

## STW Series Free-space Laser Diodes

												
Laser Diode	Fiber Coupled Laser Module	Fiber Receptacle LD	Laser System	RGB Pigtailed White Laser	Medical Laser Module							
375nm	405nm	445nm	465nm	488nm	505nm	520nm	525nm	635nm	650nm	660nm	670nm	680nm
685nm	760nm	785nm	790nm	808nm	830nm	850nm	860nm	880nm	905nm	915nm	940nm	980nm
1064nm	1210nm	1270nm	1280nm	1290nm	1310nm	1330nm	1350nm	1370nm	1390nm	1410nm	1430nm	1450nm
1470nm	1490nm	1510nm	1530nm	1550nm	1570nm	1590nm	1610nm	1625nm	1650nm	1720nm	1900nm	1920nm

### 1. Single Mode Laser Diodes

#### Features:

- 405nm~1650nm
- Single Mode Beam Output
- 10mW~300mW Output Power
- TO38 / TO18 / TO5 Package
- Built-in Photodiodes Optional
- Long Lifetime
- High Stability



We offer the high quality Laser Diode with single mode beam, the wavelength range is from 405nm to 1650nm and the output power ranges from 5mW to 300mW. The photodiode is optional for customers. Now the standard package can be TO38, TO18 and TO5 Package. We adopt AuSn solder technology to package the laser diode. To ensure the long-term reliability, each laser diode will undergo rigorous testing and aging in factory. Meanwhile the high-low storage temperature circulation is also necessary for each laser diode. We set the storage temperature range from -40 degree C to +85 degree C, and it lasts 10 cycles, which will ensure the long-term stability of laser diode.

Part Number	Wavelength	Output Power	Package	Mode
STW-WSLD-405-010m-1-PD	405nm	10mW	TO18(5.6mm)	Single Mode
STW-WSLD-405-020m-1-PD	405nm	20mW	TO18(5.6mm)	Single Mode
STW-WSLD-405-120m-1	405nm	120mW	TO38(3.8mm)	Single Mode
STW-WSLD-405-120m-1-PD	405nm	120mW	TO18(5.6mm)	Single Mode
STW-WSLD-405-150m-1(3.8mm)	405nm	150mW	TO38(3.8mm)	Single Mode
STW-WSLD-405-150m-1	405nm	150mW	TO18(5.6mm)	Single Mode
STW-WSLD-405-200m-1(3.8mm)	405nm	200mW	TO38(3.8mm)	Single Mode
STW-WSLD-405-250m-1	405nm	250mW	TO18(5.6mm)	Single Mode
STW-WSLD-405-300m-1(SM)	405nm	300mW	TO18(5.6mm)	Single Mode
STW-WSLD-445-050m-1(3.8mm)	445nm	50mW	TO38(3.8mm)	Single Mode
STW-WSLD-445-080m-1	445nm	80mW	TO18(5.6mm)	Single Mode
STW-WSLD-445-100m-1(3.8mm)	445nm	80-100mW	TO38(3.8mm)	Single mode
STW-WSLD-445-100m-1	445nm	80-100mW	TO18(5.6mm)	Single mode
STW-WSLD-488-050m-1	488nm	50mW	TO18(5.6mm)	Single Mode
STW-WSLD-488-060m-1	488nm	60mW	TO18(5.6mm)	Single Mode
STW-WSLD-488-070m-1	488nm	70mW	TO18(5.6mm)	Single Mode
STW-WSLD-488-080m-1	488nm	80mW	TO18(5.6mm)	Single Mode
STW-WSLD-520-010m-1-PD	520nm	10mW	TO18(5.6mm)	Single Mode
STW-WSLD-520-030m-1	520nm	30mW	TO38(3.8mm)	Single Mode
STW-WSLD-520-050m-1(3.8mm)	520nm	40-50mW	TO38(3.8mm)	Single mode

STW-WSLD-520-050m-1-PD	520nm	40-50mW	TO38(3.8mm)	Single mode
STW-WSLD-520-080m-1(3.8mm)	520nm	80mW	TO38(3.8mm)	Single Mode
STW-WSLD-520-080m-1-PD	520nm	80mW	TO18(5.6mm)	Single Mode
STW-WSLD-520-140m-1	520nm	140mW	TO18(5.6mm)	Single Mode
STW-WSLD-635-015m-1-PD	635nm	15mW	TO18(5.6mm)	Single Mode
STW-WSLD-635-030m-1-PD	635nm	30mW	TO18(5.6mm)	Single Mode
STW-WSLD-635-050m-1-PD	635nm	50mW	TO18(5.6mm)	Single Mode
STW-WSLD-635-130m-1(3.8mm)	635nm	130mW	TO38(3.8mm)	Single Mode
STW-WSLD-635-180m-1	635nm	180mW	TO18(5.6mm)	Single Mode
STW-WSLD-635-200m-1-PD	635nm	200mW	TO18(5.6mm)	Single Mode
STW-WSLD-650-050m-1-PD	650nm	50mW	TO18(5.6mm)	Single Mode
STW-WSLD-650-100m-1	650nm	100mW	TO18(5.6mm)	Single Mode
STW-WSLD-650-130m-1	650nm	100-130mW	TO18(5.6mm)	Single Mode
STW-WSLD-650-150m-1	650nm	150mW	TO18(5.6mm)	Single Mode
STW-WSLD-650-180m-1	650nm	180mW	TO18(5.6mm)	Single Mode
STW-WSLD-660-150m-1	660nm	150mW	TO18(5.6mm)	Single Mode
STW-WSLD-685-030m-1-PD	685nm	30mW	TO18(5.6mm)	Single Mode
STW-WSLD-785-100m-1-PD	785nm	100mW	TO18(5.6mm)	Single Mode
STW-WSLD-785-100m-1-PD-R	785nm	100mW	TO18(5.6mm)	Single Mode
STW-WSLD-785-120m-1-PD	785nm	120mW	TO18(5.6mm)	Single Mode
STW-WSLD-785-150m-1	785nm	150mW	TO18(5.6mm)	Single Mode
STW-WSLD-785-200m-1-PD	785nm	200mW	TO18(5.6mm)	Single Mode
STW-WSLD-808-050m-2-PD	808nm	50mW	TO5(9mm)	Single Mode
STW-WSLD-808-100m-2-PD	808nm	100mW	TO5(9mm)	Single Mode
STW-WSLD-808-200m-1-PD	808nm	200mW	TO18(5.6mm)	Single Mode
STW-WSLD-830-050m-1-PD	830nm	50mW	TO18(5.6mm)	Single Mode
STW-WSLD-830-100m-1-PD	830nm	100mW	TO18(5.6mm)	Single Mode
STW-WSLD-830-150m-1-PD	830nm	150mW	TO18(5.6mm)	Single Mode
STW-WSLD-830-200m-1-PD	830nm	200mW	TO18(5.6mm)	Single Mode
STW-WSLD-830-250m-1-PD	830nm	250mW	TO18(5.6mm)	Single Mode
STW-WSLD-850-050m-1-PD	850nm	50mW	TO18(5.6mm)	Single Mode
STW-WSLD-850-100m-1-PD	850nm	100mW	TO18(5.6mm)	Single Mode
STW-WSLD-880-010m-1-PD	880nm	10mW	TO18(5.6mm)	Single Mode
STW-WSLD-980-050m-1-PD	980nm	50mW	TO18(5.6mm)	Single Mode
STW-WSLD-980-080m-1-PD	980nm	80mW	TO18(5.6mm)	Single Mode
STW-WSLD-980-150m-2-PD	980nm	150mW	TO5(9mm)	Single Mode
STW-WSLD-980-200m-2-PD	980nm	200mW	TO5(9mm)	Single Mode
STW-WSLD-1064-050m-1-PD	1064nm	50mW	TO18(5.6mm)	Single Mode
STW-WSLD-1064-100m-2-PD	1064nm	100mW	TO5(9mm)	Single Mode
STW-WSLD-1064-150m-2-PD	1064nm	150mW	TO5(9mm)	Single Mode
STW-WSLD-1064-200m-2-PD	1064nm	200mW	TO5(9mm)	Single Mode
STW-WSLD-1310-020m-1-PD	1310nm	20mW	TO18(5.6mm)	Single Mode
STW-WSLD-1310-020m-1-PD-F	1310nm	20mW	TO18(5.6mm)	Single Mode
STW-WSLD-1310-030m-1-PD	1310nm	30mW	TO18(5.6mm)	Single Mode
STW-WSLD-1310-030m-1-PD-F	1310nm	30mW	TO18(5.6mm)	Single Mode
STW-WSLD-1550-015m-1-PD	1550nm	15mW	TO18(5.6mm)	Single Mode
STW-WSLD-1550-015m-1-PD-F	1550nm	15mW	TO18(5.6mm)	Single Mode

STW-WSLD-1550-020m-1-PD	1550nm	20mW	TO18(5.6mm)	Single Mode
STW-WSLD-1550-020m-1-PD-F	1550nm	20mW	TO18(5.6mm)	Single Mode

## 2. Multi-mode Laser Diodes

### Features:

- 405nm~1920nm
- Multi-mode Beam Output
- 300mW~15W Output Power
- TO18 /TO5 /TO3 /C-mount/E-mount Package
- FAC Lens Optional
- Built-in Photodiode Optional
- Long Lifetime
- High Stability



We offer the high quality laser diode with multi-mode beam, the wavelength range is from 405nm to 1920nm and the output power is from 300mW to 15W. The photodiode is optional for the lasers. Meanwhile, the FAC Lens is optional. With FAC Lens, we can offer 1:1 Square Beam and 1:4 , 1:8 Line Shape Beam. The standard package can be TO18, TO5, TO3, C-mount , E-mount and H-mount package.

Part Number	Wavelength	Output Power	Package	Others
STW-WSLD-405-300m-1	405nm	300mW	TO18(5.6mm)	Multi-mode
STW-WSLD-405-400m-1	405nm	400mW	TO18(5.6mm)	Multi-mode
STW-WSLD-405-500m-1	405nm	500mW	TO18(5.6mm)	Multi-mode
STW-WSLD-445-1500m-1	445nm	1.5W	TO18(5.6mm)	Multi-mode
STW-WSLD-445-3500m-2	445nm	3.5W	TO5(9mm)	Multi-mode
STW-WSLD-445-004-2-FAC	445nm	4W	TO5(9mm)	Multi-mode
STW-WSLD-445-4500m-2	445nm	4.5W	TO5(9mm)	Multi-mode
STW-WSLD-445-4500m-K	445nm	4.5W	TO5(9mm)	Multi-mode
STW-WSLD-520-060m-1	520nm	60mW	TO18(5.6mm)	Multi-mode
STW-WSLD-520-100m-1	520nm	80-100mW	TO18(5.6mm)	Multi-mode
STW-WSLD-520-001-2	520nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-520-001-2-FAC	520nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-520-001-K	520nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-525-001-2	525nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-525-001-2-FAC	525nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-525-001-K	525nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-635-300m-1	635nm	300mW	TO18(5.6mm)	Multi-mode
STW-WSLD-635-500m-1-FAC	635nm	500mW	TO18(5.6mm)	Multi-mode
STW-WSLD-635-500m-3	635nm	500mW	TO3	Multi-mode
STW-WSLD-635-500m-C	635nm	500mW	C-mount	Multi-mode
STW-WSLD-635-700m-1	635nm	700mW	TO18(5.6mm)	Multi-mode
STW-WSLD-635-001-2	635nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-635-001-2-FAC	635nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-635-001-3	635nm	1W	TO3	Multi-mode
STW-WSLD-635-001-C	635nm	1W	C-mount	Multi-mode
STW-WSLD-635-002-2	635nm	2W	TO5(9mm)	Multi-mode
STW-WSLD-635-002-2-FAC	635nm	2W	TO5(9mm)	Multi-mode
STW-WSLD-650-300m-C	650nm	300mW	C-mount	Multi-mode
STW-WSLD-650-500m-3	650nm	500mW	TO3	Multi-mode

STW-WSLD-650-500m-C	650nm	500mW	C-mount	Multi-mode
STW-WSLD-650-001-3	650nm	1W	TO3	Multi-mode
STW-WSLD-650-001-C	650nm	1W	C-mount	Multi-mode
STW-WSLD-650-001-E	650nm	1W	E-mount	Multi-mode
STW-WSLD-660-500m-3	660nm	500mW	TO3	Multi-mode
STW-WSLD-660-500m-C	660nm	500mW	C-mount	Multi-mode
STW-WSLD-660-001-3	660nm	1W	TO3	Multi-mode
STW-WSLD-660-001-C	660nm	1W	C-mount	Multi-mode
STW-WSLD-680-001-3	680nm	1W	TO3	Multi-mode
STW-WSLD-680-001-C	680nm	1W	C-mount	Multi-mode
STW-WSLD-680-001-E	680nm	1W	E-mount	Multi-mode
STW-WSLD-770-002-3	770nm	2W	TO3	Multi-mode
STW-WSLD-770-002-C	770nm	2W	C-mount	Multi-mode
STW-WSLD-785-001-3	785nm	1W	TO3	Multi-mode
STW-WSLD-785-001-C	785nm	1W	C-mount	Multi-mode
STW-WSLD-785-002-3	785nm	2W	TO3	Multi-mode
STW-WSLD-785-002-C	785nm	2W	C-mount	Multi-mode
STW-WSLD-785-003-3	785nm	3W	TO3	Multi-mode
STW-WSLD-785-003-C	785nm	3W	C-mount	Multi-mode
STW-WSLD-785-003-E	785nm	3W	E-mount	Multi-mode
STW-WSLD-785-003-H	785nm	3W	H-mount	Multi-mode
STW-WSLD-785-004-C	785nm	4W	C-mount	Multi-mode
STW-WSLD-785-004-E	785nm	4W	E-mount	Multi-mode
STW-WSLD-785-004-H	785nm	4W	H-mount	Multi-mode
STW-WSLD-785-005-C	785nm	5W	C-mount	Multi-mode
STW-WSLD-785-005-E	785nm	5W	E-mount	Multi-mode
STW-WSLD-785-005-H	785nm	5W	H-mount	Multi-mode
STW-WSLD-792-003-3	792nm	3W	TO3	Multi-mode
STW-WSLD-792-003-C	792nm	3W	C-mount	Multi-mode
STW-WSLD-808-001-2-PD	808nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-808-002-2	808nm	2W	TO5(9mm)	Multi-mode
STW-WSLD-808-002-3	808nm	2W	TO3	Multi-mode
STW-WSLD-808-002-C	808nm	2W	C-mount	Multi-mode
STW-WSLD-808-003-2	808nm	3W	TO5(9mm)	Multi-mode
STW-WSLD-808-003-3	808nm	3W	TO3	Multi-mode
STW-WSLD-808-003-C	808nm	3W	C-mount	Multi-mode
STW-WSLD-808-005-3	808nm	5W	TO3	Multi-mode
STW-WSLD-808-005-C	808nm	5W	C-mount	Multi-mode
STW-WSLD-808-005-E	808nm	5W	E-mount	Multi-mode
STW-WSLD-808-005-H	808nm	5W	E-mount	Multi-mode
STW-WSLD-808-006-C	808nm	6W	C-mount	Multi-mode
STW-WSLD-808-008-E	808nm	8W	E-mount	Multi-mode
STW-WSLD-808-008-H	808nm	8W	H-mount	Multi-mode
STW-WSLD-808-010-3	808nm	10W	TO3	Multi-mode
STW-WSLD-808-010-C	808nm	10W	C-mount	Multi-mode
STW-WSLD-808-010-E	808nm	10W	E-mount	Multi-mode
STW-WSLD-808-010-H	808nm	10W	H-mount	Multi-mode



STW-WSLD-808-300m-1-PD	808nm	300mW	TO18(5.6mm)	Multi-mode
STW-WSLD-830-500m-2-PD	830nm	500mW	TO5(9mm)	Multi-mode
STW-WSLD-830-001-2-PD	830nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-830-002-2	830nm	2W	TO5(9mm)	Multi-mode
STW-WSLD-830-2500m-C	830nm	2.5W	C-mount	Multi-mode
STW-WSLD-830-003-3	830nm	3W	TO3	Multi-mode
STW-WSLD-830-003-C	830nm	3W	C-mount	Multi-mode
STW-WSLD-830-003-E	830nm	3W	E-mount	Multi-mode
STW-WSLD-830-003-H	830nm	3W	H-mount	Multi-mode
STW-WSLD-850-300m-1-PD	850nm	300mW	TO18(5.6mm)	Multi-mode
STW-WSLD-850-500m-1	850nm	500mW	TO18(5.6mm)	Multi-mode
STW-WSLD-850-500m-1-PD	850nm	500mW	TO18(5.6mm)	Multi-mode
STW-WSLD-850-800m-1	850nm	800mW	TO18(5.6mm)	Multi-mode
STW-WSLD-850-001-1	850nm	1W	TO18(5.6mm)	Multi-mode
STW-WSLD-860-001-2-PD	860nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-860-002-2	860nm	2W	TO5(9mm)	Multi-mode
STW-WSLD-860-003-2	860nm	3W	TO5(9mm)	Multi-mode
STW-WSLD-860-003-3	860nm	3W	TO3	Multi-mode
STW-WSLD-860-003-C	860nm	3W	C-mount	Multi-mode
STW-WSLD-860-003-E	860nm	3W	E-mount	Multi-mode
STW-WSLD-880-003-3	880nm	3W	TO3	Multi-mode
STW-WSLD-880-003-C	880nm	3W	C-mount	Multi-mode
STW-WSLD-880-003-E	880nm	3W	E-mount	Multi-mode
STW-WSLD-880-003-H	880nm	3W	H-mount	Multi-mode
STW-WSLD-880-008-E	880nm	8W	E-mount	Multi-mode
STW-WSLD-880-008-H	880nm	8W	H-mount	Multi-mode
STW-WSLD-915-012-E	915nm	12W	E-mount	Multi-mode
STW-WSLD-915-012-H	915nm	12W	H-mount	Multi-mode
STW-WSLD-915-015-E	915nm	15W	E-mount	Multi-mode
STW-WSLD-915-015-H	915nm	15W	H-mount	Multi-mode
STW-WSLD-940-001-2-PD	940nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-940-002-2	940nm	2W	TO5(9mm)	Multi-mode
STW-WSLD-940-002-C	940nm	2W	C-mount	Multi-mode
STW-WSLD-940-003-3	940nm	3W	TO3	Multi-mode
STW-WSLD-940-003-C	940nm	3W	C-mount	Multi-mode
STW-WSLD-940-005-3	940nm	5W	TO3	Multi-mode
STW-WSLD-940-005-C	940nm	5W	C-mount	Multi-mode
STW-WSLD-940-012-E	940nm	12W	E-mount	Multi-mode
STW-WSLD-940-012-H	940nm	12W	H-mount	Multi-mode
STW-WSLD-940-015-E	940nm	15W	E-mount	Multi-mode
STW-WSLD-940-015-H	940nm	15W	H-mount	Multi-mode
STW-WSLD-980-200m-1-PD	980nm	200mW	TO18(5.6mm)	Multi-mode
STW-WSLD-980-500m-2-PD	980nm	500mW	TO5(9mm)	Multi-mode
STW-WSLD-980-001-2-PD	980nm	1W	TO5(9mm)	Multi-mode
STW-WSLD-980-002-2	980nm	2W	TO5(9mm)	Multi-mode
STW-WSLD-980-002-3	980nm	2W	TO3	Multi-mode
STW-WSLD-980-002-C	980nm	2W	C-mount	Multi-mode

STW-WSLD-980-003-3	980nm	3W	TO3	Multi-mode
STW-WSLD-980-003-C	980nm	3W	C-mount	Multi-mode
STW-WSLD-980-004-3	980nm	4W	TO3	Multi-mode
STW-WSLD-980-004-C	980nm	4W	C-mount	Multi-mode
STW-WSLD-980-005-3	980nm	5W	TO3	Multi-mode
STW-WSLD-980-005-C	980nm	5W	C-mount	Multi-mode
STW-WSLD-980-010-C	980nm	10W	C-mount	Multi-mode
STW-WSLD-980-012-E	980nm	12W	E-mount	Multi-mode
STW-WSLD-980-012-H	980nm	12W	H-mount	Multi-mode
STW-WSLD-980-015-E	980nm	15W	E-mount	Multi-mode
STW-WSLD-980-015-H	980nm	15W	H-mount	Multi-mode
STW-WSLD-1064-002-C	1064nm	2W	C-mount	Multi-mode
STW-WSLD-1064-003-3	1064nm	3W	TO3	Multi-mode
STW-WSLD-1064-003-C	1064nm	3W	C-mount	Multi-mode
STW-WSLD-1064-005-3	1064nm	5W	TO3	Multi-mode
STW-WSLD-1064-005-C	1064nm	5W	C-mount	Multi-mode
STW-WSLD-1064-008-E	1064nm	8W	E-mount	Multi-mode
STW-WSLD-1064-008-H	1064nm	8W	H-mount	Multi-mode
STW-WSLD-1064-010-E	1064nm	10W	E-mount	Multi-mode
STW-WSLD-1064-010-H	1064nm	10W	H-mount	Multi-mode
STW-WSLD-1210-1500m-3	1210nm	1.5W	TO3	Multi-mode
STW-WSLD-1210-1500m-C	1210nm	1.5W	C-mount	Multi-mode
STW-WSLD-1210-1500m-E	1210nm	1.5W	E-mount	Multi-mode
STW-WSLD-1210-1500m-H	1210nm	1.5W	H-mount	Multi-mode
STW-WSLD-1280-1500m-3	1280nm	1.5W	TO3	Multi-mode
STW-WSLD-1280-1500m-C	1280nm	1.5W	C-mount	Multi-mode
STW-WSLD-1280-1500m-E	1280nm	1.5W	E-mount	Multi-mode
STW-WSLD-1280-1500m-H	1280nm	1.5W	H-mount	Multi-mode
STW-WSLD-1310-001-3	1310nm	1W	TO3	Multi-mode
STW-WSLD-1310-001-C	1310nm	1W	C-mount	Multi-mode
STW-WSLD-1310-1500m-3	1310nm	1.5W	TO3	Multi-mode
STW-WSLD-1310-1500m-C	1310nm	1.5W	C-mount	Multi-mode
STW-WSLD-1310-1500m-E	1310nm	1.5W	E-mount	Multi-mode
STW-WSLD-1310-1500m-H	1310nm	1.5W	H-mount	Multi-mode
STW-WSLD-1330-001-3	1330nm	1W	TO3	Multi-mode
STW-WSLD-1330-001-C	1330nm	1W	C-mount	Multi-mode
STW-WSLD-1330-1500m-3	1330nm	1.5W	TO3	Multi-mode
STW-WSLD-1330-1500m-C	1330nm	1.5W	C-mount	Multi-mode
STW-WSLD-1330-1500m-E	1330nm	1.5W	E-mount	Multi-mode
STW-WSLD-1330-1500m-H	1330nm	1.5W	H-mount	Multi-mode
STW-WSLD-1330-001-3	1330nm	1W	TO3	Multi-mode
STW-WSLD-1330-001-C	1330nm	1W	C-mount	Multi-mode
STW-WSLD-1330-1500m-3	1330nm	1.5W	TO3	Multi-mode
STW-WSLD-1330-1500m-C	1330nm	1.5W	C-mount	Multi-mode
STW-WSLD-1330-1500m-E	1330nm	1.5W	E-mount	Multi-mode
STW-WSLD-1330-1500m-H	1330nm	1.5W	H-mount	Multi-mode
STW-WSLD-1450-500m-3	1450nm	500mW	TO3	Multi-mode

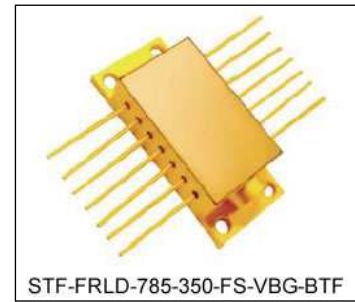
STW-WSLD-1450-500m-C	1450nm	500mW	C-mount	Multi-mode
STW-WSLD-1450-002-3	1450nm	2W	TO3	Multi-mode
STW-WSLD-1450-002-C	1450nm	2W	C-mount	Multi-mode
STW-WSLD-1450-002-E	1450nm	2W	E-mount	Multi-mode
STW-WSLD-1450-002-H	1450nm	2W	H-mount	Multi-mode
STW-WSLD-1470-001-3	1470nm	1W	TO3	Multi-mode
STW-WSLD-1470-001-C	1470nm	1W	C-mount	Multi-mode
STW-WSLD-1470-003-C	1470nm	3W	C-mount	Multi-mode
STW-WSLD-1470-003-E	1470nm	3W	E-mount	Multi-mode
STW-WSLD-1470-003-H	1470nm	3W	H-mount	Multi-mode
STW-WSLD-1490-2500m-3	1490nm	2.5W	TO3	Multi-mode
STW-WSLD-1490-2500m-C	1490nm	2.5W	C-mount	Multi-mode
STW-WSLD-1490-2500m-E	1490nm	2.5W	E-mount	Multi-mode
STW-WSLD-1490-2500m-H	1490nm	2.5W	H-mount	Multi-mode
STW-WSLD-1530-002-3	1530nm	2W	TO3	Multi-mode
STW-WSLD-1530-002-C	1530nm	2W	C-mount	Multi-mode
STW-WSLD-1530-002-E	1530nm	2W	E-mount	Multi-mode
STW-WSLD-1530-002-H	1530nm	2W	H-mount	Multi-mode
STW-WSLD-1550-001-3	1550nm	1W	TO3	Multi-mode
STW-WSLD-1550-001-C	1550nm	1W	C-mount	Multi-mode
STW-WSLD-1550-002-3	1550nm	2W	TO3	Multi-mode
STW-WSLD-1550-002-C	1550nm	2W	C-mount	Multi-mode
STW-WSLD-1550-003-E	1550nm	3W	E-mount	Multi-mode
STW-WSLD-1550-003-H	1550nm	3W	H-mount	Multi-mode
STW-WSLD-1720-001-3	1720nm	1W	TO3	Multi-mode
STW-WSLD-1720-001-C	1720nm	1W	C-mount	Multi-mode
STW-WSLD-1720-001-E	1720nm	1W	E-mount	Multi-mode
STW-WSLD-1720-001-H	1720nm	1W	H-mount	Multi-mode
STW-WSLD-1900-700m-3	1900nm	700mW	TO3	Multi-mode
STW-WSLD-1900-700m-C	1900nm	700mW	C-mount	Multi-mode
STW-WSLD-1900-700m-E	1900nm	700mW	E-mount	Multi-mode
STW-WSLD-1900-700m-H	1900nm	700mW	H-mount	Multi-mode
STW-WSLD-1920-700m-3	1920nm	700mW	TO3	Multi-mode
STW-WSLD-1920-700m-C	1920nm	700mW	C-mount	Multi-mode
STW-WSLD-1920-700m-E	1920nm	700mW	E-mount	Multi-mode
STW-WSLD-1920-700m-H	1920nm	700mW	H-mount	Multi-mode

## STF Series Laser Diodes

### 1. Free Space Narrow Linewidth Laser Diode 785nm 350mW

Applications:

- Raman Spectroscopy
- Medical
- Spectrum Analysis
- Scientific Research



Part number: STF-FRLD-785-350-FS-VBG-BTF

Specifications	Unit	Min	Typ	Max
<b>Optical Data</b>				
CW Output Power	mW	350	-	-
Center Wavelength	nm	784.5	785.0	785.5
Spectral Width (FWHM)	nm	-	-	0.1
Temperature Drift of	nm/°C	-	0.01	-
Current Drift of	nm/A	-	0.05	-
<b>Electrical Data</b>				
Threshold Current	A	-	0.4	-
Operation Current	A	-	0.9	-
Operation Voltage	V	-	2.0	-
Slope Efficiency	W/A	-	0.7	-
<b>PD Data</b>				
Current	μA	-	-	2000
Thermistor	kΩ / β(25°)	10±5% / 3450		
<b>TEC Data</b>				
Max. Current	A	-	-	2.5
Max. Voltage	V	-	-	6.3

Specifications	Unit	Min	Typ	Max
<b>Temperature Conditions</b>				
Case Operation Temperature	°C	10	-	30
Storage Temperature	°C	-20	-	70
<b>Other Parameters</b>				
Lead Soldering Temperature	°C	-	-	250
Lead Soldering Time	sec	-	-	10
Relative Humidity (Operating)	%	-	-	75
Relative Humidity (Storage)	%	-	-	90
<b>Dimension</b>	mm	38.1x12.7x8.1		

### 2. Wavelength-stabilized Laser Diode, 785nm, 100mW

Features:

- Wavelength 785nm
- CW Output Power 100mW



Part number: STF-FRLD-785-100-VBG-TO56

Specifications	Unit	Min	Typ	Max
<b>Optical Data</b>				
CW Output Power	mW	100	-	-
Center Wavelength	nm	784.5	785.0	785.5
Spectral Width (FWHM)	nm	-	-	0.1
Temperature Drift of	nm/°C	-	0.01	-
<b>Electrical Data</b>				
Threshold Current	mA	-	50	-
Operation Current	mA	-	120	-
Slope Efficiency	W/A	-	0.85	-
Operation Voltage	V	-	2.0	-
<b>Temperature Conditions</b>				



Case Operation Temperature	°C	20	-	30
Storage Temperature	°C	-20	-	70
Other Parameters				
Lead Soldering Temperature	°C	-	-	250
Lead Soldering Time	sec	-	-	10
Relative Humidity (Operating)	%	-	-	75
Relative Humidity (Storage)	%	-	-	90
Dimension	mm	Dia. 5.4x12.6		

### 3. VBG Narrow-line Laser Diode 785nm 100mW

STF-FOLD-785-100S-VBG is a single mode semiconductor laser diode with 100mW CW output power at 785nm. Due to the integrated VBG the wavelength is fixed and the spectral width is very narrow. It is suitable for the use in various optoelectronic applications.

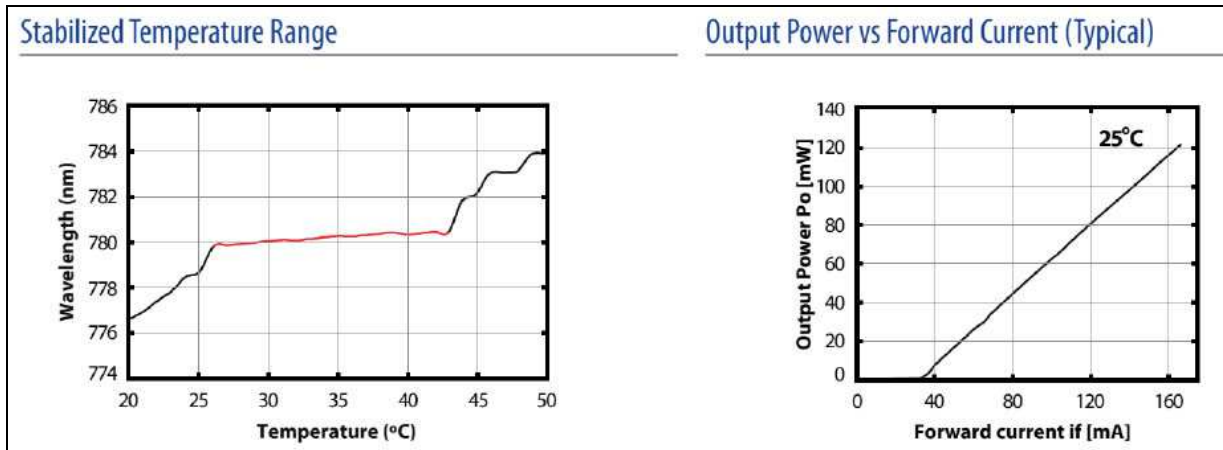
#### APPLICATIONS:

- Raman Spectroscopy
- Bio-Instrumentation
- Metrology
- Sensing
- Analytical Instrumentation

Optical and electrical characteristics (T = 25°C, P = 100mW):  
Part number: STF-FOLD-785-100S-VBG



Operating Parameters	Symbol	Min	Typ	Max	Unit
Optical Power	P <sub>out</sub>	-	-	100	mW
Wavelength		784	785	786	nm
Line Width		-	175	-	MHz
Threshold Current	I <sub>th</sub>	-	50	-	mA
Forward Current	I <sub>f</sub>	-	130	200	mA
Forward Voltage	V <sub>f</sub>	-	1.3	2.2	V
Reverse Voltage	V <sub>r</sub>	-	-	2	V
Slope Efficiency	P/ I	-	0.9	-	mW/mA
Beam Divergence, Perpendic.		-	25	-	°
Beam Divergence, Parallel		-	10	-	°
Operating Temperature	T <sub>op</sub>	0	-	40	°C
Central Stabilized Temperature	T <sub>c</sub>	15	-	35	°C
Stabilized Temperature Range	T <sub>r</sub>	15	-	-	°C
Storage Temperature	T <sub>s</sub>	-20	-	70	°C
Emitter Size	E <sub>s</sub>	1.5 x 3			µm
Coherence Length		> 1m			
Polarization Orientation		TE			
Dimension		Dia 4.4x3.9mm			



## STU Series Diode Lasers



With over 40 years of considerable experience in photonics industry, we provide varies products selection in a wide wavelength range from violet to infrared for a broad range of applications such as display, medical, industrial tools(sensor and leveler), printer and more.

Part Number	Wave-length (nm)	Transverse Mode	Laser Power (mW)	Package	Beam Divergence Parallel (deg)	Beam Divergence Perpendicular(deg)	Monitor PD
STU-HL37013MG	375	Multi	200	MG( $\phi$ 5.6mm)	14	50	Without
STU-HL40041MG	404	Multi	150	MG( $\phi$ 5.6mm)	13	45	With
STU-HL40053MG	404	Multi	400	MG( $\phi$ 5.6mm)	13	42	Without
STU-HL40093MG	404	Multi	400	MG( $\phi$ 5.6mm)	13	42	Without
STU-HL40033G	405	Multi	1,000	G( $\phi$ 9.0mm)	13	42	Without
STU-HL40063MG	405	Multi	600	MG( $\phi$ 5.6mm)	13	42	Without
STU-HL40065MG	405	Multi	600	MG( $\phi$ 5.6mm)	13	42	With
STU-HL40071MG	405	Single	300	MG( $\phi$ 5.6mm)	6	15	With
STU-HL40085G	405	Multi	1,000	G( $\phi$ 9.0mm)	13	42	With
STU-HL40103HD	405	Multi	Pulse 3,500	HD( $\phi$ 9.0mm)	13	45	Without
STU-HL40115MG	405	Multi	600	MG( $\phi$ 5.6mm)	13	45	With
STU-HL63163DG	633	Single	100	DG( $\phi$ 5.6mm)	8.5	18	Without
STU-HL63101MG	637	Single	5	MG( $\phi$ 5.6mm)	8	34	With
STU-HL63102MG	637	Single	5	MG( $\phi$ 5.6mm)	8	34	With
STU-HL63142DG	637	Single	100	DG( $\phi$ 5.6mm)	8	18	With
STU-HL63253MG	637	Multi	450	MG( $\phi$ 5.6mm)	8.5	33	Without
STU-HL63283HD	637	Multi	1,200	HD( $\phi$ 9.0mm)	10	33	Without
STU-HL6388MG	637	Multi	250	MG( $\phi$ 5.6mm)	11	40	Without
STU-HL6312G	638	Single	5	G( $\phi$ 9.0mm)	8	31	With
STU-HL63133DG	638	Single	170	DG( $\phi$ 5.6mm)	9	17	Without
STU-HL63192DG	638	Multi	700	DG( $\phi$ 5.6mm)	9	35	With
STU-HL63193MG	638	Multi	700	MG( $\phi$ 5.6mm)	9	35	Without
STU-HL6319G	638	Single	10	G( $\phi$ 9.0mm)	8	31	With
STU-HL6320G	638	Single	10	G( $\phi$ 9.0mm)	8	31	With
STU-HL6321G	638	Single	15	G( $\phi$ 9.0mm)	8	30	With
STU-HL6322G	638	Single	15	G( $\phi$ 9.0mm)	8	30	With
STU-HL63290HD	638	Multi	2,200	HD( $\phi$ 9.0mm)	10	33	Without
STU-HL63520HD	638	Multi	2,400	HD( $\phi$ 9.0mm)	10	33	Without
STU-HL6354MG	638	Single	5	MG( $\phi$ 5.6mm)	8	25	With
STU-HL6355MG	638	Single	5	MG( $\phi$ 5.6mm)	8	25	With
STU-HL63603TG	638	Single	120	TG( $\phi$ 3.8mm)	8.5	18	Without
STU-HL6323MG	639	Single	30	MG( $\phi$ 5.6mm)	8.5	30	With
STU-HL63391DG	639	Single	200	DG( $\phi$ 5.6mm)	8.5	14	With
STU-HL63392DG	639	Single	200	DG( $\phi$ 5.6mm)	8.5	14	With
STU-HL6358MG	639	Single	10	MG( $\phi$ 5.6mm)	8	21	With
STU-HL63591MG	639	Single	5	MG( $\phi$ 5.6mm)	8	21	With

STU-HL63592MG	639	Single	5	MG( $\phi$ 5.6mm)	8	21	With
STU-HL6359MG	639	Single	10	MG( $\phi$ 5.6mm)	8	21	With
STU-HL6360MG	639	Single	20	MG( $\phi$ 5.6mm)	9	21	With
STU-HL6361MG	639	Single	20	MG( $\phi$ 5.6mm)	9	21	With
STU-HL6395MG	639	Single	10	MG( $\phi$ 5.6mm)	9	21	With
STU-HL6396MG	639	Single	10	MG( $\phi$ 5.6mm)	9	21	With
STU-HL6397MG	639	Single	20	MG( $\phi$ 5.6mm)	9	21	With
STU-HL6398MG	639	Single	20	MG( $\phi$ 5.6mm)	9	21	With
STU-HL6362MG	640	Single	40	MG( $\phi$ 5.6mm)	10	21	With
STU-HL6363MG	640	Single	40	MG( $\phi$ 5.6mm)	10	21	With
STU-HL6364DG	642	Single	60	DG( $\phi$ 5.6mm)	10	21	With
STU-HL6365DG	642	Single	60	DG( $\phi$ 5.6mm)	10	21	With
STU-HL6366DG	642	Single	80	DG( $\phi$ 5.6mm)	10	21	With
STU-HL6367DG	642	Single	80	DG( $\phi$ 5.6mm)	10	21	With
STU-HL6385DG	642	Single	150	DG( $\phi$ 5.6mm)	9	17	Without
STU-HL65014DG	648.5	Single	150	DG( $\phi$ 5.6mm)	9	17	Without
STU-HL6501MG	658	Single	30	MG( $\phi$ 5.6mm)	8.5	22	With
STU-HL65213HD	659	Multi	1,200	HD( $\phi$ 9.0mm)	10	33	Without
STU-HL65051DG	660	Single	120	DG( $\phi$ 5.6mm)	10	17	With
STU-HL65055DG	660	Single	120	DG( $\phi$ 5.6mm)	10	17	With
STU-HL65221DG	660	Single	200	DG( $\phi$ 5.6mm)	8	15	With
STU-HL65222DG	660	Single	200	DG( $\phi$ 5.6mm)	8	15	With
STU-HL65223DG	660	Single	200	DG( $\phi$ 5.6mm)	8	15	Without
STU-HL65231DG	660	Single	150	DG( $\phi$ 5.6mm)	7.5	15	With
STU-HL65232DG	660	Single	150	DG( $\phi$ 5.6mm)	7.5	15	With
STU-HL65233DG	660	Single	150	DG( $\phi$ 5.6mm)	7.5	15	Without
STU-HL6544FM	660	Single	50	MG( $\phi$ 5.6mm)	10	17	Without
STU-HL6545MG	660	Single	120	MG( $\phi$ 5.6mm)	10	17	Without
STU-HL6714G	670	Single	10	G( $\phi$ 9.0mm)	8	22	With
STU-HL67191MG	670	Single	15	MG( $\phi$ 5.6mm)	7.5	24	With
STU-HL67192MG	670	Single	15	MG( $\phi$ 5.6mm)	7.5	24	With
STU-HL6748MG	670	Single	10	MG( $\phi$ 5.6mm)	8	25	With
STU-HL6756MG	670	Single	15	MG( $\phi$ 5.6mm)	8	24	With
STU-HL6750MG	685	Single	50	MG( $\phi$ 5.6mm)	9	21	With
STU-HL6738MG	690	Single	30	MG( $\phi$ 5.6mm)	8.5	19	With
STU-HL7001MG	705	Single	40	MG( $\phi$ 5.6mm)	9	18	With
STU-HL7002MG	705	Single	40	MG( $\phi$ 5.6mm)	9	18	With
STU-HL7301MG	730	Single	40	MG( $\phi$ 5.6mm)	9	18	With
STU-HL7302MG	730	Single	40	MG( $\phi$ 5.6mm)	9	18	With
STU-HL83013MG	830	Single	50	MG( $\phi$ 5.6mm)	9	22	Without
STU-HL8337MG	830	Single	50	MG( $\phi$ 5.6mm)	9	22	With
STU-HL8338MG	830	Single	50	MG( $\phi$ 5.6mm)	9	22	With
STU-HL8340MG	852	Single	50	MG( $\phi$ 5.6mm)	9	22	With
STU-HL8341MG	852	Single	50	MG( $\phi$ 5.6mm)	9	22	With

## STC Series Laser Diodes



We provide laser diodes with free space and fiber coupling option from 405-1550 nm wavelength range. The free space laser diode can be divided into single mode and multimode. The fiber coupled laser diode can be divided into SM, PM, MM pigtailed and high power laser diode module. The small emitting aperture, combined with low beam divergence, make these devices the highest-brightness family of CW laser diodes available in the industry.

- Single Mode/ Multimode Laser Diode
- Wavelength range 405-1550 nm
- Output power range 5mW-10W
- Fabry Perot (FP) laser cavity
- Low capacitance

Wavelength (nm)	Tolerance (nm)	Power (mW)	Laser Type
405 nm	5	20	Single Mode
405 nm	5	150	Single Mode
450 nm	5	1400	Multimode
488 nm	5	60	Single Mode
637 nm	5	120-170	Single Mode
640 nm	5	150	Single Mode
658 nm	8	200	Single Mode
730 nm	10	50	Single Mode
785 nm	5	150	Single Mode
808 nm	3/5/10	200-10000	Multimode
830 nm	5	1000	Multimode
850 nm	5	50	Single Mode
940 nm	5	1500	Multimode
980 nm	5/10	50-3000	Multimode
1064 nm	5	300	Single mode
1310 nm	5	20	Single mode
1550 nm	5	20	Single mode

### Detailed Specifications of Free-space Laser Diodes

Part Number	STC-SLD-405-20	STC-SLD-405-150	STC-SLD-785-150
Power (mW)	20	150	150
Package	TO-18	TO-38	TO-5
Peak Wavelength (nm)	405±5	405±5	785±5
Threshold Current (Typ.)	32mA	40mA	35mA
Operating Current (Typ.)	43mA	140mA	170mA
LD Reverse Voltage	2V	2V	2.0V
Operating Voltage	5.2V	5.2V	1.9V
Slope Efficiency	1.8W/A	1.5W/A	1.1W/A
Horizontal Beam Divergence	9deg	8.5deg	8deg

Vertical Beam Divergence	20deg	19deg	25deg
Polarization	TE	TE	TE
Operating Temperature	+10-+40°C	0-+90°C	-20-+50°C
Storage Temperature	-20-+60°C	-40-+90°C	-40-+80°C

Part Number	STC-MLD-808-200	STC-MLD-808-300	STC-MLD-808-500	STC-MLD-808-500	STC-MLD-808-1000
Power (mW)	200	300	500	500	1000
Package	TO-18	TO-18	TO-3/C-Mount	TO-5	TO-3/C-Mount
Peak Wavelength (nm)	808±3	808±3	808±5	808±3	808±5
Threshold Current (Typ.)	40mA	60mA	130mA	120mA	240mA
Operating Current (Typ.)	250mA	350mA	600mA	650mA	1240mA
LD Reverse Voltage	3.0V	3.0V	2.0V	2.0V	2.0V
Operating Voltage	2.2V	2.2V	2.0V	2.0V	2.0V
Slope Efficiency	1.2W/A	1.2W/A	1.0W/A	1.0W/A	1.0W/A
Horizontal Beam Divergence	10deg	10deg	10deg	12deg	10deg
Vertical Beam Divergence	40deg	40deg	38deg	40deg	38deg
Polarization	TE	TE	TE	TE	TE
Operating Temperature	+10-+30°C	+10-+30°C	0-+35°C	-10-+30°C	0-+35°C
Storage Temperature	-40-+80°C	-40-+80°C	-10-+60°C	-10-+85°C	-10-+60°C

Part Number	STC-MLD-808-2000	STC-MLD-808-3000	STC-MLD-808-3000	STC-MLD-808-5000	STC-MLD-808-10000
Power (mW)	2000	3000	3000	5000	10000
Package	C-Mount	C-Mount	TO-3	TO-3/C-Mount	CN-Mount
Peak Wavelength (nm)	808±3	808±3	808±10	808±3	808±3
Threshold Current (Typ.)	700mA	800mA	1000mA	1000mA	1900mA
Operating Current (Typ.)	2600mA	3500mA	3500mA	6000mA	10500mA
LD Reverse Voltage	2.0V	2.0V	2.0V	2.0V	2.0V
Operating Voltage	2.0V	2.0V	2.2V	2.0V	2.0V
Slope Efficiency	1.1W/A	1.1W/A	1.0W/A	1.05W/A	1.15W/A
Horizontal Beam Divergence	8deg	8deg	12deg	8deg	10deg
Vertical Beam Divergence	35deg	35deg	40deg	35deg	38deg
Polarization	TE	TE	TE	TE	TE
Operating Temperature	0-+55°C	0-+55°C	+10-+50°C	+15-+30°C	+15-+35°C
Storage Temperature	+15-+30°C	+15-+35°C	-40-+85°C	0-+55°C	-20-+80°C

Part Number	STC-MLD-980-50	STC-MLD-980-500	STC-MLD-980-3000
Power (mW)	50	500	3000
Package	TO-18	TO-5	C-Mount
Peak Wavelength (nm)	980±10	980±10	980±5
Threshold Current (Typ.)	25mA	150mA	700mA
Operating Current (Typ.)	120mA	850mA	3300mA
LD Reverse Voltage	2.0V	2.0V	2.0V
Operating Voltage	2.0V	2.0V	2.0V
Slope Efficiency	0.45W/A	0.9W/A	1W/A
Horizontal Beam Divergence	25deg	10deg	8deg
Vertical Beam Divergence	35deg	48deg	35deg



Polarization	TE	TE	TE
Operating Temperature	+10-+40°C	+10-+40°C	+15-+30°C
Storage Temperature	-40-+85°C	-40-+85°C	0-+55°C