

Model OTOT-300C

General Purpose Return Path Transmitter

Features / Benefits

Full-featured General Purpose Return Path Transmitter covers 5-300MHz.

DFB (1310 or 1550nm) or CWDM (ITU-grid 1470-1610nm) return path optical transmitters

Optical output power from 1mW (0dBm) to 3mW (+5dBm).

Low-cost alternative to digital return path hardware.

Compatible with most analog return path receivers.

RF Test Point yields +10dBmV per channel with a full 35MHz load.

Continuously variable Gain Adjust covers 20dB RF range.

Green LED for positive indication of power.

DC test point scaled to Optical Output power (1V/mW).

Rugged cast Aluminum housing.

+12 to +16 V_{DC} power.



The Olson Technology, Inc. **Model OTOT-300C** is a General Purpose Return Path Transmitter. It offers a wide bandwidth of 5-300MHz. It is available with a variety of laser options including 1310nm DFB, 1550nm DFB and CWDM wavelengths at optical output powers ranging from 1mW (0dBm) to 3mW (+5dBm).

The OTOT-300C offers a low-cost alternative to digital return path hardware. It is compatible with most analog return path receivers. The Olson Technology, Inc. OTOR-300 Triple Return Path Receiver is an ideal mate to the OTOT-300C.

The OTOT-300C features a RF Drive test point that will yield +10dBmV per channel with a full 35MHz return load. The unit also has a 20dB RF gain adjustment. The unit has a green LED to provide a positive indication that the unit is powered and a DC test point that indicates the optical output power (1V/mW).

The OTOT-300C is built in a rugged cast Aluminum housing and is powered from +12 Volts to +16 Volts DC. Olson Technology, Inc. power supply Model OTPS-12A is recommended (order separately).

Advanced Optical Components

Optical Characteristics (with SM 9/125µm SM Fiber)

	Min	Typ	Max	Units
Operating Wavelength (1310)	1290	1310	1330	nm
Operating Wavelength (1550)	1530	1550	1570	nm
Operating Wavelength (CWDM)	-3	ITU	+3	nm
Optical Power	-0.5	Rated	+0.5	mW
Optical Return Loss	55			dB
Optical Connector (Std.)	SC/APC			
Optical Connector (Option)	FC/APC			

Notes: All measurements at +25°C

RF Output & Performance Characteristics

	Min	Typ	Max	Units
Frequency Range	5		300	MHz
Pass Band Flatness	-1		+1	dB
RF Test Point (35MHz Load)		+10		dBmV/Ch
RF Test Point Flatness	-1		+1	dB
Impedance (F Connector)		75		Ohms
RF Adjustment Range		20		dB
Return Loss	15			dB
DFB 41dB NPR Threshold *		-60		dBmV/Hz
DFB & CWDM NPR Range	15	18		dB

* RF Adjustment is centered.

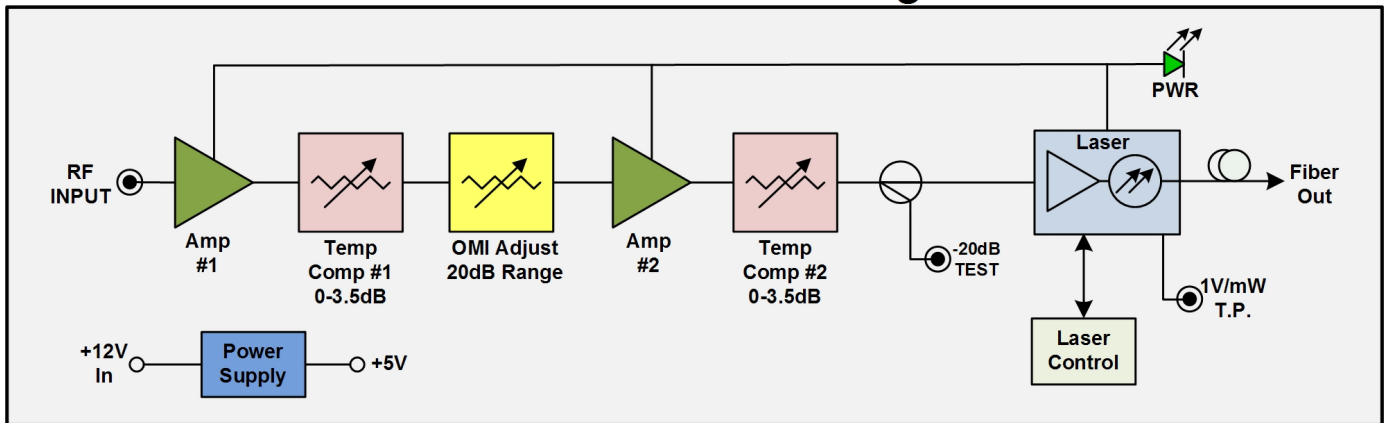
Electrical & Environmental Characteristics

	Min	Typ	Max	Units
Power Supply Voltage	+12		+16	V _{DC}
Operating Current		0.10	0.35	A
Operating Temp. Range	-10		+55	°C
Humidity (RH Non-condensing)	10		90	%

Physical Characteristics

	Min	Typ	Max	Units
Weight		12		oz.
		340		g
Dimensions (H x W x L)	3.05 x 6.96 x 0.975			in.
	7.75 x 17.7 x 2.48			cm

OTOT-300C Block Diagram



Ordering Information

Transmitter Options

Model OTOT-304C-SA/1	General Purpose Return Path Tx, 1310nm DFB, 1mW, SC/APC Optical Connector
Model OTOT-304C-SA/2	General Purpose Return Path Tx, 1310nm DFB, 2mW, SC/APC Optical Connector
Model OTOT-304C-SA/3	General Purpose Return Path Tx, 1310nm DFB, 3mW, SC/APC Optical Connector
Model OTOT-305C-SA	General Purpose Return Path Tx, 1550nm DFB, 2mW, SC/APC Optical Connector
Model OTOT-347C-SA	General Purpose Return Path Tx, CWDM, 1470nm, 2mW, SC/APC Optical Connector
Model OTOT-349C-SA	General Purpose Return Path Tx, CWDM, 1490nm, 2mW, SC/APC Optical Connector
Model OTOT-351C-SA	General Purpose Return Path Tx, CWDM, 1510nm, 2mW, SC/APC Optical Connector
Model OTOT-353C-SA	General Purpose Return Path Tx, CWDM, 1530nm, 2mW, SC/APC Optical Connector
Model OTOT-355C-SA	General Purpose Return Path Tx, CWDM, 1550nm, 2mW, SC/APC Optical Connector
Model OTOT-357C-SA	General Purpose Return Path Tx, CWDM, 1570nm, 2mW, SC/APC Optical Connector
Model OTOT-359C-SA	General Purpose Return Path Tx, CWDM, 1590nm, 2mW, SC/APC Optical Connector
Model OTOT-361C-SA	General Purpose Return Path Tx, CWDM, 1610nm, 2mW, SC/APC Optical Connector

Power Supply

Model OTPS-12A Universal AC, 12 Volt, 1.5 Amp, 2.1mm/5.5mm DC plug