

HUBER+SUHNER® DATA SHEET

MXP40: MULTICOAX CABLE ASSEMBLIES



Description

Available configurations
 MULTIFLEX 53 cable assemblies MXP breakout to Suhrer-K
 MULTIFLEX 53 cable assemblies MXP breakout to Suhrer-K ergo type
 MULTIFLEX 53 cable assemblies MXP jumper to MXP
 MULTIFLEX 53 cable assemblies MXP loop back
 Customised solutions (configuration and length) on request

Standard lengths
 152mm (6 inch), 229mm (9 inch), 305mm (12 inch), 610mm (24inch),

Channel arrays
 1x8 ganged
 2x8 ganged

Interface standards
 MXP: HUBER+SUHNER STD (patent US 8,360,807)
 Suhrer-K: 2.92mm STD

Notification
 Exclusively delivered with thin, high flexible and ultra- stable HUBER+SUHNER MULTIFLEX 53-02 microwave cable.



1x8 ganged



2x8 ganged

Electrical data

Impedance	50Ω
Data rates	Up to 40Gbps
Interface frequency max.	40GHz
Return loss	≥ 20dB up to 22.5GHz ≥ 12dB up to 40GHz
Insertion loss	≤ 1.8dB up to 40GHz for a 152mm assembly
Cross talk	≤ - 40dB at PCB transition
Phase match	+/- 2ps (absolute)

Mechanical data

Number of matings MXP: 500 / Suhrer-K: 500

Environmental data

Operating Temperature - 55°C to + 85°C
 2011/65/EU (RoHS) Compliant

Material data connectors

Piece Parts MXP

Centre contact
 Outer contact
 Body
 Insulator

Material

Copper beryllium alloy
 Brass
 Aluminium
 PTFE

Coating

SUCOPRO gold plating
 SUCOPRO gold plating
 Black anodised
 N/A

Piece Parts Suhrer K

Centre contact
 Outer contact
 Body
 Insulator
 Coupling nut (male)
 Ergo grip (female ergo type)

Material

Copper beryllium alloy
 Copper beryllium alloy
 Copper beryllium alloy
 PTFE
 Stainless steel
 Aluminium

Coating

SUCOPRO gold plating
 SUCOPRO gold plating
 SUCOPRO gold plating
 N/A
 N/A
 Black anodised

Related data/documents

Outline drawings on request



Suhrer-K ergo

HUBER+SUHNER is certified according to ISO 9001 and ISO 14001

WAIVER!
 It is exclusively in written agreements that we provide our customers with warrants and representations as to the technical contained specifications and/or the fitness for any particular purpose. The facts and figures herein are carefully compiled to the best of our knowledge, but they are intended for general informational purposes only.



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HUBER+SUHNER® DATA SHEET

MXP40 PCB Connector: 1x8A_81_MXP-S50-0-1



Description

1x8 ganged SMT PCB connector (male, keyed)

Interface standard

HUBER+SUHNER standard (patent US 8,360,807)

Evaluation board material/configuration

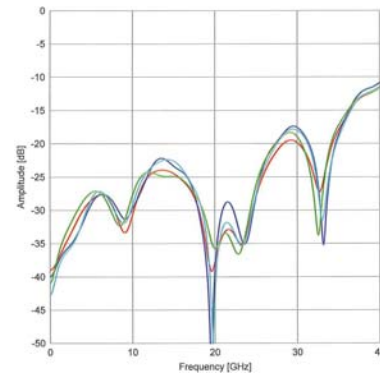
Material: N/A
Substrate thickness: N/A
Dielectric constant ϵ_r : N/A
Stack up: N/A



Technical Data

Electrical Data

Impedance 50 Ω
Data rate Up to 40Gbps
Frequency range DC to 40GHz
Return loss ≥ 20 dB up to 22.5GHz
 ≥ 12 dB up to 40GHz
Cross talk at PCB transition ≤ -40 dB up to 35GHz
 ≤ -35 dB up to 40GHz



Mechanical Data

Number of matings 500
Weight 7.1 g

Environmental Data

Operating Temperature -55 °C to +85 °C
2011/65/EU (RoHS) compliant

Material Data

Piece Parts (MXP male)	Material
Centre contact	Copper beryllium
Outer contact	BZ4
Body	Brass
Insulator	PEEK
Coupling nut	N/A

Surface Plating

SUCOPRO gold plating
SUCOPRO gold plating
SUCOPRO gold plating

Related Documents

Outline drawing DOU-00145659
Catalogue drawing DCA-00160728
3D-files and footprints on request

Ordering Information

Single package Item no. 84091435

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HUBER+SUHNER® DATA SHEET

MXP40 PCB Connector: 1x8A_81_MXP-S50-0-2



Description

1x8 ganged SMT PCB connector (male, non-keyed)

Interface standard

HUBER+SUHNER standard (patent US 8,360,807)

Evaluation board material/configuration

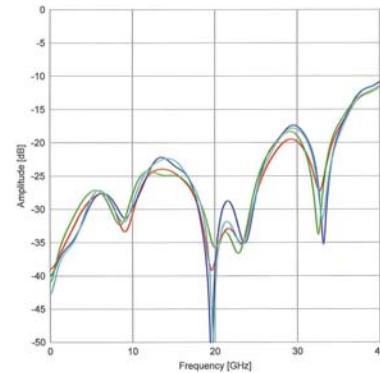
Material: Rogers RO3003
Substrate thickness: 5 mil
Dielectric constant ϵ_r : 3
Stack up: Microstrip



Technical Data

Electrical Data

Impedance 50 Ω
Data rates Up to 40Gbps
Frequency range DC to 40GHz
Return loss ≥ 20 dB up to 22.5GHz
 ≥ 12 dB up to 40GHz
Cross talk at PCB transition ≤ -40 dB up to 35GHz
 ≤ -35 dB up to 40GHz



Mechanical Data

Number of matings 500
Weight 7.1 g

Environmental Data

Operating Temperature -55 °C to +85 °C
2011/65/EU (RoHS) Compliant

Material Data

Piece Parts (MXP male)

Piece Parts (MXP male)	Material
Centre contact	Copper beryllium
Outer contact	BZ4
Body	Brass
Insulator	PEEK
Coupling nut	N/A

Surface Plating

SUCOPRO gold plating
SUCOPRO gold plating
SUCOPRO gold plating

Related Documents

Outline drawing DOU-00145203
Catalogue drawing DCA-00160736
3D-files and footprints on request

Ordering Information

Single package Item no. 84091436

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HUBER+SUHNER® DATA SHEET

MXP40 PCB Connector: 2x8A_81_MXP-S50-0-1



Description

2x8 ganged SMT PCB connector (male, keyed)

Interface standard
HUBER+SUHNER standard (patent US 8,360,807)

Evaluation board material/configuration

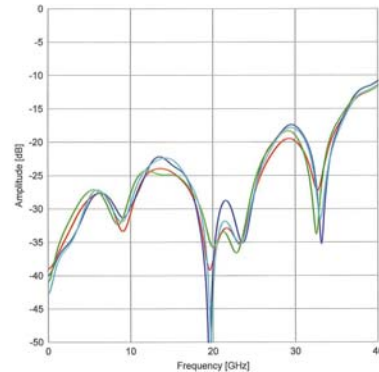
Material: N/A
Substrate thickness: N/A
Dielectric constant ϵ_r : N/A
Stack up: N/A



Technical Data

Electrical Data

Impedance 50 Ω
Data rate Up to 40Gbps
Frequency range DC to 40GHz
Return loss ≥ 20 dB up to 22.5GHz
 ≥ 12 dB up to 40GHz
Cross talk at PCB transition ≤ -40 dB up to 35GHz
 ≤ -35 dB up to 40GHz



Mechanical Data

Number of matings 500
Weight 10.5g

Environmental Data

Operating Temperature -55°C to +85°C
2011/65/EU (RoHS) Compliant

Material Data

Piece Parts (MXP male)	Material
Centre contact	Copper beryllium
Outer contact	BZ4
Body	Brass
Insulator	PEEK
Coupling nut	N/A

Surface Plating

SUCOPRO gold plating
SUCOPRO gold plating
SUCOPRO gold plating

Related Documents

Outline drawing DOU-00127366
Catalogue drawing DCA-00160459

Ordering Information

Single package Item no. 84072058

Remarks

For positioning pin map refer to outline drawing (not compatible with 2x8A_81_MXP-S50-0-3!)
3D-files and footprints on request

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HUBER+SUHNER® DATA SHEET

MXP40 PCB Connector: 2x8A_81_MXP-S50-0-2



Description

2x8 ganged SMT PCB connector (male, keyed)

Interface standard
HUBER+SUHNER standard (patent US 8,360,807)

Evaluation board material/configuration

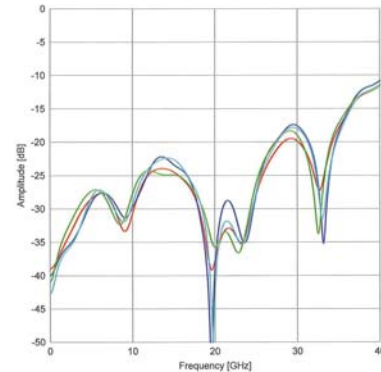
Material: N/A
Substrate thickness: N/A
Dielectric constant ϵ_r : N/A
Stack up: N/A



Technical Data

Electrical Data

Impedance 50 Ω
Data rate Up to 40Gbps
Frequency range DC to 40GHz
Return loss ≥ 20 dB up to 22.5GHz
 ≥ 12 dB up to 40GHz
Cross talk at PCB transition ≤ -40 dB up to 35GHz
 ≤ -35 dB up to 40GHz



Mechanical Data

Number of matings 500
Weight 10.5g

Environmental Data

Operating temperature -55°C to +85°C
2011/65/EU (RoHS) Compliant

Material Data

Piece Parts (MXP male)	Material
Centre contact	Copper beryllium
Outer contact	BZ4
Body	Brass
Insulator	PEEK
Coupling nut	N/A

Surface Plating

SUCOPRO gold plating
SUCOPRO gold plating
SUCOPRO gold plating

Related Documents

Outline drawing DOU-00169199

Ordering Information

Single package Item no. *****

Remarks

Short guiding pins
For positioning pin map refer to outline drawing (not compatible with 2x8A_81_MXP-S50-0-3!)
3D-files and footprints on request

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HUBER+SUHNER® DATA SHEET

MXP40: PCB Connector: 2x8A_81_MXP-S50-0-3



Description

2x8 ganged SMT PCB connector (male, keyed)

Interface standard
HUBER+SUHNER standard (patent US 8,360,807)

Evaluation board material/configuration

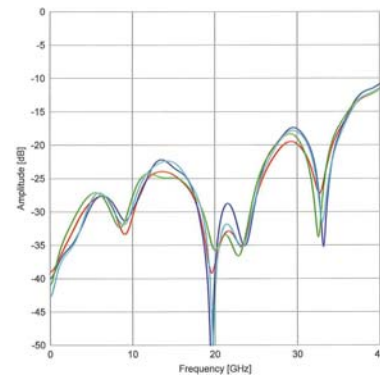
Material: N/A
Substrate thickness: N/A
Dielectric constant ϵ_r : N/A
Stack up: N/A



Technical Data

Electrical Data

Impedance 50 Ω
Data rate Up to 40Gbps
Frequency range DC to 40GHz
Return loss ≥ 20 dB up to 22.5GHz
 ≥ 12 dB up to 40GHz
Cross talk at PCB transition ≤ -40 dB up to 35GHz
 ≤ -35 dB up to 40GHz



Mechanical Data

Number of matings 500
Weight 10.5g

Environmental Data

Operating temperature -55°C to +85°C
2011/65/EU (RoHS) Compliant

Material Data

Piece Parts (MXP male)	Material
Centre contact	Copper beryllium
Outer contact	BZ4
Body	Brass
Insulator	PEEK
Coupling nut	N/A

Surface Plating

SUCOPRO gold plating
SUCOPRO gold plating
SUCOPRO gold plating

Related Documents

Outline drawing DOU-00247485

Ordering Information

Single package Item no. 85113397

Remarks

Optimised guiding pin layout for differential pair routing
For guiding pin map refer to outline drawing (not compatible with 2x8A_81_MXP-S50-0-1 and 2x8A_81_MXP-S50-0-2!)
3D-files and footprints on request

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