

### FX4500NF Multi-Service Cross-Band Coupler, 138-960/1710-2500 MHz

- Allows for the combination/separation of any 138-960 MHz with 1710-2500 MHz signals
- Add a CDMA, UMTS, DCS, PCS, or AWS BDA or repeater to an existing Cellular and SMR DAS
- Enable sharing of feedlines and antennas
- High power handling for multi-service applications

Sinclair's FX4500 series cross-band couplers allow transmitters and receivers operating in frequency bands between 138-2500 MHz (VHF, UHF, 800 MHz, 900 MHz, 1800 MHz, 1900 MHz, AWS and 2500 MHz bands) to share a common feedline for a multi-service base station and to share a common antenna in a Distributed Antenna System (DAS). Sharing a feedline amongst multiple discrete operating systems, all using different frequency bands, simplifies installation and maintenance, while reducing cost, space and tower/rooftop loading. Sharing one common antenna between multiple in-building systems, all using different frequency bands, will not only reduce installation and maintenance costs, but will also minimize the disruption to tenants and simplify new carriers to be added which enhances tenant appeal and retention.



Sinclair's cross-band couplers is ideal in expanding the functionality of Sinclair's SM300 and SM600 series antennas by enabling one antenna to service multiple and discrete wireless systems. With these cross band couplers, multiple radio systems can share the same antenna or can be added to service after the antenna is already installed.

The FX4500 series of cross-band couplers consist of low pass-band and band-pass filters with low insertion loss and high isolation. The low pass-band can handle 250W while the high pass-band can handle 50W. Although both low and high pass-bands are extremely wideband, i.e. 138-960 MHz for the low pass-band and 1710-2500 MHz for the high pass-band, no field tuning is required for full band coverage.

www.sinctech.com

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### Electrical Specifications

VSWR (max)		1.5:1	
Isolation (typ)	dB	40	*1
Connectors		N-Female	
Frequency Band (Low Pass)	MHz	138 to 960	
Frequency band (High Pass)	MHz	1710 to 2500	
Pass band insertion loss (Low pass)	dB	0.4	
Pass band insertion loss (High pass)	dB	0.4	
Power handling (Low pass)	W	250	*2
Power handling (High pass)	W	50	*3
Input/ Output Impedance	Ω	50	

### Notes

- \*1 : Minimum
- \*2 : CW max
- \*3 : CW max
- \*4 : Connectors excluded

### Mechanical Specifications

Weight	lbs (kg)	1 (0.45)	
Shipping dimensions	in (mm)	9x6x3 (229x152x76)	
Dimensions (L x W x H)	in (mm)	4.72x2.36x1.49 (120x60x38)	*4

### Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)	
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