



ShareLite™ 1695-2200 / 2300-2690 MHz Diplexer, with Auto DC/AISG Sense, Dual configuration, 4.3-10 Connectors

The Sharelite FDRM Series of diplexers are designed to enable feeder sharing between systems in the 1695-2200 MHz range and in the 2300-2690 MHz range. RFS's innovative cavity filter design provides a very low insertion loss of 0.15dB typical while keeping the product extremely compact and lightweight. The usage of highly selective filters also guarantees a high isolation level of 50dB between ports, to ensure an interference-free environment for any technology deployed. The filter design also comprises of lightning protection for additional reliability. Designed to withstand the most severe outdoor environments, it also features an IP67 class protection with a vented enclosure to avoid any possible effects of condensation and pressure instability, thus providing a long lasting, extremely reliable solution to any network.

FEATURES / BENEFITS

- Dual unit for use with X-pol Antennas
- Auto DC sense to prevent installation mistakes and eliminate the need for DC stops
- 4.3-10 Connectors - Reduce tower loading with connectors that are 40% smaller and lighter than 7-16 DIN connectors
- Extremely Low Insertion Loss
- High level of Rejection between bands - Protection against interference
- Extremely High Power Handling Capability
- Very compact & small size design - Easy installation and reduced tower load
- Exceptional reliability & environmental protection (IP-67)
- Mounting hardware for Wall and Pole mount provided (P/N SEM2-1A)
- Grounding already provided through the mounting bracket



Technical Features

GENERAL SPECIFICATIONS

Product Type	Diplexer/Cross Band Combiner
Application	GSM1800, LTE1800, UMTS, LTE2100, AWS1, AWS3, AWS4 (U), PCS, LTE2300, LTE2600, WCS, BRS
Configuration	Dual indoor/outdoor

ELECTRICAL SPECIFICATIONS

Branch		1	2
Frequency Range	MHz	1695-2200	2300-2690
Impedance	Ohms	50.0	50.0
Frequency Band		GSM1800, LTE1800, UMTS, LTE2100, AWS1, AWS3, AWS4 (U), PCS	LTE2300, LTE2600, WCS, BRS
DC Pass		Auto DC Sense	
Insertion Loss	dB	0.15 typ./ 0.25 max	0.15 typ./ 0.25 max
Group delay	ns	9 max.	
Return Loss	dB	22 typ.	22 typ.
Power Handling Continuous, Max.	W	600 at common port, 300 on each path	
Input Power, PEP	W	3000	
Rejection between bands	dB	50	
PIM at Common Port	dBm (dBc)	-118 (-161) @2x43 typ.	

TESTING AND ENVIRONMENTAL

Temperature Range	°C (°F)	-40 to 65 (-40 to 149)
Ingress Protection		IP 67
Environmental		ETSI 300-019-2-4 Class 4.1E
Lightning Protection		EN/IEC61000-4-5 Level 4

MECHANICAL SPECIFICATIONS

RF Connectors		4.3-10 Female; 4 ports in, 2 ports out
Weight	kg (lb)	4.9 (10.8)
Dimensions, H x W x D	mm (in)	156 x 183 x 133 (6.1 x 7.2 x 5.2)
Mounting		Wall Mounting: With 4 screws (maximum 6mm diameter) Pole Mounting: With included clamp set 40-110mm (1.57-4.33")

Document Links

RFS Diplexer Field Test Procedure

Notes

External Link Reference

FDRM5015D4 SELECTION GUIDE:

Type	Model Number	No DC Pass	DC Pass High Band	DC Pass Low Band	Full DC Pass	DC Sense priority
Dual	FDRM5015D4-S1					1695-2200
Dual	FDRM5015D4-S1A					1695-2200 with AISG
Dual	FDRM5015D4-1C				X	
Dual	FDRM5015D4-2C			X		
Dual	FDRM5015D4-3C		X			
Dual	FDRM5015D4-NC	X				



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