

# 6.0 to 18.0 GHz Power Amplifiers

## +20 to +23 dBm Power Output Amplifiers

Model	Frequency Response (GHz)	Gain (dB)	Gain versus Temperature at any Frequency ( $\pm$ dB)	Noise Figure (dB)	Power Output for 1dB Compression (+dBm)	Gain Flatness vs Freq ( $\pm$ dB)	3rd Order Intercept Point (+dBm)	Input (1) DC current @ +12V (mA)		Case Type
	Min	Min	Max	Max	Min	Max	Typ	Typ	Max	
<b>Medium Power Amplifiers with Guaranteed Specifications from -54°C to +90°C</b>										
CPT-13-6003	6-13	18	1.00	7.5	21.5	1.00	30	340	390	SX4
CPT-13-6004	6-13	27	1.25	7.0	21.5	1.00	30	360	415	SX6
CPT-13-6005	6-13	36	1.50	6.5	21.5	1.50	30	410	470	SX6
CPT-13-6006	6-13	45	1.75	6.5	21.5	1.50	30	460	530	SX8
CPT-13-6014	6-13	25	1.25	8.0	23.0	1.50	30	730	830	SX6
CPT-13-6015	6-13	35	1.50	7.5	23.0	1.75	30	740	840	SX6
CPT-13-6016	6-13	45	1.75	7.0	23.0	2.00	30	850	950	SX8
CPT-18-6004	6-18	18	1.25	9.5	20.0	1.50	28	390	450	SX6
CPT-18-6005	6-18	24	1.50	8.5	20.0	2.00	28	470	540	SX6
CPT-18-6006	6-18	29	1.75	8.5	20.0	2.00	28	510	585	SX8
CPT-18-6007	6-18	35	2.00	8.0	20.0	2.50	28	570	655	SX8
CPT-18-6008	6-18	40	2.25	8.0	20.0	2.50	28	630	725	SX10
CPT-18-6016	6-18	25	1.75	9.0	23.0	1.50	30	850	950	SX8
CPT-18-6017	6-18	31	2.00	8.5	23.0	1.75	30	900	1000	SX8
CPT-18-6018	6-18	36	2.25	8.0	23.0	2.00	30	950	1050	SX10
CPT-18-6019	6-18	42	2.50	8.0	23.0	2.00	30	1000	1100	SX10
CPT-18-8004	8-18	18	1.25	9.5	20.0	1.50	28	390	450	SX6
CPT-18-8005	8-18	24	1.50	8.5	20.0	2.00	28	470	540	SX6
CPT-18-8006	8-18	29	1.75	8.5	20.0	2.00	28	510	585	SX8
CPT-18-8007	8-18	35	2.00	8.0	20.0	2.50	28	570	655	SX8
CPT-18-8008	8-18	40	2.25	8.0	20.0	2.50	28	630	725	SX10
<b>Medium Power Amplifiers with Guaranteed Specifications at +25°C</b>										
CPA-13-6003	6-13	24	-	6.0	21.5	1.00	30	300	330	SX4
CPA-13-6004	6-13	32	-	5.5	21.5	1.00	30	350	385	SX4
CPA-13-6005	6-13	40	-	5.5	21.5	1.50	30	400	440	SX6
CPA-13-6014	6-13	20	-	7.5	23.0	1.50	23	700	800	SX4
CPA-13-6015	6-13	31	-	7.0	23.0	1.75	23	710	810	SX6
CPA-13-6016	6-13	41	-	6.5	23.0	2.00	23	830	930	SX6
CPA-18-6003	6-18	18	-	6.5	20.0	1.00	28	320	355	SX4
CPA-18-6004	6-18	24	-	6.0	20.0	1.00	28	380	420	SX4
CPA-18-6005	6-18	30	-	6.0	20.0	1.50	28	440	485	SX6
CPA-18-6006	6-18	36	-	6.0	20.0	1.50	28	500	550	SX6
CPA-18-6007	6-18	42	-	6.0	20.0	2.00	28	560	615	SX8
CPA-18-6014	6-18	21	-	7.5	23.0	1.00	30	690	760	SX4
CPA-18-6015	6-18	26	-	7.5	23.0	1.50	30	740	820	SX6
CPA-18-6016	6-18	32	-	7.0	23.0	1.50	30	790	880	SX6
CPA-18-6017	6-18	38	-	7.0	23.0	2.00	30	840	930	SX8
CPA-18-8003	8-18	18	-	6.0	20.0	1.00	28	320	355	SX4
CPA-18-8004	8-18	24	-	5.5	20.0	1.00	28	380	420	SX4
CPA-18-8005	8-18	30	-	5.5	20.0	1.50	28	440	485	SX6
CPA-18-8006	8-18	36	-	5.5	20.0	1.50	28	500	550	SX6
CPA-18-8007	8-18	42	-	5.5	20.0	2.00	28	560	615	SX8

### NOTES:

1. All amplifiers incorporate a voltage regulator capable of working over a +12 to +18 VDC range. When operating at elevated temperatures with high current drain amplifiers, +12 VDC is recommended. Contact factory if higher input voltage is required at elevated temperatures.

2. Maximum input power without damage for all amplifiers is +20 dBm CW.

3. All specified temperatures are case temperatures. All amplifiers should be properly mounted to ensure adequate heat sinking during operation.

4. Input and output VSWRs are 2.0:1 Max for all amplifiers listed.

# CELERITEK