MXPM70

Multicoax testing solution

HUBER+SUHNER
Excellence in Connectivity Solutions

Key features + benefits

Technical data

- Electrical data
- Mechanical data
- Data Multiflex 53-02 cable

Portfolio

- Breakout assemblies
- Jumper assemblies

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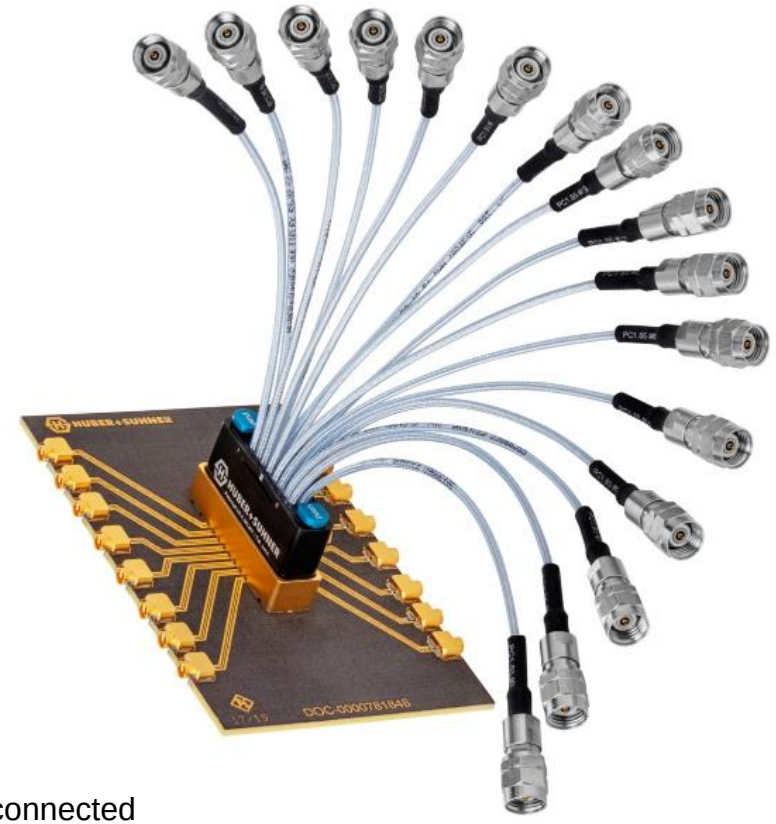
Key features

- Ultra-precise and highly repeatable
- Best in class signal integrity
- 2.54 mm (0.1 in.) pitch centre-to-centre
- Magnetic locking mechanism
- Automatic interface protection
- Cost-efficient PCB structure

Benefits

- ## Pioneering design
  The pioneering and advantageous design allows ultra-precise and highly repeatable S-parameter measurements of up to 67 GHz with minimal impedance variation at the PCB transition
- ## Data analysis of up to 56 Gbps and beyond
  The broadband return loss and insertion loss characteristics over the entire bandwidth guarantee best in class signal integrity for data analysis of up to 56 Gbps and beyond
- ## Shortest traces on board
  The ultra-compact design with its 2.54 mm (0.1 in.) pitch centre-to-centre makes MXPM as closely positioned as possible to the DUT/chip to keep traces short and losses low
- ## Fail-safe connecting mechanism
  The integrated magnetic locking mechanism prevents inappropriately mated counterparts and ensures that the electrical connecting reference is defined as exactly as possible at any time
- ## Interface protection in disconnected condition
  The automatic interface protection safeguards every single channel form mechanical damage when disconnected
- ## Reduced expenses for PCB architecture
  The cost-efficient PCB structure protects expensive and sensitive PCB material, eliminates imprecise and rough surfaces and greatly reduces architecture expenses, especially since there is not mandatory requirement for hard-gold plating



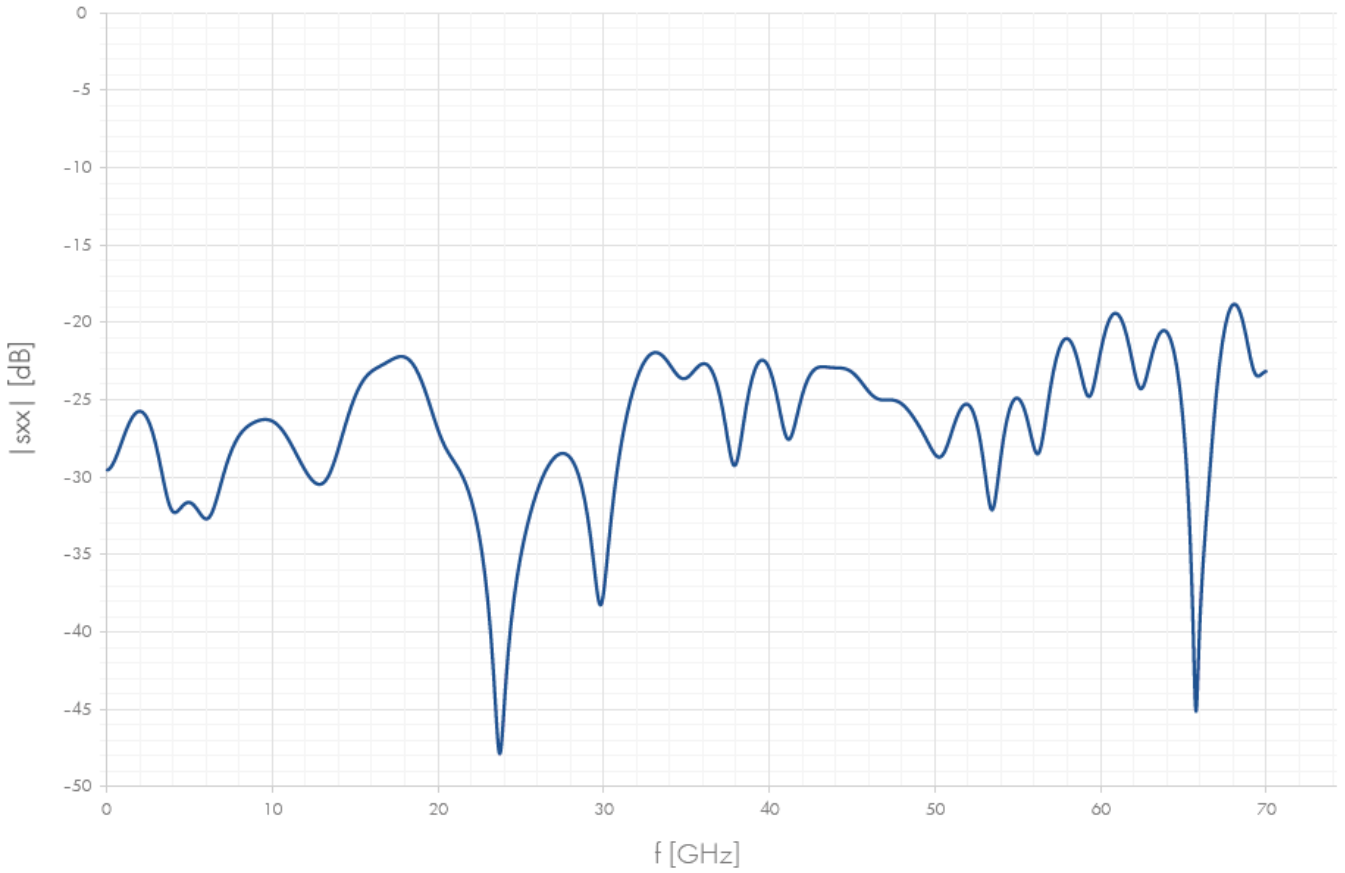
Technical data – General

Electrical data (typical)	Testing condition	Performance
Impedance		50 Ohm
Interface frequency max.		70 GHz
Return loss	Mated condition Gated measurement: cable connector/PCB transition	≥ 20 dB up to 50 GHz ≥ 17 dB up to 70 GHz
Insertion loss		According MF_53-02
Phase match		+/- 1 ps

Mechanical data (typical)	Performance
Number of matings	≥ 500
Pitch centre-to-centre	2.54 mm (0.1 in.)

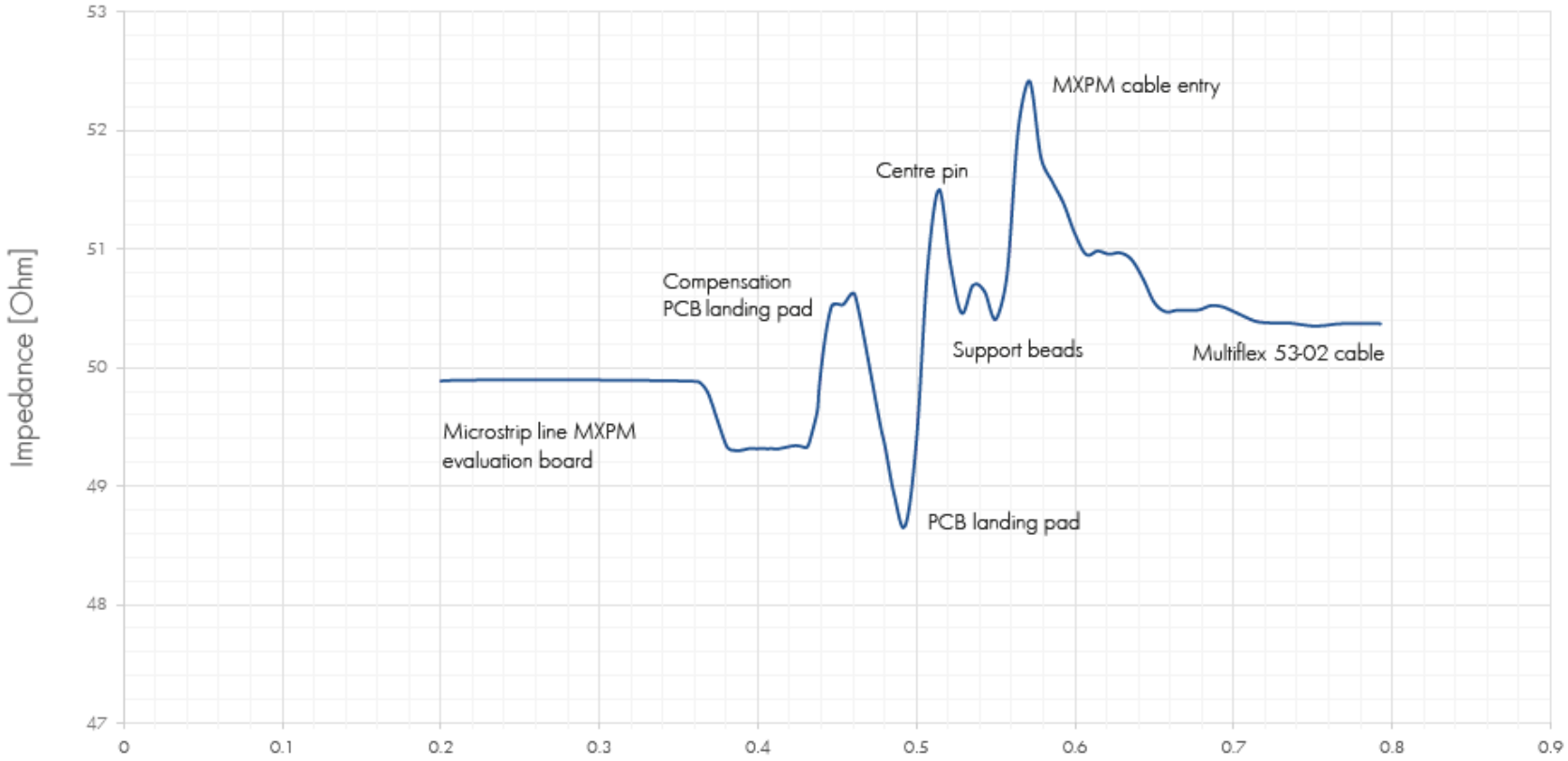
Technical data – Return loss

Gated measurement: Cable connector/PCB transition (evaluation board V2.1, typical)

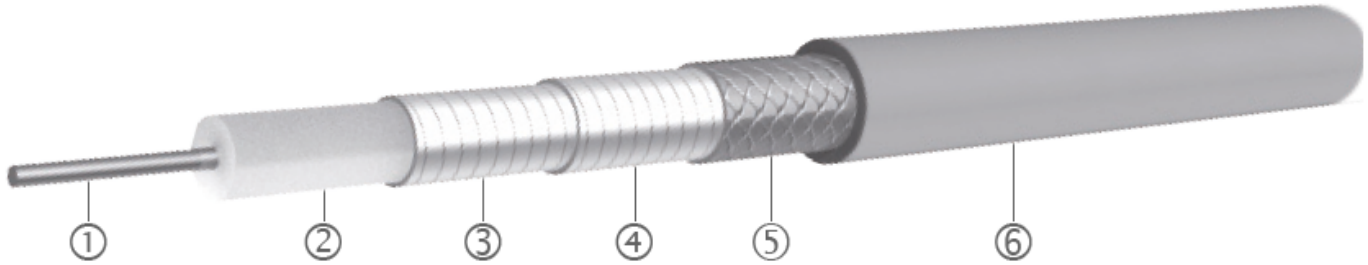


Technical data – Time domain

Cable connector/PCB transition (evaluation board V2.1, typical)



Technical data – Multiflex 53-02



	Description	Diameter
1. Centre conductor	solid silver-plated copper wire	0.31 mm
2. Dielectric	solid PTFE	0.99 mm
3. 1st outer conductor	silver-plated copper tape	1.22 mm
4. 2nd outer conductor	silver-plated copper braid	1.42 mm
5. Jacket	fluoroethylenepropylene, sky blue	1.74 mm

General cable data	
Temperature range	–65 to + 165 °Ct
Weight	0.85 kg/100 m
Min. bending radius static	10 mm

Portfolio PCB sockets

Type	Characteristics	Packaging
1x8 ganged	Keyed	Single or Tape+Reel (100)
1x8 ganged	Non keyed	Single or Tape+Reel (100)
2x8 ganged	Keyed	Single or Tape+Reel (100)

Portfolio assemblies – Breakout

Type	Characteristics	Standard length
1x8 breakout to PC 1.85 female	Ergo grip on PC 1.85	76 mm (3 in.), 152 mm (6 in.)
1x8 breakout to PC 1.85 male		
2x8 breakout to PC 1.85 female	Ergo grip on PC 1.85	
2x8 breakout to PC 1.85 male		

Note: Other lengths and combinations on request

Portfolio assemblies - Jumper

Type	Characteristics	Standard length
1x8 jumper (MXPM to MXPM)	Pin map 1-to-8	152 mm (6 in.), 305 mm (12 in.)
1x8 jumper (MXPM to MXPM)	Pin map 1-to-1	
2x8 jumper (MXPM to MXPM)	Pin map 1-to-16	
2x8 jumper (MXPM to MXPM)	Pin map 1-to-1	

Note: Other lengths and combinations on request

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MF53/2x8A_11MXPM/11PC185/305 MF53/2x8A_11MXPM/11MXPM/305_1 MF53/1x8A_11MXPM/11MXPM/152_1 MF53/2x8A_11MXPM/11MXPM/305 MF53/1x8A_11MXPM/11MXPM/305 MF53/1x8A_11MXPM/11MXPM/305_1 MF53/2x8A_11MXPM/11MXPM/152_1 MF53/1x8A_11MXPM/11PC185/152 MF53/2x8A_11MXPM/21PC185_e/152 MF53/1x8A_11MXPM/11MXPM/152 MF53/2x8A_11MXPM/11PC185/152 MF53/1x8A_11MXPM/21PC185_e/152 MF53/2x8A_11MXPM/11MXPM/152 MF53/1x8A_11MXPM/11PC185/76 MF53/2x8A_11MXPM/21PC185_e/76