

DC-DC Converter EMI Filter

Reduce Switching Noise, Speed EMC Compliance

Description

Johanson RFI Suppression Filter Chips feature proven, patented, X2Y® low noise architecture and are one of the most effective EMC filters available on the market today!

This filter's ultra low parasitic inductance result in a wide filter stop-band. The dual line filter exhibits tightly matched impedance providing very low noise-mode conversion, an unwanted characteristic that reduces the filtering of typical L-C filters or common mode chokes.

A single X2Y outperforms complicated multi-pole discrete filters saving space and cost



Speed Time to Market, Reduce Compliance Testing Costs

Features

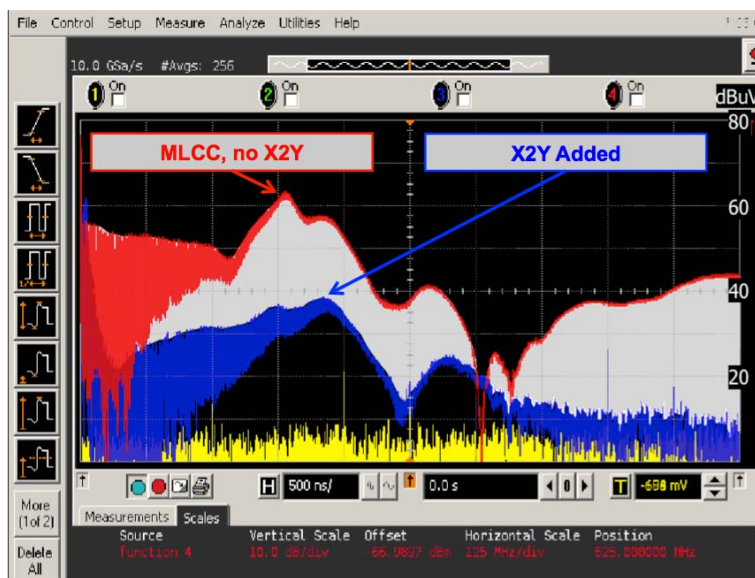
- Large Noise Reduction from Single Component
- 28:1 Amplitude Reduction
- Noise Reduction up to 41dBuV
- Low Conducted / Radiated Emissions
- NO CURRENT LIMIT due to Bypass Configuration
- Ultra-low ESL (Equivalent Series Inductance)
- LOW NOISE MODE-CONVERSION
- Tight Line-to-Line Impedance Matching
- Six Proto-typing Kits Available
- SPICE Models Available

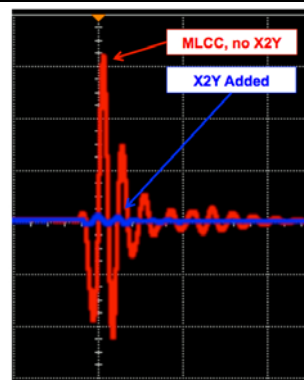
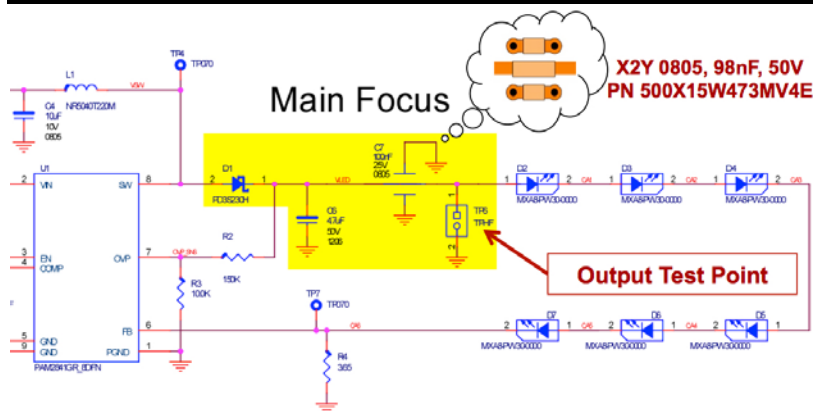
Benefits

These EMI filters have superior Common mode rejection and also exhibit up to 17dB better noise mode-conversion than typical common-mode chokes.

Noise mode-conversion is the “hidden enemy” in EMC filtering applications. Mode conversion is not specified by filter component vendors and defeats the typically published 50Ω impedance.

Lower noise mode-conversion results in huge improvement in both Conducted and Radiated Emission performance.





Magnified Ring Reduction

Product Range

Capacitance		<10pF	10pF	22pF	27pF	33pF	47pF	100pF	220pF	470pF	1000pF	1500pF	2200pF	2700pF	3300pF	4700pF	6800pF	.010μF	.015μF	.022μF	.027μF	.033μF	.047μF	.068μF	.082μF	0.10μF	0.18μF	0.22μF	0.33μF	0.40μF	0.47μF	1.0μF
SIZE	CAP. CODE	X7R	100	220	270	330	470	101	221	471	102	152	222	272	332	472	682	103	153	223	273	333	473	683	823	104	184	224	334	404	474	105
0402 (X07)	NPO	50	50	50	50	50	50	50																								
	X7R								50	50	50	50	50			50		16														
0603 (X14)	NPO	100	100	100	100	100	50	50	50																							
	X7R							100	100	100	100	100	100			100		50	25	25			16			10		10				
	X5R																											16	10		10	10
0805 (X15)	NPO		100	100	100	100	100	100	100	50																						
	X7R							100	100	100	100	100	100			100		100	50	50			50			25	10					
1206 (X18)	NPO			VOLTAGE							100																					
	X7R			10 = 10 VDC 16 = 16 VDC							200						200		100	100	100			100			100		16	16		10
1210 (X41)	NPO			25 = 25 VDC										200		500		500	500	500	200		200	200		100		100	100		25	16
	X7R			50 = 50 VDC																												
1410 (X44)	NPO			100 = 100 VDC												200				500	500	500		200		200					50	
	X7R			200 = 500 VDC																												100
1812 (X43)	NPO			500 = 500 VDC													200						500	500	500			200				50
	X7R																															100
Please contact factory for variations / parts not shown																																

Please contact factory for variations / parts not shown

Applications

Markets	End Product Application	Circuit Application
IT	Network Devices	Noise Reduction of DC-DC Converter
	Sever POL	
	SFP Power	
CONSUMER	Connected Home	
	Smart Grid Power Regulation	
	Kiosk Displays	
INDUSTRIAL	Process Controls	
	Analytical Test Equipment	
	LED Signs	
MEDICAL	Remote Patient Monitor Base	
	Medical Test Equipment	