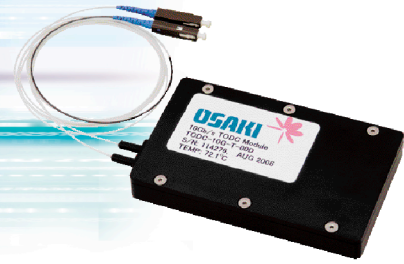


## Tunable Optical Dispersion Compensator

# TODC 可変分散補償モジュール

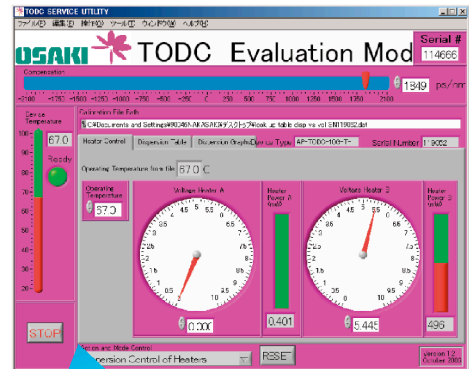


### 特長

- 単波長及び多波長一括分散補償可
- 高速な可変分散
- 低損失、低PDL、低PDM
- 可変駆動の省力化
- 小型省スペース

### 用途

- 10Gbps及び40Gbpsシステムの動的分散補償
- LH/ULH、メトロDWDM、海底システムの単波長または多波長一括分散補償
- リコンフィギュラブルネットワークでの運用



外部制御ボードによる制御画面



### 仕様

Parameter	Symbol	10 Gb/s TODC-10G	40 Gb/s TODC-40G	Unit	Conditions
Center Wavelength	$\lambda_0 \dots \lambda_N$	C or L-band		nm	Multi-channel WDM ITU grid, or colorless single-channel.
Channel Spacing <sup>(1)</sup>	CS	100	100	GHz	
Number of Channels	N	Up to 80			
Insertion Loss	IL	$\leq 6.5$ (T-type)	$\leq 6.0$ (T-type)	dB	At each channel center. Fiber-to-fiber, not including connector loss.
1 dB Transmission Bandwidth	$\Delta f$ dB	$\geq 11$	$\geq 33$	GHz	At max dispersion setting (the worst case)
		$\geq 50$	Infinite <sup>(2)</sup>	GHz	At 60% percentage of the max dispersion setting
		Infinite	Infinite	GHz	At 50% or less percentage of the max dispersion setting
Group Delay Ripple	GDR	$\leq \pm 12$	$\leq \pm 6$	ps	Peak-to-peak excursion of the group delay fitting, in GDR bandwidth.
Dispersion Tuning Range <sup>(3)</sup>	CD	-2100 to 2100	-220 to 220	ps/nm	Tunable
Tuning Resolution	Res	20	10	ps/nm	
Tuning speed	T	10		msec	
Dispersion slope <sup>(4)</sup>	CDS	$< \pm 0.4$ , typical zero		ps/nm <sup>2</sup>	Over the C-band for entire dispersion range
Polarization Dependent Loss	PDL	$\leq 0.3$		dB	For all dispersion tuning
Polarization Mode Dispersion	PMD	$\leq 2.5$	$\leq 0.5$	ps	For all dispersion tuning
Optical Return Loss	RL	45		dB	
Steady State Power Consumption	PCs	$< 5$		W	Total module, Incl. heater controller. Worst-case (@ -5°C ambient)
Warm-up Time from 25°C	T25	$< 3$		min	Time for device to reach set-point temperature from 25 -°C

Note: (1) Other channel spacings (33.33 GHz, 66.66 GHz or 50 GHz) available for 10G available upon request. (2) "Infinite" means bandwidth is too wide to be defined. (3) Bandwidth and dispersion values can be customized based on transmission system requirement. (4) Small dispersion slope compensation will be available in the next design runs.