

Round Cable Snap-Its



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Listed by frequency range and in ascending order of cable diameter.

Round cable snap-its can easily accommodate round cables or bundled wires with diameters from 2.5 mm (0.100") to 25.4 mm (1.000"). These assemblies are available in four ferrite material classes to suppress differential or common-mode conducted EMI from 1 MHz into the GHz region. The polypropylene cases are meeting the RoHS restrictions of hazardous substances and have a flammability rating of UL 94 V-0.

- Round cable snap-it assemblies are controlled for impedances only. Minimum impedance values are specified for the + marked frequencies. The minimum impedance is typically the listed impedance less 20%.
- Single turn impedance tests for the 31, 43/44 and 46 material parts are performed on the 4193A Vector Impedance Analyzer. The 61 material parts are tested on the 4291A RF Impedance Analyzer. **Cores are tested with the shortest practical wire length.**
- Performance curves for these suppression components are on our web site.
- Many of the snap-it parts have round core equivalents. See "Round Cable EMI Suppression Cores".
- The "B" dimension is the core inside diameter.
- Round Cable Snap-It Kits are available for each of the four suppression materials. 31 Snap-It Kit (0199000030), 43 Snap-It Kit (0199000031), 46 Core and Snap-It Kit (0199000032) and 61 Snap-It Kit (0199000033).
- Explanation of Part Numbers: Digits 1&2 = product class and 3&4 = material grade.

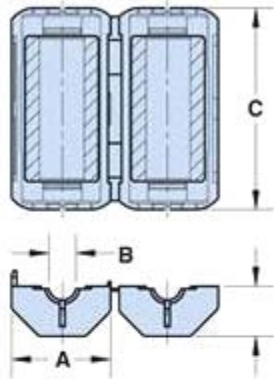


Figure 1

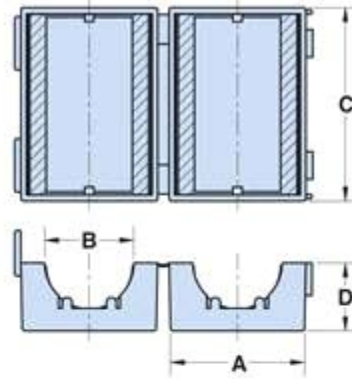


Figure 2

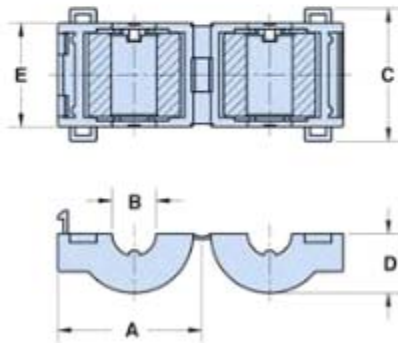


Figure 3

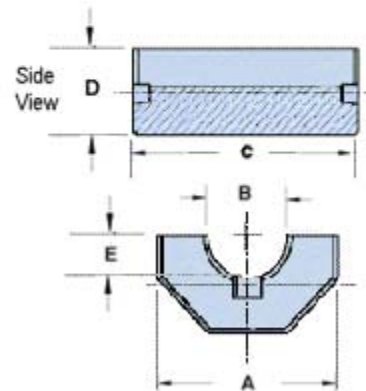


Figure 4

Fair-Rite Products Corp. PO Box 288, One Commercial Row, Walkill, NY 12589-0288

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Listed by frequency range and in ascending order of cable diameter.

Legend

Dimensions (Top numbers are in millimeters, bottom numbers are in nominal inches.)

* Test frequency

Lower & Broadband Frequencies 1-300 MHz (31 material)

Part Number	Fig.	Max. Cable Diameter	A	B	C	D	Wt. (g)	Impedance (Ω)						Solid Equivalent
								1 MHz	5 MHz	10 MHz ⁺	25 MHz ⁺	100 MHz ⁺	250 MHz	
0431178181	1	4.10 0.161	11.80 0.465	4.30 0.169	23.20 0.913	5.60 0.221	4.20	12	43	60	90	160	183	-
0431173951	1	4.90 0.193	12.80 0.504	5.10 0.201	25.00 0.984	5.60 0.220	6.50	14	44	60	100	180	208	2631023002
0431164951	1	4.90 0.193	17.30 0.680	5.10 0.201	36.20 1.420	8.40 0.331	17.00	25	75	100	169	280	247	2631480002
0431164281	1	6.30 0.250	20.00 0.788	6.60 0.260	39.40 1.550	9.80 0.385	26.00	28	83	105	180	310	240	2631540002
0431178281	1	8.70 0.343	21.50 0.846	9.00 0.354	39.40 1.550	10.55 0.415	23.00	18	63	85	130	250	275	2631665702
0431167281	1	9.85 0.388	23.70 0.933	10.15 0.400	39.40 1.550	11.70 0.461	33.00	18	56	81	144	240	270	2631626402
0431164181	1	12.70 0.500	31.00 1.220	13.05 0.514	39.40 1.550	15.25 0.600	61.00	25	71	100	156	260	260	2631102002
0431176451	1	18.00 0.709	38.60 1.520	18.35 0.722	47.50 1.870	19.15 0.755	161.00	47	95	130	225	380	370	2631103002
0431173551	2	18.50 0.728	29.20 1.150	18.80 0.740	42.00 1.650	14.70 0.579	78.00	16	48	69	125	220	310	-
0431177081	1	25.15 0.990	56.40 2.220	25.65 1.010	42.95 1.690	27.45 1.080	308.00	45	90	125	218	375	340	2631626202
2631181381	4	35.4 1.394	62.10 ±1.00 2.445	37.20 ±0.64 1.465	63.50 ±1.50 2.500	30.20 ±0.31 1.190	289.00	60	150	190	290	490	530	-

Broadband Frequencies 25-300 MHz (43 & 44 materials)

Part Number	Fig.	Max. Cable Diameter	A	B	C	D	E	Wt. (g)	Impedance (Ω)				Solid Equivalent
									10 MHz	25 MHz ⁺	100 MHz ⁺	250 MHz	
0443178181	1	4.10 0.161	11.80 0.465	4.30 0.169	23.20 0.913	5.60 0.221	-	4.20	40	70	125	152	-
0444173951	1	4.90 0.193	12.80 0.504	5.10 0.201	25.00 0.984	5.60 0.220	-	6.50	54	94	150	187	2643023002
0444164951	1	4.90 0.193	17.30 0.680	5.10 0.201	36.20 1.420	8.40 0.331	-	17.00	90	144	245	257	2643480002
0443164251	2	6.30 0.250	17.90 0.705	6.60 0.260	32.20 1.270	9.20 0.362	-	31.00	100	163	275	275	2643540002
0444164281	1	6.30 0.250	20.00 0.788	6.60 0.260	39.40 1.550	9.80 0.385	-	26.00	95	156	260	270	2643540002
0443625006	3	7.60 0.299	24.70 0.972	7.90 0.311	22.80 0.898	10.20 0.402	17.80 0.701	13.00	27	50	113	188	2643625002
0443178281	1	8.70 0.343	21.50 0.846	9.00 0.354	39.40 1.550	10.55 0.415	-	24.00	65	120	230	265	2643665702
0443665806	3	9.20 0.362	26.30 1.035	9.50 0.374	21.40 0.843	11.00 0.433	16.40 0.646	13.00	23	41	88	122	2643665802
0443167251	2	9.85 0.388	22.10 0.870	10.15 0.400	32.30 1.272	11.00 0.433	-	42.00	79	138	225	285	2643626402
0444167281	1	9.85 0.388	23.70 0.933	10.15 0.400	39.40 1.550	11.70 0.460	-	33.00	77	125	210	260	2643626402
0443164151	2	12.70 0.500	29.00 1.142	13.05 0.514	32.50 1.280	14.80 0.583	-	84.00	90	156	250	305	2643102002

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Broadband Frequencies 25-300 MHz (43 & 44 materials)

Part Number	Fig.	Max. Cable Diameter	A	B	C	D	E	Wt. (g)	Impedance (Ω)				Solid Equivalent
									10 MHz	25 MHz ⁺	100 MHz ⁺	250 MHz	
0444164181	1	12.70 0.500	31.00 1.220	13.05 0.514	39.40 1.550	15.25 0.600	-	61.00	76	138	230	280	2643102002
0443800506	3	12.80 0.504	29.70 1.169	13.20 0.520	20.60 0.811	12.70 0.500	15.60 0.614	16.00	18	35	75	120	2643800502
0443806406	3	15.00 0.591	34.30 1.360	15.50 0.610	21.20 0.835	15.00 0.591	16.20 0.638	23.00	24	43	90	147	2643806402
0444176451	1	18.00 0.709	38.60 1.520	18.35 0.722	47.50 1.870	19.15 0.755	-	161.00	100	175	365	365	2643103002
0444173551	2	18.50 0.728	29.20 1.150	18.80 0.740	42.00 1.650	14.70 0.579	-	78.00	50	95	195	322	2643103102
0444177081	1	25.15 0.990	56.40 2.220	25.65 1.010	42.95 1.690	27.45 1.080	-	308.00	115	194	335	330	2643626202
2644181281	4	33.0 1.300	61.00 ± 1.30 2.402	37.20 ± 0.90 1.465	12.70 ± 0.65 0.500	29.60 ± 0.35 1.165	16.50 MIN 0.650 MIN	63.00	35	56	104	170	2643803802

Broadband Frequencies 25-300 MHz (Economical 46 material)

Part Number	Fig.	Max. Cable Diameter	A	B	C	D	Wt. (g)	Impedance (Ω)				Solid Equivalent
								10 MHz	25 MHz	100 MHz ⁺	250 MHz	
0446173951	1	4.90 0.193	12.80 0.504	5.10 0.201	25.00 0.984	5.60 0.220	6.50	46	82	135	185	-
0446164951	1	4.90 0.193	17.30 0.680	5.10 0.201	38.20 1.420	8.40 0.331	17.00	72	120	220	250	2646480002
0446164281	1	6.30 0.250	20.00 0.788	6.60 0.260	39.40 1.550	9.80 0.385	26.00	81	131	235	265	2646540002
0446164251	2	6.30 0.250	17.90 0.705	6.60 0.260	32.20 1.270	9.20 0.362	31.00	81	134	245	273	2646540002
0446167281	1	9.85 0.388	23.70 0.933	10.15 0.400	39.40 1.550	11.70 0.460	33.00	66	105	190	275	2646626402
0446167251	2	9.85 0.388	22.10 0.870	10.15 0.400	32.30 1.272	11.00 0.433	42.00	72	116	202	247	2646626402
0446164181	1	12.70 0.500	31.00 1.220	13.05 0.514	39.40 1.550	15.25 0.600	61.00	73	115	205	275	2646102002
0446164151	2	12.70 0.500	29.00 1.142	13.05 0.514	32.50 1.280	14.80 0.583	84.00	84	127	225	270	2646102002
0446176451	1	18.00 0.709	38.60 1.520	18.35 0.722	47.50 1.870	19.15 0.755	161.00	85	137	330	360	-
0446173551	2	18.50 0.728	29.20 1.150	18.80 0.740	42.00 1.650	14.70 0.579	78.00	48	85	176	300	-

Higher Frequencies 200-1000 MHz (61 material)

Part Number	Fig.	Max. Cable Diameter	A	B	C	D	Wt. (g)	Impedance (Ω)				Solid Equivalent
								100 MHz	250 MHz ⁺	500 MHz ⁺	1000 MHz	
0461178181	1	4.10 0.161	11.80 0.465	4.30 0.169	23.20 0.913	5.60 0.221	4.20	115	165	215	300	-
0461164951	1	4.90 0.193	17.30 0.680	5.10 0.201	38.20 1.420	8.40 0.331	17.00	215	325	385	332	2661480002
0461164281	1	6.30 0.250	20.00 0.788	6.60 0.260	39.40 1.550	9.80 0.385	26.00	230	355	425	420	2661540002
0461178281	1	8.70 0.343	21.50 0.846	9.00 0.354	39.40 1.550	10.55 0.415	24.00	180	285	380	430	2661665702

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Higher Frequencies 200-1000 MHz (61 material)

Part Number	Fig.	Max. Cable Diameter	A	B	C	D	Wt. (g)	Impedance (Ω)				Solid Equivalent
								100 MHz	250 MHz ⁺	500 MHz ⁺	1000 MHz	
0461167281	1	9.85 0.388	23.70 0.933	10.15 0.400	39.40 1.550	11.70 0.460	33.00	175	275	375	400	2661626402
0461164181	1	12.70 0.500	31.00 1.220	13.05 0.514	39.40 1.550	15.25 0.600	61.00	205	320	435	257	2661102002
0461176451	1	18.00 0.709	38.60 1.520	18.35 0.722	47.50 1.870	19.15 0.755	161.00	360	480	350	110	-