

Fax-on-Demand: (800) 260-9099  
(650) 361-6523

Before ordering check with  
factory for most current data.

## ElectroLoss Filterline Wire

Lightweight, ruggedized wire and cable

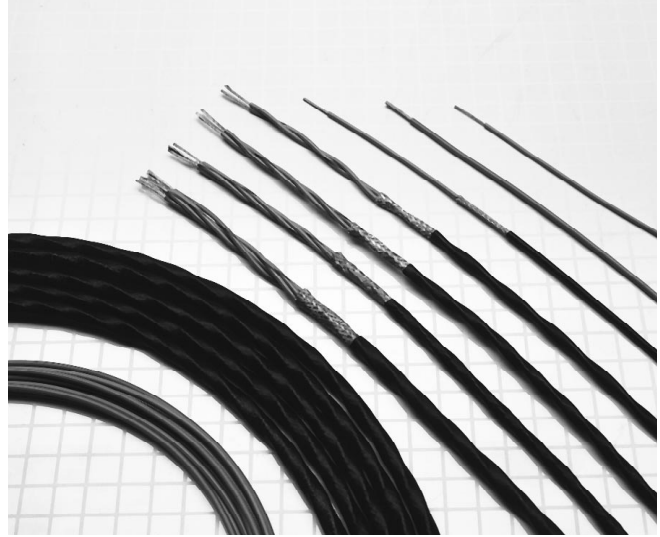
### Applications

ElectroLoss Filterline systems are designed to serve as both electrical interconnections and distributed low-pass filters, eliminating the need for conventional discrete filters or filter-pin connectors. The Filterline cable is constructed from an RF-absorptive polymer and Mil-Spec wire insulation. When properly specified, installed, and used, Filterline wire attenuates conducted EMI above 100 MHz and decreases susceptibility to radiated EMI. Low-frequency signals are conducted with minimum attenuation.

Filterline cables are compatible with high-density Mil-Spec connectors, have excellent shop-handling characteristics, and meet the performance requirements of MIL-C-85485. Filterline is used in aircraft, avionics, medical, aerospace, and communications applications.

### Features/Benefits

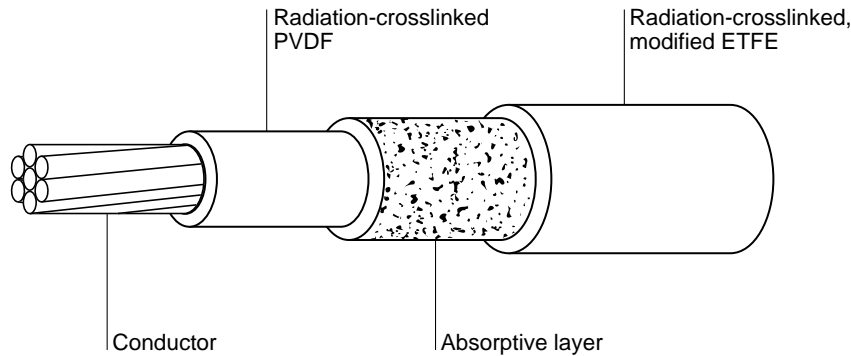
- Suppression of EMI above 100 MHz.
- Light weight, small size.
- SPEC 55 insulation.
- 600 V rating.
- Temperature rating of  $-65^{\circ}\text{C}$  to  $150^{\circ}\text{C}$ .



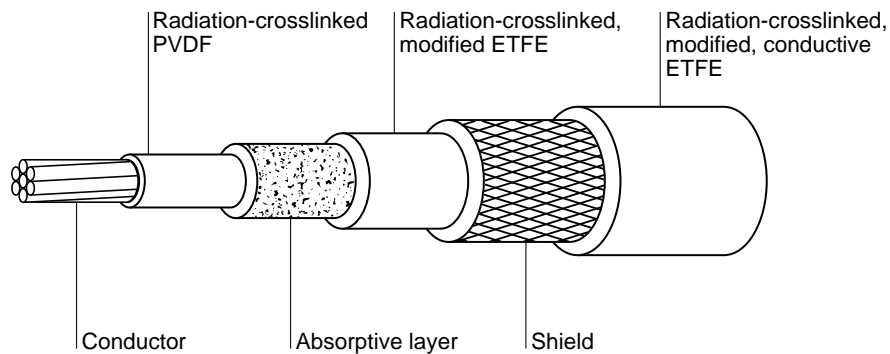
### Specifications/Approvals

Military	Raychem
MIL-C-85485	SPEC 55F

#### 55FA0511



#### 55FB1511



AWG size	Conductor stranding (no. x AWG)	Maximum outside diameter (mm/in)	Maximum weight kg/km (lb/1000 ft)	MIL-SPEC part number	Raychem part number
<b>Single-conductor wire</b>					
24	19 x 36 silver-coated high-strength copper alloy	1.19 (.047)	4.46 (3.0)	M85485/10-24A	55FA0514-24-*
22	19 x 34 tin-coated copper	1.45 (.054)	5.95 (4.0)	M85485/9-22A	55FA0511-22-*
20	19 x 32 tin-coated copper	1.57 (.062)	8.63 (5.8)	M85485/9-20A	55FA0511-20-*
18	19 x 30 tin-coated copper	1.85 (.073)	12.95 (8.7)	M85485/9-18A	55FA0511-18-*
16	19 x 29 tin-coated copper	2.08 (.082)	16.67 (11.2)	M85485/9-16A	55FA0511-16-*
14	19 x 27 tin-coated copper	2.51 (.099)	23.96 (16.1)	M85485/9-14A	55FA0511-14-*
12	37 x 28 tin-coated copper	2.95 (.116)	35.72 (24.0)	M85485/9-12A	55FA0511-12-*
10	37 x 26 tin-coated copper	3.61 (.142)	55.06 (37.0)	M85485/9-10A	55FA0511-10-*

**Unshielded, unjacketed, 2–5 conductor cables**

24	2	2.39 (.094)	9.08 (6.1)	M85485/11-24M2A	55FA0524-24-*
22	2	2.74 (.108)	12.20 (8.2)	M85485/11-22T2A	55FA0521-22-*
20	2	3.15 (.124)	17.56 (11.8)	M85485/11-20T2A	55FA0521-20-*
18	2	3.71 (.146)	26.34 (17.7)	M85485/11-18T2A	55FA0521-18-*
16	2	4.17 (.164)	33.93 (22.8)	M85485/11-16T2A	55FA0521-16-*
14	2	5.03 (.198)	48.81 (32.8)	M85485/11-14T2A	55FA0521-14-*
24	3	2.59 (.102)	13.69 (9.2)	M85485/11-24M3A	55FA0534-24-*
22	3	2.97 (.117)	18.16 (12.2)	M85485/11-22T3A	55FA0531-22-*
20	3	3.40 (.134)	26.34 (17.7)	M85485/11-20T3A	55FA0531-20-*
18	3	4.01 (.158)	39.59 (26.6)	M85485/11-18T3A	55FA0531-18-*
16	3	4.50 (.177)	51.04 (34.3)	M85485/11-16T3A	55FA0531-16-*
14	3	5.44 (.214)	73.37 (49.3)	M85485/11-14T3A	55FA0531-14-*
24	4	3.28 (.129)	18.16 (12.2)	M85485/11-24M4A	55FA0544-24-*
22	4	3.78 (.149)	24.26 (16.3)	M85485/11-22T4A	55FA0541-22-*
20	4	4.34 (.171)	35.27 (23.7)	M85485/11-20T4A	55FA0541-20-*
18	4	5.11 (.201)	52.83 (35.5)	M85485/11-18T4A	55FA0541-18-*
16	4	5.74 (.226)	68.01 (45.7)	M85485/11-16T4A	55FA0541-16-*
14	4	6.91 (.272)	97.77 (65.7)	M85485/11-14T4A	55FA0541-14-*
24	5	3.58 (.141)	22.77 (15.3)	M85485/11-24M5A	55FA0554-24-*
22	5	4.11 (.162)	30.36 (20.4)	M85485/11-22T5A	55FA0551-22-*
20	5	4.72 (.186)	44.05 (29.6)	M85485/11-20T5A	55FA0551-20-*
18	5	5.56 (.219)	66.07 (44.4)	M85485/11-18T5A	55FA0551-18-*
16	5	6.25 (.246)	84.97 (57.1)	M85485/11-16T5A	55FA0551-16-*
14	5	7.54 (.297)	122.18 (82.1)	M85485/11-14T5A	55FA0551-14-*

\*Color designator. The color of component wire shall be light violet designated by 7L. The designated colors for components in finished cable shall be light violet for component 1 and light violet with stripe designators for remaining component wires as follows:

Component wire	1	2	3	4	5
Color designator	7L	7L6	7L3	7L5	7L2

ElectroLoss Filterline Wire and Cable Lightweight Ruggedized Constructions (continued)

AWG size	Number of conductors	Maximum outside diameter (mm/in)	Maximum weight in kg/km (lb/1000 ft)	Mil-Spec part number	Raychem part number
<b>Shielded, jacketed, 1–5 conductor cables</b>					
24	1	2.13 (.084)	10.86 (7.3)	M85485/12-24U1A	55FB1514-24-**
22	1	2.31 (.091)	13.10 (8.8)	M85485/12-22T1A	55FB1511-22-**
20	1	2.51 (.099)	16.67 (11.2)	M85485/12-20T1A	55FB1511-20-**
18	1	2.79 (.110)	22.17 (14.9)	M85485/12-18T1A	55FB1511-18-**
16	1	3.02 (.119)	26.79 (18.0)	M85485/12-16T1A	55FB1511-16-**
14	1	3.45 (.136)	35.86 (24.1)	M85485/12-14T1A	55FB1511-14-**
12	1	3.89 (.153)	49.41 (33.2)	M85485/12-12T1A	55FB1511-12-**
10	1	4.55 (.179)	71.58 (48.1)	M85485/12-10T1A	55FB1511-10-**
24	2	3.33 (.131)	19.35 (13.0)	M85485/12-24U2A	55FB1524-24-**
22	2	3.68 (.145)	23.81 (16.0)	M85485/12-22T2A	55FB1521-22-**
20	2	4.09 (.161)	30.51 (20.5)	M85485/12-20T2A	55FB1521-20-**
18	2	4.65 (.183)	41.37 (27.8)	M85485/12-18T2A	55FB1521-18-**
16	2	5.11 (.201)	56.55 (34.0)	M85485/12-16T2A	55FB1521-16-**
14	2	6.02 (.237)	69.50 (46.7)	M85485/12-14T2A	55FB1521-14-**
24	3	3.53 (.139)	25.30 (17.0)	M85485/12-24U3A	55FB1534-24-**
22	3	3.91 (.154)	31.10 (20.9)	M85485/12-22T3A	55FB1531-22-**
20	3	4.34 (.171)	41.07 (27.6)	M85485/12-20T3A	55FB1531-20-**
18	3	4.95 (.195)	56.55 (38.0)	M85485/12-18T3A	55FB1531-18-**
16	3	5.44 (.214)	69.94 (47.0)	M85485/12-16T3A	55FB1531-16-**
14	3	6.43 (.253)	96.88 (65.1)	M85485/12-14T3A	55FB1531-14-**
24	4	4.19 (.165)	31.70 (21.3)	M85485/12-24U4A	55FB1544-24-**
22	4	4.67 (.184)	39.59 (26.6)	M85485/12-22T4A	55FB1541-22-**
20	4	5.23 (.206)	52.68 (35.4)	M85485/12-20T4A	55FB1541-20-**
18	4	5.99 (.236)	72.92 (49.0)	M85485/12-18T4A	55FB1541-18-**
16	4	6.68 (.263)	91.37 (61.4)	M85485/12-16T4A	55FB1541-16-**
14	4	7.85 (.309)	125.60 (84.4)	M85485/12-14T4A	55FB1541-14-**
24	5	4.52 (.178)	37.80 (25.4)	M85485/12-24U5A	55FB1554-24-**
22	5	5.05 (.199)	47.32 (31.8)	M85485/12-22T5A	55FB1551-22-**
20	5	5.66 (.223)	63.40 (42.6)	M85485/12-20T5A	55FB1551-20-**
18	5	6.55 (.258)	89.44 (60.1)	M85485/12-18T5A	55FB1551-18-**
16	5	7.24 (.285)	111.02 (74.6)	M85485/12-16T5A	55FB1551-16-**
14	5	8.53 (.336)	153.28 (103.0)	M85485/12-14T5A	55FB1551-14-**

\*\*The jackets for shielded cables are radiation-crosslinked, modified, conductive ETFE and only available in black (0).

ElectroLoss, Filterline, and SPEC 55 are trademarks of Raychem Corporation

Users should independently evaluate the suitability of the product for their application.