

Visit Fair-Rite's Website at www.fair-rite.com

EMI Suppression Evaluation Kits

Engineering Evaluation Kits
In order to assist the design engineer concerned with EMI suppression, Fair-rite was the first ferrite manufacturer to offer engineering evaluations kits. These kits are designed to reflect the different mechanical and frequency requirements of all types of suppression applications. Each kit contains a sampling of suppression cores for use in the original design phase or in situations where a retrofit proves necessary. All are in clear plastic cases with blue foam packing.

Expanded Cable and Connector EMI Suppressor Kit. This is our most popular engineering kit. As the name implies, this kit provides a broad sampling of suppression cores in 43 and 44 material, specifically designed to attenuate EMI between all types of cable connected systems. To assemble the split cable suppression cores, polypropylene cases and steel clips are included in this kit.
589-0002. 0199000005.....**EACH 97.92**

Bead-On-Lead EMI Suppressor Kit. Three popular core sizes in materials 43, 61 and 73 are included in this evaluation kit.
589-5002. 0199000028.....**EACH 72.53**

RFID Kit. This kit contains 10 different sizes in materials 78 (for 125 kHz) and 61 (for 13.56 MHz) and is specifically designed for use in transponders in Radio Frequency Identification Devices.
589-5000. 0199000024.....**EACH 72.53**

Fair-Rite Surface Mount Bead Kit. This engineering kit of surface mount suppression cores, contains an assortment of ten SM Beads and two Common-Mode SM Beads in appropriate materials to provide maximum attenuation over a wide frequency range.
589-0005. 0199000014.....**EACH 65.28**

Snap-It Kit. This bookshelf kit contains six sets of round cable suppression core assemblies in two materials. One is the high resistivity NiZn 44 material and the other is MnZn 31 material. Either material in these core assemblies can be used to suppress frequencies up to 500 MHz. The core assemblies can accommodate round cables with diameters from 0.160" to 0.72".
589-0017. 0199000017.....**EACH 48.96**

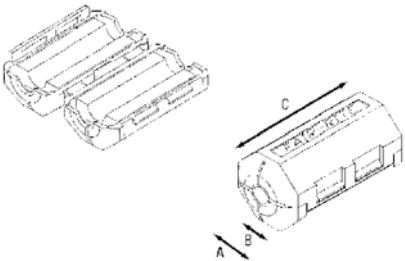
Chip Bead Kit. This Chip Bead Bookshelf Kit contains 20 different shield bead parts in four different EIA standard package sizes. This kit contains low current, medium current as well as high current chip beads. Also included in the kit is a selection of low, standard and high signal speed parts. standard speed signal chip beads are designed for general noise suppression over a wide frequency range. The low speed signal chip beads peak at 100 MHz while offering significant impedance at lower frequencies. The high speed signal chip beads offer low impedance at frequencies below 50 MHz and then the impedance increases rapidly to a peak at >100 MHz. The beads are controlled 100% for impedance and DCR. They are suitable for both wave and reflow solder processes. Chip beads are used to suppress EMI in a wide variety such as computers, cellular phones, digital communication equipment, television, pagers and VCRs.
589-0007. 0199000018.....**EACH 48.96**

Shield Bead Kit. This Shield Bead Bookshelf Kit contains 20 different shield bead parts in two different materials; 73 material for frequencies <30 MHz and 43 material for frequencies between 23-200 MHz. The beads range from an inner diameter of 0.85 mm up to 5.0 mm. These shield beads are guaranteed to impedance specifications over a wide frequency range.
589-0019. 0199000019.....**EACH 48.96**

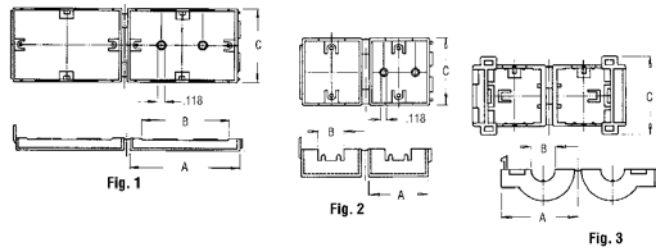
Round EMI Suppressor Cores Assembled with Plastic Cases

When clamped on a cable, these 44 and 43 material cores attenuate conducted EMI from 20-250 MHz. The one-piece case design permits secure mounting on the cable and ensures proper mating of core halves.

Stock No.	Mfr.'s Type	Typical Imp. (Ω) @ 10 MHz	Typical Imp. (Ω) @ 25 MHz	Typical Imp. (Ω) @ 100 MHz	Dimensions — In.			EACH	
					A	B	C	1-24	25-49
589-0045	0431164181	100	156	260	1.220 (31.0)	0.512 (13.0)	1.550 (39.4)	3.51	3.19
589-0046	0431164281	113	188	310	0.788 (20.0)	0.260 (6.6)	1.550 (39.4)	2.20	2.00
589-0047	0431164951	100	169	280	0.680 (17.3)	0.200 (5.1)	1.420 (36.2)	2.02	1.84
589-0048	0431167281	81	144	240	0.993 (23.7)	0.400 (10.2)	1.550 (39.4)	1.76	1.60
589-0049	0431173951	60	100	180	0.504 (12.8)	0.200 (5.1)	0.984 (25.0)	1.84	1.67
589-0054	0444164181	—	138	230	1.220 (31.0)	0.460-0.500 (11.7-12.7)	1.560 (39.6)	2.71	2.47
589-0052	0444164281	—	156	260	0.778 (20.0)	0.210-0.250 (5.3-6.3)	1.560 (39.6)	1.27	1.11
589-0051	0444164951	—	144	245	0.680 (17.3)	0.160-0.200 (4.1-5.0)	1.450 (36.8)	1.10	.96
589-0053	0444167281	—	125	210	0.993 (23.7)	0.350-0.394 (9.1-10.0)	1.560 (39.6)	1.71	1.56
589-0050	0444173951	—	94	150	0.504 (12.8)	0.160-0.200 (4.1-5.0)	1.000 (25.4)	1.03	.93
589-0055	0444176451	—	175	365	1.520 (38.6)	0.722 (18.35)	1.870 (47.5)	4.41	4.01



EMI Suppression Cores with Cases



These ferrite suppressors, designed to accommodate various size cables, are available for both flat ribbon cable and round bundled cables. The cases are designed to grip and center the ferrite suppressors on the cable. Ferrites are supplied in type 43 material (2 per unit) and the cases in polypropylene. Flammability rating by UL 94-V0. Impedance values listed below are controlled to ±20% @ 100 MHz.

Flat Cable Cores with Cases

Stock No.	Mfr.'s Type	Fig.	Typical Imp. (Ω) ±20% @ 100 MHz	Dimensions — In.			EACH	
				A	B	C	1-24	25-49
589-0100	0443166651	1	225	1.950	1.350	1.270	2.60	2.37
589-0110	0443163951	1	235	2.670	2.070	1.270	4.69	4.27
589-0120	0443164051	1	215	3.180	2.580	1.270	5.55	5.04

Round Cable Cores with Cases

589-0200	0443164251	2	275	0.705	0.275	1.272	2.12	1.93
589-0210	0443167251	2	225	0.870	0.402	1.272	1.74	1.46
589-0220	0443164151	2	250	1.142	0.528	1.280	3.65	3.32
589-0230	0443625006	3	113	0.972	0.299	0.898	1.20	.98
589-0240	0443665806	3	88	1.035	0.362	0.843	1.65	1.35
589-0250	0443800506	3	75	1.169	0.504	0.811	1.67	1.52
589-0260	0443806406	3	90	1.350	0.591	0.835	1.31	1.19

EMI Shield Beads



These ferrite beads, supplied in type 43 material are designed for attenuation of unwanted high frequency signals in circuits. Useful for suppression in the 25 to 250 MHz range.

Stock No.	Mfr.'s Type	Typical Imp. (Ω) @ 10 MHz	Typical Imp. (Ω) @ 25 MHz	Typical Imp. (Ω) @ 100 MHz	Dimensions — In.			Qty. Per Pkg.	EACH	
					A	B	C		1-24	25-49
589-0300	2643000101	—	—	40	0.138	0.051	0.128	1000	30.80	28.00
589-0305	2643000301	—	—	60	0.138	0.051	0.236	1000	37.54	34.12
589-0310	2643000801	—	—	92	0.296	0.094	0.297	500	40.39	36.72
589-0315	2643002402	—	—	43	0.380	0.197	0.190	500	44.88	40.80
589-0320	2643540002	—	—	250	0.562	0.250	1.125	1	.32	.29
589-0325	2643665702	—	—	200	0.687	0.375	1.125	1	.40	.36
589-0330	2643102002	—	—	235	1.020	0.505	1.125	1	1.86	1.69
589-0335	2643801002	—	—	47	1.142	0.748	0.295	1	.73	.67
589-0340	2643804502	—	—	100	1.225	0.750	0.627	1	1.33	1.21
589-0345	2643802702	—	—	80	1.400	0.900	0.500	1	1.37	1.24
589-0350	2643803802	—	—	108	2.400	1.400	0.500	1	3.18	2.89
589-0354	2673000101C	25	35	—	0.138	0.051	0.128	100	6.87	6.24
589-0360	2673000301C	44	62	—	0.138	0.051	0.236	100	7.10	6.45