

5-2450Mhz

Satellite Diplexer, Combiner & Splitter



MCR Broadband's EDIP series Diplexers are designed for use with Direct TV (EDIP-1) and all Dish Network Satellite Installations (EDIP-2D). Their frequency range (40-2450 MHz) is greater than legacy diplexers which have a frequency range of only 5-2050 MHz. They have a lower insertion loss, filter harmonics in the off-air spectrum from satellite conversion, and allow 2000 mA power passing as required for newer installations.

Diplexers are used in pairs. One diplexer is used in the outdoor environment to combine two separate RF signals onto a single coaxial cable: one signal from the satellite antenna and another signal from either an off-air HDTV digital antenna or cable TV feed. A second diplexer is used inside the subscriber's dwelling to separate the combined signals. This paired configuration eliminates extra coaxial wiring, thereby reducing cost of labor and installation materials necessary to run two separate coaxial drops.

High quality housing provides electrical and mechanical integrity under adverse conditions. MCR Broadband EDIP series diplexers have a tin-plated, zinc die-cast housing with high precision machined SCTE compliant threaded ports spaced on one-inch centers. The soldered back and tin-plated, zinc die-cast backplate provide -130dB RFI. The housing meets the requirements of ASTM B117-97 electrostatic salt fog testing standards.

All F ports are water sealed to withstand up to 30 P.S.I. internal pressure, thereby providing long term water-tight integrity.

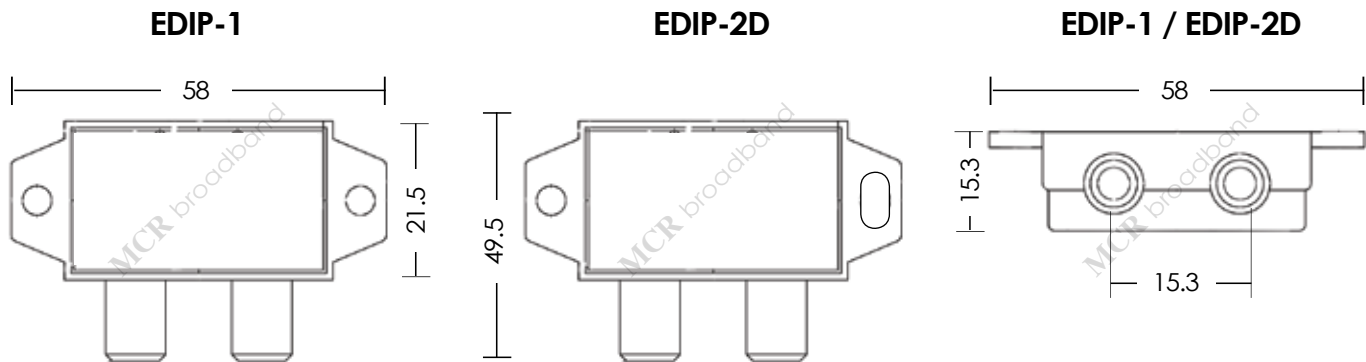
4-3000 MHz, patent-pending, gold plated, 340° center conductor seizing pin is durable to resist oxidation, maintaining a distortion free signal for digital data transmission. All F ports exceed 200 gram retentions requirements for center conductor extraction.

High reliability design provides electrical stability under adverse operating conditions. Glass PCB with micro strip design and SMT technology are implemented throughout the diplexer. The input F port passes a 1kV 100a ring wave surge test (IEEE C62.41 Cat A3 standard) via MCR's patent-pending SurgeRing™ technology.

Temperature-hardened components maintain temperature stability from - 40 to +85 degrees C.

EDIP series diplexers meet all applicable SCTE and CEA standards in effect at the time of manufacturing, providing stable return loss, frequency band separation, flatness & filter performance.

	EDIP-1		EDIP-2D	
	Typical	QA	Typical	QA
UHF/VHF FREQUENCY BANDPASS				
	40 - 860Mhz		5 - 806Mhz	
UHF/VHF INSERTION LOSS (values in dB)				
5 - 806Mhz	1.5	2.5	1.5	2.0
UHF/VHF FLATNESS (values in dB)				
5 - 806Mhz			1.0	1.5
5 - 806Mhz (for 6Mhz)			0.5	0.5
40 - 860Mhz	1.5	2.0		
40 - 860Mhz (for 6Mhz)	0.5	0.8		
UHF/VHF RETURN LOSS (values in dB)				
5 - 806Mhz			15.0	12.0
40 - 860Mhz	13.0	10.0		
UHF/VHF BAND STOP (values in dB)				
UHF/VHF - Satellite			41.0	35.0
Satellite - UHF/VHF			41.0	35.0
UHF/VHF - Satellite	30.0	25.0		
Satellite - UHF/VHF	30.0	25.0		
SATELLITE L BAND FREQUENCY BANDPASS				
	950-2450Mhz		950-2150Mhz	
SATELLITE L BAND INSERTION LOSS (values in dB)				
	2.0	3.0	1.5	2.0
UHF/VHF FLATNESS (values in dB)				
950-2150Mhz			1.2	1.5
950-2150Mhz (for 25Mhz)			0.4	0.5
950 - 2450Mhz	2.0	3.0		
950-2450Mhz (for 25Mhz)	0.8	1.0		
DC POWERING SATELLITE L BAND PATH (values in VDC)				
DC Loss	0.40	0.50	0.30	0.40
DC Power Pass	500 mA @ 28Vdc		1.6 amp @ 28Vdc	
GENERAL PRODUCT SPECIFICATIONS				
Weight (gram)	1.1 oz (31g)		1.1 oz (31g)	
Master Packaging	400		200	



All measurements in mm