OSICS T100 Tunable Laser Module

OSICS T100 are cost effective, external cavity tunable lasers modules utilizing **Yenista**'s patented T100 cavity. This gives a minimum of 100 nm tuning range with narrow linewidth, high output power and ultra-low optical noise. This low noise significantly increases the dynamic range of a measurement. Its kinematic chain has been designed for step-by-step

wavelength tuning.



Overview of Available Models

Key Features

- Narrow linewidth
- External cavity design
- O, E, S, C, L & U bands
- ≥ 100 nm step-by-step tuning
- +6 dBm output power
- Ultra-low SSE noise
- Digital Modulation up to 1 MHz
- Easy front panel or remote control

	T100 1310	T100 1415	T100 1520	T100 1550	T100 1575	T100 1620	
P= 3 dBm	1260–1360	1360–1470	1465–1575	1490–1610	1520–1630	1560–1680	
P= 6 dBm	1290–1340	1390–1445	1495–1555	1520-1590	1540–1610	1580–1660	
SSSER		> 90 dB / 0.1 nm typical					
Side Mode Suppression Ratio ^{*1}		≥ 45 dB					
Wavelength	±0.01 nm/h (±0.01 nm / 24 h typical)						
Output Power	±0.01 dB/h (±0.01 dB / 24 h typical)						
oise ^{*4}	<-140 dB/Hz						
Spectral Width (FWHM)		150 kHz typical (coherence control off)					
		> 100 MHz (coherence control on)					
Accuracy*3	±0.2 nm						
Repeatability	±0.01 nm typical						
Resolution	0.01 nm (0.001 nm option R)						
-by-step)* ^{5*6}	10 nm/s typical						
1	50 Hz to 50 MHz (external)						
	50 Hz to 1 MHz (internal & external)						
	SMF or PMF (option M)						
	FC/APC narrow key						
ication	Class 1M						
	P= 3 dBm P= 6 dBm ssion Ratio*1 Wavelength Output Power oise*4 /HM) Accuracy*3 Repeatability Resolution by-step)*5*6	T100 1310 P= 3 dBm 1260–1360 P= 6 dBm 1290–1340 ssion Ratio*1	T100 1310 T100 1415 P= 3 dBm 1260–1360 1360–1470 P= 6 dBm 1290–1340 1390–1445 ssion Ratio*1	T100 1310 T100 1415 T100 1520 P= 3 dBm 1260–1360 1360–1470 1465–1575 P= 6 dBm 1290–1340 1390–1445 1495–1555 Ssion Ratio*1 \geq 44 \geq 90 dB / 0 Wavelength \pm 0.01 nm/h (\pm 0.01 \geq 44 Output Power \pm 0.01 dB/h (\pm 0.01 \circ oise*4 <	T100 1310T100 1415T100 1520T100 1550P= 3 dBm1260–13601360–14701465–15751490–1610P= 6 dBm1290–13401390–14451495–15551520–1590Sign Ratio*1 $\geq 45 dB$ Wavelength $\pm 0.01 \text{ nm/h} (\pm 0.01 \text{ nm / } 24 \text{ h typicol}) (coherence control)Output Power\pm 0.01 \text{ dB/h} (\pm 0.01 \text{ dB / } 24 \text{ h typicol}) (coherence control)Output Power\pm 0.01 \text{ dB/hz}/HM)150 \text{ kHz typical} (coherence control or \pm 0.2 \text{ nm}Repeatability\pm 0.2 \text{ nm}Resolution0.01 \text{ nm / s typical}by-step)*5*650 \text{ Hz to 50 MHz (external)}50 \text{ Hz to 50 MHz (external)}50 \text{ Hz to 1 MHz (internal & external)}50 \text{ Hz to 1 MHz (internal & external)}60 \text{ Hz}50 \text{ Hz to 1 MHz (internal & external)}50 Hz to 1 MHz ($	T100 1310 T100 1415 T100 1520 T100 1550 T100 1575 P= 3 dBm 1260–1360 1360–1470 1465–1575 1490–1610 1520–1630 P= 6 dBm 1290–1340 1390–1445 1495–1555 1520–1590 1540–1610 Saion Ratio*1 $245 dB$ $245 dB$ $245 dB$ $245 dB$ Wavelength $\pm 0.01 mm/h (\pm 0.01 mm / 24 h typical)$ $245 dB/24 h typical$ $245 dB/24 h typical$ Output Power $\pm 0.01 dB/h (\pm 0.01 dB/24 h typical)$ $245 dB/24 h typical$ $245 dB/24 h typical$ Output Power $\pm 0.01 mm/h (\pm 0.01 mm / 24 h typical)$ $245 dB/24 h typical$ $240 dB/Hz$ Output Power $\pm 0.01 dB/h (\pm 0.01 dB/24 h typical)$ $240 dB/Hz$ $240 dB/Hz$ /HM) $150 kHz typical (coherence control off)$ $240 dB/Hz$ $240 dB/Hz$ /HM) $150 kHz typical (coherence control on)$ $40.01 nm typical$ $20.01 nm typical$ Accuracy*3 $\pm 0.2 nm$ $\pm 0.2 nm$ $10 nm/s typical$ $50 Hz to 50 MHz (external)$ by-step)*5*6 $10 nm/s typical$ $50 Hz to 50 MHz (external)$ $50 Hz to 1 MHz (internal $	

Contacts

All specifications are given after 60 minutes warm-up and apply for wavelengths not equal to any water absorption line.

*1: Measured over a 0.1 nm bandwidth ±1nm from the signal.

- *2: At constant temperature.
- *3: Measured at 0 dBm output power.
- *4: RIN within the range 100 MHz–3 GHz measured at +3 dBm output power with RBW = 30 kHz.
- *5: With the high resolution option (R) the tuning speed is 2.5 nm/s typ.
- *6: The kinematic chain of the laser does not allow for swept operation.

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