



## NYC10D Series DML DFB Laser Module

### ✧ Product Features

High-Dynamic-Range

Bandwidth better than 10GHz

DWDM

Excellent wavelength stability

Operate temperature (-40°C ~ 70°C)

### ✧ Product Applications

Antenna Remoting

Cellular and PCS Networks

Analog RF links transmission

Tracking, Telemetry, and Control

Broadband wireless communication

DWDM System



### ✧ Introduce Of NYC10D

NYC10D series DML laser module mainly consist of DML DFB laser, automatic optical power control circuit, automatic temperature control circuit, voltage stabilizing conversion circuit and monitoring indication circuit. The working wavelength of high-speed DML DFB laser covers ITU standard dense wavelength division multiplexing wavelength (DWDM). The modulation bandwidth is better than 10GHz; ; Output power will be better than 5mW. The working power supply voltage of the module is a single positive power supply, which can stably work in the voltage range of +7V ~ +36V. The module also has the function of indicating normal power supply and normal optical power output.



### Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit
Storage temperature	T <sub>STG</sub>	-55	+25	+85	°C
Operation temperature	T <sub>C</sub>	-40	+25	+70	°C
Input RF power <sup>(1)</sup>	P <sub>in</sub>	-	+10	+20	dBm
Operation voltage	V <sub>in</sub>	+7	+12	+36	V

(1) Continuous wave (CW).

### Optical and Electrical Specification (T<sub>c</sub>=22±3°C)

Parameter	Symbol	Test condition	Min.	Typ.	Max.	Unit	Remark
Wavelength	λ	-	1527.99	-	1563.05	nm	ITU Standard
Frequency (3dB)	f <sub>3dB</sub>	S band	0.1	-	3.5	GHz	-
		C band	0.1	-	8.5	GHz	-
Optical Output Power	P	-	5	10	-	mW	-
Relative Intensity Noise	RIN	-	-	-	-155	dBc/Hz	-
VSWR	VSWR	-	-	-	2		
Input 1 dB Compression	-	-	+13	+15	-	dBm	-

### Power Supply (T<sub>c</sub> = 22±3°C)

Parameter	Min.	Typ.	Max.	Unit
Voltage	+7	+12	+36	V
Current <sup>(2)</sup>	0.07	0.1	1	A

(2) Test condition: V<sub>in</sub>=+12V.



### Typical Data

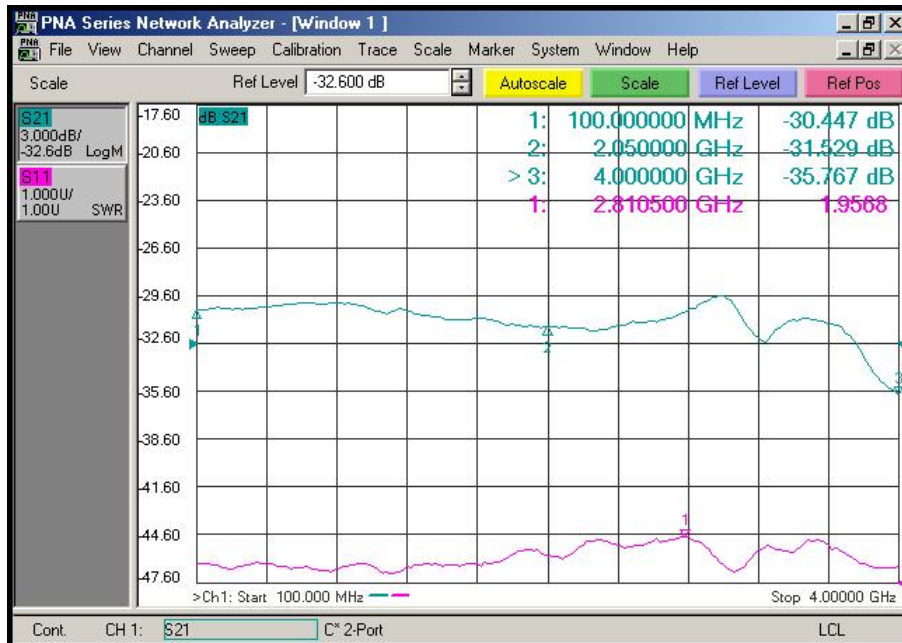


Fig. 1 NYC10D-S DML DFB Laser Typical Frequency Curve

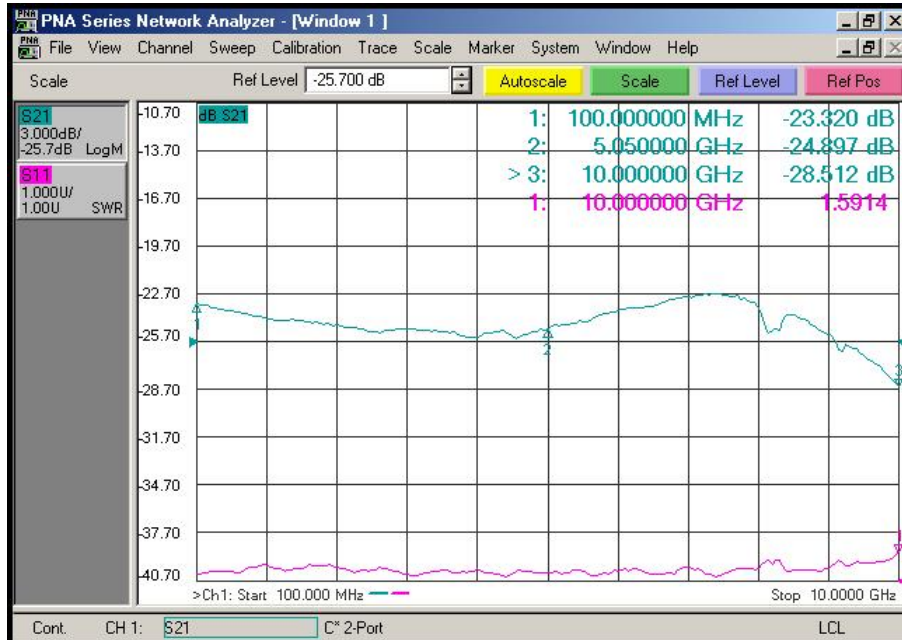


Fig. 2 NYC10D-C DML DFB Laser Typical Frequency Curve



Typical spectral curve

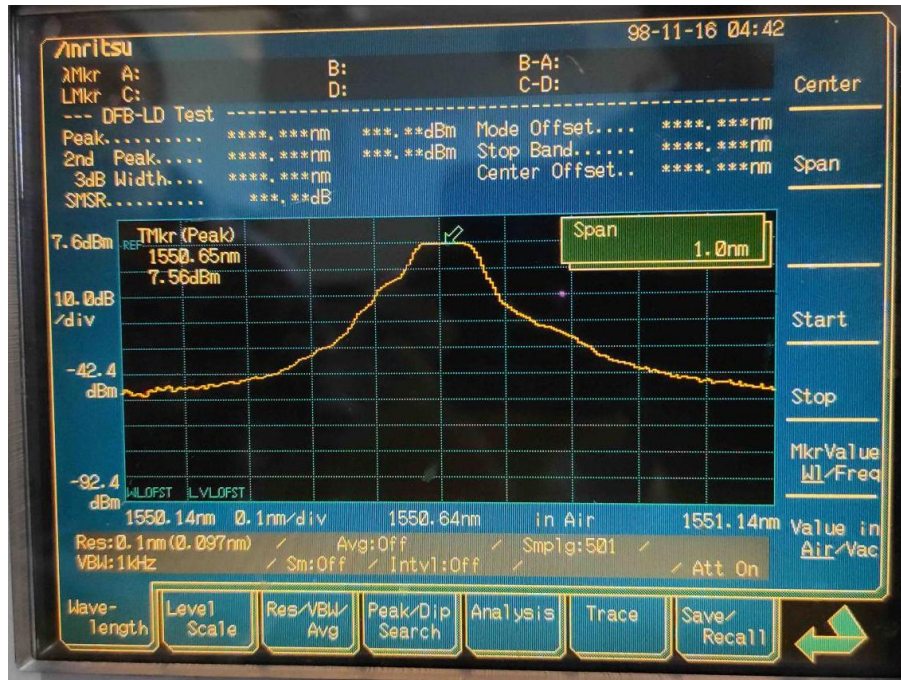
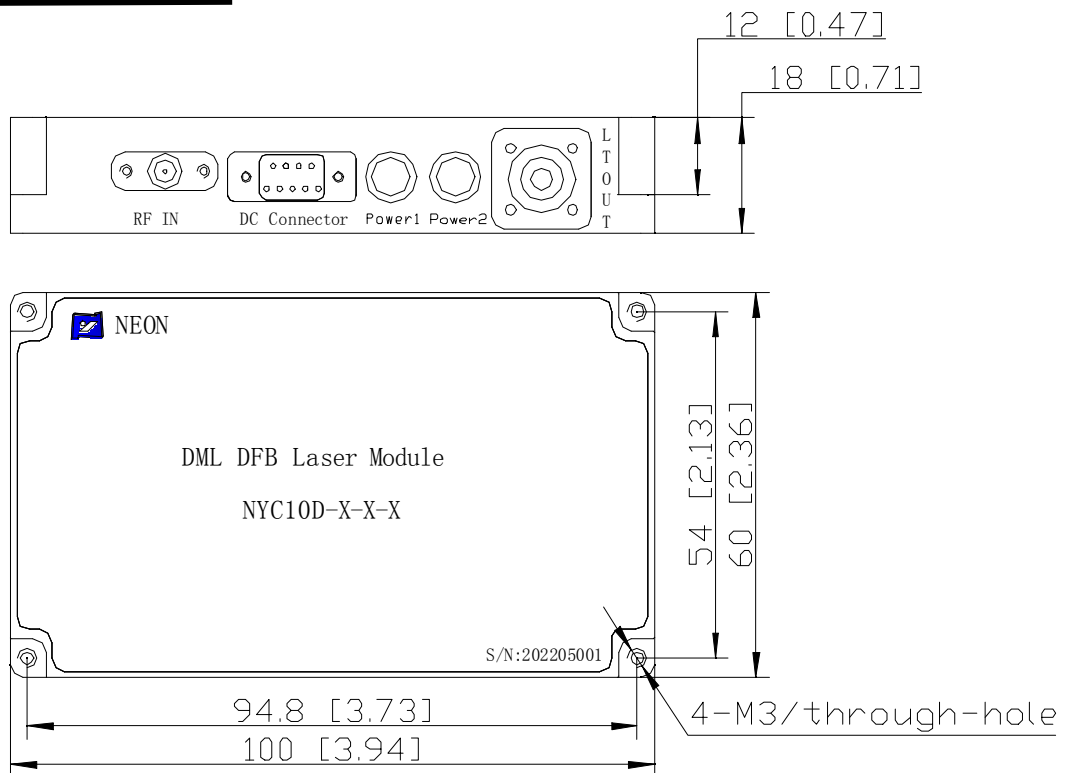


Fig. 3 NYC10D DML DFB Laser Typical spectrum Curve

Dimension unit: mm[inch]



RF Connector : SMA

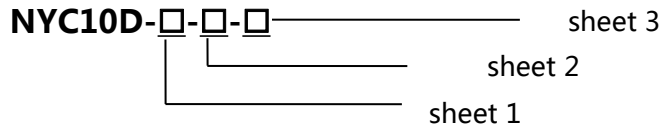
Power Connector : J30J-9-ZKP

Figure 4 NYC10D DML DBF Laser Module Dimension

NYC10D Series DML DFB Laser Module



# Order Information



Sheet 1:

Model	Typical Wavelength
S	0.1 ~ 3.5GHz
C	0.1 ~ 8.5GHz

Sheet 2 :

NO.	Frequency(THz)	Wavelength(nm)	NO.	Frequency(THz)	Wavelength(nm)
C15	191.5	1565.50	C39	193.9	1546.12
C16	191.6	1564.68	C40	194	1545.32
C17	191.7	1563.86	C41	194.1	1544.53
C18	191.8	1563.05	C42	194.2	1543.73
C19	191.9	1562.23	C43	194.3	1542.94
C20	192	1561.41	C44	194.4	1542.14
C21	192.1	1560.61	C45	194.5	1541.35
C22	192.2	1559.79	C46	194.6	1540.56
C23	192.3	1558.98	C47	194.7	1539.77
C24	192.4	1558.17	C48	194.8	1538.98
C25	192.5	1557.36	C49	194.9	1538.19
C26	192.6	1556.55	C50	195	1537.4
C27	192.7	1555.75	C51	195.1	1536.61
C28	192.8	1554.94	C52	195.2	1535.82
C29	192.9	1554.13	C53	195.3	1535.04
C30	193	1553.33	C54	195.4	1534.25
C31	193.1	1552.52	C55	195.5	1533.47
C32	193.2	1551.72	C56	195.6	1532.68
C33	193.3	1550.92	C57	195.7	1531.9
C34	193.4	1550.12	C58	195.8	1531.12



C35	193.5	1549.32	C59	195.9	1530.33
C36	193.6	1548.51	C60	196	1529.55
C37	193.7	1547.72	C61	196.1	1528.77
C38	193.8	1546.92	C62	196.2	1527.99

Sheet 3 :

Model	Connector	Remark
N	No	Flange
A	FC / APC	Standard 9/125 $\mu$ m SM Fiber
P	FC / PC	Standard 9/125 $\mu$ m SM Fiber