



**FDBL5003D4-1C**

ShareLite™ Wideband Diplexer, In-Line, 380-960 MHz / 1695-2700 MHz, Full DC / AISG Pass, Dual Configuration, 4.3-10 Connectors

This ShareLite diplexer is designed to enable feeder sharing between systems in the 380-960 MHz range and in the 1695-2700 MHz range. The diplexer is equipped with in-line connector placement so it can be installed in the BTS cabinet or at the tower top. This is especially valuable in crowded sites or when the feeders are not easily accessible. Due to its wideband design, the diplexer can accommodate many combining solutions between 380-960 MHz and 1695-2700 MHz systems such as LTE 600/700 MHz, Cellular 800 MHz with PCS, GSM900 with GSM1800, or UMTS900 with LTE2600. This diplexer features a highly selective filter. It provides a high level of isolation between ports, while keeping the insertion loss on both paths at an extremely low level. It is available with various DC pass options helpful in configurations with or without Tower Mounted Amplifiers installed.



**FEATURES / BENEFITS**

- Extremely low insertion loss – maximizes performance
- High level of rejection between bands – protects against interferences
- Extremely high power handling capability
- DC / AISG 1.1/2.0 pass through all ports
- Compact and low weight – enables easy handling and reduces tower loading
- 4.3-10 connectors - Reduce tower loading with connectors that are 40% smaller and lighter than 7/16 DIN connectors
- Long-neck connectors – Streamlines connection and waterproofing
- IP67 Class protection – exceptional reliability and environmental protection
- Equipped with breathable vents – provides equalization of pressure while preventing water ingress
- Mounting hardware for wall and pole mount provided

**Technical features**

**GENERAL SPECIFICATIONS**

<b>Product Type</b>		Diplexer/Cross Band Combiner
<b>Application</b>		Wireless Communication
<b>Configuration</b>		Dual indoor/outdoor

**ELECTRICAL SPECIFICATIONS**

<b>Frequency Range 1</b>	MHz	380 - 960
<b>Frequency Range 2</b>	MHz	1695 - 2700
<b>Return Loss All Ports</b>	dB	18 Min/22 Typ
<b>Power Handling Continuous, Max</b>	W	1250 at common port; 750 in low frequency path & 500 in high frequency path
<b>Power Handling Peak, Max</b>	W	15000 in low frequency path & 8000 in high frequency path
<b>Impedance</b>	Ω	50
<b>Insertion Loss, Path 1</b>	dB	.2 max / .1 typ
<b>Insertion Loss, Path 2</b>	dB	.2 max / .1 typ
<b>Rejection Between Bands Min/Typ</b>	dB	50 Min.
<b>Group Delay Variation</b>	ns	0.5 Path 1, 1 Path 2
<b>Group Delay, Path 1</b>	ns	2.5 Max
<b>Group Delay, Path 2</b>	ns	3 Max
<b>Rejection between Bands, Min</b>	dB	50
<b>IMP Level at the COM Port</b>	dBm (dBc)	-112 (-155) @2x43 typ.
<b>DC Pass in Path 1</b>		Yes
<b>DC Pass in Path 2</b>		Yes



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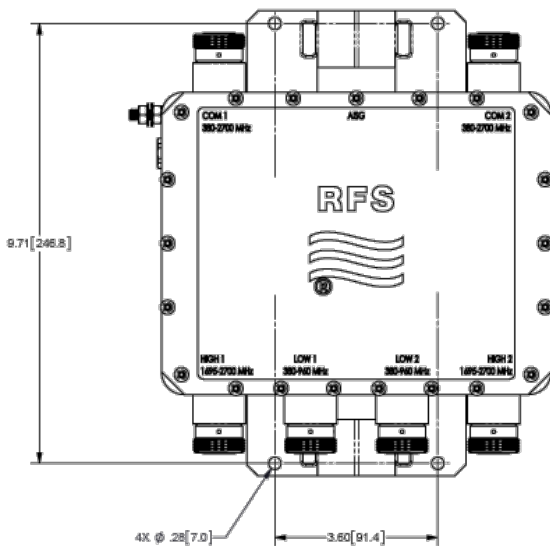
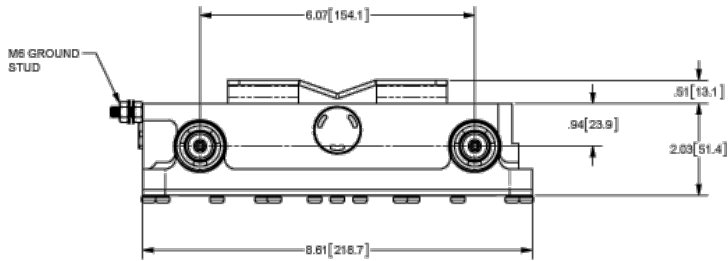
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**MECHANICAL SPECIFICATIONS**

<b>Mounting</b>		Wall Mounting: With 4 screws (maximum 6mm diameter) Pole Mounting: With included clamp set 50-100mm (1.9-3.9")
<b>RF Connectors</b>		In-line 4.3-10 Female
<b>Weight</b>	kg (lb)	3.5 (7.7)
<b>Shipping Weight</b>	kg (lb)	3.5 (7.7)
<b>Dimensions, H x W x D</b>	mm (in)	185 x 219 x 51 (7.3 x 8.6 x 2.0)
<b>Shipping Dimensions, H x W x D</b>	mm (in)	185 x 219 x 51 (7.3 x 8.6 x 2.0)
<b>Volume</b>	L	2
<b>Housing</b>		Aluminum

**TESTING AND ENVIRONMENTAL**

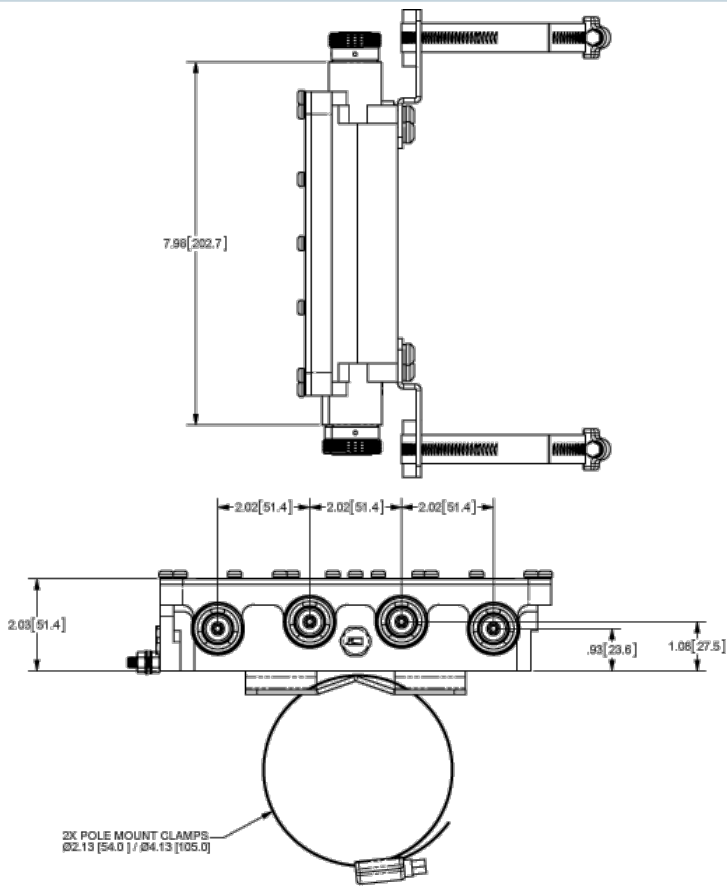
<b>Temperature Range</b>	°C (°F)	-40 to 65 (-40 to 149)
<b>Environmental</b>		ETSI 300-019-2-4 Class 4.1E
<b>Ingress Protection</b>		IP 67
<b>Lightning Protection</b>		IEC61000-4-5 Level 4 / 20kA, 8/20us





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External Document Links

- [RFS Diplexer Field Test Procedure](#)
- [Installation Instructions](#)

Notes