

# RZ OPTICAL TRANSMITTERS

PriTel's RZT Series of RZ Optical Transmitters are easy-to-use, cost-effective sources of patterned optical data at rates of 10 Gbps and higher. Model RZT-10 combines in one unit the optical clock function of PriTel's UOC fiber laser with an embedded data modulator to convert external 10-Gbps patterned RF data into 10-Gbps patterned optical data.

Embedding the data modulator enhances stability of the patterned optical data and reduces the part count.

Model RZT-40 adds PriTel's Optical Clock Multiplier OCM-4 to the RZT-10 to convert the 10-Gbps RZ optical output into 40-Gbps RZ optical data.

Model RZT-160 adds PriTel's OCM-16 and PMFA-15 amplifier to the RZT-10 to achieve 160-Gbps RZ optical data.

RZT Optical Transmitters can be operated in a clock mode by removing the external RF data stream.



Model RZT-10

## Specifications

	<b>RZT-10</b>	<b>RZT-40</b>	<b>RZT-160</b>
Tunable Wavelength	1535-1560 nm	1535-1560 nm	1535-1560 nm
Pulsewidth	<3 ps (1542-1560 nm)	<3 ps (1542-1560 nm)	<3 ps (1542-1560 nm)
Bandwidth	>1 nm	>1 nm	>1 nm
Pulse repetition freq.	10 GHz	40 GHz	160 GHz
Average output power	>5 mW	>0.2 mW	>5 mW
Sideband suppression	>60 dB	>60 dB	>60 dB
Tone suppression	N/A	>35 dB (10 GHz)	>35 dB (10 GHz)
Dimensions (4U)	48 x 38 x 18 cm	48 x 38 x 18 cm	48 x 38 x 18 cm
<i>Additional Components Included</i>	N/A	OCM-4 (10 x 26 x 28 cm)	OCM-16 (2 units @ 10 x 26 x 28 cm) PMFA-15 (10 x 26 x 28 cm)
<b>Optical</b>			
Gain medium	Er-doped silica fiber		
Pump source	980 nm diode laser		
Connectors	FC/APC (other connectors available on request)		
<b>External RF</b>			
Input clock source	-3 dBm typical, 0 dBm max		
Input data source	-1 dBm typical, 0 dBm max		
<b>Electrical/ Mechanical</b>			
Operating Voltage	85-264 VAC at 47-63 Hz		
Power consumption	<250 W	<250 W	<375W
Total weight	20 kg	25 kg	40 kg

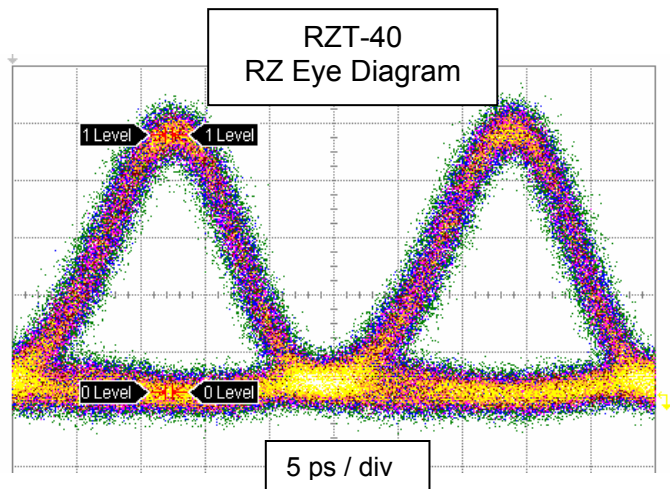
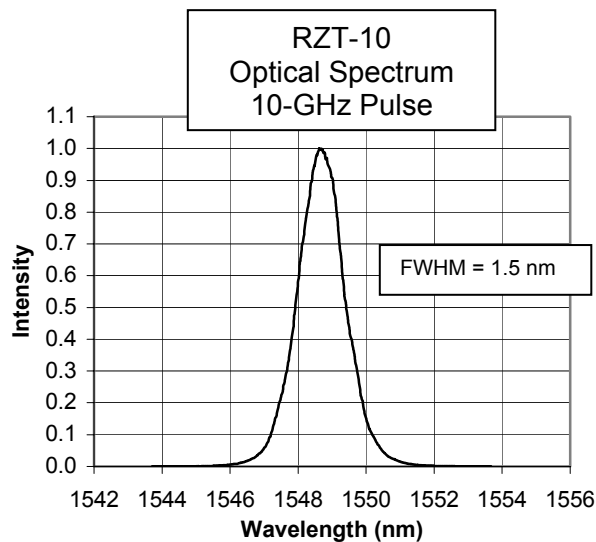
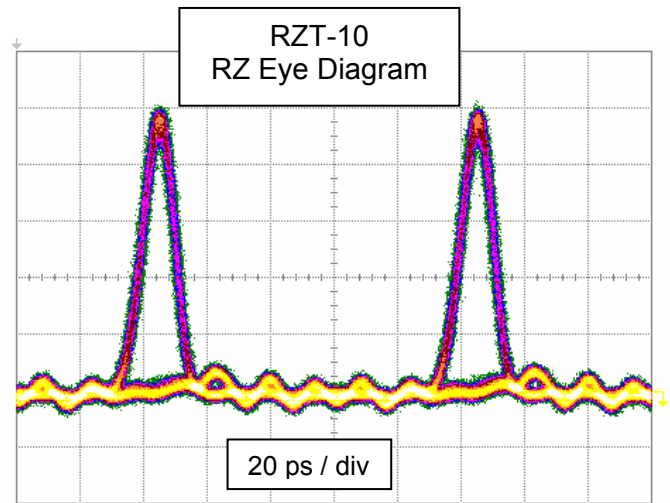
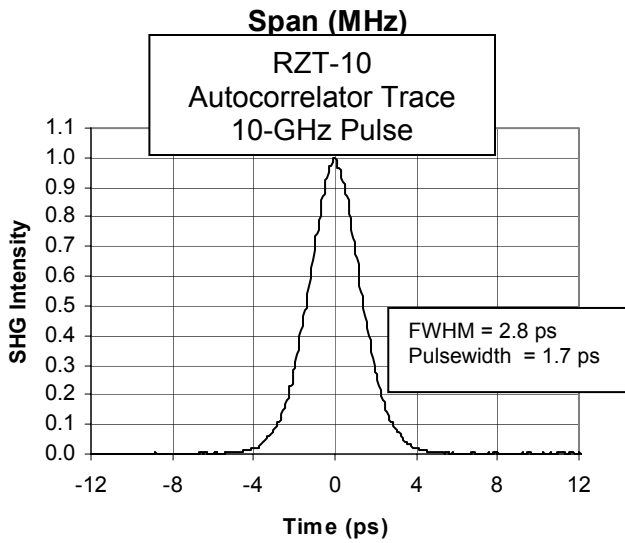
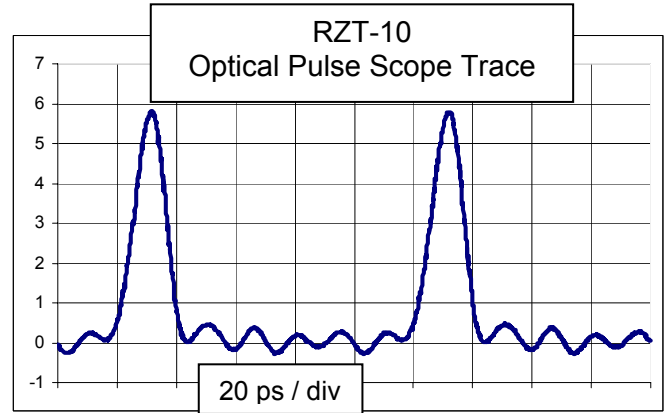
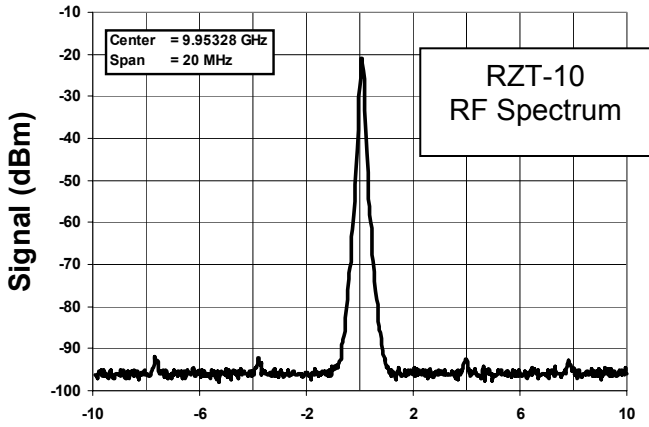
The RZT Series provides front-panel wavelength tuning, clock synchronization, and two or three secondary optical outputs for monitoring system performance by a photodiode, optical spectrum analyzer, or power meter. Normal operation of the RZT Series requires an external RF synthesizer or clock and electrical pattern generator, supplied by the customer.



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## Typical Performance of PriTel RZT Optical Transmitter



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