



**DPL Series  
DPL 26 Diplexer  
HP 2-6 GHz, IF DC to 1 GHz**

**DESCRIPTION**

The DPL Series offers compatibility with OML's MxxHWD harmonic mixer series for external mixer applications. In this popular spectrum analysis scenario, the DPL Series provides external diplexer functionality when integrated capabilities are not available in the destination spectrum analyzer (e.g., Keysight's PSA E444xA Series).



**HIGHLIGHTS**

- LO Range of 2-6 GHz
- LO insertion loss of 1.0 dB typical
- LO-IF isolation > 40 dB
- IF range of DC to 1 GHz
- IF insertion loss of 1.0 dB typical
- SMA interconnects
- Includes adapter, IF cable and RF cable

**APPLICATIONS**

- Supports many external mixer prerequisites
- Preserves LO power to optimize conversion loss
- Satisfies many signal separation prerequisites
- Compatible with many external mixer prerequisites
- Offers low-loss path that minimizes conversion loss
- Compatible with external mixer connectivity
- Simplifies connection to many spectrum analyzers

**ELECTRICAL AND PERFORMANCE SPECIFICATIONS (+25°C)**

After a one hour warm-up period, the following specifications are possible. Specifications are subject to change without notice.



Electrical Characteristics	Frequency Range (GHz)	MIN	TYP	MAX
L.O. [High Pass Filter (HPF)] Port				
Pass Band Insertion Loss (dB)	2 to 6		1.0	
Pass Band Return Loss (dB)	2 to 6	10	15	
Stop Band Insertion Loss (dB)	DC to 1	6	25	
I.F. [Low Pass Filter (LPF)] Port				
Pass Band Insertion Loss (dB)	DC to 1		1.0	
Pass Band Return Loss (dB)	DC to 1	6	15	
Stop Band Insertion Loss (dB)	2 to 6	48	70	
Mixer [Common] Port Return Loss				
Low Pass Filter (dB)	DC to 1	7	15	
High Pass Filter (dB)	2 to 6	12	15	
Isolation (dB)				
Low Pass Filter (dB)	DC to 1	6	25	
High Pass Filter (dB)	2 to 6	48	70	
Maximum Input Level (dBm)				+30
Operating Temperature Range		+20 °C	+25 °C	+30 °C
Storage Temperature Range		0 °C		+50 °C

Physical Characteristics	Description
Connector Interfaces <sup>1</sup>	SMA(f/f/f)
Size: Height x Width x Depth	0.25" (6.4 mm) x 1.15" (29.2 mm) x 1.30" (32.5 mm)
Weight	≤ 2 oz (56.7 g)

<sup>1</sup>LO (HPF) port - SMA(m) with SMA(m/m) adapter (M00DLP) installed

**ORDER INFORMATION**

<b>DPL26<sup>2</sup></b>	Diplexer, L.O. 2-6 GHz, I.F. DC to 1 GHz.
<b>DPL26NA</b>	Diplexer, L.O. 2.6 GHz, I.F. DC to 1 GHz.

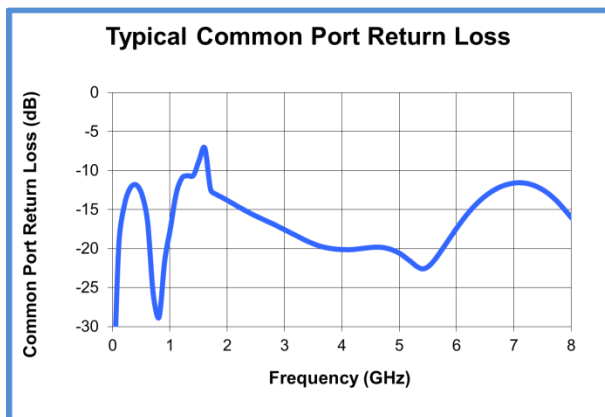
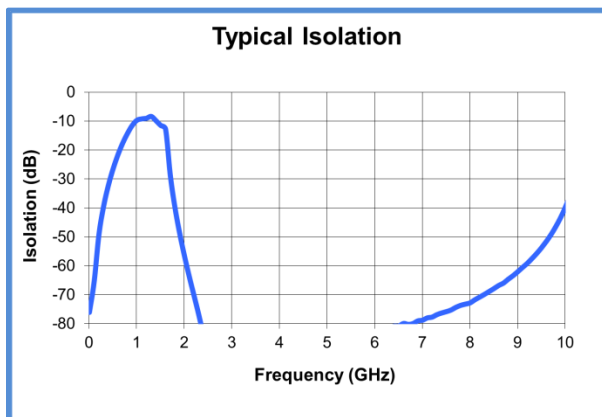
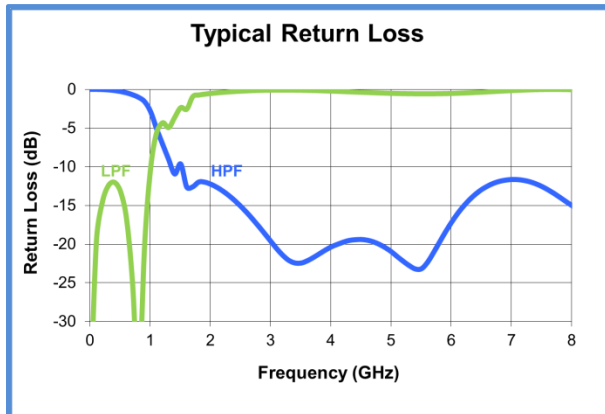
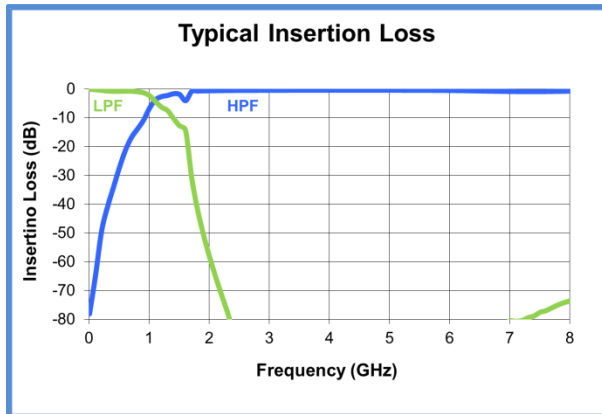
<sup>2</sup>Model DPL26 includes: RF cable (V00LOIF, 3 ft), IF cable (M00IF, 5") and SMA (m/m) adapter (M00DLP).





## TYPICAL PERFORMANCE

The following typical performance is possible with the DPL26 diplexer.



## MECHANICAL DIMENSIONS

