

INPUT DATA FOR TLMANV8.MCD

Version 8.1.01

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See "Transmission Line Properties from Manufacturer's Data" by Frank Witt, AI1H

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MANUFACTURER'S DATA

Substitute these data from manufacturers and suppliers for the input data on Page 1 of TLMANV8.MCD.

Description:	Manufacturer:	Belden
	Type:	RG-8A
	Trade No.	9251
	Insulation:	Solid polyethylene

Electrical data:	A_0 = Matched Loss	Z_{0real} = "real" characteristic impedance
ND is the number of matched loss data points:	ND := 10	i := 1.. ND

F_i := MHz	A_{0_i} := dB/100 feet
1	.17
10	.55
50	1.3
100	1.9
200	2.7
400	4.1
700	6.5
900	7.6
1000	8
4000	21.5

Z_{0real} := 52 ohms
 $V_{F nominal}$:= .66
 $C_{nominal}$:= 29.5 pF/foot
 V_{max} := 3700 volts rms
 T_{maxC} := 80 degrees C
Diameter := .405 inches
 F_{LOW} := F_3 F_{HIGH} := F_{ND-2}
 A_{0LOW} := A_{0_3} A_{0HIGH} := $A_{0_{ND-2}}$
Assumed frequency dependence of loss due to insulation: g := 0.9

TLMAND~1.RTF

Description:

Manufacturer:

Belden

Type:

RG-8 Foam

Trade No.

8214

Insulation

Foam polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 10

i := 1 .. ND

F_i := MHz

A_{0_i} := dB/100 feet

1	.14
10	.51
50	1.2
100	1.8
200	2.7
400	4.2
700	5.8
900	6.7
1000	7.1
4000	18

Z_{0real} := 50 ohms

VF_{nominal} := .78

C_{nominal} := 26 pF/foot

V_{max} := 600 volts rms

T_{maxC} := 80 degrees C

Diameter := .403 inches

F_{LOW} := F_3

F_{HIGH} := F_{ND-2}

A_{0LOW} := A_{0_3}

A_{0HIGH} := $A_{0_{ND-2}}$

Assumed frequency dependence of loss due to insulation:

g := 0.9

Description:

Manufacturer:

Belden

Type:

RG-8X

Trade No.

9258

Insulation:

Foam polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 9

i := 1 .. ND

F_i := MHz

A_{0_i} := dB/100 feet

1	.5
10	1
50	2.5
100	3.7
200	5.4
400	8
700	11.1
900	12.8
1000	13.5

Z_{0real} := 50 ohms

$V_{F nominal}$:= .78

$C_{nominal}$:= 26 pF/foot

V_{max} := 300 volts rms

T_{maxC} := 80 degrees C

Diameter := .242 inches

F_{LOW} := F_3

F_{HIGH} := F_{ND-1}

A_{0LOW} := A_{0_3}

A_{0HIGH} := $A_{0_{ND-1}}$

Assumed frequency dependence of loss due to insulation:

g := 0.7

Description:

Manufacturer:

Belden

Type:

RG-11

Trade No.

8261

Insulation:

Solid polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 9

i := 1 .. ND

F_i := MHz A_{0i} := dB/100 feet

1	.19
10	.66
50	1.3
100	2
200	2.9
400	4.2
700	5.8
900	6.8
1000	7.1

Z_{0real} := 75 ohms

VF_{nominal} := .66

C_{nominal} := 20.5 pF/foot

V_{max} := 3700 volts rms

T_{maxC} := 80 degrees C

Diameter := .405 inches

F_{LOW} := F_3 F_{HIGH} := F_{ND-1}

A_{0LOW} := A_{03} A_{0HIGH} := $A_{0_{ND-1}}$

Assumed frequency dependence of loss due to insulation:

g := 1.15

Description:

Manufacturer:

Belden

Type:

RG-58A/U

Trade No.

8259

Insulation:

Solid polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 9

i := 1 .. ND

F_i := MHz

A_{0_i} := dB/100 feet

1	.44
10	1.4
50	3.3
100	4.9
200	7.3
400	11.5
700	17.0
900	20.0
1000	21.5

Z_{0real} := 50 ohms

VF_{nominal} := .66

C_{nominal} := 30.8 pF/foot

V_{max} := 1400 volts rms

T_{maxC} := 75 degrees C

Diameter := .193 inches

F_{LOW} := F_3 F_{HIGH} := F_{ND-1}

A_{0LOW} := A_{0_3} A_{0HIGH} := $A_{0_{ND-1}}$

Assumed frequency dependence of loss due to insulation:

g := 1.1

Description:

Manufacturer:

Belden

Type:

RG-59

Trade No.

8241

Insulation:

Solid polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 9

i := 1 .. ND

F_i := MHz

A_{0_i} := dB/100 feet

1	.6
10	1.1
50	2.4
100	3.4
200	4.9
400	7
700	9.7
900	11.1
1000	12.0

Z_{0real} := 75 ohms

VF_{nominal} := .66

C_{nominal} := 20.5 pF/foot

V_{max} := 1700 volts rms

T_{maxC} := 80 degrees C

Diameter := .242 inches

F_{LOW} := F₃

F_{HIGH} := F_{ND - 1}

A_{0LOW} := A_{0₃}

A_{0HIGH} := A_{0_{ND - 1}}

Assumed frequency dependence of loss due to insulation:

g := 1.1

Description:

Manufacturer:

Belden

Type:

RG-213

Trade No.

8267

Insulation:

Solid polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 9

i := 1 .. ND

F_i := MHz A_{0i} := dB/100 feet

1	.18
10	.62
50	1.5
100	2.1
200	3
400	4.8
700	6.5
900	7.6
1000	8.2

Z_{0real} := 50 ohms

VF_{nominal} := .66

C_{nominal} := 30.8 pF/foot

V_{max} := 3700 volts rms

T_{maxC} := 85 degrees C

Diameter := .405 inches

F_{LOW} := F_3 F_{HIGH} := F_{ND-1}

A_{0LOW} := A_{03} A_{0HIGH} := $A_{0_{ND-1}}$

Assumed frequency dependence of loss due to insulation:

g := 1.15

Description:

Manufacturer:

Belden

Type:

RG-214

Trade No.

8268

Insulation

Solid polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 9

i := 1 .. ND

F_i := MHz A_{0i} := dB/100 feet

1	.17
10	.55
50	1.3
100	1.9
200	2.7
400	4.1
700	6.5
900	7.6
1000	8.0

Z_{0real} := 50 ohms

VF_{nominal} := .66

C_{nominal} := 30.8 pF/foot

V_{max} := 3700 volts rms

T_{maxC} := 85 degrees C

Diameter := .425 inches

F_{LOW} := F_3 F_{HIGH} := F_{ND-1}

A_{0LOW} := A_{03} A_{0HIGH} := $A_{0_{ND-1}}$

Assumed frequency dependence of loss due to insulation:

g := 1.35

Description:

Manufacturer:

Belden

Type:

9913

Trade No.

9913

Insulation:

Semi-solid polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 10

i := 1 .. ND

F_i := MHz A_{0_i} := dB/100 feet

1	.1
10	.4
50	.9
100	1.3
200	1.8
400	2.7
700	3.6
900	4.2
1000	4.5
4000	11

Z_{0real} := 50 ohms

$V_{F nominal}$:= .84

$C_{nominal}$:= 24 pF/foot

V_{max} := 600 volts rms

T_{maxC} := 80 degrees C

Diameter := .405 inches

F_{LOW} := F_3 F_{HIGH} := F_{ND-2}

A_{0LOW} := A_{0_3} A_{0HIGH} := $A_{0_{ND-2}}$

Assumed frequency dependence of loss due to insulation:

g := 1.3

Description:

Manufacturer:

Belden

Type:

300-ohm twin lead

Trade No.

9085

Insulation:

Foam polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 5

i := 1 .. ND

F_i := MHz A_{0i} := dB/100 feet

100	1.4
200	2.2
300	2.8
500	3.8
900	5.6

Z_{0real} := 300 ohms

$VF_{nominal}$:= .8

$C_{nominal}$:= 4.5 pF/foot

F_{LOW} := F_2 F_{HIGH} := F_{ND-1}

A_{0LOW} := A_{02} A_{0HIGH} := $A_{0_{ND-1}}$

Assumed frequency dependence of loss due to insulation:

g := 1.3

Description:

Manufacturer:

The Wireman

Type:

RG-11A

Trade No.

121

Insulation:

Solid polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 8

i := 1..ND

F_i := MHz A_{0_i} := dB/100 feet

1	.19
10	.66
50	1.3
100	2.0
200	2.9
400	4.2
900	6.5
1000	7.8

Z_{0real} := 75 ohms

VF_{nominal} := .66

C_{nominal} := 20.6 pF/foot

V_{max} := 3700 volts rms

Diameter := .405 inches

F_{LOW} := F_3 F_{HIGH} := F_{ND-2}

A_{0LOW} := A_{0_3} A_{0HIGH} := $A_{0_{ND-2}}$

Assumed frequency dependence of loss due to insulation:

g := 1.0

Description:

Manufacturer:

The Wireman

Type:

RG-58C

Trade No.

127

Insulation:

Solid polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 8

i := 1..ND

F_i := MHz A_{0_i} := dB/100 feet

1	.44
10	1.4
50	4.1
100	5.3
200	8.2
400	12.6
900	20
1000	24

Z_{0real} := 50 ohms

VF_{nominal} := .66

C_{nominal} := 30.8 pF/foot

V_{max} := 1400 volts rms

Diameter := .195 inches

F_{LOW} := F_2 F_{HIGH} := F_{ND-2}

A_{0LOW} := A_{0_2} A_{0HIGH} := $A_{0_{ND-2}}$

Assumed frequency dependence of loss due to insulation:

g := 1.0

Description:

Manufacturer:

The Wireman

Type:

RG-59B

Trade No.

135

Insulation:

Solid polyethylene

Electrical data:

A_0 = Matched Loss

Z_{0real} = "real" characteristic impedance

ND is the number of matched loss data points:

ND := 8

i := 1..ND

F_i := MHz A_{0i} := dB/100 feet

1	.33
10	1.1
50	2.4
100	3.5
200	5.1
400	7.5
900	12
1000	12

Z_{0real} := 75 ohms

VF_{nominal} := .66

C_{nominal} := 20.5 pF/foot

V_{max} := 1700 volts rms

Diameter := .242 inches

F_{LOW} := F_2 F_{HIGH} := F_{ND-2}

A_{0LOW} := A_{0_2} A_{0HIGH} := $A_{0_{ND-2}}$

Assumed frequency dependence of loss due to insulation:

g := 1.0