

100 GHz Comb Laser Specs

Sample Description:

100GHz Mode-lock Laser samples are 4th order colliding pulse mode-locked laser (CPML) based on InAs/GaAs QD gain structure.

Features

1310nm wavelength

Mode spacing at 100 GHz

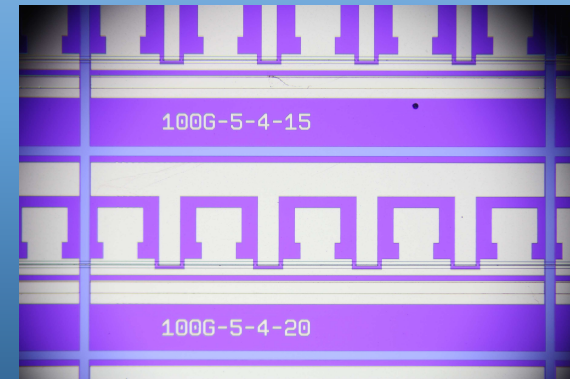
Temperature range operation

20°C-100°C

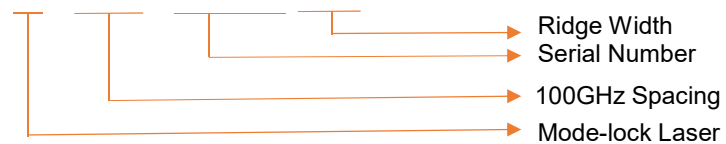
QD active layer

Applications

Modulation speed to 80 Gbps for single channel



M-100G-04-03 W4



100 GHz Comb Laser Specs

SPECIFICATIONS					
Test conditions: CW operation at 25°C					
Parameters	Symb.	Min.	Typ.	Max.	Unit
Total Output power	P_{out}		30	75	mW
Central wavelength	λ_c	1305	1310	1332	nm
Optical Power per channel		0.8	1.7	2.7	mW
Number of channels (<-3dB difference)		4	8	16	
Channel spacing		102.4	103.5	105.2	GHz
Individual FP mode (channel) RIN (averaged in 0.1-8GHz range)			-135	-135	dB/Hz
Laser Diode power conversion efficiency ($P_{out}/I_{op}/V_f$)	WPE	5.3	6	8	%
LD Threshold current	I_{th}	28	35	50	mA
LD Operating current	I_{op}		180	300	mA
Bandwidth	f_{-3dB}		8	11.46	nm
Bias Voltage	V_a	0	1.6	5	V
Operation Temperature		80	100		°C

200 GHz Comb Laser Specs

Sample Description:

QD 200GHz Mode-locked Laser samples are 4th order colliding pulse mode-locked laser (CPML) based on InAs/GaAs gain structure.

Features

1300 – 1340nm wavelength

Mode spacing at 200 GHz

Single comb line power up to 17mW

Temperature operation range 10°C-50°C

QD active layer



200G-4-4-10-27-14

- Serial Number
- Absorber Ratio
- Ridge Width
- 4th order CPM
- 200GHz Spacing

200 GHz Comb Laser Specs

SPECIFICATIONS Test conditions : CW at 25 °C	Symb.	Min.	Typ.	Max.	Unit.
Threshold Current	I_{th}	28(0V)	30	57(-3V)	mA
Slope Efficiency	η	0.30	0.40	0.41	W/A
Max Output Power	P_{out}	33.2(-3V)	56	61.5(0V)	mW
Reverse Bias Voltage	V_R	0	0.9	3	V
Conversion Efficiency	WPE	-	-	14.8%	-
Center Wavelength	λ_C	1300	1330	1335	nm
Channel Spacing	FSR	197.91	200	201.29	GHz
Optical Power per Channel*	P	8.7	10	17.8	mW
Extinction Ratio	ER	-	40	45	dB
Number of channels	-	-	4	5	-
Bandwidth (3dB)	$\Delta\lambda_{-3dB}$	-	-	3.54	nm