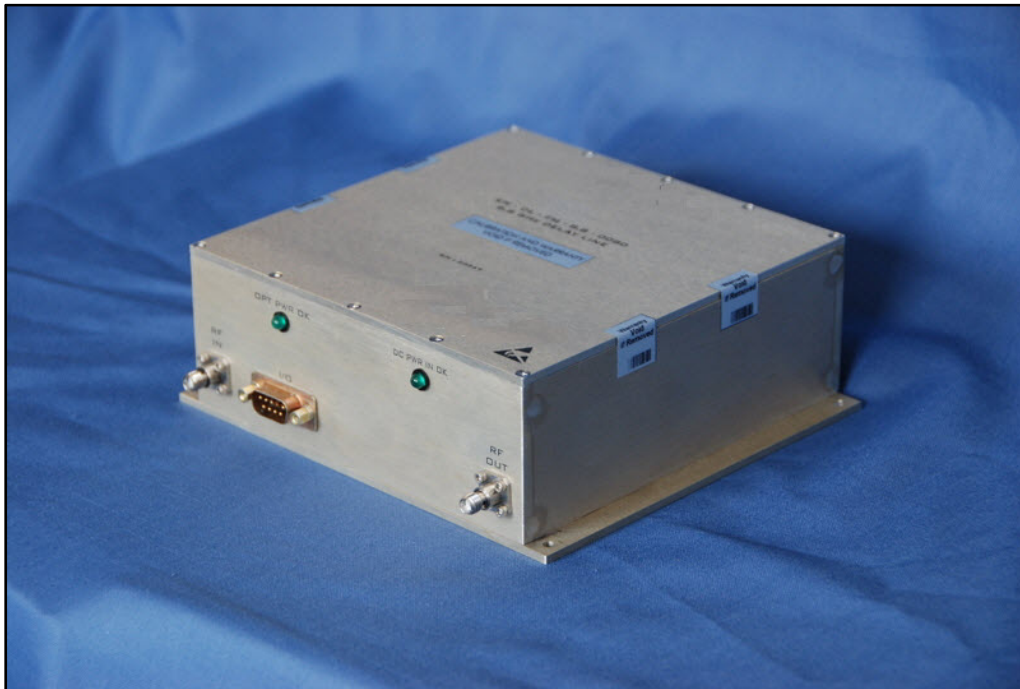


Microwave Photonic Systems Inc.  
1155 Phoenixville Pike, Unit 106  
West Chester, PA 19380  
610-344-7676

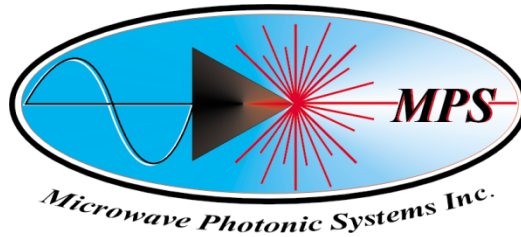
## **MP-5000-DL / MP-6000-DL RF and Microwave Photonic Delay Line 100 MHz - 18 GHz**



Microwave Photonic Systems, Inc. (MPS) of West Chester, PA is pleased to announce the release of their newest line of Wideband, Low Noise, RF Photonic Fixed Delay Lines.

The MPS RF and Microwave Photonic Delay Line product family includes the MP-5000-DL and the MP-6000-DL. This product family supports fixed delays over frequency ranges from 100 MHz up to 20 GHz. The MP-5000-DL and MP-6000-DL are packaged in a compact, flange mount, self contained enclosure. Front panel LEDs provide a visual indication of the DC and Optical Power alarm status. The RF input and RF output ports are both SMA-Female 50 $\Omega$  connectors and are position on opposite ends of the front panel. The Delay Line input power requirements are +12 to +15 VDC and is supplied via a front panel DB-9 connector. The Microwave Photonic Systems MP-5000-DL and MP-6000-DL compact form factor can provide up to 12 $\mu$ sec delays within 1% accuracy of the customer specified fixed delay. Applications include Radar Target Simulation, Signal Processing, and Phase Noise Testing. Custom packaging options available including a 1U Rack Mountable Chassis Solution.

For additional product inquiries and technical data, please contact Microwave Photonic Systems, Inc. via phone at 610.344.7676 or via email at [info@b2bphotonics.com](mailto:info@b2bphotonics.com).



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Parameter	Specification
Frequency	100 MHz to 18 GHz
Wavelength	1310 nm, 1510 nm (option)
Gain	-27 dB (typ) , 0 dB (option)
Gain Flatness	+/- 0.5 dB
Noise Figure	45 dB (typ), 25 dB (option)
Input IP3	+ 24 dBm
Max RF Input Level	+13 dBm
Input VSWR	2.0 : 1 (1.6:1 Typ)
Output VSWR	2.0 : 1 (1.6 : 1 Typ)
Voltage Supply	+15 VDC (Typ)
Impedance	50 Ohm
RF Connectors	SMA (Female)
Temperature Range	-20 C to + 70C
Delay	Up to 12 $\mu$ s
Delay Accuracy	1%

Table 1: DELAY LINE SPECIFICATIONS

Feature	Option Designator											
	1	2	3	4	5	6	7	8	9	10	11	12
Delay Value ( $\mu$ s )	Specified By Customer at Time of Order											
Frequency	Up to 12 GHz , MP-5000-DL Up to 18 GHz, MP-6000-DL											
RF Connectors	Customer Stated Option, SMA (f), 50 $\Omega$ Standard											
Mechanicals	6.75 x 6.00 x 2.38 Standard , Custom Packing Available											
Monitor and Control	RS-232 via DB-9											

Table 2: FEATURES



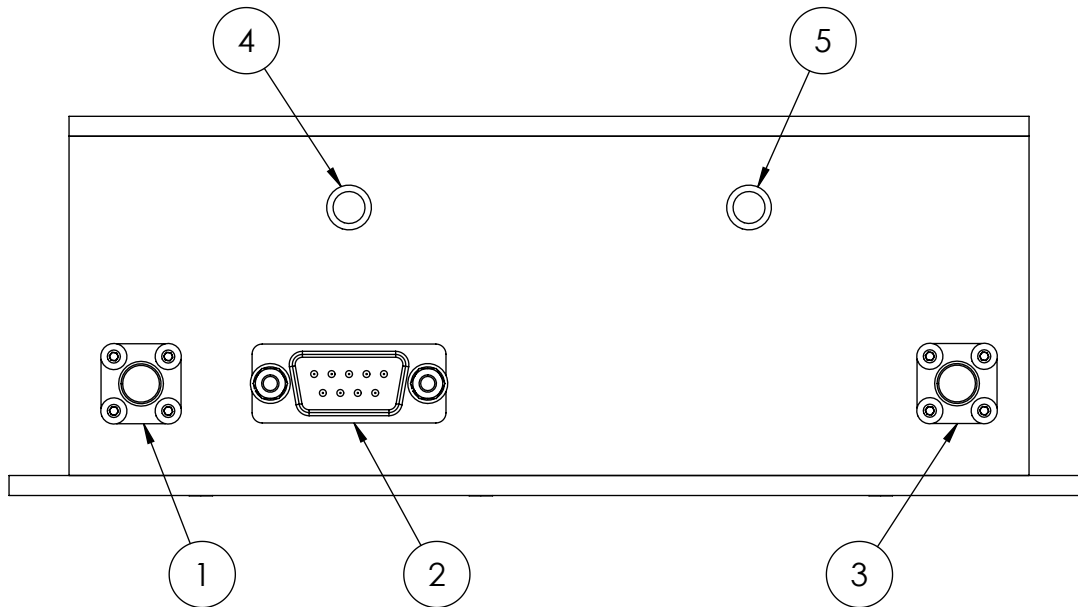
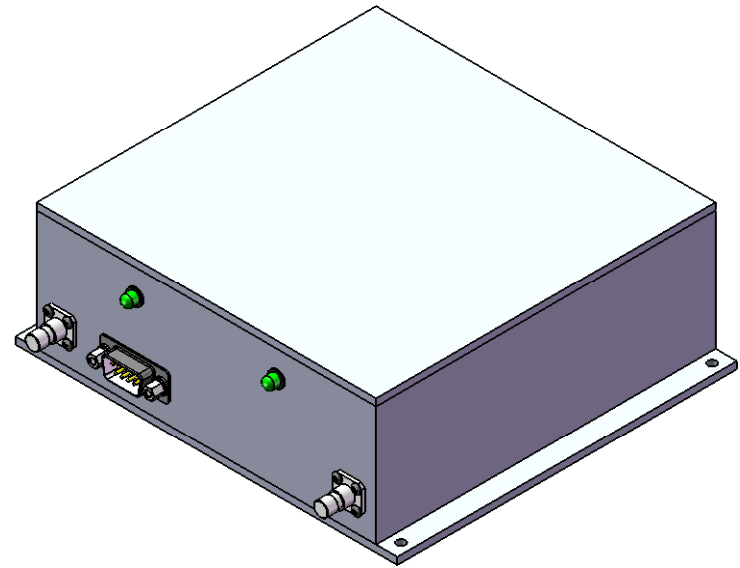
Figure 1: MP-5000-DL; Fixed RF and Microwave Photonic Delay Line, 8 $\mu$ s

FRONT PANEL DESCRIPTION

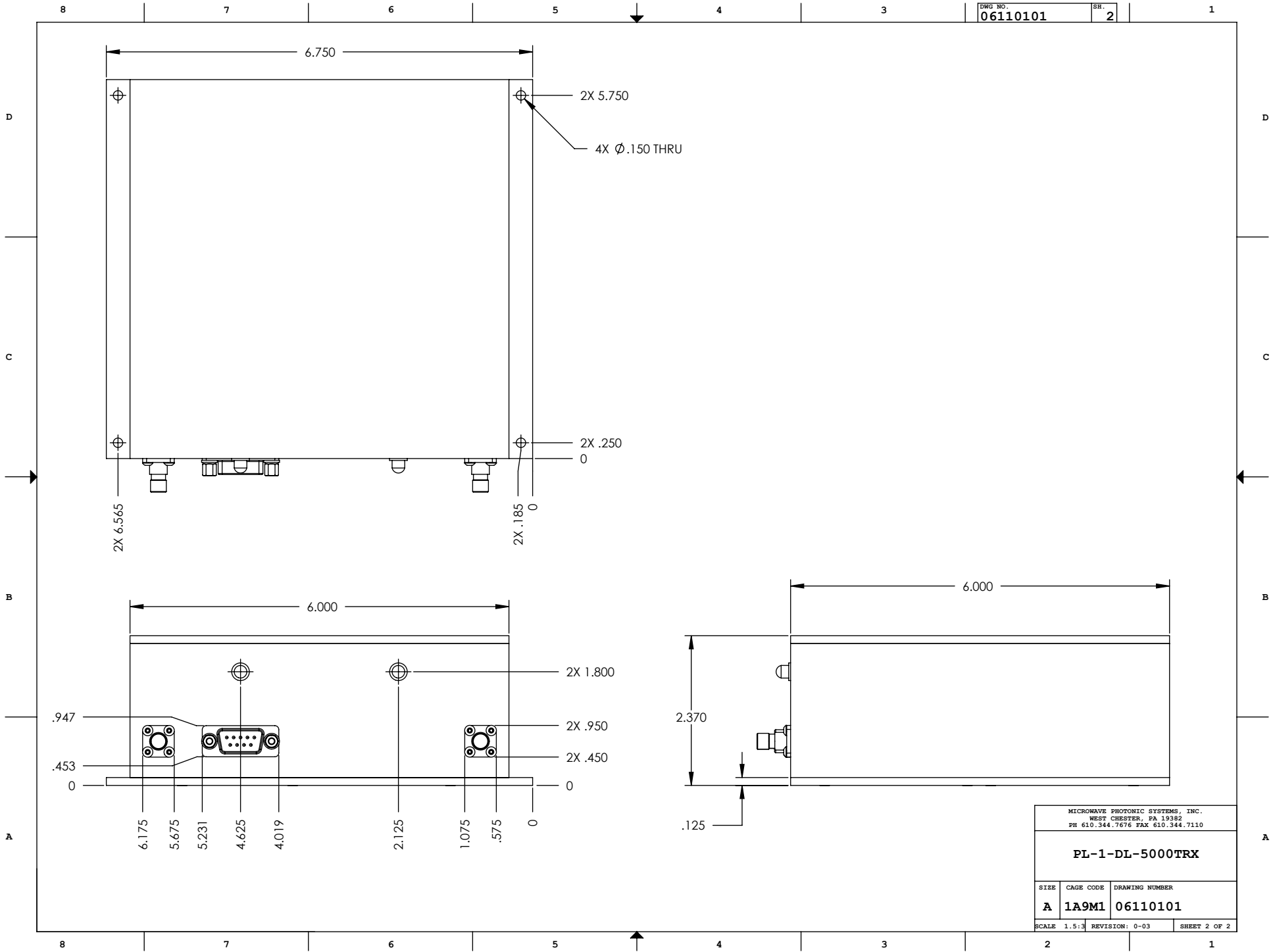
ITEM	TYPE	DESCRIPTION
1	SMA(F), 50Ω	RF INPUT
2	DB-9	INPUT / OUTPUT
3	SMA(F), 50Ω	RF OUTPUT
4	GREEN LED	ILLUMINATED= OPTICAL PWR OK
5	GREEN LED	ILLUMINATED= D.C. PWR IN OK

DB9 PINOUT

PIN	DESCRIPTION
1	+15 VDC
2	RESERVED
3	RESERVED
4	POWER GROUND
5	GROUND (REFERENCE)
6	RESERVED
7	RX POWER MONITOR
8	TX POWER MONITOR
9	RX ALARM (SYSTEM ALARM)



MICROWAVE PHOTONIC SYSTEMS, INC. WEST CHESTER, PA 19382 PH 610.344.7676 FAX 610.344.7110		
PL-1-DL-5000TRX		
SIZE	CAGE CODE	DRAWING NUMBER
A	1A9M1	06110101
SCALE	REVISION:	SHEET
2.5:1	0-03	1 OF 2



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