

# Round Cable Snap-its

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 (.100") to 25.4 mm (1.000"). These assemblies are available in four ferrite material grades 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-V0.

- Round cable snap-it assemblies are controlled for impedances only. The impedances listed are typical values. Minimum impedance values are specified for the + marked frequencies. The minimum guaranteed impedance is the listed impedance less 20%.
- Single turn impedance tests for the 31, 43 and 44 material are performed on the 4193A Vector Impedance Analyzer. The 61 material parts are tested on the 4191A RF Impedance Analyzer. **Cores are tested with the shortest practical wire length.**
- Performance curves of all listed round cable snap-its are compiled on the Fair-Rite Products CD-ROM.
- Many of the snap-it parts have round core equivalents. See section Round Cable EMI Suppression Cores on pages 70-74.
- 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). For additional details see page 68.
- Explanation of Part Numbers: Digits 1&2 = product class and 3&4 material grade.

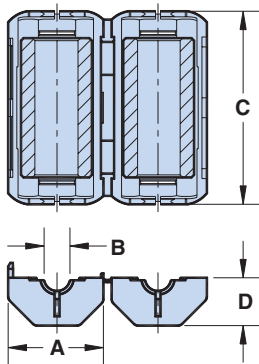


Figure 1

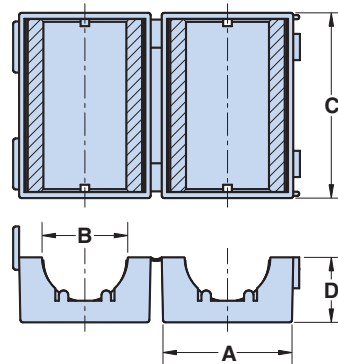


Figure 2

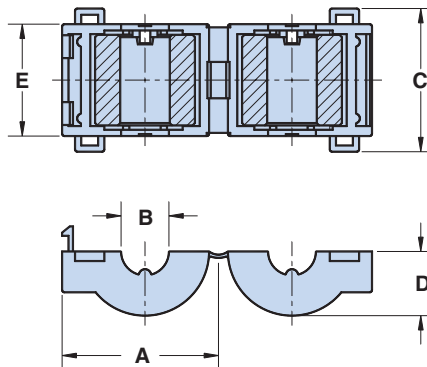


Figure 3

## Fair-Rite Products Corp.

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# Round Cable Snap-its

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

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

Dimensions (Bold numbers are in millimeters, light numbers are nominal in inches.)

Part Number	Fig.	Max. Cable Diameter	A	B**	C	D	Wt. (g)	Typical Impedance( $\Omega$ )						Solid Equivalent*
								1 MHz	5 MHz	10 MHz <sup>+</sup>	25 MHz <sup>+</sup>	100 MHz <sup>+</sup>	250 MHz	
0431178181	1	4.1 .161	11.8 .465	4.3 .169	23.2 .913	5.6 .221	4.2	12	43	60	90	160	183	
0431173951	1	4.9 .193	12.8 .504	5.1 .201	25.0 .984	5.6 .220	6.5	14	44	60	100	180	208	2631023002
0431164951	1	4.9 .193	17.3 .680	5.1 .201	36.2 1.420	8.4 .331	17	25	75	100	169	280	247	2631480002
0431164281	1	6.3 .250	20.0 .788	6.6 .260	39.4 1.550	9.8 .385	26	28	83	105	180	310	240	2631540002
0431178281	1	8.7 .343	21.5 .846	9.0 .354	39.4 1.550	10.55 .415	23	18	63	85	130	250	275	2631665702
0431167281	1	9.85 .388	23.7 .933	10.15 .400	39.4 1.550	11.7 .461	33	18	56	81	144	240	270	2631626402
0431164181	1	12.7 .500	31.0 1.220	13.05 .514	39.4 1.550	15.25 .600	61	25	71	100	156	260	260	2631102002
0431176451	1	18.0 .709	38.6 1.520	18.35 .722	47.5 1.870	19.15 .755	161	47	95	130	225	380	370	2631103002
0431173551	2	18.5 .728	29.2 1.150	18.8 .740	42.0 1.65	14.7 .579	78	16	48	69	125	220	310	2631103102
0431177081	1	25.4 1.000	56.4 2.220	25.9 1.020	42.95 1.690	27.45 1.080	308	45	90	125	218	375	340	2631626202

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

Part Number	Fig.	Max. Cable Diameter	A	B**	C	D	E	Wt. (g)	Typical Impedance( $\Omega$ )				Solid Equivalent*
									10 MHz	25 MHz <sup>+</sup>	100 MHz <sup>+</sup>	250 MHz	
0443178181	1	4.1 .161	11.8 .465	4.3 .169	23.2 .913	5.6 .221		4.2	40	70	125	152	
0444173951	1	4.9 .193	12.8 .504	5.1 .201	25.0 .984	5.6 .220		6.5	54	94	150	187	2643023002
0444164951	1	4.9 .193	17.3 .680	5.1 .201	38.2 1.420	8.4 .331		17	90	144	245	257	2643480002
0443164251	2	6.3 .250	17.9 .705	6.6 .260	32.2 1.270	9.2 .362		31	100	163	275	275	2643540002
0444164281	1	6.3 .250	20.0 .788	6.6 .260	39.4 1.550	9.8 .385		26	95	156	260	270	2643540002
0443625006	3	7.6 .299	24.7 .972	7.9 .311	22.8 .898	10.2 .402	17.8 .701	13	27	50	113	188	2643625002
0443178281	1	8.7 .343	21.5 .846	9.0 .354	39.4 1.550	10.55 .415		24	65	120	230	265	2643665702
0443665806	3	9.2 .362	26.3 1.035	9.5 .374	21.4 .843	11.0 .433	16.4 .646	13	23	41	88	122	2643665802

\* For solid cable cores see pages 32 and 70-74

<sup>+</sup> Test frequency

\*\* "B" dimension is the core dimension.

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# Round Cable Snap-its

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

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

Dimensions (Bold numbers are in millimeters, light numbers are nominal in inches.)

Part Number	Fig.	Max. Cable Diameter	A	B**	C	D	E	Wt. (g)	Typical Impedance( $\Omega$ )				Solid Equivalent*
									10 MHz	25 MHz <sup>+</sup>	100 MHz <sup>+</sup>	250 MHz	
0443167251	2	<b>9.85</b> .388	<b>22.1</b> .870	<b>10.15</b> .400	<b>32.3</b> 1.272	<b>11.0</b> .433		42	79	138	225	285	2643626402
0444167281	1	<b>9.85</b> .388	<b>23.7</b> .933	<b>10.15</b> .400	<b>39.4</b> 1.550	<b>11.7</b> .460		33	77	125	210	260	2643626402
0443164151	2	<b>12.7</b> .500	<b>29.0</b> 1.142	<b>13.05</b> .514	<b>32.5</b> 1.280	<b>14.8</b> .583		84	90	156	250	305	2643102002
0444164181	1	<b>12.7</b> .500	<b>31.0</b> 1.220	<b>13.05</b> .514	<b>39.4</b> 1.550	<b>15.25</b> .600		61	76	138	230	280	2643102002
0443800506	3	<b>12.8</b> .504	<b>29.7</b> 1.169	<b>13.2</b> .520	<b>20.6</b> .811	<b>12.7</b> .500	<b>15.6</b> .614	16	18	35	75	120	2643800502
0443806406	3	<b>15.0</b> .591	<b>34.3</b> 1.360	<b>15.5</b> .610	<b>21.2</b> .835	<b>15.0</b> .591	<b>16.2</b> .638	23	24	43	90	147	2643806402
0444176451	1	<b>18.0</b> .709	<b>38.6</b> 1.520	<b>18.35</b> .722	<b>47.5</b> 1.870	<b>19.15</b> .755		161	100	175	365	365	2643103002
0444173551	2	<b>18.5</b> .728	<b>29.2</b> 1.150	<b>18.8</b> .740	<b>42.0</b> 1.650	<b>14.7</b> .579		78	50	95	195	322	2643103102
0444177081	1	<b>25.4</b> 1.000	<b>56.4</b> 2.220	<b>25.9</b> 1.020	<b>42.95</b> 1.690	<b>27.45</b> 1.080		308	115	194	335	330	2643626202

## Broadband Frequencies 25-300 MHz (Economical 46 material)

Part Number	Fig.	Max. Cable Diameter	A	B**	C	D	E	Wt. (g)	Typical Impedance( $\Omega$ )				Solid Equivalent*
									10 MHz	25 MHz	100 MHz <sup>+</sup>	250 MHz	
0446173951	1	<b>4.9</b> .193	<b>12.8</b> .504	<b>5.1</b> .201	<b>25.0</b> .984	<b>5.6</b> .220		6.5	46	82	135	185	
0446164951	1	<b>4.9</b> .193	<b>17.3</b> .680	<b>5.1</b> .201	<b>38.2</b> 1.420	<b>8.4</b> .331		17	72	120	220	250	2646480002
0446164281	1	<b>6.3</b> .250	<b>20.0</b> .788	<b>6.6</b> .260	<b>39.4</b> 1.550	<b>9.8</b> .385		26	81	131	235	265	2646540002
0446164251	2	<b>6.3</b> .250	<b>17.9</b> .705	<b>6.6</b> .260	<b>32.2</b> 1.270	<b>9.2</b> .362		31	81	134	245	273	2646540002
0446167281	1	<b>9.85</b> .388	<b>23.7</b> .933	<b>10.15</b> .400	<b>39.4</b> 1.550	<b>11.7</b> .460		33	66	105	190	275	
0446167251	2	<b>9.85</b> .388	<b>22.1</b> .870	<b>10.15</b> .400	<b>32.3</b> 1.272	<b>11.0</b> .433		42	72	116	202	247	
0446164181	1	<b>12.7</b> .500	<b>31.0</b> 1.220	<b>13.05</b> .514	<b>39.4</b> 1.550	<b>15.25</b> .600		61	73	115	205	275	2646102002
0446164151	2	<b>12.7</b> .500	<b>29.0</b> 1.142	<b>13.05</b> .514	<b>32.5</b> 1.280	<b>14.8</b> .583		84	84	127	225	270	2646102002
0446176451	1	<b>18.0</b> .709	<b>38.6</b> 1.520	<b>18.35</b> .722	<b>47.5</b> 1.870	<b>19.15</b> .755		161	85	137	330	360	2646103002
0446173551	2	<b>18.5</b> .728	<b>29.2</b> 1.150	<b>18.8</b> .740	<b>42.0</b> 1.650	<b>14.7</b> .579		78	48	85	176	300	
0446177081	1	<b>25.4</b> 1.000	<b>56.4</b> 2.220	<b>25.9</b> 1.020	<b>42.95</b> 1.690	<b>27.45</b> 1.080		308	97	169	330	330	2646626202

\* For solid cable cores see pages 70-74

<sup>+</sup> Test frequency

\*\* "B" dimension is the core dimension.

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# Round Cable Snap-its

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

## Higher Frequencies 200-1000 MHz (61 material)

Dimensions (Bold numbers are in millimeters, light numbers are nominal in inches.)

Part Number	Fig.	Max. Cable Diameter	A	B**	C	D	Wt. (g)	Typical Impedance( $\Omega$ )				Solid Equivalent*
								100 MHz	250 MHz <sup>+</sup>	500 MHz <sup>+</sup>	1000 MHz	
0461178181	1	4.1 .161	11.8 .465	4.3 .169	23.2 .913	5.6 .221	42	115	165	215	300	
0461164951	1	4.9 .193	17.3 .620	5.1 .201	38.2 1.420	8.4 .331	17	215	325	385	332	
0461164281	1	6.3 .250	20.0 .788	6.6 .260	39.4 1.550	9.8 .385	26	230	355	425	420	2661540002
0461178281	1	8.7 .343	21.5 .846	9.0 .354	39.4 1.550	10.55 .415	24	180	285	380	430	2661665702
0461167281	1	9.85 .388	23.7 .933	10.15 .400	39.4 1.550	11.7 .460	33	175	275	375	400	2661626402
0461164181	1	12.7 .500	31.0 1.220	13.05 .514	39.4 1.550	15.25 .600	61	205	320	435	257	2661102002
0461176451	1	18.0 .709	38.6 1.520	18.35 .722	47.5 1.870	19.15 .755	161	360	480	350	110	

\* For solid cable cores see pages 70-74

<sup>+</sup> Test frequency

\*\* "B" dimension is the core dimension.

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