

Short Form Catalog

Fiber Optic Transmission & Headend Products

Legendary Product Families Include:

- CATV Transport
- CATV Receivers & Nodes
- L-Band Transport
- FTTH
- *LaserPlus*® HFC Transport Platform
- Broadcast Transport Links
- EDFA's and DCM's
- Passive Optics
- CATV Headend & Signal Processing
- Return Path Block Converters
- Ethernet and Data Transport
- Test & Support Equipment
- Power Supplies
- SFP Modules

OEM Design & Manufacturing ... Our Specialty

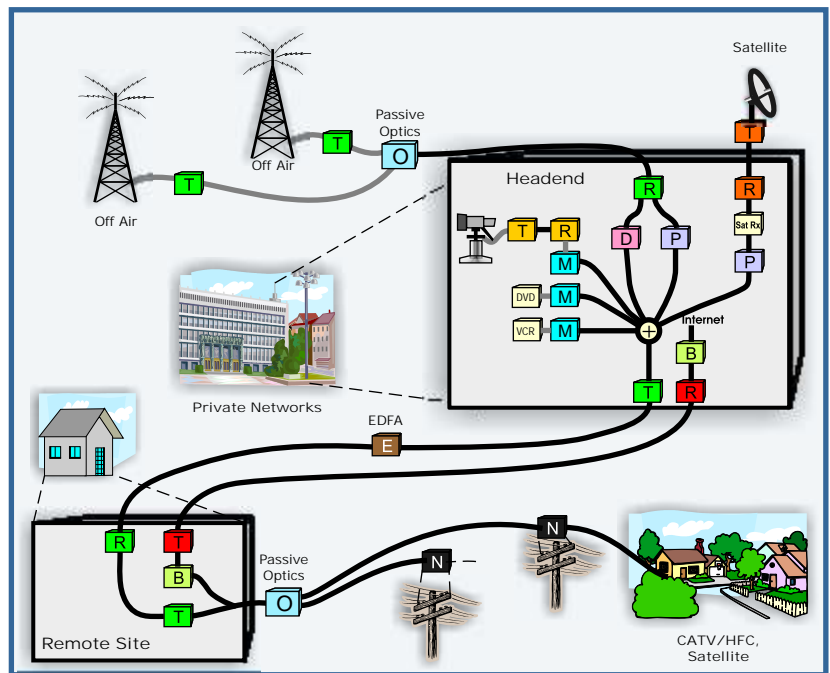
- Fiber Optic Transport
- RF Broadband; Optical & Electrical
- Modulation, Demodulation, Processing & Conversion
- Analog Video, Audio & Digital Data
- Specialized Optical and RF Test Equipment

OT Branded Products Are Sold Through a Growing Network of Worldwide Authorized Reps & Distributors












25 Years of Excellent and Innovative Products

Olson Technology, Inc. provides superior solutions for the CATV and Satellite industries by designing and integrating high-quality electronic and optical components into cost-effective, systems-oriented solutions. Originally founded to supply frequency agile headend signal processing products, today Olson offers a comprehensive suite of over 100 leading edge products that facilitate robust broadband signal transmission and processing in CATV, SMATV, HFC, L-Band, DBS, FTTH, and PON environments.

Olson Technology Applications



Legend to OT Products

- | | |
|--|---|
|  CATV Forward Link |  Modulator |
|  CATV Return Link |  Demodulator |
|  EDFA |  Processor |
|  CATV Nodes |  Block Converter |
|  Broadcast Transport Link |  Passive Optics |
|  L-Band Link | |

CATV Receivers & Nodes

Olson Technology offers a wide assortment of state-of-the-art CATV receivers and nodes for campuses, institutional, business, residential, government, FTTH & military applications. Each product is highly engineered to give the highest possible performance-to-price ratio using the most advanced components available.



Model	Description	Bandwidth	Optical Pwr In	RF Level Out	Wavelength
OTPN-1000	1-Port Indoor Optical Node	54 to 870MHz	-6 to +3dBm	+48dBmV	1270 to 1610nm
OTPN-2000	1-Port Indoor Optical Node	54 to 1,000MHz	-6 to +3dBm	+46dBmV	1270 to 1610nm
OTPN-3000	Precision Optic Node	50 to 870MHz	-8 to +4.5dBm	+38dBmV	1310/1490/1550nm
OTPN-MDN-870	Fiber Optic Mini Digital Node	50 to 870MHz	-8 to +4.5dBm	+38dBmV	1270 to 1610nm
OTPN-800	1-Port Mid-range Indoor Node	54 to 870MHz	-8 to +2dBm	+38dBmV max.	1270 to 1610nm
OTPN-400	1-Port Indoor Optical Node	40 to 1,000MHz	-8 to 0dBm	+28dBmV max.	1270 to 1610nm
OTMN-II	4-Port Outdoor Optical Node	85 to 870MHz	-8 to +3dBm max.	+50dBmV	1310 or 1550nm
OTPN-3850	Wide Bandwidth FTTH PON Rx	50 to 3,850MHz	-6 to 0dBm	+23dBmV	1550nm



SatellitePlus® L-Band Transport

Olson Technology offers a number of unique and high-performance L-Band products. The products include a rugged transmitter and receiver, the flagship Advanced L-Band transmitter and receiver, a miniature receiver and a very wide bandwidth FTTH receiver with 1310/1490nm pass through.

L-Band Transmitters

Model	Description	Wavelength	Optical Pwr Out	Bandwidth	Impedance
OLAT	Advanced L-Band Tx	1310/1550/C-D-WDM	+3 to +9dBm	10 to 4,000MHz max.	75 or 50-Ohm
OLRT	Rugged L-Band Tx	1310/1550/CWDM	+2 to +5dBm max.	10 to 3,600MHz max.	75 or 50-Ohm
OTLT-87XX-N7	DWDM L-Band Tx	DWDM ITU Ch	+9dBm typ.	500 to 3,000MHz	75-Ohm
OTLT-87XX-40	DWDM L-Band Tx	DWDM ITU Ch	+9dBm typ.	100 to 4,000MHz	75-Ohm

L-Band Receivers

Model	Description	Wavelength	Optical Pwr In	Bandwidth	Impedance
OLAR	Advanced L-Band Rx	1270 to 1610nm	-15 to +3dBm	10 to 4,000MHz max.	75 or 50-Ohm
OLRR	Rugged L-Band Rx	1270 to 1610nm	-15 to +3dBm	10 to 3,600MHz	75 or 50-Ohm
OLMR	Mini L-Band Rx	1270 to 1610nm	-15 to +3dBm	10 to 3,600MHz	75-Ohm
OTPN-3850	Wideband FTTH PON Rx	1550nm	-6 to 0dBm	50 to 3,850MHz	75-Ohm

High Density Hybrid Fiber/Coax (HFC) Transport Platform



LaserPlus[®] HFC Transport

Olson Technology's *LaserPlus* platform offers a high-density rack-mount product line suitable for head-end applications. The *LaserPlus* line includes power supplies, transmitters, receivers, an optical EDFA and miscellaneous accessory components. The power supplies can be configured to be redundant.

Chassis

Model	Description	P.S. Slots	App. Mod. Slots	Powering Req.	Cooling Fans
LP-CH-16B	3RU Rack Mount Chassis	1 or 2	14 or 15	90-264V _{AC} or -48V _{DC}	4

Power Supply Modules

Model	Description	Voltage	Wattage	Frequency	Mounting
LP-PS-AC	AC 3RU Power Supply Module	90-264 Volts AC	<150W	47-73Hz	LP-CH16, Slots 15-16
LP-PS-DC	DC 3RU Power Supply Module	±48 Volts DC	<150W	47-73Hz	LP-CH16, Slots 15-16

LaserPlus[®] Transmitters

Model	Description	Wavelength	Optical Pwr Out	Bandwidth	RF Input Level
LP-OT-H	High Pwr DFB Forward Path Tx	1310nm	+8 to +15dBm	50 to 1,000MHz max.	+19dBmV/Ch.
LP-OT-L	Low Pwr DFB Forward Path Tx	1310nm	+3 or +6dBm	48 to 1,000MHz max.	+18dBmV/Ch.
LP-OT-FF	DM Transmitter	ITU Ch. 22 to 46	+8 or +10dBm	48 to 1,000MHz	+15dBmV/Ch.
LP-OT-FQ	OAM/DWDM Tx	ITU Ch. 22 to 46	+9dBm	550 to 1,000MHz	+15dBmV/Ch.
LP-OT-10-RC	DFB CWDM Tx w/ Return Rx	ITU CWDM Ch.	+9dBm	5 to 300MHz	+15dBmV/Ch.
LP-OT-RD	DFB DWDM Tx w/ Return Rx	ITU DWDM Ch.	+9dBm	5 to 300MHz	+15dBmV/Ch.

LaserPlus[®] Receivers

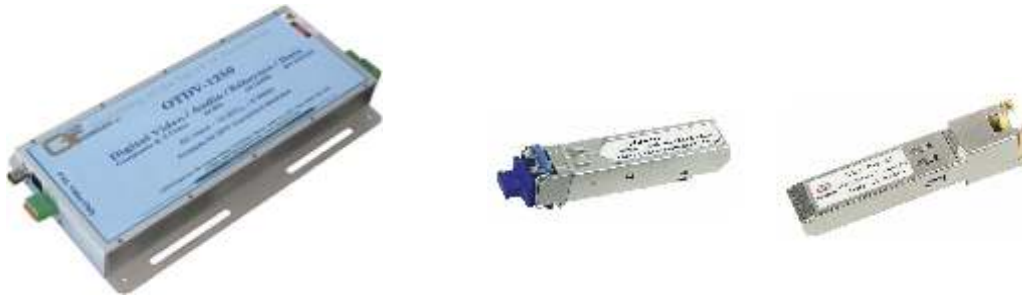
Model	Description	Wavelength	Optical Pwr In	Bandwidth	RF Output Level
LP-OR-300	Triple Return Path Rx	1270 to 1610nm	-17 to +3dBm	5 to 300MHz	+35dBmV
LP-OR-301	Single Return Path Rx	1270 to 1610nm	-17 to +3dBm	5 to 300MHz	+35dBmV
LP-OR-302	Dual Return Path Rx	1270 to 1610nm	-17 to +3dBm	5 to 300MHz	+35dBmV
LP-OR-304	Dual Redundant Return Path Rx	1270 to 1610nm	-19 to +3dBm	5 to 300MHz	+35dBmV

Other System Components

Model	Description	Wavelength	Optical Pwr In	Optical Pwr Out	Gain
LP-OA-EDFA	EDFA Module	1540-1560nm	-6 to 4dBm	+13 to +22dBm	Up to 30dB
LP-DC-xxx	Hub Block Downconverter & Rx	N/A	N/A	N/A	N/A

Broadcast Transport Link

The OTDV-1250 platform provides a broadcast-quality transport link that can carry video (NTSC or PAL), multiple audio, low-speed data and Ethernet unidirectionally or bidirectionally. The optics are plug-in SFP modules so the unit can be field configured as needed. SFP modules exist for MM and SM fiber. SM fiber options include 1310nm, 1550nm, and CWDM wavelengths in a range of distances.



Enclosure & Power Supplies

Model	Description	Voltage	Frequency	Fuse Rating	Ripple & Noise
OTDV-1250	Broadcast Transport Link	+10 to +20 V _{DC}	DC	N/A	N/A
OTPS	Power Supply	+100 to +240 V _{AC}	50-60Hz	1.6A	120mV _{p-p}

Transmission SFP Modules

Model	Description	Wavelength	Data Rate	Fiber Size	Distance
OTOLS-8512-02	MM SFP Transceiver	850nm	1.25Gb/s	50/125 or 62.5/125µm	550m max.
OTOLS-1X12-xx	SM SFP Transceiver	1310, 1550nm, CWDM	1.25Gb/s	9/125µm	Up to 120km
OTOLS-B1X12-xx	SM Bidir. SFP Transceiver	1310/1550nm	1.25Gb/s	9/125µm	Up to 80km

Ethernet & Data Transport Links

Olson Technology offers a wide assortment cost effective units designed to transport Ethernet and low-speed data over long distances. The unique OTEN-131 uses 1310nm for both directions. The OTEN-MC-01 and OTEN-4P-01 are used for Ethernet transport over interchangeable SFP optic modules. The OTEN-WC-01 is a wavelength converter/repeater using SFP modules. The OTDL-FOM-01 transports low-speed data over fiber.



Model	Description	Wavelength	Data Format	# of Ports	Distance
OTEN-131	<i>EtherNodePlus</i> Ethernet Link	1310nm (SM)	10/100 BaseT	1	40km
OTEN-MC-01	Media Converter	850 (MM), 1310, 1550nm (SM)	10/100/1,000Mb/s	1	Up to 120km
OTDL-FOM-01	RS-232/422/485 Data Modem	1310nm (SM)	RS-232/422/485	N/A	20km
OTEN-WC-01	Wavelength Converter	850 (MM), 1310, 1550nm, CWDM (SM)	10-2,500Mb/s	2	120km
OTEN-4P-01	4-Port Media Converter	850 (MM), 1310, 1550nm, CWDM (SM)	10/100/1,000Mb/s	4	120km

CATV Headend Signal Processing

Olson Technology offers some of the highest performance CATV headend signal processing equipment available anywhere. Specific products include Modulators, Demodulators and Processors.



Model	Description	Frequency	Video Std.	Typ. Output	CNR
OTM-3550	Sub-band Dual IF Modulator	55-550MHz	NTSC/PAL	+60dBmV	>80dB
LCM-6550	NTSC/PAL Single IF Triple Mod.	55-550MHz	NTSC/PAL	+53dBmV	>72dB
OTD-3000	NTSC/PAL/Sub-Band Demod.	54-801MHz	NTSC/PAL	+35dBmV	N/A
OTR-3550	NTSC/PAL/Sub-Band Proc.	54-801MHz	NSC/PAL	+60dBmV	>60dB
S450P	Heterodyne NTSC Processor	50-450MHz	NTSC	+60dBmV	55dB Typ.

SpectrumPlus® Return Path Block Converters

The *SpectrumPlus® Return Path Block Converters* combine state-of-the-art optics with frequency stacking technology to allow up to four return path path bands (5-42MHz) to be frequency stacking onto a single optical wavelength. Three of the return path bands are shifted to a higher frequency and then combined into a single RF signal by the Upconverter. The Downconverter shifts the bands all back to the original 5-42MHz bands.



Model	Description	Wavelength	Frequency	# of Bands	Configuration
OTUC-4XX	Hub Block Upconverter & Tx	1310, 1550nm, CWDM	5-42MHz	4	1RU Rack Mount
FRMUC-XX	Node Block Upconverter & Tx	1310, 1550nm, CWDM	5-42MHz	4	3RU Module
OTDC-440-X	Hub Block Downconverter & Rx	1310, 1550nm, CWDM	5-42MHz	4	1RU Rack Mount
LP-DC-xxx	Hub Block Downconverter & Rx	N/A	N/A	3RU Rack Mount	3RU RM Chassis



LaserLite® CATV Transport



Olson Technology offers a wide assortment of state-of-the-art CATV forward path and return path transmitters for campuses, institutional, business, residential, government, FTTH & military applications. Each product is engineered to give the highest performance-to-price ratio using the most advanced components available.

CATV Transmitters

Model	Description	Wavelength	Optical Power	Bandwidth	Distance
OTOT-300	Return Path Tx	1310/1550/CWDM	+1 to +5dBm	5 to 300MHz	≤75km
OTOT-870	Forward Path Tx	1310nm	+3 to +15dBm	48 to 870MHz	≤45km
OTOT-1000	Forward Path Tx	1310nm	+3 to +15dBm	48 to 1,000MHz	≤45km
OTOT-1000-FF	Direct Modulation Tx	1550nm	+8 or +10dBm	48 to 1,000MHz	≤10km
OTOT-1000-HH	SuperMod Tx	1550nm	+8dBm	5 to 1,000MHz	≤20km
OTOT-EM55X	Low Cost External Mod Tx	1550nm	+6dBm typ.	47 to 862MHz	≤60km
OTOT-EM55XL	Hi Performance Ext. Mod Tx	1550nm	+6dBm typ.	47 to 1,000MHz	≥100km
OTOT-1000-FQ	Direct Modulation QAM Tx	1550nm	+9dBm typ.	550 to 1,000MHz	≤20km

CATV Receivers

Model	Description	Wavelength	Optical Power	Bandwidth	Distance
OTOR-300	Return Path Rx	1270 to 1610nm	-14 to +3dBm	5 to 300MHz	Based on Tx

Erbium-Doped Fiber Amplifiers (EDFA's)

Long distance transmission over optical fiber often requires the use of optical amplifiers, EDFAs. Olson Technology offers a wide range of EDFA including simple booster EDFAs, high-power EDFAs, and high-power EDFA's specialized for use with Direct Modulation (DM) transmitters. Another critical system element, Dispersion Compensation Modules (DCMs) are also offered.



Model	Description	Wavelength	Optical Pwr Out	# of Outputs	Chassis Config.
OTEB-CO-B	Booster EDFA	1540-1560nm	Up to +26dBm Total	1 to 4	1RU Rack Mount
OTEB-CO-M	EDFA w/ Mid-stage Access	1540-1560nm	Up to +25dBm Total	1	1RU Rack Mount
OTEA-CL	High Power EDFA	1540-1560nm	Up to +35dBm Total	1 to 20	1RU or 2RU
OTEA-CM	High Power EDFA for DM Tx	1540-1560nm	Up to +34dBm	1 to 20	2RU Rack Mount
LP-OA	LaserPlus® EDFA Module	1540-1560nm	+13 to +22dBm	1	1 Slot Width
OT-DCM-F	Dispersion Compensation Mod.	1525 to 1565nm	N/A	N/A	1RU Rack Mount

FTTH

The Olson Technology FTTX/PON fiber optic transmitters, receivers, and EDFAs reliably deliver a full slate of multiplexed video, high speed data, and telephony services in an HFC broadband environment. The product family is ideally suited for direct fiber transmission of CATV RF signals in FTTC, FTTH, MDU, industrial, corporate, government, and educational applications.



CATV Receivers & Nodes

Model	Description	Bandwidth	Optical Pwr In	RF Level Out	Wavelength
OTPN-3000	Precision Optic Node	50 to 870MHz	-8 to +4.5dBm	+38dBmV	1550nm
OTPN-3850	Wide Bandwidth FTTH PON Rx	50 to 3,850MHz	-6 to 0dBm	+23dBmV	1550nm

CATV Transmitters

Model	Description	Wavelength	Optical Power	Bandwidth	Distance
OTOT-1000-HH	SuperMod Tx	1550nm, DWDM	+8dBm	5 to 1,000MHz	≤20km
OTOT-EM55X	Low Cost External Mod Tx	1550nm	+6dBm typ.	47 to 862MHz	≤60km
OTOT-EM55XL	Hi Performance Ext. Mod Tx	1550nm, DWDM	+6dBm typ.	47 to 1,000MHz	≥100km

Erbium-doped Fiber Amplifiers (EDFA's)

Model	Description	Wavelength	Optical Pwr Out	# of Outputs	Chassis Config.
OTEA-CL	High Power EDFA	1540-1560nm	Up to +35dBm Total	1 to 20	1RU or 2RU
OTEA-CM	High Power EDFA for DM Tx	1540-1560nm	Up to +34dBm Total	1 to 20	2RU Rack Mount

Test & Support Equipment

Olson Technology manufactures a number of unique items that can enhance the maintenance and reliability of a system. The OTPN-3000 is a high-performance, battery-powered CATV receiver integrated with a 3-wavelength optical power meter. The *NeverOff* series provides DC backup for critical system elements.



Precision Optic Node

Model	Description	Bandwidth	Optical Pwr In	RF Level Out	Wavelength
OTPN-3000	Precision Optic Node	50 to 870MHz	-8 to +4.5dBm	+38dBmV	1550nm

Stand-by P.S.

Model	Description	Voltage	Load
<i>NeverOff</i> Model 101	<i>NeverOff</i> Series Stand-by P.S.	+10 to +18 Volts DC	1.5W for 8 hours; 3W for 4 hours
<i>NeverOff</i> Model 201	<i>NeverOff</i> Series Stand-by P.S.	+10 to +18 Volts DC	7W for 8 hours; 12.5W for 4 hours

Optical Attenuator

Model	Description	Attenuation	Wavelength	Fiber Size
OTOA-1000	Optical Attenuator	1 to 7 dB	1310nm	9/125µm SM

Passive Optics

Olson Technology provides a wide range of optical splitters, WDM's, CWDM's and DWDM's for most needs.



Model	Description	Max. # Ch.	Wavelengths	Typical Insertion Loss	Typical Isolation
OTCP-X	1 x N Optical Splitter/Coupler	1 x 32	1310/1550nm	3.5dB for 1x2	N/A
OT-SWDM-S	Standard WDM	2	1310/1550nm	0.35dB	15dB
OT-SWDM-H	High Isolation WDM	2	1310/1550nm	0.75dB	30dB
OT-SWDM-U	Ultra High Isolation WDM	2	1310/1550nm	1.1dB	45dB
OT-CWDM-X	CWDM	2/4/8	1530 & 1550nm	0.65/2.0/3.6dB	25dB
OT-SWDM-AD	CWDM Add-Drop Module	2	1310/1550nm	1.1dB	45dB
OT-DWDM-X-X	DWDM	4/8/16/32	ITU Ch. ± 0.1nm	1.8/3.3/4.5/6.8dB	25dB
OT-DWAD	DWDM Add-Drop Mux	2	1310/1550nm	0.8dB	25dB
OT-FWDM	Filter WDM	2	1310, 1490, 1550nm	0.8dB	18 to 35dB
OT-WDM1315	1310nm/C-Band Separator	2	1310nm, C-Band	0.8dB	35dB

Power Supplies & Misc. Accessories

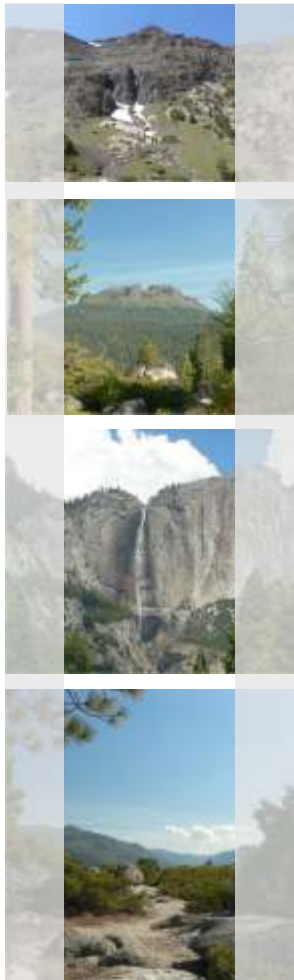
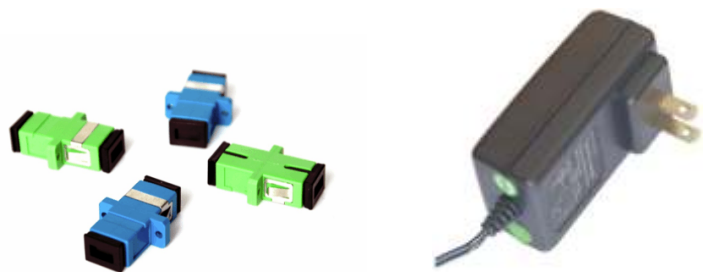
Olson Technology provides power supplies and accessories for all Olson products.

Power Supplies

Model	Description	Voltage	Load
NeverOff Model 101	NeverOff Series Stand-by P.S.	+10 to +18 V _{DC}	1.5W for 8 hours; 3W for 4 hours
NeverOff Model 201	NeverOff Series Stand-by P.S.	+10 to +18 V _{DC}	7W for 8 hours; 12.5W for 4 hours
OTPS	Universal AC to DC P.S.	+12 to +18 V _{DC}	1.5A Max.
OTAPS-4000	Adv. L-Band P.S.	+13 to +17 V _{DC}	5 x 0.75A Max.

Misc. Accessories

Model	Description
OTLL-SCFCKit	SC to FC Adapter Kit
OTLL-FANASSY	Replacement Fan Kit
OTLL-RMKIT-1	1Ru Rack Mount Kit



About Olson Technology, Inc.

Olson Technology, Inc. is a privately held corporation founded in July 1985. The company supplies frequency agile CATV headend products, through distribution channels, to the CATV industry. In addition, Olson's design engineers support other manufacturers with the design and manufacturer of OEM RF equipment and products. Olson Technology, Inc. is headquartered in scenic Sierra Village, California with shipping/receiving facilities in Sonora, California, engineering labs in Greenback, Tennessee, and a worldwide sales distribution network.

Olson Technology, Inc. manufactures and supplies quality electronic products through under the OT name, but our product quality, performance, and value have allowed us to provide OEM products to today's top companies. Our key markets include: CATV, CCTV, Private Cable, Aircraft Entertainment, and OEM design.

Capabilities

As a manufacturer, Olson Technology, Inc. blends a mixture of custom products with standard products to maintain leading edge technology in all of our product line. We specialize in broadband RF products that modulate, demodulate, and process audio and video signals in both analog and digital formats. Because we specialize in these areas, our design and manufacturing experience is equal to the best.

Olson Technology, Inc. also accepts funded development programs, often for leading edge products and companies, working closely with the customer from the initial product design through the manufacturing of the product. After all, who better to manufacture your products than the company who designed it? All of our facilities are located in the United States and are staffed with the finest personnel and state-of-the-art manufacturing and test equipment.

www.olson-technology.com