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FREECALL 1800 680 680

MAP DFB Laser



For stand-alone applications, the MAP DFB Laser may be used as a benchtop

Key Features

- One or two DFB laser(s) per cassette
- 1.5 nm of wavelength tuning range
- 10 or 20 mW output power
- 200 Hz to 400 kHz modulation
- 50 GHz wavelength spacing
- Single-mode fiber (SMF) and polarization maintaining fiber (PMF) output available

Applications

- DWDM transmission testing
- Optical amplifier testing
- Fiber characterization

Safety Information

- This optical source cassette, when installed in the MAP chassis, complies to CE requirements plus UL3101-1 and CAN/CSA-C22.2 No.1010.1, meets the requirements of Class 3B in standard IEC 60825-1(2002), and complies with 21 CFR 1040.1 except deviations per Laser Notice No.50, July 2001.

INVISIBLE LASER RADIATION
 AVOID EXPOSURE TO BEAM
 CLASS 3B LASER PRODUCT
 (IEC 60825-1, 2002)
 MAX. 500 mw, 700-1680 nm

The Multiple Application Platform (MAP) Distributed Feedback (DFB) Laser Cassette is an excellent source for dense wavelength division multiplexing (DWDM) system testing. A combination of DFB lasers may be used to create an ITU grid in which optical frequency represented by a DFB laser corresponds to the transmitter in the optical network. The standard MAP DFB Laser can be selected to comply with the 50 GHz ITU grid in the C- and L-band (1527 to 1610 nm). The lasers typically show a side-mode suppression ratio of 40 dB and can be modulated internally from 0.2 to 400 kHz in square, sinusoidal and triangular waves.

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Specifications

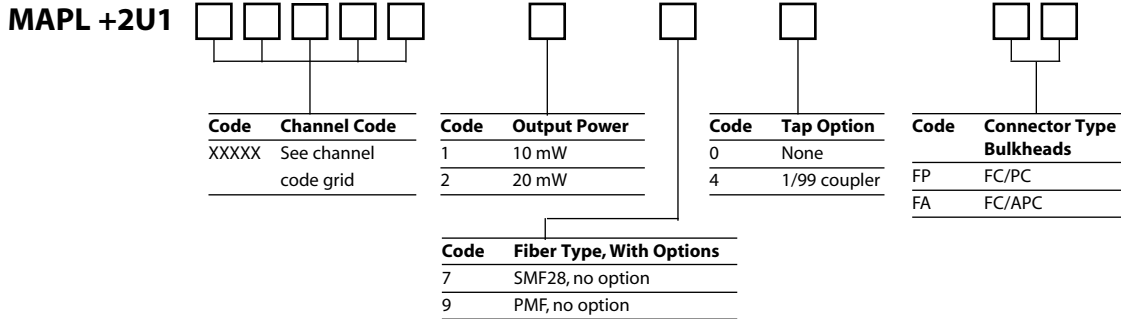
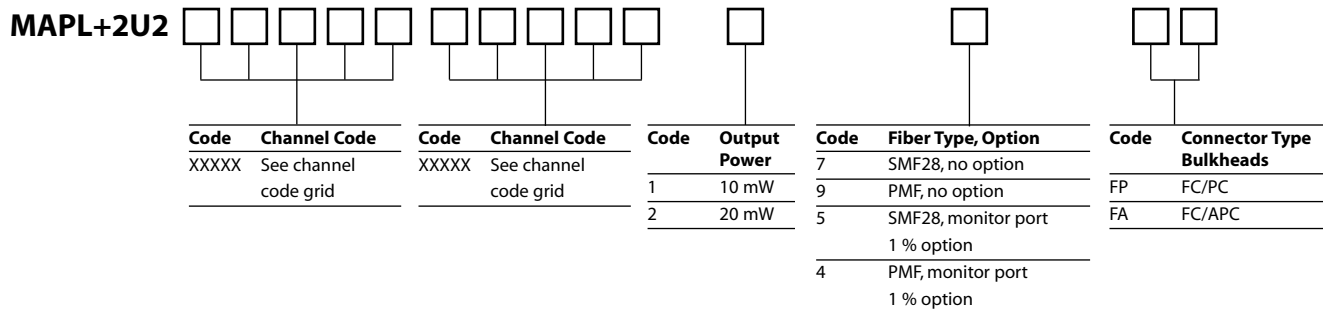
Parameter	Specification
Wavelength	
Range	ITU grid C+L-band (see Channel Code Grid)
Accuracy	± 0.03 nm
Stability 15 minutes ^{1, 2, 3}	± 0.005 nm
Stability 24 hours ^{1, 2, 3}	± 0.01 nm
Tuning range	≥ 1.5 nm
Resolution	0.01 nm
Power	
Laser output ⁴	10 or 20 mW
Laser power uncertainty ³	± 5 %
Stability 15 minutes ^{1, 2, 3}	± 0.005 dB
Stability 24 hours ^{1, 2, 3}	± 0.03 dB
Resolution ⁵	0.01 dB
Attenuation range	10 dB
Internal modulation	
Range ⁶	0.2 to 400 kHz
Depth	0 to 100%
Duty cycle	15 to 85%
Function	Square, Sinusoidal and Triangular
Spectral properties	
Width coherence control off	< 30 MHz
Width coherence control on	≥ 500 MHz
Side mode suppression ratio (SMSR)	> 40 dB
Optical signal to noise ratio (OSNR) (peak to maximum background)	30 dB
Optical isolation	30 dB
Relative intensity noise (RIN)	-140 dB/Hz
Recommended calibration period	1 year
Operating temperature	10 to 40 °C
Storage temperature	-30 to 60 °C
Dimensions (W x H x D)	4.06 x 13.24 x 39.5 cm
Weight	0.5 kg

1. At full power.
2. After 1 hour warm-up.
3. Constant temperature within 25 ± 3 °C.
4. Not including options.
5. For maximum power to (maximum power - 8 dB).
6. Nominal duty cycle is accurate from 0.2 to 100 kHz. Analog modulation bandwidth is 400 kHz.

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Channel Code Grid

Code	Frequency (THz)	Wavelength (nm)	Code	Frequency (THz)	Wavelength (nm)	Code	Frequency (THz)	Wavelength (nm)
18620	186.20	1610.06	18945	189.45	1582.44	19275	192.75	1555.34
18625	186.25	1609.62	18950	189.5	1582.02	19280	192.80	1554.94
18630	186.30	1609.19	18955	189.55	1581.60	19285	192.85	1554.54
18635	186.35	1608.76	18960	189.60	1581.18	19290	192.90	1554.13
18640	186.40	1608.33	18965	189.65	1580.77	19295	192.95	1553.73
18645	186.45	1607.90	18970	189.70	1580.35	19300	193.00	1553.33
18650	186.50	1607.47	18975	189.75	1579.93	19305	193.05	1552.93
18655	186.55	1607.04	18980	189.80	1579.52	19310	193.10	1552.52
18660	186.60	1606.61	18985	189.85	1579.10	19315	193.15	1552.12
18665	186.65	1606.17	18990	189.90	1578.69	19320	193.20	1551.72
18670	186.70	1605.74	18995	189.95	1578.27	19325	193.25	1551.32
18675	186.75	1605.31	19000	190.00	1577.86	19330	193.30	1550.92
18680	186.80	1604.89	19005	190.05	1577.44	19335	193.35	1550.52
18685	186.85	1604.46	19010	190.10	1577.03	19340	193.40	1550.12
18690	186.90	1604.03	19015	190.15	1576.61	19345	193.45	1549.72
18695	186.95	1603.60	19020	190.20	1576.20	19350	193.50	1549.32
18700	187.00	1603.17	19025	190.25	1575.78	19355	193.55	1548.92
18705	187.05	1602.74	19030	190.30	1575.37	19360	193.60	1548.52
18710	187.10	1602.31	19035	190.35	1574.95	19365	193.65	1548.12
18715	187.15	1601.88	19040	190.40	1574.54	19370	193.70	1547.72
18720	187.20	1601.46	19045	190.45	1574.13	19375	193.75	1547.32
18725	187.25	1601.03	19050	190.50	1573.71	19380	193.80	1546.92
18730	187.30	1600.60	19055	190.55	1573.30	19385	193.85	1546.52
18735	187.35	1600.17	19060	190.60	1572.89	19390	193.90	1546.12
18740	187.40	1599.75	19065	190.65	1572.48	19395	193.95	1545.72
18745	187.45	1599.32	19070	190.70	1572.06	19400	194.00	1545.32
18750	187.50	1598.89	19075	190.75	1571.65	19405	194.05	1544.92
18755	187.55	1598.47	19080	190.80	1571.24	19410	194.10	1544.53
18760	187.60	1598.04	19085	190.85	1570.83	19415	194.15	1544.13
18765	187.65	1597.62	19090	190.90	1570.42	19420	194.20	1543.73
18770	187.70	1597.19	19095	190.95	1570.01	19425	194.25	1543.33
18775	187.75	1596.76	19100	191.00	1569.59	19430	194.30	1542.94
18780	187.80	1596.34	19105	191.05	1569.18	19435	194.35	1542.54
18785	187.85	1595.91	19110	191.10	1568.77	19440	194.40	1542.14
18790	187.90	1595.49	19115	191.15	1568.36	19445	194.45	1541.75
18795	187.95	1595.07	19120	191.20	1567.95	19450	194.50	1541.35
18800	188.00	1594.64	19125	191.25	1567.54	19455	194.55	1540.95
18805	188.05	1594.22	19130	191.30	1567.13	19460	194.60	1540.56
18810	188.10	1593.79	19135	191.35	1566.72	19465	194.65	1540.16
18815	188.15	1593.37	19140	191.40	1566.31	19470	194.70	1539.77
18820	188.20	1592.95	19145	191.45	1565.91	19475	194.75	1539.37
18825	188.25	1592.52	19150	191.50	1565.50	19480	194.80	1538.98
18830	188.30	1592.10	19155	191.55	1565.09	19485	194.85	1538.58
18835	188.35	1591.68	19160	191.60	1564.68	19490	194.90	1538.19
18840	188.40	1591.26	19165	191.65	1564.27	19495	194.95	1537.79
18845	188.45	1590.83	19170	191.70	1563.86	19500	195.00	1537.40
18850	188.50	1590.41	19175	191.75	1563.46	19505	195.05	1537.00
18855	188.55	1589.99	19180	191.80	1563.05	19510	195.10	1536.61
18860	188.60	1589.57	19185	191.85	1562.64	19515	195.15	1536.22
18865	188.65	1589.15	19190	191.90	1562.23	19520	195.20	1535.82
18870	188.70	1588.73	19195	191.95	1561.83	19525	195.25	1535.43
18875	188.75	1588.30	19200	192.00	1561.42	19530	195.30	1535.04
18880	188.80	1587.88	19205	192.05	1561.01	19535	195.35	1534.64
18885	188.85	1587.46	19210	192.10	1560.61	19540	195.40	1534.25
18890	188.90	1587.04	19215	192.15	1560.20	19545	195.45	1533.86
18895	188.95	1586.62	19220	192.20	1559.80	19550	195.50	1533.47
18900	189.00	1586.20	19225	192.25	1559.39	19555	195.55	1533.07
18905	189.05	1585.78	19230	192.30	1558.98	19560	195.60	1532.68
18910	189.10	1585.37	19235	192.35	1558.58	19565	195.65	1532.29
18915	189.15	1584.95	19240	192.40	1558.17	19570	195.70	1531.90
18920	189.20	1584.53	19245	192.45	1557.77	19575	195.75	1531.51
18925	189.25	1584.11	19250	192.50	1557.36	19580	195.80	1531.12
18930	189.30	1583.69	19255	192.55	1556.96	19585	195.85	1530.73
18935	189.35	1583.27	19260	192.60	1556.56	19590	195.90	1530.33
18940	189.40	1582.85	19265	192.65	1556.15	19595	195.95	1529.94
			19270	192.70	1555.75	19600	196.00	1529.55

Ordering Information
MAP Single DFB Laser Cassette
Sample: MAPL+2U119630190FP

MAP Dual DFB Laser Cassette
Sample : MAPL+2U2196301962027FP


If the configurations available do not meet your performance requirements, please contact our global sales and customer service team to discuss the potential for specialized solutions.

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