
UTO or PSA-521	50-500	27.0	4.0	6.0	1.0	18	15	38	TO-8U or SM-45
UTO or PSA-523	5-500	23.0	7.0	12.0	1.0	25	15	80	TO-8U or SM-45
UTO or PSA-524	5-500	30.0	4.0	14.0	1.0	27	15	70	TO-8T or SM-45
UTO or PSA-526	10-500	26.5	4.0	19.0	0.7	28	15	93	TO-8T or SM-45
UTO or PSA-533	5-500	16.0	5.0	14.0	0.7	30	15	53	TO-8T or SM-45
UTO or PSA-543	10-500	10.0	2.5	6.0	1.0	22	15	25	TO-8T or SM-45
UTO or PSA-544	10-500	10.0	3.0	12.0	1.0	28	15	36	TO-8T or SM-45
UTO or PSA-545	10-500	10.0	5.0	17.0	0.5	32	15	60	TO-8T or SM-45
UTO or PSA-546	20-500	10.0	8.0	23.0	0.5	38	15	110	TO-8T or SM-45

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



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Model	Frequency Response (Mhz) Min.	Gain (dB) Min.	Noise Figure (dB) Max.	Power Output at 1 dB Gain Comp (dBm) Min.	Gain Flatness (±dB) Max.	3rd Order Intercept (dBm) Typical	Input Power (±1% Reg.) Voltage (VDC)	Current (mA) Typical	Case* Type
<b>Models listed by Model Number</b>									
UTO or PSA-547	10-500	11.5	3.5	18.0	0.7	31	15	55	TO-8T or SM-45
UTO or PSA-550	10-500	21.0	3.0	9.0	0.8	21	5	16	TO-8T or SM-45
UTO or PSA-552	5-500	13.5	4.0	6.5	0.7	21	5	18	TO-8T or SM-45
UTO or PSA-554	5-500	28.0	3.0	9.0	0.7	21	5	40	TO-8T or SM-45
UTO or PSA-558	30-500	28.0	3.2	13.5	0.7	23	5	70	TO-8T or SM-45
UTO or PSA-561	10-500	11.0	9.0	26.0	0.7	39	15	190	TO-8T or SM-45
CTO-565	10-500	17.0	12.0	28.0	0.7	41	18	450	TO-3
UTO-565	10-500	17.5	11.5	28.0	0.7	41	18	450	TO-3
UTO or PSA-571	50-500	14.5	4.0	10.0	0.5	24	15	32	TO-8T or SM-45
UTO or PSA-572	5-500	18.0	3.5	11.0	0.5	24	15	32	TO-8T or SM-45
UTO or PSA-573	10-500	13.0	4.3	11.0	0.5	23	15	33	TO-8U or SM-45
UTO or PSA-1001	5-1000	14.0	5.0	-2.0	1.0	12	15	10	TO-8U or SM-45
UTO or PSA-1002	5-1000	14.0	4.0	7.0	1.0	21	15	23	TO-8U or SM-45
UTO or PSA-1005	5-1000	11.0	6.0	20.0	1.0	30	15	90	TO-8T or SM-45
UTO or PSA-1006	5-1000	11.0	6.0	17.0	1.0	27	15	70	TO-8T or SM-45
UTO or PSA-1007	5-1000	12.5	5.0	11.0	0.7	21	5	33	TO-8T or SM-45
UTO or PSA-1011	2-1000	14.0	3.5	-5.0	0.7	10	15	8	TO-8U or SM-45
UTO or PSA-1012	5-1000	15.0	4.0	4.0	1.0	17	15	18	TO-8U or SM-45
UTO or PSA-1013	5-1000	15.0	4.5	9.0	1.0	20	15	29	TO-8U or SM-45
UTO or PSA-1021	5-1000	22.0	4.5	12.0	1.0	25	15	85	TO-8U or SM-45
UTO or PSA-1023	10-1000	12.0	8.5	24.5	1.0	32	15	205	TO-8T or SM-45
UTO or PSA-1024	10-1000	12.0	6.5	22.5	1.0	32	15	155	TO-8T or SM-45
UTO or PSA-1033	5-1000	10.0	6.5	14.0	1.0	28	15	48	TO-8T or SM-45
UTO or PSA-1043	10-1000	10.0	4.0	6.0	1.0	19	15	25	TO-8T or SM-45
UTO or PSA-1044	20-1000	10.0	4.5	12.0	1.0	22	15	35	TO-8T or SM-45
UTO or PSA-1052	5-1000	13.0	5.0	6.0	0.7	18	5	18	TO-8T or SM-45
UTO or PSA-1053	5-1000	27.0	9.0	5.0	2.0	21	15	90	TO-8T or SM-45
UTO or PSA-1054	5-1000	23.5	4.0	9.5	0.7	21	5	40	TO-8T or SM-45
UTM or PSA-1056	10-1000	25.5	6.5	12.0	2.0	26	15	135	TO-8T or SM-45
UTM or PSA-1057	10-1000	26.0	6.5	14.0	2.0	29	15	170	TO-8T or SM-45
UTO or PSA-1058	5-1000	23.5	4.2	13.0	0.7	22	5	70	TO-8T or SM-45
CTO-1065	10-1000	12.5	11.0	28.5	1.0	40	18	470	TO-3
UTO-1065	10-1000	12.5	11.0	28.0	1.0	40	18	470	TO-3
UTO or PSA-1076	10-1000	11.5	5.5	10.0	0.5	22	15	34	TO-8U or SM-45
UTM or PSA-1056	10-1000	25.5	6.5	12.0	2.0	26	15	135	TO-8T or SM-45
UTO or PSA-1501	5-1500	9.0	5.5	-3.0	0.5	10	15	10	TO-8U or SM-45
UTO or PSA-1502	5-1500	9.0	7.5	6.0	0.5	19	15	23	TO-8U or SM-45
UTO or PSA-1509	10-1500	11.5	3.0	22.0	1.0	35	15	100	TO-8U or SM-45
UTO or PSA-1511	5-1500	10.0	4.5	-9.0	0.5	1	15	7	TO-8U or SM-45
UTO or PSA-1522	5-1500	18.0	5.5	11.0	1.5	23	15	85	TO-8U or SM-45

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

## MTS Cascadable Amplifiers

Guaranteed Specifications at 0° to 50° C Case Temperature

Model	Frequency Response (Mhz) Min.	Gain (dB) Min.	Noise Figure (dB) Max.	Power Output at 1 dB Gain Comp (dBm) Min.	Gain Flatness (±dB) Max.	3rd Order Intercept (dBm) Typical	Input Power (±1% Reg.) Voltage (VDC)	Current (mA) Typical	Case* Type
<b>Models listed by Model Number</b>									
UTO or PSA-1524	10-1500	21.0	4.5	7.0	1.5	19	15	60	TO-8U or SM-45
UTO or PSA-1576	10-1500	10.5	5.0	9.0	0.5	20	15	30	TO-8U or SM-45
UTO or PSA-2009	10-2000	10.5	4.0	26.5	1.0	40	15	190	TO-8T or SM-45
UTO or PSA-2012	500-2000	9.0	4.0	12.0	1.0	23	15	50	TO-8U or SM-45
UTO or PSA-2013	500-2000	9.0	5.5	19.0	1.0	33	15	100	TO-8U or SM-45
UTO or PSA-2020	10-2000	17.0	6.0	14.5	1.0	20	15	52	TO-8T or SM-45
UTO or PSA-2021	10-2000	9.0	4.5	2.0	1.0	14	15	16	TO-8U or SM-45
UTO or PSA-2022	5-2000	9.0	6.0	7.0	1.0	17	15	25	TO-8U or SM-45
UTO or PSA-2023	10-2000	8.0	8.5	14.0	1.0	25	15	50	TO-8T or SM-45
UTO or PSA-2024	5-2000	15.0	5.5	5.0	1.0	18	15	38	TO-8U or SM-45
UTO or PSA-2025	100-2000	9.5	4.5	25.0	1.0	33	15	175	TO-8T or SM-45
UTO or PSA-2026	10-2000	13.5	7.0	19.0	1.0	31	15	155	TO-8T or SM-45
UTO or PSA-2027	10-2000	13.5	7.0	16.0	1.0	30	15	108	TO-8T or SM-45
UTO or PSA-2031	1-2000	9.0	5.5	2.0	1.0	14	15	16	TO-8U or SM-45
UTO or PSA-2032	1-2000	9.0	6.0	7.0	1.0	17	15	25	TO-8U or SM-45
UTO or PSA-2033	1-2000	8.0	8.5	14.0	1.0	30	15	50	TO-8T or SM-45
UTO or PSA-2052	5-2000	9.0	5.0	5.5	0.7	16	5	18	TO-8T or SM-45
UTO or PSA-2055	10-2000	8.5	6.0	10.0	0.7	22	5	32	TO-8T or SM-45
UTO or PSA-2302	1700-2300	8.0	6.5	3.0	0.5	13	15	18	TO-8U or SM-45
UTO or PSA-2303	1700-2300	8.0	8.0	10.0	0.5	20	15	30	TO-8U or SM-45
UTO or PSA-2311	1700-2300	8.0	5.0	-3.0	0.5	10	15	15	TO-8U or SM-45
UTO or PSA-2321	1700-2300	14.0	8.0	10.0	1.0	20	15	70	TO-8U or SM-45
UTO or PSA-2509	10-2000	9.0	4.0	27.0	0.5	40	15	190	TO-8T or SM-45
UTO or PSA-2510	10-2000	9.0	4.5	27.0	1.0	40	12	190	TO-8T or SM-45
PSA-4132	1000-4000	20.0	5.5	17.0	1.0	29	8	150	SM-38
PSA-6232	2000-6000	18.0	5.0	17.0	1.0	27	8	150	SM-38

Model	Frequency Range MHz	Small Signal Gain dB		Gain Flatness Max. 0/50C	Noise Figure ±dB Typ.	Power Output At 1dB Comp. dB		SWR In/Out dBm 0/50C	D.C. Volts mA	
		Typ.	Min. 0/50C			Typ.	Min. 0/50C		Max. Nom.	mA Typ.
<b>Discrete Devices - Models listed by model number</b>										
ASMA101	1-400	12	11	0.8	5	18.5	19	2.3/3.2	9.0	100
ASMA201	1-500	12.8	12	1.0	7	28	26	2.3/3.0	12.5	250
ASMA202	1-200	13	12	0.5	7	30	29	2.0/2.0	15.0	350
ASMA203	1-300	13	12	0.5	7	27	26	2.5/2.5	12.5	250
ASMA301	1-1000	10.5	10	1.0	5	28	27	3.2/3.7	11.0	240
ASMA601	1-400	10.5	10	1.0	8	28	26	2.0/2.5	19.0	275
Model	GHz	Typ.		Max. 0/50C	Typ.		Typ.	Typ.	Max. Nom.	mA Typ.
CTS6001	DC-6.0	15		3.0	4		13.5	2.0/2.0	4	45
CTS6002 (SiGe RF Transistor)	2.0-20.0	22/10 (22vdB @ 2 GHz, 10 dB @ 7 GHz)		N/A	1		13.0	2.0/2.5	3	30

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



## MTS General Purpose Cascadable Amplifiers

Model	Frequency Response (Mhz) Min.	Gain Over 0° to 50° C (dB) Min.	Gain <sup>2</sup> Over -55° to 85°C (dB) Min.	Noise Figure (dB) Typical	Power Output at 1 dB Gain Comp (dBm) Min.	Gain Flatness (±dB) Max.	3rd Order Intercept (dBm) Typical	Input Power (±1% Reg.) Voltage (VDC) Typical	Current (mA) Typical
<b>GPD Series TO-39 Package - Typical Specifications at 25°C - Models listed by Model Number</b>									
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-310	0.1-1000	8	7	5.0	-1.0	1.0	11	2.3	10
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-330	0.1-1000	7	6	6.5	16.0	1.0	26	4.5	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
<b>GPD/GPM Series TO-12 Package - Guaranteed Specifications at 0 to 50°C Case Temperature Typical Values at 25°C - Models listed by Model Number</b>									
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-252	5-200	15	14	4.0	0.0	1.0	12	5.0	11
GPD-401/-461	5-400	13	12	4.0	-2.0	1.0	9	15.0	10
GPD-411	5-400	12	11	3.2	-6.0	1.0	4	15.0	7
GPD-402/-462	5-400	13	12	8.0	8.0	1.0	18	15.0	24
GPD-403/-463	5-400	9	8	7.5	16.0	1.0	25	24.0	65
GPD-404/-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
GPM-552	5-500	33	32	4.5	0.0	0.2	14	15.0	34
GPD-1001/-1061	5-1000	12	11	6.0	0.0	1.0	12	15.0	15
GPD-1002/-1062	5-1000	12	11	7.0	6.0	1.0	16	15.0	27
GPM-1052	5-1000	20	20	7.0	8.0	0.3	20	15.0	60
GPD-1003/-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  $\geq +20$  dBm.