



Jumpers



Eupen Jumper Cable Assemblies provide excellent electrical performance combined with high mechanical integrity which makes them both *rugged* and *flexible*. Durable enough to withstand the harshest of environments yet flexible enough to function in the tightest of spaces, these assemblies are the best choice for all your interconnect applications.

Each jumper assembly is built and tested to exacting standards. Return Loss for each assembly is guaranteed at 28 dB (1.08:1 VSWR) or better, up to 2.5 Ghz. Eupen's advanced polymer dielectric ensures the attenuation loss will be minimized. Eupen's proprietary connector designs ensure passive intermodulation will remain low and stable long after installation and throughout drastic changes in environmental conditions.

Eupen offers a wide selection of cable and connector types and sizes. We offer common lengths in any cable/connector configuration in an easy to determine part number. Eupen also has the capability to make any number of units in any uncommon length you require.

Call on Eupen for all your jumper needs!

EUPEN Jumper Part Number Guide

EC4	—	100	—	DMDM
CABLE		LENGTH		CONNECTOR TYPE
EC1: 1/4" Standard		030 : 1'		D: 7/16 DIN
EC1-HF: 1/4" Hiflex		061 : 2'		N: TYPE N
EC2: 3/8" Standard		100 : 3' (1m)		M: MALE
EC4: 1/2" Standard		122 : 4'		F: FEMALE
EC4-HF: 1/2" Hiflex		150 : 5' (1.5m)		R: RT. ANGLE
		200 : 6.5' (2m)		L: LOOSE
		213 : 7'		O: OFF
		250 : 8' (2.5m)		
		274 : 9'		
		300 : 10' (3m)		
		366 : 12'		
		426 : 14'		
		488 : 16'		
		609 : 20'		
		762 : 25'		
		914 : 30'		
		1066 : 35'		

Custom jumper lengths available on request.



EC1: 1/4" Standard Foam-Dielectric Jumper Assemblies 50 Ohm

CONNECTORS	PART NUMBER
N-Male / N-Male	EC1-(*)-NMNM
N-Male / N-Female	EC1-(*)-NMNF
N-Male / OFF (No connector)	EC1-(*)-NMO
N-Female / OFF (No connector)	EC1-(*)-NFO

*Use cm value for the length in jumper part number.

ft.	*cm
1'	: 030
2'	: 061
3'	: 100
4'	: 122
5'	: 150
6.5'	: 200
7'	: 213
8'	: 250
9'	: 274
10'	: 300
12'	: 366
14'	: 426
16'	: 488
20'	: 609
25'	: 762
30'	: 914
35'	: 1066

NOTE: To order a jumper with one connector unattached (Loose), add an "L" after the connector to be loose.

Example: NMNML = Attached N-Male on one end, with an unattached N-Male packaged "loose" with the jumper.

NOTE: To order a jumper with only one connector, add an "O" after the one connector to be included.

Example: NMO = Attached N-Male on one end, with no connector provided for the other end.

ELECTRICAL CHARACTERISTICS

• Attenuation for 3 foot jumper at 68°F*

0.13 dB at 960 MHz
0.19 dB at 1880 MHz
0.20 dB at 2200 MHz

*values without connectors, typical connector attenuation is less than $0.1\sqrt{f}$ (GHz) (1 link / 2 connectors)

• Intermodulation measured with 43dBm/20W

-162 dBc (cellular bands), typical

• VSWR

≤ 1.06 at 960 MHz
 ≤ 1.06 at 1880 MHz
 ≤ 1.06 at 2200 MHz

• Power rating at 104°F ambient temperature

0.54 kW at 960 MHz
0.37 kW at 1880 MHz
0.34 kW at 2200 MHz

Test results included with each jumper.

Additional connector combinations and lengths available on request.



EC1-HF: 1/4" Hiflex Foam-Dielectric Jumper Assemblies 50 Ohm

ft.	*cm
1'	: 030
2'	: 061
3'	: 100
4'	: 122
5'	: 150
6.5'	: 200
7'	: 213
8'	: 250
9'	: 274
10'	: 300
12'	: 366
14'	: 426
16'	: 488
20'	: 609
25'	: 762
30'	: 914
35'	: 1066

CONNECTORS	PART NUMBER
DIN Male / DIN Male	EC1-HF-(*)-DMDM
DIN Male / DIN Female	EC1-HF-(*)-DMDF
DIN Male / N-Male	EC1-HF-(*)-DMNM
DIN Male / N-Female Panel Mount	EC1-HF-(*)-DFNF
DIN Male / OFF (No connector)	EC1-HF-(*)-DMO
DIN Female / DIN Female	EC1-HF-(*)-DFDF
DIN Female / N-Male	EC1-HF-(*)-DFNM
DIN Female / N-Female Panel Mount	EC1-HF-(*)-DFDF
DIN Female / OFF (No connector)	EC1-HF-(*)-DFO
N-Male / N-Male	EC1-HF-(*)-NMNM
N-Male / N-Female Panel Mount	EC1-HF-(*)-NMNF
N-Male / OFF (No connector)	EC1-HF-(*)-NMO
N-Female Panel Mount/ OFF (No connector)	EC1-HF-(*)-NFO

*Use cm value for the length in jumper part number.

NOTE: To order a jumper with one connector unattached (Loose), add an "L" after the connector to be loose.

Example: DMDML = Attached DIN Male on one end, with an unattached DIN Male packaged "loose" with the jumper.

NOTE: To order a jumper with only one connector, add an "O" after the one connector to be included.

Example: DMO = Attached DIN Male on one end, with no connector provided for the other end.

ELECTRICAL CHARACTERISTICS

• Attenuation for 3 foot jumper at 68°F*

- 0.18 dB at 960 MHz
- 0.26 dB at 1880 MHz
- 0.28 dB at 2200 MHz

*values without connectors, typical connector attenuation is less than $0.1\sqrt{f}$ (GHz) (1 link / 2 connectors)

• Intermodulation measured with 43dBm/20W

- 162 dBc (cellular bands), typical

• VSWR

- ≤ 1.09 at 960 MHz
- ≤ 1.09 at 1880 MHz
- ≤ 1.09 at 2200 MHz

• Power rating at 104°F ambient temperature

- 0.38 kW at 960 MHz
- 0.27 kW at 1880 MHz
- 0.24 kW at 2200 MHz

Test results included with each jumper.

Additional connector combinations and lengths available on request.



EC2: 3/8" Standard Foam-Dielectric Jumper Assemblies 50 Ohm

ft.	*cm
1'	: 030
2'	: 061
3'	: 100
4'	: 122
5'	: 150
6.5'	: 200
7'	: 213
8'	: 250
9'	: 274
10'	: 300
12'	: 366
14'	: 426
16'	: 488
20'	: 609
25'	: 762
30'	: 914
35'	: 1066

CONNECTORS	PART NUMBER
DIN Male / DIN Male	EC2-(*)-DMDM
DIN Male / DIN Female	EC2-(*)-DMDF
DIN Male / N-Male	EC2-(*)-DMNM
DIN Male / N-Female	EC2-(*)-DMNF
DIN Male / OFF (No connector)	EC2-(*)-DMO
DIN Female / DIN Female	EC2-(*)-DFDF
DIN Female / N-Male	EC2-(*)-DFNM
DIN Female / N-Female	EC2-(*)-DFNF
DIN Female / OFF (No connector)	EC2-(*)-DFO
N-Male / N-Male	EC2-(*)-NMNM
N-Male / N-Female	EC2-(*)-NMNF
N-Male / OFF (No connector)	EC2-(*)-NMO
N-Female / OFF (No connector)	EC2-(*)-NMO

*Use cm value for the length in jumper part number.

NOTE: To order a jumper with one connector unattached (Loose), add an "L" after the connector to be loose.
Example: DMDML = Attached DIN Male on one end, with an unattached DIN Male packaged "loose" with the jumper.

NOTE: To order a jumper with only one connector, add an "O" after the connector to be included.
Example: DMO = Attached DIN Male on one end, with no connector provided for the other end.

ELECTRICAL CHARACTERISTICS

- Attenuation for 3 foot jumper at 68°F*
 - 0.09 dB at 960 MHz
 - 0.13 dB at 1880 MHz
 - 0.15 dB at 2200 MHz
 - *values without connectors, typical connector attenuation is less than $0.1\sqrt{f}$ (GHz) (1 link / 2 connectors)
- Intermodulation measured with 43dBm/20W
 - 162 dBc (cellular bands), typical
- VSWR
 - ≤ 1.06 at 960 MHz
 - ≤ 1.06 at 1880 MHz
 - ≤ 1.06 at 2200 MHz
- Power rating at 104°F ambient temperature
 - 0.68 kW at 960 MHz
 - 0.48 kW at 1880 MHz
 - 0.44 kW at 2200 MHz

Test results included with each jumper.

Additional connector combinations and lengths available on request.



EC4: 1/2" Standard Foam-Dielectric Jumper Assemblies 50 Ohm

ft.	*cm
1'	: 030
2'	: 061
3'	: 100
4'	: 122
5'	: 150
6.5'	: 200
7'	: 213
8'	: 250
9'	: 274
10'	: 300
12'	: 366
14'	: 426
16'	: 488
20'	: 609
25'	: 762
30'	: 914
35'	: 1066

CONNECTORS	PART NUMBER
DIN Male / DIN Male	EC4-(*)-DMDM
DIN Male / DIN Female	EC4-(*)-DMDF
DIN Male / Right Angle DIN Male	EC4-(*)-DMDMR
DIN Male / N-Male	EC4-(*)-DMNM
DIN Male / N-Female	EC4-(*)-DMNF
DIN Male / Right Angle N-Male	EC4-(*)-DMDMR
DIN Male / OFF (No connector)	EC4-(*)-DMO
Right Angle DIN Male / OFF (No connector)	EC4-(*)-DMRO
DIN Female / DIN Female	EC4-(*)-DFDF
DIN Female / N-Male	EC4-(*)-DFNM
DIN Female / N-Female	EC4-(*)-DFNF
DIN Female / Right Angle DIN Male	EC4-(*)-DFDMR
DIN Female / Right Angle N-Male	EC4-(*)-DFNMR
DIN Female / OFF (No connector)	EC4-(*)-DFO

*Use cm value for the length in jumper part number.

EC4 1/2" Standard Foam-Dielectric Jumper Assemblies (Continued Page 35)

EC4: Standard 1/2" Foam-Dielectric Jumper Assemblies

50 Ohm (Continued)

CONNECTORS	PART NUMBER
N-Male / N-Male	EC4-(*)-NMNM
N-Male / N-Female	EC4-(*)-NMNF
N-Male / Right Angle N-Male	EC4-(*)-NMNMR
N-Male / Right Angle DIN Male	EC4-(*)-NMDMR
N-Male / OFF (No connector)	EC4-(*)-NMO
Right Angle N-Male / OFF (No connector)	EC4-(*)-NMRO
N-Female / Right Angle N-Male	EC4-(*)-NFNMR
N-Female / Right Angle DIN Male	EC4-(*)-NFDMR
N-Female / OFF (No connector)	EC4-(*)-NFO

*Use cm value for the length in jumper part number.

NOTE: To order a jumper with one connector unattached (Loose), add an "L" after the connector to be loose.

Example: DMDMRL = Attached DIN Male on one end, with an unattached Right Angle DIN Male packaged "loose" with the jumper.

NOTE: To order a jumper with only one connector, add an "O" after the one connector to be included.

Example: DMO = Attached DIN Male on one end, with no connector provided for the other end.

ELECTRICAL CHARACTERISTICS

- Attenuation for 3 foot jumper at 68°F*
 - 0.07 dB at 960 MHz
 - 0.09 dB at 1880 MHz
 - 0.10 dB at 2200 MHz
 - *values without connectors, typical connector attenuation is less than $0.1\sqrt{f}$ (GHz) (1 link / 2 connectors)
- Intermodulation measured with 43dBm/20W
 - 162 dBc (cellular bands), typical
- VSWR
 - ≤ 1.06 at 960 MHz
 - ≤ 1.06 at 1880 MHz
 - ≤ 1.06 at 2200 MHz
- Power rating at 104°F ambient temperature
 - 1.1 kW at 960 MHz
 - 0.77 kW at 1880 MHz
 - 0.70 kW at 2200 MHz

Test results included with each jumper.

Additional connector combinations and lengths available on request.



EC4-HF: 1/2" Hiflex Foam-Dielectric Jumper Assemblies 50 Ohm

ft.	*cm
1'	: 030
2'	: 061
3'	: 100
4'	: 122
5'	: 150
6.5'	: 200
7'	: 213
8'	: 250
9'	: 274
10'	: 300
12'	: 366
14'	: 426
16'	: 488
20'	: 609
25'	: 762
30'	: 914
35'	: 1066

CONNECTORS	PART NUMBER
DIN Male / DIN Male	EC4-HF-(*)-DMDM
DIN Male / DIN Female	EC4-HF-(*)-DMDF
DIN Male / Right Angle DIN Male	EC4-HF-(*)-DMDMR
DIN Male / N-Male	EC4-HF-(*)-DMNM
DIN Male / N-Female	EC4-HF-(*)-DMNF
DIN Male / Right Angle N-Male	EC4-HF-(*)-DMDMR
DIN Male / OFF (No connector)	EC4-HF-(*)-DMO
Right Angle DIN Male / OFF (No connector)	EC4-HF-(*)-DMRO
DIN Female / DIN Female	EC4-HF-(*)-DFDF
DIN Female / N-Male	EC4-HF-(*)-DFNM
DIN Female / N-Female	EC4-HF-(*)-DFNF
DIN Female / Right Angle DIN Male	EC4-HF-(*)-DFDMR
DIN Female / Right Angle N-Male	EC4-HF-(*)-DFNMR
DIN Female / OFF (No connector)	EC4-HF-(*)-DFO

*Use cm value for the length in jumper part number.

EC4-HF 1/2" Hiflex Foam-Dielectric Jumper Assemblies (Continued Page 37)

EC4-HF: 1/2" Hiflex Foam-Dielectric Jumper Assemblies 50 Ohm (Continued)

CONNECTORS	PART NUMBER
N-Male / N-Male	EC4-HF-(*)-NMNM
N-Male / N-Female	EC4-HF-(*)-NMNF
N-Male / Right Angle N-Male	EC4-HF-(*)-NMNMR
N-Male / Right Angle DIN Male	EC4-HF-(*)-NMDMR
N-Male / OFF (No connector)	EC4-HF-(*)-NMO
Right Angle N-Male / OFF (No connector)	EC4-HF-(*)-NMRO
N-Female / Right Angle N-Male	EC4-HF-(*)-NFNMR
N-Female / Right Angle DIN Male	EC4-HF-(*)-NFDMR
N-Female / OFF (No connector)	EC4-HF-(*)-NFO

*Use cm value for the length in jumper part number.

NOTE: To order a jumper with one connector unattached (Loose), add an "L" after the connector to be loose.

Example: DMDMRL = Attached DIN Male on one end, with an unattached Right Angle DIN Male packaged "loose" with the jumper.

NOTE: To order a jumper with only one connector, add an "O" after the one connector to be included.

Example: DMO = Attached DIN Male on one end, with no connector provided for the other end.

ELECTRICAL CHARACTERISTICS

- Attenuation for 3 foot jumper at 68°F*
 - 0.10 dB at 960 MHz
 - 0.14 dB at 1880 MHz
 - 0.17 dB at 2200 MHz
 - *values without connectors, typical connector attenuation is less than 0.1√f (GHz) (1 link / 2 connectors)
- Intermodulation measured with 43dBm/20W
 - 162 dBc (cellular bands), typical
- VSWR
 - ≤ 1.06 at 960 MHz
 - ≤ 1.06 at 1880 MHz
 - ≤ 1.06 at 2200 MHz
- Power rating at 104°F ambient temperature
 - 0.9 kW at 960 MHz
 - 0.61 kW at 1880 MHz
 - 0.56 kW at 2200 MHz

Test results included with each jumper.

Additional connector combinations and lengths available on request.