



DPL Series
DPL518 Diplexer
LO 5-18 GHz, IF DC to 2 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 E4440A). As a standalone component, the diplexer is also versatile for custom external mixer scenarios (e.g., WiGig).



HIGHLIGHTS

- LO range of 5-18 GHz
- LO insertion loss of 1.5 dB typical
- LO-IF isolation >40 dB
- IF range of DC to 2 GHz
- IF insertion loss of 1.5 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
- Attractive for custom scenarios, including modulation
- 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	MIN	TYP	MAX
L.O. Frequency Range	5 GHz	--	18 GHz
L.O. Insertion Loss		1.5 dB	
L.O. to I.F. Isolation		> 40 dB	
L.O. to VSWR		2.5:1	
I.F. Frequency Range	DC		2 GHz
I.F. Insertion Loss		1.5 dB	
I.F. VSWR		2.5:1	
Input Damage Level	+20 dBm		
Operating Temperature Range	+20 °C	+25 °C	+30 °C
Storage Temperature Range	0 °C		+50 °C

Physical Characteristics	Description
Connector Interfaces L.O. Port ¹ I.F. Port RF (Common) Port	SMA(m) with adapter SMA(f) SMA(f)
Size Height ² Width Depth	0.24" (6.1 mm) 1.80" (45.7mm) 0.75" (19.1 mm)
Weight	≤ 2 oz (276 g)

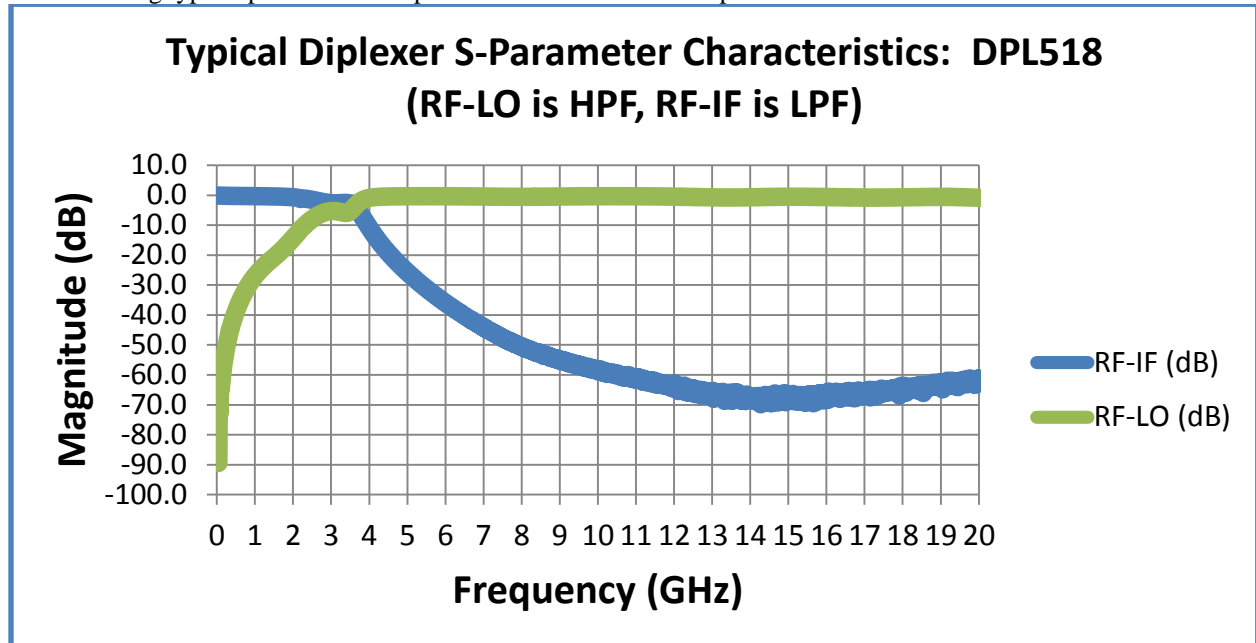
¹SMA(f) without SMA(m/m) adapter (M00DLP)

²Height excludes SMA connector and #2-56 screw length



TYPICAL PERFORMANCE

The following typical performance is possible with the DPL518 diplexer.



ORDER INFORMATION

DPL518	Diplexer, L.O. 5-18 GHz, I.F. DC to 2 GHz.
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Standard accessories for each diplexer includes: RF cable (V00LOIF, 3 ft), IF cable (M00IF, 5") and Adapter (M00DLP, SMA(m-m)).

MECHANICAL DIMENSIONS

