

Tapered Amplifiers

updated weekly
inventory subject to prior sales



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	Article Number	Stock	Remark
633.0	632	636	150	1200	#TA-0633-0100-1	> 3	System only! Limited lifetime, no warranty
670.0	662	675	1000	1800	#TA-0670-1000-1	2	Below 666 nm: 800 mW and more ASE; system only
690.0	675	695	300	1000	#TA-0690-0500-2	2	200mW <680,>690nm, limited lifetime, no warranty
730.0	725	732	500	1500	#TA-0730-0500-1	1	no warranty
730.0	720	735	500	650	#TA-0730-0500-2	2	Outside 725-732 nm: 350 mW; outside 725-730 nm more ASE; system only
740.0	732	745	500	1500	#TA-0740-0500-1	> 3	More ASE outside 737-742nm, limited lifetime, no warranty
765.0	751	780	2000	3000	#TA-0765-1500-4	> 3	1.5W <761nm >770nm, 1W <756nm, 0.5W >775nm; more ASE outside 760-775nm
765.0	760	785	2000	3300	#TA-0765-2000-2	> 3	1.5W outside 765-780nm, 1W above 780nm, both with more ASE
780.0	765	795	4000	5000	#TA-0780-4000-2	> 3	<780 >785nm: 3.5W, <775 >790 nm: 2.5W; system only! Please inquire
790.0	775	805	3000	4000	#TA-0790-2000-2	> 3	2.5W below 785nm, 2.0W above 800nm; reduced ASE
795.0	785	805	3000	4500	#TA-0795-3000-1	2	2.5W below 790nm; 2.0W above 800nm, M ² < 2
808.0	795	825	3000	4500	#TA-0808-3000-4	3	2.5W outside 805-820nm; more ASE below 805nm, System only
825.0	815	840	2000	4000	#TA-0825-2000-2	1	1W outside 820-835 nm; Outside 825 – 835 nm more ASE
830.0	830	845	800	2500	#TA-0830-1000-1	2	outside 835-840nm 600mW with more ASE
840.0	824	870	2500	5000	#TA-0840-2500-1	3	2W outside 835-855nm, 1.5W outside 830-860nm, 1W above 865nm
850.0	845	860	2000	3000	#TA-0850-2000-1	1	1500mW outside 847nm - 858nm, min. 20 mW seed
850.0	845	870	3000	5000	#TA-0850-3000-1	> 3	M ² < 2
860.0	850	870	3500	5000	#TA-0860-3000-1	2	3W outside 855nm-865nm; M ² < 2
860.0	839	870	4000	5500	#TA-0860-4000-1	> 3	3.5W <857>863nm, 3W <847>866nm, 2.5W <845nm, more ASE <854>863, M ² <2
870.0	865	880	1500	3000	#TA-0870-1500-1	1	
870.0	865	885	3500	5000	#TA-0870-3000-1	3	3W outside 870-880nm, M ² <2
890.0	872	912	3500	5000	#TA-0890-3000-1	u.r.	3W < 882nm, 2.5W < 877nm, 1.5W > 902nm; more ASE <887nm >902nm; M ² <2

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u.r. : upon request

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WL nm	WLmin nm	WLmax nm	P mW	max I mA	Article Number	Stock	Remark
915.0	875	920	1500	3000	#TA-0915-1500-4	> 3	1W outside 880-915, M ² < 2
915.0	905	930	2500	4000	#TA-0915-1500-1	> 3	2W outside 915nm-925nm
920.0	890	940	3500	5000	#TA-0920-3000-1	1	3W <920 >930nm; 2,5W <910 >935nm; 1,5W <900nm; <912 >932nm more ASE
950.0	950	975	3000	5000	#TA-0950-3000-1	> 3	2.5W above 965nm; 2W above 970nm with more ASE
970.0	955	990	3000	5000	#TA-0970-3000-1	2	2000mW outside 970-980nm
970.0	950	990	4000	6000	#TA-0970-4000-1	u.r.	reduced ASE suppression outside 960-990nm
1010.0	995	1030	2000	5000	#TA-1010-1500-1	1	1.5W outside 1005-1020nm; 1.2W outside 1000-1025nm
1010.0	1005	1030	3000	7000	#TA-1010-3000-1	2	Above 1025 nm: 2.5 W; M ² < 2.5, wider tuning possible, please inquire
1060.0	1040	1075	2000	4000	#TA-1060-2000-1	1	500mW for >1070nm
1100.0	1082	1115	1500	4000	#TA-1100-1500-1	> 3	1000mW above 1106nm; System only
1120.0	1100	1145	1500	7000	#TA-1120-4000-3	> 3	1W and more ASE above 1140nm; System only! Please inquire
1135.0	1120	1185	1200	7000	#TA-1135-1000-1	u.r.	System only! Max. 800mW @ 1140-1160nm
1150.0	1120	1155	500	5000	#TA-1150-0500-1	1	System only!
1200.0	1182	1223	1500	7000	#TA-1200-1500-1	2	System only! 1W outside 1190nm-1215nm
1250.0	1230	1275	1500	7000	#TA-1250-1500-1	u.r.	System only! Please inquire about max. power.
1280.0	1270	1320	1500	7000	#TA-1280-1500-1	> 3	System only! 1W outside 1277nm-1310nm, M ² < 1.7
1340.0	1315	1357	1500	7000	#TA-1340-1500-1	2	1000mW outside 1327nm-1345nm; System only
1500.0	1470	1540	400	2500	#TA-1500-0500-1	3	250mW <1500nm >1520nm, 200mW <1480nm, more ASE <1490nm >1530nm
1550.0	1520	1590	1000	6000	#TA-1550-1000-1	2	outside 1545 .. 1580 nm max. 500 mW; Up to 2 W, please inquire