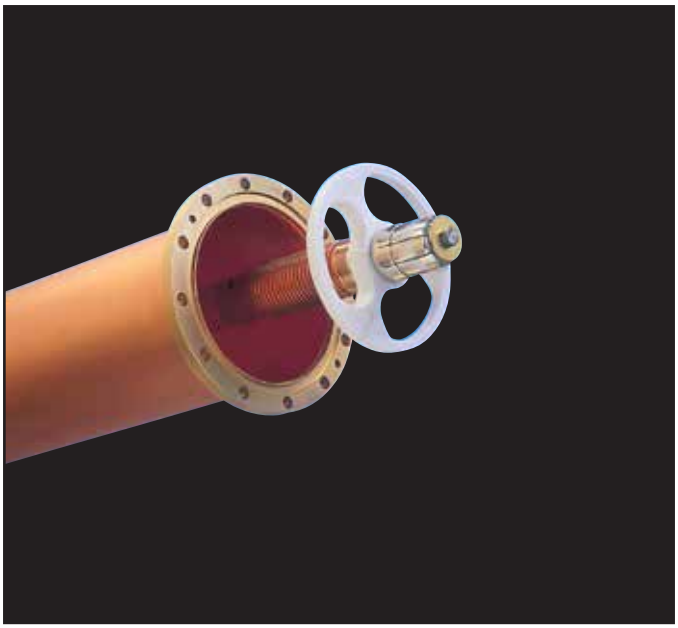
MACXLine® *MACX675B Series*

6 1/8 inch 75 Ohm Rigid Coaxial Line with Bellows



Benefits

- No planned replacement cycles
- Bullets never slide once put into service— eliminate the shavings that can cause arching at the flange and insulator areas
- No need for a redundant/ backup run
- Disk insulators ensure minimum VSWR and maximum power transfer to your antenna— fully utilize your transmitted power even at high ambient temperatures

The Problem

During transmission, RF heating of the inner and outer connectors causes differential expansion between them. With standard rigid transmission line, this expansion is compensated for with sliding metal bullets. Eventually this produces wear, hot spots—and burnout. Experienced broadcast consultants recommend replacing these bullets every seven years to avoid sudden failure.

The Solution... Eliminate sliding-contact wear by eliminating the sliding.

All expansion of the ERI, patented, MACXLine® inner connector is taken up with a flexible, built-in bellows; once put into service. Burnout and bullet replacement are eliminated. This advantage comes with no VSWR penalty or significant cost premium.

MACXLine® is manufactured by ERI from high conductivity copper tubing, outer conductors. Extra strength, custom PTFE dielectric disk insulators maintain precise mechanical alignment. Each section comes complete with a bulllet/ bellows assembly, stainless steel flange hardware and pressure sealing gasket.

All are available in standard channel lengths and field cut kits— and for 6-1/8″ and larger sizes, broadband OPTILine™ versions for multi-channel DTV/analog broadcast applications is an option. WIDELine™ offers full UHF bandwidth, without prohibited channels, plus VHF capability for individual channels. Contact ERI with details of your application for an estimate.

ERI also supplies Inners Only™ replacement sections, allowing you to retrofit your old rigid line system (in most cases) with MACXLine® inner conductors. MACXLine® inners install quickly because they are similar to pre-existing inners. This allows retrofitting to be done in stages during night-time off-air intervals.

Specifications

Product Line	MACXLine®
Product Series	MACX675B
Size	6-1/8″
Impedance	75 ± 0.5-ohm
Maximum Channel	69
Velocity	99.80%
Peak Power Rating, kW	1060
Net Weight, lb/ft (kg/m)	6.83 (10.2)
Outer Conductor Outside Diameter, in (mm)	6.125 (156.00)
Outer Conductor Inside Diameter, in (mm)	5.981 (152.00)
Inner Conductor Outside Diameter, in (mm)	1.711 (43.00)
Inner Conductor Inside Diameter, in (mm)	1.631 (41.00)
Flange, Overall Diameter, in (mm)	8.120 (206.20)
Bolt Circle Diameter	7.375 (187.00)
Number of Bolts	12
Bolt Size, in.	3/8″

Recommended MACXLine® Section Lengths

Type Number Detail	Section Length, ft (m)	TV Channels	FM Radio Frequencies
MACX675B-1	20.00 (6.0960)	15, 18, 19, 22, 23, 27, 31, 32, 35, 36, 39, 40, 43, 44, 47, 48, 51, 52, 55, 56, 60, 64, 68	—
MACX675B-2	19.75 (6.0198)	16, 20, 24, 28, 33, 37, 41, 45, 49, 53, 57, 61, 62, 65, 66, 69	—
MACX675B-3	19.50 (5.9436)	17, 21, 25, 26, 29, 30, 34, 38, 42, 46, 50, 54, 58, 59, 63, 67	—

Television channels listed are preferred; others may also be acceptable. Contact ERI for more information. Specifications subject to change without notice.

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MACXLine® *MACX675B Series*

6 1/8 inch 75 Ohm Rigid Coaxial Line with Bellows

Television Frequencies (US)

TV Channel	Frequency, MHz	Attenuation		Power	
		dB/100 ft	dB/100 m	Average, kW	Peak, kW
2	55.25	0.033	0.109	201.4	287.7
3	61.25	0.035	0.115	191.2	273.1
4	67.25	0.037	0.120	182.4	260.5
5	77.25	0.039	0.129	170.0	242.9
6	83.25	0.041	0.134	163.7	233.9
7	175.25	0.060	0.195	112.3	160.4
8	181.25	0.061	0.199	110.4	157.7
9	187.25	0.062	0.202	108.6	155.1
10	193.25	0.063	0.205	106.9	152.7
11	199.25	0.064	0.209	105.2	150.3
12	205.25	0.065	0.212	103.6	148.1
13	211.25	0.066	0.215	102.1	145.9
14	471.25	0.099	0.324	67.8	96.9
15	477.25	0.099	0.326	67.4	96.2
16	483.25	0.100	0.328	66.9	95.6
17	489.25	0.101	0.330	66.5	95.0
18	495.25	0.101	0.332	66.1	94.4
19	501.25	0.102	0.334	65.7	93.9
20	507.25	0.102	0.336	65.3	93.3
21	513.25	0.103	0.338	64.9	92.7
22	519.25	0.104	0.340	64.5	92.2
23	525.25	0.104	0.342	64.1	91.6
24	531.25	0.105	0.344	63.8	91.1
25	537.25	0.106	0.346	63.4	90.6
26	543.25	0.106	0.348	63.0	90.1
27	549.25	0.107	0.350	62.7	89.5
28	555.25	0.107	0.352	62.3	89.1
29	561.25	0.108	0.354	62.0	88.6
30	567.25	0.109	0.356	61.7	88.1
31	573.25	0.109	0.358	61.3	87.6
32	579.25	0.110	0.360	61.0	87.1
33	585.25	0.110	0.362	60.7	86.7
34	591.25	0.111	0.364	60.4	86.2
35	597.25	0.111	0.366	60.0	85.8

TV Channel	Frequency, MHz	Attenuation		Power	
		dB/100 ft	dB/100 m	Average, kW	Peak, kW
36	603.25	0.112	0.368	59.7	85.3
37	609.25	0.113	0.369	59.4	84.9
38	615.25	0.113	0.371	59.1	84.5
39	621.25	0.114	0.373	58.8	84.1
40	627.25	0.114	0.375	58.5	83.6
41	633.25	0.115	0.377	58.3	83.2
42	639.25	0.115	0.379	58.0	82.8
43	645.25	0.116	0.380	57.7	82.4
44	651.25	0.117	0.382	57.4	82.0
45	657.25	0.117	0.384	57.2	81.7
46	663.25	0.118	0.386	56.9	81.3
47	669.25	0.118	0.388	56.6	80.9
48	675.25	0.119	0.389	56.4	80.5
49	681.25	0.119	0.391	56.1	80.2
50	687.25	0.120	0.393	55.9	79.8
51	693.25	0.120	0.395	55.6	79.4
52	699.25	0.121	0.397	55.4	79.1
53	705.25	0.121	0.398	55.1	78.7
54	711.25	0.122	0.400	54.9	78.4
55	717.25	0.122	0.402	54.6	78.1
56	723.25	0.123	0.404	54.4	77.7
57	729.25	0.124	0.405	54.2	77.4
58	735.25	0.124	0.407	53.9	77.1
59	741.25	0.125	0.409	53.7	76.7
60	747.25	0.125	0.410	53.5	76.4
61	753.25	0.126	0.412	53.3	76.1
62	759.25	0.126	0.414	53.1	75.8
63	765.25	0.127	0.415	52.8	75.5
64	771.25	0.127	0.417	52.6	75.2
65	777.25	0.128	0.419	52.4	74.9
66	783.25	0.128	0.420	52.2	74.6
67	789.25	0.129	0.422	52.0	74.3
68	795.25	0.129	0.424	51.8	74.0
69	801.25	0.130	0.425	51.6	73.7

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MACXLine® *MACX675B Series*

6 1/8 inch 75 Ohm Rigid Coaxial Line with Bellows

Television Frequencies (Europe)

TV Channel	Frequency, MHz	Attenuation		Power	
		dB/100 ft	dB/100 m	Average, kW	Peak, kW
2	48.25	0.031	0.102	215.6	308.0
2A	49.75	0.032	0.103	212.3	303.3
3	55.25	0.033	0.109	201.4	287.7
4	66.25	0.036	0.119	183.8	262.5
5	175.25	0.060	0.195	112.3	160.4
6	182.25	0.061	0.199	110.1	157.3
7	189.25	0.062	0.203	108.0	154.3
8	196.25	0.063	0.207	106.0	151.5
9	203.25	0.064	0.211	104.2	148.8
10	210.25	0.065	0.214	102.4	146.3
11	217.25	0.066	0.218	100.7	143.8
12	224.25	0.068	0.222	99.1	141.5
21E	471.25	0.099	0.324	67.8	96.9
22E	479.25	0.100	0.327	67.2	96.0
23E	487.25	0.100	0.329	66.7	95.2
24E	495.25	0.101	0.332	66.1	94.4
25E	503.25	0.102	0.335	65.6	93.7
26E	511.25	0.103	0.338	65.0	92.9
27E	519.25	0.104	0.340	64.5	92.2
28E	527.25	0.105	0.343	64.0	91.4
29E	535.25	0.105	0.346	63.5	90.7
30E	543.25	0.106	0.348	63.0	90.1
31E	551.25	0.107	0.351	62.6	89.4
32E	559.25	0.108	0.353	62.1	88.7
33E	567.25	0.109	0.356	61.7	88.1
34E	575.25	0.109	0.359	61.2	87.4
35E	583.25	0.110	0.361	60.8	86.8
36E	591.25	0.111	0.364	60.4	86.2
37E	599.25	0.112	0.366	59.9	85.6
38E	607.25	0.112	0.369	59.5	85.0
39E	615.25	0.113	0.371	59.1	84.5

TV Channel	Frequency, MHz	Attenuation		Power	
		dB/100 ft	dB/100 m	Average, kW	Peak, kW
40E	623.25	0.114	0.374	58.7	83.9
41E	631.25	0.115	0.376	58.4	83.4
42E	639.25	0.115	0.379	58.0	82.8
43E	647.25	0.116	0.381	57.6	82.3
44E	655.25	0.117	0.384	57.2	81.8
45E	663.25	0.118	0.386	56.9	81.3
46E	671.25	0.118	0.388	56.5	80.8
47E	679.25	0.119	0.391	56.2	80.3
48E	687.25	0.120	0.393	55.9	79.8
49E	695.25	0.121	0.395	55.5	79.3
50E	703.25	0.121	0.398	55.2	78.9
51E	711.25	0.122	0.400	54.9	78.4
52E	719.25	0.123	0.402	54.6	77.9
53E	727.25	0.123	0.405	54.3	77.5
54E	735.25	0.124	0.407	53.9	77.1
55E	743.25	0.125	0.409	53.6	76.6
56E	751.25	0.125	0.412	53.4	76.2
57E	759.25	0.126	0.414	53.1	75.8
58E	767.25	0.127	0.416	52.8	75.4
59E	775.25	0.127	0.418	52.5	75.0
60E	783.25	0.128	0.420	52.2	74.6
61E	791.25	0.129	0.423	51.9	74.2
62E	799.25	0.129	0.425	51.7	73.8
63E	807.25	0.130	0.427	51.4	73.4
64E	815.25	0.131	0.429	51.1	73.1
65E	823.25	0.131	0.431	50.9	72.7
66E	831.25	0.132	0.434	50.6	72.3
67E	839.25	0.133	0.436	50.4	72.0
68E	847.25	0.133	0.438	50.1	71.6
69E	855.25	0.134	0.440	49.9	71.3

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MACXLine® *MACX675B Series*

6 1/8 inch 75 Ohm Rigid Coaxial Line with Bellows

FM Frequencies

Frequency, MHz	Attenuation		Average Power, kW
	dB/100 ft	dB/100 m	
87.90	0.042	0.138	159.3
88.10	0.042	0.138	159.1
88.30	0.042	0.138	158.9
88.50	0.042	0.138	158.8
88.70	0.042	0.138	158.6
88.90	0.042	0.139	158.4
89.10	0.042	0.139	158.2
89.30	0.042	0.139	158.0
89.50	0.042	0.139	157.9
89.70	0.042	0.139	157.7
89.90	0.042	0.139	157.5
90.10	0.043	0.140	157.3
90.30	0.043	0.140	157.1
90.50	0.043	0.140	157.0
90.70	0.043	0.140	156.8
90.90	0.043	0.140	156.6
91.10	0.043	0.140	156.4
91.30	0.043	0.140	156.3
91.50	0.043	0.141	156.1
91.70	0.043	0.141	155.9
91.90	0.043	0.141	155.8
92.10	0.043	0.141	155.6
92.30	0.043	0.141	155.4
92.50	0.043	0.141	155.2
92.70	0.043	0.142	155.1
92.90	0.043	0.142	154.9
93.10	0.043	0.142	154.7
93.30	0.043	0.142	154.6
93.50	0.043	0.142	154.4
93.70	0.043	0.142	154.2
93.90	0.043	0.142	154.1
94.10	0.043	0.143	153.9
94.30	0.044	0.143	153.7
94.50	0.044	0.143	153.6
94.70	0.044	0.143	153.4
94.90	0.044	0.143	153.2
95.10	0.044	0.143	153.1
95.30	0.044	0.144	152.9
95.50	0.044	0.144	152.8
95.70	0.044	0.144	152.6
95.90	0.044	0.144	152.4
96.10	0.044	0.144	152.3
96.30	0.044	0.144	152.1
96.50	0.044	0.144	152.0
96.70	0.044	0.145	151.8
96.90	0.044	0.145	151.6
97.10	0.044	0.145	151.5
97.30	0.044	0.145	151.3
97.50	0.044	0.145	151.2
97.70	0.044	0.145	151.0
97.90	0.044	0.146	150.9

Frequency, MHz	Attenuation		Average Power, kW
	dB/100 ft	dB/100 m	
98.1	0.044	0.146	150.7
98.3	0.044	0.146	150.5
98.5	0.044	0.146	150.4
98.7	0.045	0.146	150.2
98.9	0.045	0.146	150.1
99.1	0.045	0.146	149.9
99.3	0.045	0.147	149.8
99.5	0.045	0.147	149.6
99.7	0.045	0.147	149.5
99.9	0.045	0.147	149.3
100.1	0.045	0.147	149.2
100.3	0.045	0.147	149.0
100.5	0.045	0.147	148.9
100.7	0.045	0.148	148.7
100.9	0.045	0.148	148.6
101.1	0.045	0.148	148.4
101.3	0.045	0.148	148.3
101.5	0.045	0.148	148.1
101.7	0.045	0.148	148.0
101.9	0.045	0.149	147.8
102.1	0.045	0.149	147.7
102.3	0.045	0.149	147.5
102.5	0.045	0.149	147.4
102.7	0.045	0.149	147.2
102.9	0.045	0.149	147.1
103.1	0.046	0.149	147.0
103.3	0.046	0.150	146.8
103.5	0.046	0.150	146.7
103.7	0.046	0.150	146.5
103.9	0.046	0.150	146.4
104.1	0.046	0.150	146.2
104.3	0.046	0.150	146.1
104.5	0.046	0.150	146.0
104.7	0.046	0.151	145.8
104.9	0.046	0.151	145.7
105.1	0.046	0.151	145.5
105.3	0.046	0.151	145.4
105.5	0.046	0.151	145.3
105.7	0.046	0.151	145.1
105.9	0.046	0.151	145.0
106.1	0.046	0.152	144.8
106.3	0.046	0.152	144.7
106.5	0.046	0.152	144.6
106.7	0.046	0.152	144.4
106.9	0.046	0.152	144.3
107.1	0.046	0.152	144.2
107.3	0.046	0.152	144.0
107.5	0.047	0.153	143.9
107.7	0.047	0.153	143.7
107.9	0.047	0.153	143.6

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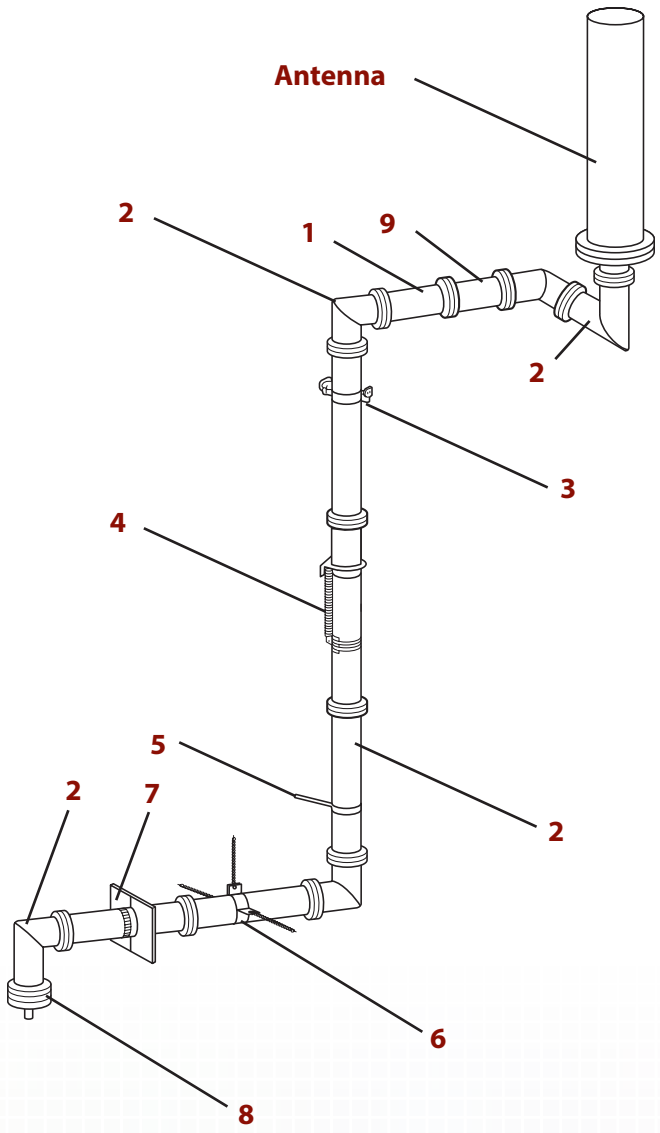
MACXLine® *MACX675B Series*

6 1/8 inch 75 Ohm Rigid Coaxial Line with Bellows

MACX675B System Components and Accessories

Item No.	Description	Type Number
1	Straight Section	MACX675B Series
	20.00 ft [1,4]	MACX675B-1
	19.75 ft [1,4]	MACX675B-2
	19.50 ft [1,4]	MACX675B-3
	19.00 ft [1,4]	MACX675B-6
	17.50 ft [1,4]	MACX675B-11
	Variable Length, up to 5 ft [1,3]	MACX675B-5
	Variable Length, 5 to 10 ft [1,4]	MACX675B-10
	Variable Length, 10 to 20 ft [1,4]	MACX675B-20
	Field Cut Straight Section, up to 5 ft [1,2,3,4]	MACX675B-41
	Field Cut Straight Section, 5 to 20 ft [1]	MACX675B-39
2	90° Miter Elbow	ACX675B-10SE-(*)
	90° Miter Elbow, Uneven Leg	ACX675B-10SU-(*)
	90° Miter Elbow, UJF Wide Band	ACX675B-10SE-W
3	Rigid Hanger ‡	RLA600B-13
	Rigid Horizontal Hanger †	RLA600-17
4	Hinged Vertical Spring Hanger †	RLA600-11-H
5	Lateral Brace	RLA600-14
6	3-Point Suspension Hanger †	RLA600-12
	Horizontal Spring Hanger †	RLA600-12SP
7	Wall Feed Thru	RLA600B-15
8	Gas Barrier	RLA675-16
9	Fine Matching Section (UHF)	STD657B-FT
	Fine Matcher Field Retrofit Kit	RLA657B-FTK
–	Impedance Transformer, 75-ohm to 50-ohm	ACX675-17-(*)
–	Impedance Transformer, 75-ohm to 50-ohm, Wide Band	ACX675-17-W
–	Male-to-Male Adapter, thin wall to thick wall	CA605
–	O-Ring Gasket	RLA600-51
–	End Cap to seal line	RLA600B-50
–	Swivel Field Flange Kit	RLA600B-27
–	Soft Solder Swivel Field Flange Kit (for interior runs)	RLA600B-37
–	Fixed Field Flange Kit	RLA600B-28
–	6-1/8″ Slip Hanger, Stud Mounted	RLA600B-22
–	Hardware Kit	RLA600-21
–	Inner Connector	ACX675-20
–	Inner Connector, Captivated	ACX675-19
–	Installation Tool Kit Contains all tools necessary to assemblr MACXLine®	MACX-TK



The simplified transmission line system shown in this diagram is intended only as aguide to the components which may be required. Each installation should be engineered individually.

Notes:

* Specifiy television channel or frequency

[1] Includes hardware kit, disk insulators, and installation instructions

[2] Includes field flange kit

[3] Includes captivated inner connector

[4] Includes bullet/ bellows assembly

† Use at 10 ft (3m) intervals

‡ One for every 1000 ft (3000 m)

Burgundy Italic text - indicates depricated type number.

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MACXLine® *MACX675B Series*

6 1/8 inch 75 Ohm Rigid Coaxial Line with Bellows

WIDELine™

High Performance, Long Service Life Solution for Multiplexing Broadcast Applications

Now broadcast system engineers and designers can multiplex DTV and NTSC television signals and minimize VSWR spikes, while extending the life of their transmission line. WIDELine ™wideband transmission line is made up of different length sections to minimize the addition of reflections.* The result is excellent VSWR performance of a maximum of 1.1:1 over all UHF-TV channels in the U.S. FCC core spectrum.

For example, a 1,480-foot run of WIDELine™ transmission line (8-3/16", 75 ohm) was calculated to have a maximum VSWR of slightly more than 1.08. Actual field results may vary, but VSWR will not exceed 1.1:1 for any UHF-TV channel 14 through 51.

ERI WIDELine™ transmission line also protects your investment by eliminating problems caused by sliding bullet-type connections found in conventional rigid transmission line. Conventional rigid line is capable of accepting future changes in frequency assignments, with acceptable VSWR performance, however, its service life is limited by the rubbing of its connection points, which can ultimately lead to bullet burnout or arc-over. WIDELine™ transmission line incorporates a unique, patented** bellows section into each inner conductor that compensates for differential expansion between the inner and outer conductors. Mechanical wear from sliding contacts is thus eliminated. The result is extremely long life. Since 1984, more than 75 broadcasters have selected transmission line using this technology, without a single failure due to bullet burnout.

WIDELine™ is available in 3-1/8" 50-ohm, 6-1/8" 75-ohm, 7-3/16" 75-ohm, and 8-3/16" 75-ohm sizes.

* Patent applied for
**United States Patent No. 4,543,548

DUALine™ Custom-Length, Dual-Band, Rigid Transmission Line

If full wideband performance is not required, ERI will calculate the optimum rigid line section length to minimize VSWR, by using a proprietary computer program. Sections would normally be 20 feet long, or somewhat shorter, and would all be the same length to simplify installation. This solution is ideal for applications where the DTV and NTSC signals are combined in a single line, as it typically results in outstanding VSWR performance (depending on which channels are combined).

Rigid Transmission Line System Services

Type No.	Description
LAY-001	Transmission Line System Design (simple)
LAY-002	Transmission Line System Design (complex)
LAY-003	WIDELine™ Transmission Line System Design
TST-001	Transmission Line System Sweep and Tuning Supervision

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MACXLine® *MACX675B Series*

6 1/8 inch 75 Ohm Rigid Coaxial Line with Bellows

Inners Only™ Inner Conductors Replacement System

The Inexpensive Alternative to Transmission Line Replacement

MACXLine® transmission lines are available as Inners Only™ replacements. Since MACXLine® lengths are identical to those of standard rigid line, it is an excellent choice for any application.

Conventional rigid transmission line systems require maintenance after just ten years to avoid premature burnout of bullet-style connectors. By upgrading with ERI Inners Only™ before your existing transmission line fails, you avoid the disaster of dead air.

MACXLine® Inners Only™ replacements provide the ultimate in operational dependability at about half the cost of a new installation. You swap your worn-out, failure-prone bullets and inner conductors for the most dependable components in the industry while reusing your expensive outer conductors, which are normally good for many more years of service.

Inners Only™

Type No.	Description
MACX675B, 6-1/8˝ 75-ohm Rigid Line	
Supplied with bellows, captivated inner connector, and flange hardware kit.	
MACX675B-25-*	Variable length inner conductor
MACX675-24	Field cut inner conductor, for sections up to 5 feet
MACX675-26	Field cut inner conductor, for sections between 5 and 20 feet

*Specify flange to flange length of outer conductor in inches (two decimal places)

NOTE:
Standard conditions for rating rigid lines are as follows. Attenuation: VSWR 1:1.0, ambient temperature 20°C (68°), atmospheric pressure, dry air.1 Average Power: VSWR 1:1.0, ambient temperature 40°C (104°F), inner conductor temperature 100°C (212°F), atmospheric pressure, dry air, and no solar loading. The safety factor on peak power ratings is 400% (safety factor of 2.0 on voltage) to allow for the possible effects of fine matchers, tuning slugs, etc. Also, the theorectical peak breakdown voltage is derated by 35% for production testing purposes, as done across the broadcast industry. Due to the difficulty of measuring the attenuation of large diameter rigid lines precisely, attenuation, (and consequently average power), ratings are calculated based on line geometry, copper losses, and dielectric losses.

ERI rigid coaxial transmission lines are EIA compliant. To ensure high conductivity, they are made from ASTM B188 Alloy 102, Alloy 103 and Alloy 110 seamless copper tubes, which have an I.A.C.S rated conductivity at or above 99%. Temper is Hard Drawn, H80, for line sizes ≤ 3-1/8 inch and is rated Hard, H75, for sizes > 3-1/8 inch. The coefficient of thermal expansion is 9.4 x 10-6 in/(in/oF) over 68°F – 212°F. Copper tube straightness is maintained at ≤ ½ inch per 20 foot length. This choice of copper material has been optimized in balancing the effects of both temperature and alloying elements on conductivity, as well as the need for strength, corrosion resistance and formability.

While typical RF broadcast transmission line systems are pressurized to 2-5 psig, ERI components are designed to handle 20 psig minimum. In RF applications, attenuation is affected by the nature of the signal to concentrate on the surface of the conductor due to skin effect, by some surface oxidation which is always present, and also by small additional losses occurring at the flange interface. In order to insure that attenuation ratings are conservative and agree closely with field-measured data, they include a derating factor on conductivity of 4 percentage points.

1) One atmosphere absolute dry air pressure at sea level is 0 psig (gauge reading) or 14.7 psia (absolute); where the gauge pressure = absolute pressure – 14.7).

2)Conductivity of copper is expressed as a percentage of I.A.C.S (International Annealed Copper Standard) which is based upon annealed copper wire having a density of 8.89 g/cm3, 1 meter long, weighing 1 gram, with a resistance of 0.15328 ohms, such that the percentage was assigned as 100 times the ratio of volume resistivity at 68°F (20°C).

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Around the World, Across the Spectrum, Your Single Source For Broadcast Solutions


Antennas


Transmission Line


Towers


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Broadcast Services

About Electronics Research, Inc.

Founded in 1943, Electronics Research, Inc. delivers high quality, innovative, integrated solutions to broadcasters across the U.S. and around the world. Our dedicated staff of engineers, designers, fabricators, and project managers take pride in contributing to your success by providing AM, FM, VHF, UHF, BRS-EBS, and Mobile Media broadcast systems including the industry's best antenna, transmission line, filter/combiner, and tower and structural support systems. In addition to manufacturing the full range of broadcast system components and installation accessories, ERI offers a suite of engineering and field services needed to plan, install, optimize, and maintain your broadcast facility. We are your single source for broadcast solutions.

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- AGW Quick-Deploy Emergency UHF Television Antenna
- ALP Low and Medium Power UHF Television Antenna
- AL PLUS Low and Medium Power UHF Television Antenna
- AL Series Low Power UHF Television Antenna
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