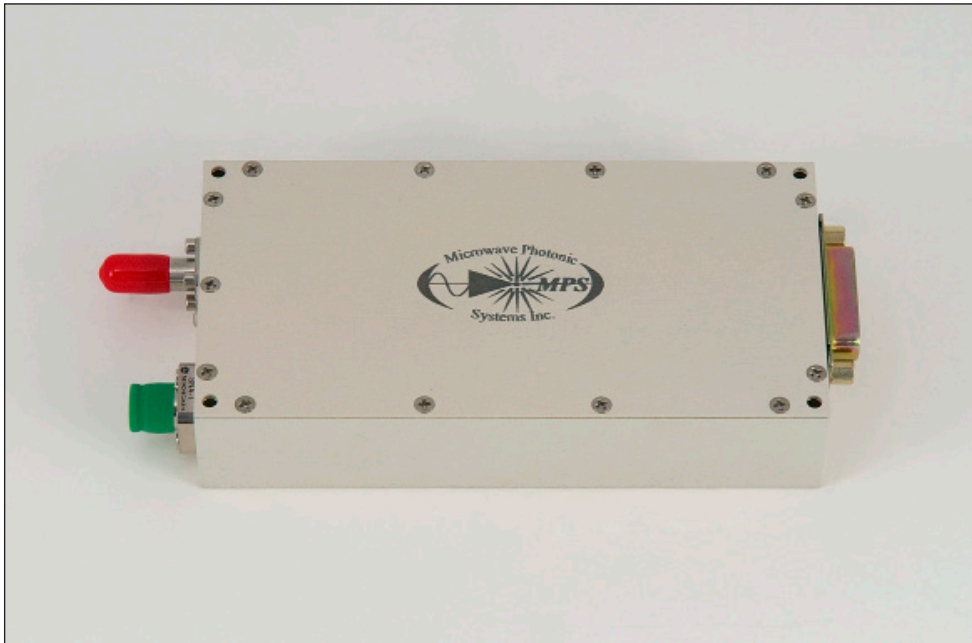


microwave photonic systems

MP-7000 SERIES: 24 GHz RF Photonic Link



Applications:

- Antenna Remoting
- SIGINT, EW, ISR
- SATCOM: Fixed Site / On-The-Move
- Wireless Monitoring Networks
- Broadband RF Distribution

Features:

- Extended Operating Temp. (optional)
- 24 GHz Frequency Range
- Low Power Consumption
- Variable RF Gain Control (optional)
- Integrated RF Amplifiers : LNA & Post-Amp
- Serial Interface: Status Monitoring

High Dynamic Range RF Photonic Link Provides Antenna Remoting Capability Up To 24 GHz

The Model MP-7000TX and Model MP-7000RX product series provides high performance communications inter connectivity in a flange mount form factor. Designed for antenna remoting and broadband RF transmission applications, the modules are interconnected using singlemode fiber optic cable to extended transmission distance beyond that of traditional coaxial cable.

The MP-7000 transmitter uses a high efficiency Distributed Feedback (DFB) laser diode with an operating wavelength of 1310 nm (or 1550nm) that provides high dynamic range performance. The laser diodes' temperature stability is microprocessor controlled using a thermal electric cooler. The transmitter's microprocessor also provides embedded status monitoring of all critical parameters and communicates this information to a host computer using an RS-485 I/O interface. The I/O parameters include laser bias current, temperature and alarm status.

The MP-7000 receiver utilizes a high-speed, low distortion PIN photodiode detector and also has an integrated microprocessor which provides the user with status monitoring. The I/O parameters include received optical power, temperature and alarm status.

Information: Call us toll-free at 888-868-8967 or email info@b2bphotronics.com

Microwave Photonic Systems, Inc.

1155 Phoenixville Pike, Unit 106, West Chester, PA 19380, Toll-Free: 888-868-8967

Phone: 610-344-7676, Fax: 610-344-7110, E-mail: info@b2bphotronics.com, Internet: b2bphotronics.com

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Specifications:

SPECIFICATION	PERFORMANCE
Operational Wavelength	1310 nm
Optical Output Power	7 dBm , typical
Modulation Bandwidth	2 GHz - 24 GHz
RF Link Gain	0.0 dB \pm 3.0 dB @ 2 dB Optic Loss
Input Third Order Intercept (IIP3)	-3 dBm, minimum
Input 1dB Compression Point (P1dB)	-18 dBm, minimum
RF Link Noise Figure (NF)	28.0 dB @ 24 GHz
Spurious Free Dynamic Range	95 dB*Hz ^(2/3) , minimum
Input / Output VSWR	2.2:1, maximum
Input / Output Impedance	50 Ohm
Maximum RF Input Damage Level	-5.0 dBm

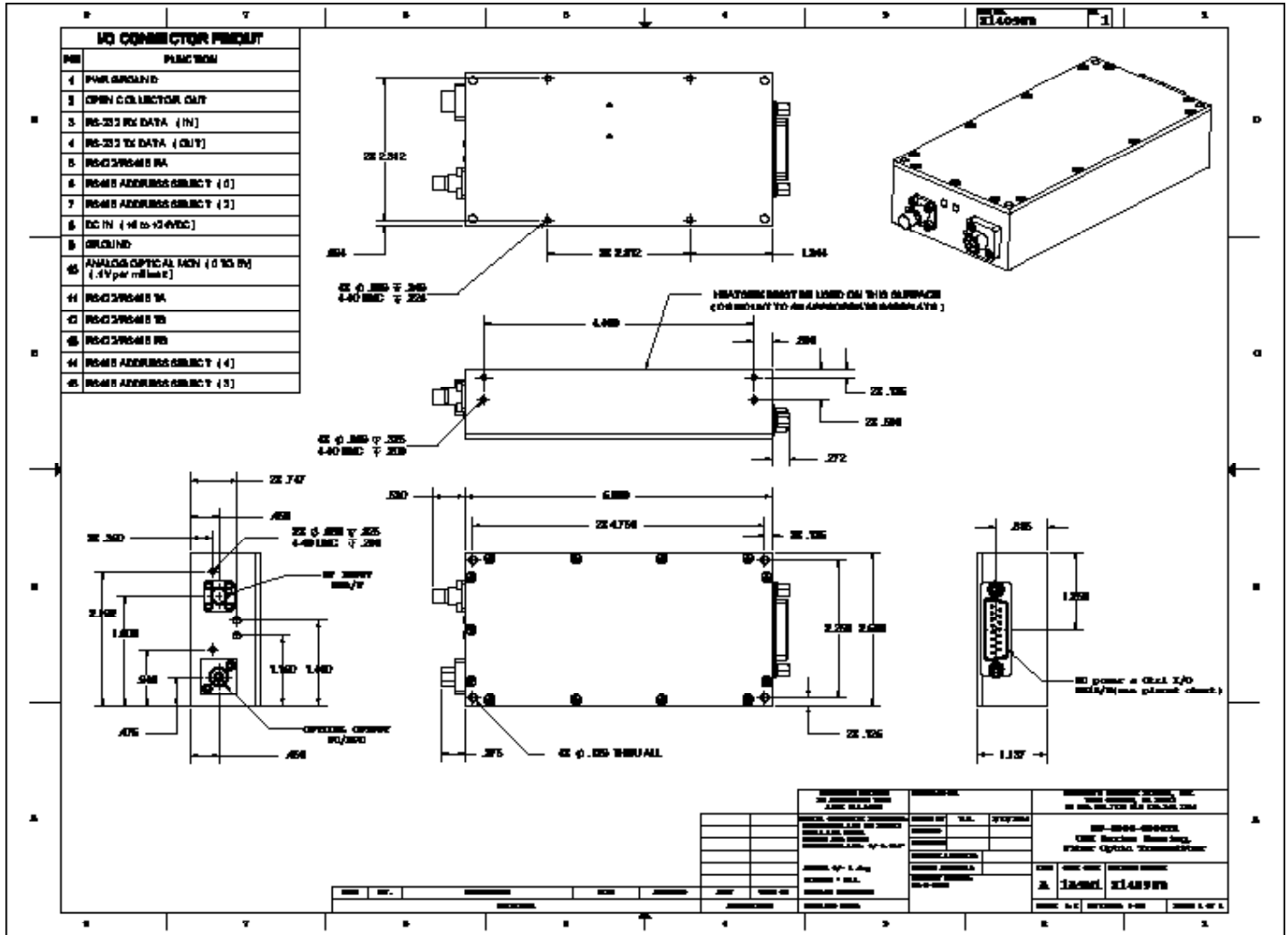
SPECIFICATION	PERFORMANCE
Power Supply	+15 VDC
Optical Interface	FC/APC (or customer specified)
RF Interface	K-Connector, 50 Ohm
Operational Temperature	-20° C to + 60° C
Storage Temperature	-30° C to + 75° C
Local Health & Status	Visual LEDs
Remote Health & Status Monitoring	Serial Communications

Note (1): Overall performance when tested as a complete link (RF Input to RF Output) with 2 dB optical loss budget.



MP-7000 SERIES: 24 GHz RF Photonic Link

MP-7000 TX Mechanical Drawing and Pin-Out

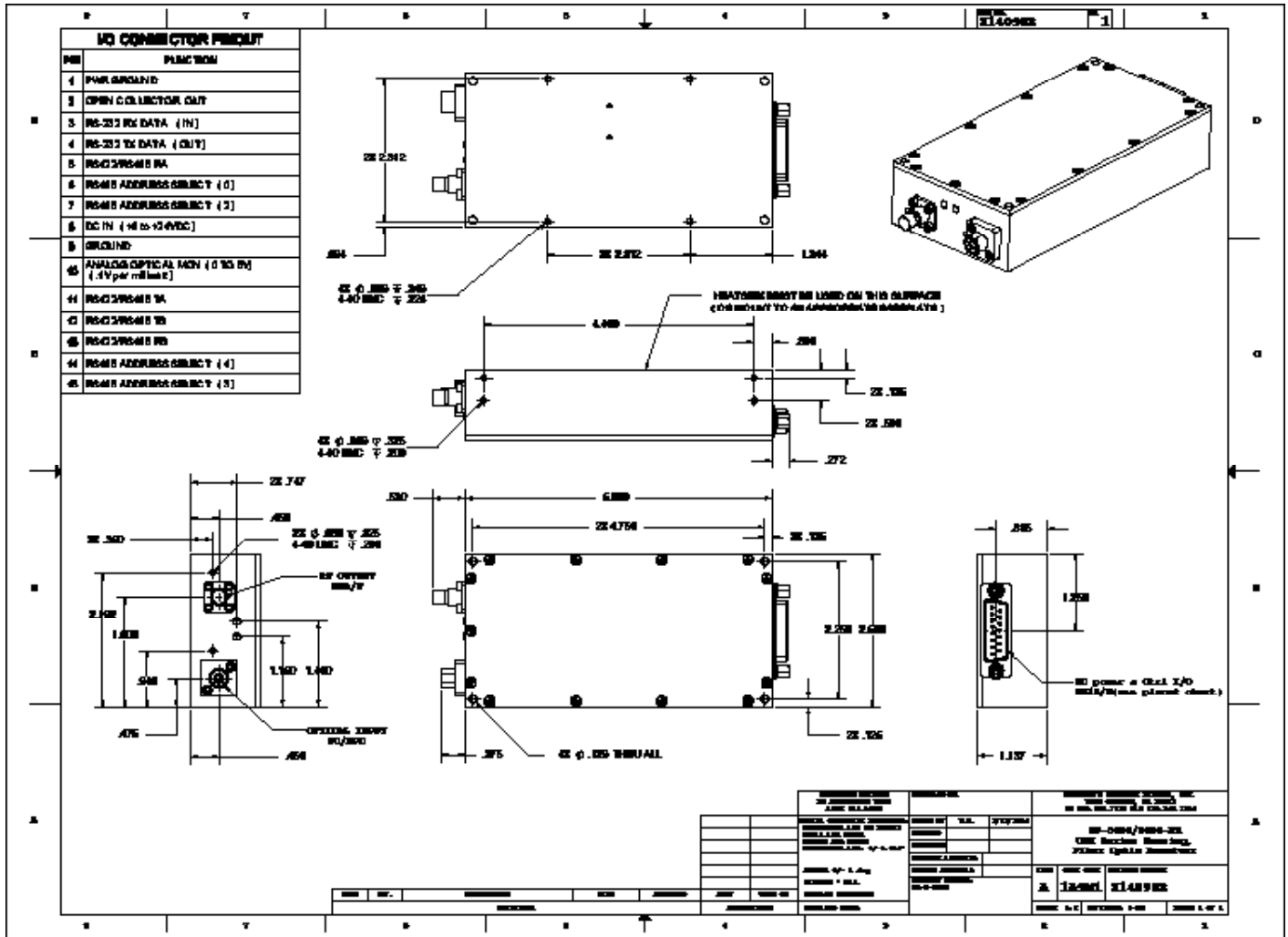


Mechanical Drawing: Transmitter (TX)



MP-7000 SERIES: 24 GHz RF Photonic Link

MP-7000 RX Mechanical Drawing and Pin-Out



Mechanical Drawing: Receiver (RX)

