



Tapered Amplifiers

Tapered amplifier (TA) diodes have a flared geometry to maintain a single transverse mode but boost the power to the Watt level. They are typically operated in a master oscillator power amplifier (MOPA) configuration.

Both facets are coated with a high-quality AR coating.

WL is the gain maximum of the amplifier. WLmin and WLmax specify the typical width of the gain spectrum. P is the maximum power, max I the max. required amplifier current.

TOPTICA offers both single TA chips and customized tapered amplifier systems. The diodes are mounted on an optimized carrier which provides access to both facets and removes the heat efficiently. Every single chip delivered by TOPTICA is tested and comes with an individual data sheet.

WL nm	WLmin nm	WLmax nm	P mW	max I mA	PO#	Stock	Remark
670	660	675	500	1100	#TA-0670-0500-8	u.r.	200mW outside 668-671nm; for TA100 please inquire
675	665	678	300	1200	#TA-0675-0500-1	2	200mW <669 >676nm
735	725	735	500	1500	#TA-0735-0500-5	> 3	System Only
765	760	775	2000	3000	#TA-0765-2000-1	> 3	1.5W outside 765nm-770nm
780	770	796	2000	3000	#TA-0780-2000-6	> 3	1500mW outside 778nm-793nm
780	765	795	3000	4000	#TA-0780-3000-2	> 3	Outside 775nm-785nm: 2W; >790nm: 1.5W; M ² < 2.0
790	780	800	3500	4000	#TA-0790-2000-1	> 3	3W outside 790-795nm, 2.5W <785nm; M ² <2.0
795	785	805	3000	4500	#TA-0795-3000-1	3	2.5W below 790nm; 2.0W above 800nm, M ² < 2
808	805	820	2500	3500	#TA-0808-2000-1	u.r.	2W >815nm, broader tuning possible, inquire
830	820	837	500	1900	#TA-0830-0500-4	1	
850	825	860	750	2500	#TA-0850-0750-4	u.r.	
850	845	860	2000	3000	#TA-0850-2000-1	3	1500mW outside 847nm - 858nm, min. 20 mW seed
860	850	870	3500	5000	#TA-0860-3000-1	u.r.	3W outside 855nm-865nm; M ² < 2
870	865	880	1500	3000	#TA-0870-1500-1	2	
890	875	900	1500	3000	#TA-0890-1500-1	2	outside 880nm-900nm: 1000mW
915	875	920	1500	3000	#TA-0915-1500-4	3	1W outside 880-915, M ² < 2
915	905	930	2500	4000	#TA-0915-1500-1	u.r.	2W outside 915nm-925nm
930	915	945	1500	3000	#TA-0930-1500-1	1	1000mW above 940nm; M ² < 2.2
950	940	960	1500	2900	#TA-0950-1500-1	3	
970	950	985	1500	2900	#TA-0970-1500-1	3	1000mW outside 965-980
970	955	990	3000	5000	#TA-0970-3000-1	u.r.	2000mW outside 970-980nm
1010	995	1030	2000	5000	#TA-1010-1500-1	1	1.5W outside 1005-1020nm; 1.2W outside 1000-1025nm
1060	1040	1075	2000	4000	#TA-1060-2000-1	1	500mW for >1070nm

u.r. : upon request



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WL nm	WLmin nm	WLmax nm	P mW	max I mA	PO#	Stock	Remark
1100	1094	1115	1500	4000	#TA-1100-1500-1	> 3	1000mW above 1106nm; System only
1120	1115	1130	2000	6000	#TA-1120-4000-1	u.r.	
1135	1120	1145	1000	7000	#TA-1135-1000-1	> 3	System only!
1150	1120	1155	500	5000	#TA-1150-0500-1	1	System only!
1170	1150	1200	1500	7000	#TA-1170-1500-2	u.r.	System only! <1170>1185nm:1W, <1165nm>1195nm:0.7W
1200	1182	1223	1500	7000	#TA-1200-1500-1	1	System only! 1W outside 1190nm-1215nm
1250	1225	1275	1500	7000	#TA-1250-1500-1	u.r.	System only! Please inquire about max. power.
1280	1270	1320	1500	7000	#TA-1280-1500-1	u.r.	System only! 1W outside 1277nm-1315nm, M ² < 1.7
1340	1315	1357	1500	7000	#TA-1340-1500-1	1	1000mW outside 1327nm-1345nm; System only
1480	1465	1495	300	3500	#TA-1480-0500-1	> 3	