

Flat Cable EMI Suppression Cores



Quick Link: www.fair-rite.com/fcc

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

Flat cable suppression core can accommodate multi-conductors flat cables, in widths from 12.7 mm (0.500") up to 77 mm (3.0"). These flat cable cores are available in two ferrite material grades to reduce conducted EMI from 1 MHz to hundreds of MHz.

- Flat cable suppression cores, split or single cores, are controlled for impedances only. Minimum impedance values are specified for the + marked frequencies. The minimum impedance is typically the listed impedance less 20%.
- Centered, single turn impedance tests for the 31 and 43 material parts are performed on the 4193A Vector Impedance Analyzer. **All tests are made with the shortest practical wire length.**
- Performance curves for these suppression components are on our web site.
- Assembly clips are available for most of the split flat cable cores. See section "Flat Cable Cores Assembly clips".
- Our "Expanded Cable & Suppressor Kit" (part number 0199000005) contains a selection of these flat cable cores and clips.
- Flat Cable Cores are available in selected sizes in the "Flex Circuit & Ribbon Cable Core Kit" (part number 0199000038).
- Explanation of Part Numbers: Digits 1&2 = product class and 3&4 = material grade.

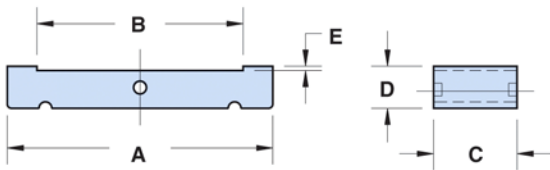


Figure 1

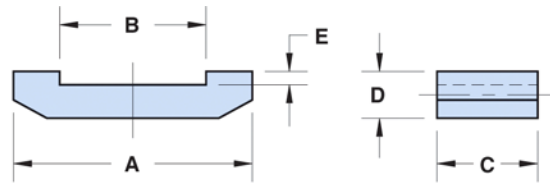


Figure 2

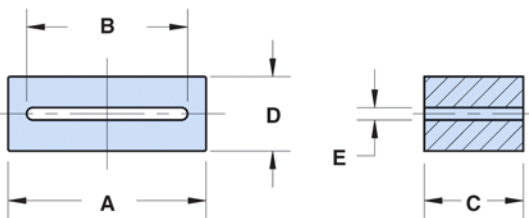


Figure 3

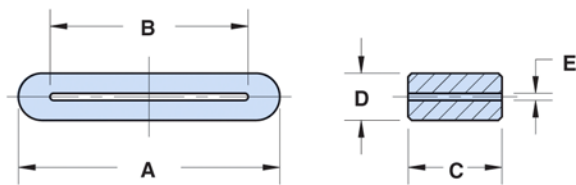


Figure 4

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

Phone: (888) FAIR RITE / (845) 895-2055 • Fax: (888) FERRITE / (845) 895-2629 • Web: www.fair-rite.com
(888) 324-7748 (888) 337-7483 E -mail: ferrites@fair-rite.com

Flat Cable EMI Suppression Cores



Quick Link: www.fair-rite.com/fcc

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

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 Dimensions	A	B	C	D	E	Wt. (g)	Impedance (Ω)					
									1 MHz	5 MHz	10 MHz ⁺	25 MHz ⁺	100 MHz ⁺	250 MHz
2631163851	3	25.90 x 1.50 1.020 x 0.060	38.10 ±1.00 1.500	26.65 ±0.75 1.050	25.40 ±0.75 1.000	12.05 ±0.40 0.475	1.90 ±0.40 0.075	51.00	20	52	68	112	240	440
2631164051	1	64.00 x 1.30 2.520 x 0.050	76.20 ±1.50 3.000	65.30 ±1.30 2.570	28.60 ±0.80 1.125	6.35 ±0.25 0.250	0.85 ±0.20 0.033	60.00	11	34	52	105	310	440

Broadband Frequencies 25-300 MHz (43 material)

Part Number	Fig.	Max. Cable Dimensions	A	B	C	D	E	Wt. (g)	Impedance (Ω)			
									10 MHz	25 MHz ⁺	100 MHz ⁺	250 MHz
2643180251	3	8.90 x 0.60 0.350 x 0.024	13.70 ±0.40 0.539	9.20 ±0.30 0.362	18.00 ±0.40 0.709	5.30 ±0.30 0.209	0.80 ±0.20 0.031	5.60	55	80	130	225
2643180851	1	9.50 x 0.80 0.375 x 0.031	12.80 ±0.40 0.504	9.80 ±0.25 0.386	12.00 ±0.40 0.472	2.10 ±0.20 0.083	0.50 ±0.1 0.020	1.30	22	40	70	100
2643173851	1	12.30 x 1.00 0.484 x 0.039	16.50 ±0.25 0.650	12.50 ±0.20 0.492	10.25 ±0.25 0.404	2.00 ±0.15 0.079	0.63 ±0.13 0.025	1.20	15	28	58	93
2643170251	2	12.20 x 2.30 0.480 x 0.091	22.75 ±0.65 0.895	12.70 ±0.50 0.500	12.70 ±0.50 0.500	3.30 ±0.25 0.125	1.15 ±0.25 0.050	3.50	20	35	70	135
2643178351	4	13.10 x 1.35 0.516 x 0.053	18.50 ±0.40 0.728	13.50 ±0.40 0.531	12.00 ±0.30 0.472	6.60 ±0.25 0.260	1.60 ±0.25 0.063	5.90	31	48	82	140
2643169552	3	13.95 x 0.75 0.549 x 0.030	19.95 ±0.40 0.785	14.20 ±0.25 0.560	10.15 ±0.50 0.400	6.35 ±0.25 0.250	0.90 ±0.15 0.035	5.70	25	40	90	160
2643168751	3	17.30 x 2.30 0.681 x 0.091	25.40 ±0.75 1.000	17.80 ±0.50 0.700	12.70 ±0.40 0.500	10.15 ±0.25 0.400	2.55 ±0.25 0.100	13.00	31	50	95	200
2643173351	4	19.60 x 0.50 0.772 x 0.020	24.50 ±0.40 0.965	20.00 ±0.40 0.787	12.00 ±0.30 0.472	5.00 ±0.25 0.197	0.75 ±0.25 0.030	6.60	23	39	88	157
2643180351	3	20.30 x 0.70 0.799 x 0.027	25.00 ±0.80 0.984	21.00 ±0.70 0.827	12.00 ±0.30 0.472	5.00 ±0.30 0.197	0.80 ±0.10 0.031	6.20	21	36	80	125
2643178651	4	21.10 x 1.35 0.831 x 0.053	26.50 ±0.40 1.043	21.50 ±0.40 0.846	6.00 ±0.30 0.236	6.60 ±0.25 0.260	1.60 ±0.25 0.063	4.10	13	22	50	95
2643178551	4	21.10 x 1.35 0.831 x 0.053	26.50 ±0.40 1.043	21.50 ±0.40 0.846	12.00 ±0.30 0.472	6.60 ±0.25 0.260	1.60 ±0.25 0.063	8.20	24	38	82	155
2643169351	3	27.00 x 1.10 1.063 x 0.043	33.65 ±0.75 1.325	27.50 ±0.50 1.083	13.20 ±0.50 0.520	6.70 ±0.40 0.264	1.35 ±0.25 0.053	12.00	22	37	89	170
2643168651	2	25.40 x 12.20 1.000 x 0.480	38.85 ±0.75 1.530	26.15 ±0.75 1.030	28.60 ±0.70 1.125	13.00 ±0.30 0.512	6.35 ±0.25 0.255	45.00	57	100	188	295
2643164551	3	25.90 x 1.50 1.020 x 0.059	38.10 ±1.00 1.500	26.65 ±0.75 1.050	12.30 ±0.40 0.485	12.05 ±0.40 0.475	1.90 ±0.40 0.075	25.00	33	53	105	215
2643171051	1	25.90 x 1.30 1.020 x 0.051	38.10 ±1.00 1.500	26.65 ±0.75 1.050	12.70 ±0.40 0.500	6.35 ±0.25 0.250	0.85 ±0.20 0.033	14.00	32	53	112	235
2643166851	1	25.90 x 1.30 1.020 x 0.051	38.10 ±1.00 1.500	26.65 ±0.75 1.050	25.40 ±0.75 1.000	6.35 ±0.25 0.250	0.85 ±0.20 0.033	27.00	66	115	235	410
2643163851	3	25.90 x 1.50 1.020 x 0.059	38.10 ±1.00 1.500	26.65 ±0.75 1.050	25.40 ±0.75 1.000	12.05 ±0.40 0.475	1.90 ±0.40 0.075	51.00	64	105	220	385
2643178751	4	26.10 x 1.35 1.028 x 0.053	31.50 ±0.40 1.240	26.50 ±0.40 1.043	12.00 ±0.30 0.472	6.60 ±0.25 0.260	1.60 ±0.25 0.063	9.70	22	37	85	157
2643180451	4	26.30 x 0.70 1.035 x 0.027	31.00 ±1.00 1.220	27.00 ±0.70 1.063	6.00 ±0.30 0.236	5.00 ±0.30 0.197	0.80 ±0.10 0.031	3.90	10.5	20	45	70
2643172551	4	26.50 x 1.25 1.043 x 0.049	33.50 ±0.65 1.319	27.00 ±0.50 1.063	8.00 ±0.40 0.315	6.50 ±0.25 0.256	1.25 ±0.70 0.063	6.80	12	22	58	106

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

Phone: (888) FAIR RITE / (845) 895-2055 • Fax: (888) FERRITE / (845) 895-2629 • Web: www.fair-rite.com
 (888) 324-7748 (888) 337-7483 E -mail: ferrites@fair-rite.com

Flat Cable EMI Suppression Cores



Quick Link: www.fair-rite.com/fcc

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

Broadband Frequencies 25-300 MHz (43 material)

Part Number	Fig.	Max. Cable Dimensions	A	B	C	D	E	Wt. (g)	Impedance (Ω)			
									10 MHz	25 MHz ⁺	100 MHz ⁺	250 MHz
2643166451	1	26.95 x 6.10 1.061 x 0.240	38.35 ±1.00 1.510	27.95 ±1.00 1.100	28.60 ±0.70 1.125	9.00 ±0.30 0.355	3.30 ±0.25 0.130	35.00	61	96	185	335
2643168051	1	32.30 x 6.20 1.272 x 0.244	52.90 ±1.00 2.083	33.00 ±0.70 1.299	31.25 ±1.00 1.230	12.50 ±0.40 0.492	3.50 ±0.40 0.138	84.00	81	140	265	400
2643167551	1	32.30 x 6.20 1.272 x 0.244	52.90 ±1.00 2.083	33.00 ±0.70 1.299	63.50 ±1.80 2.500	12.50 ±0.40 0.492	3.50 ±0.40 0.138	170.00	150	270	480	370
2643170951	1	33.70 x 1.30 1.327 x 0.051	45.10 ±0.75 1.775	34.40 ±0.70 1.355	12.70 ±0.40 0.500	6.35 ±0.25 0.250	0.85 ±0.20 0.033	16.00	25	50	115	240
2643166551	3	33.70 x 1.20 1.327 x 0.047	45.10 ±0.75 1.775	34.40 ±0.70 1.355	28.60 ±0.70 1.125	12.45 ±0.40 0.490	1.50 ±0.30 0.060	71.00	67	115	300	415
2643166651	1	33.70 x 1.30 1.327 x 0.051	45.10 ±0.75 1.775	34.40 ±0.70 1.355	28.60 ±0.70 1.125	6.35 ±0.25 0.250	0.85 ±0.20 0.033	36.00	60	110	290	435
2643180551	4	34.10 x 1.05 1.342 x 0.041	40.00 ±1.00 1.575	34.80 ±0.70 1.370	18.00 ±0.40 0.709	6.50 ±0.30 0.256	1.30 ±0.25 0.051	18.00	25	44	110	170
2643180651	4	39.00 x 1.20 1.535 x 0.047	45.20 ±1.00 1.780	40.00 ±1.00 1.575	12.00 ±0.40 0.472	6.50 ±0.30 0.256	1.50 ±0.30 0.059	13.00	17	23	33	160
2643180751	4	51.00 x 1.10 2.008 x 0.043	57.60 ±1.00 2.268	52.00 ±1.00 2.047	12.00 ±0.40 0.472	6.50 ±0.30 0.256	1.40 ±0.30 0.055	17.00	20	33	76	165
2643168251	1	51.00 x 1.30 2.008 x 0.051	63.50 ±1.30 2.500	52.10 ±1.10 2.050	12.70 ±0.40 0.500	6.35 ±0.25 0.250	0.85 ±0.20 0.033	22.00	22	50	125	255
2643163951	1	51.00 x 1.30 2.008 x 0.051	63.50 ±1.30 2.500	52.10 ±1.10 2.050	28.60 ±0.80 1.125	6.35 ±0.25 0.250	0.85 ±0.20 0.033	50.00	56	100	290	400
2643167751	1	64.00 x 1.30 2.520 x 0.051	76.20 ±1.50 3.000	65.30 ±1.30 2.570	12.70 ±0.40 0.500	6.35 ±0.25 0.250	0.85 ±0.20 0.033	27.00	22	45	115	240
2643164051	1	64.00 x 1.30 2.520 x 0.051	76.20 ±1.50 3.000	65.30 ±1.30 2.570	28.60 ±0.80 1.125	6.35 ±0.25 0.250	0.85 ±0.20 0.033	60.00	48	100	290	420
2643168351	1	76.70 x 1.30 3.020 x 0.051	88.90 ±1.80 3.500	78.20 ±1.50 3.080	28.60 ±0.80 1.125	6.50 ±0.35 0.256	0.95 ±0.30 0.037	70.00	45	100	280	440

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