

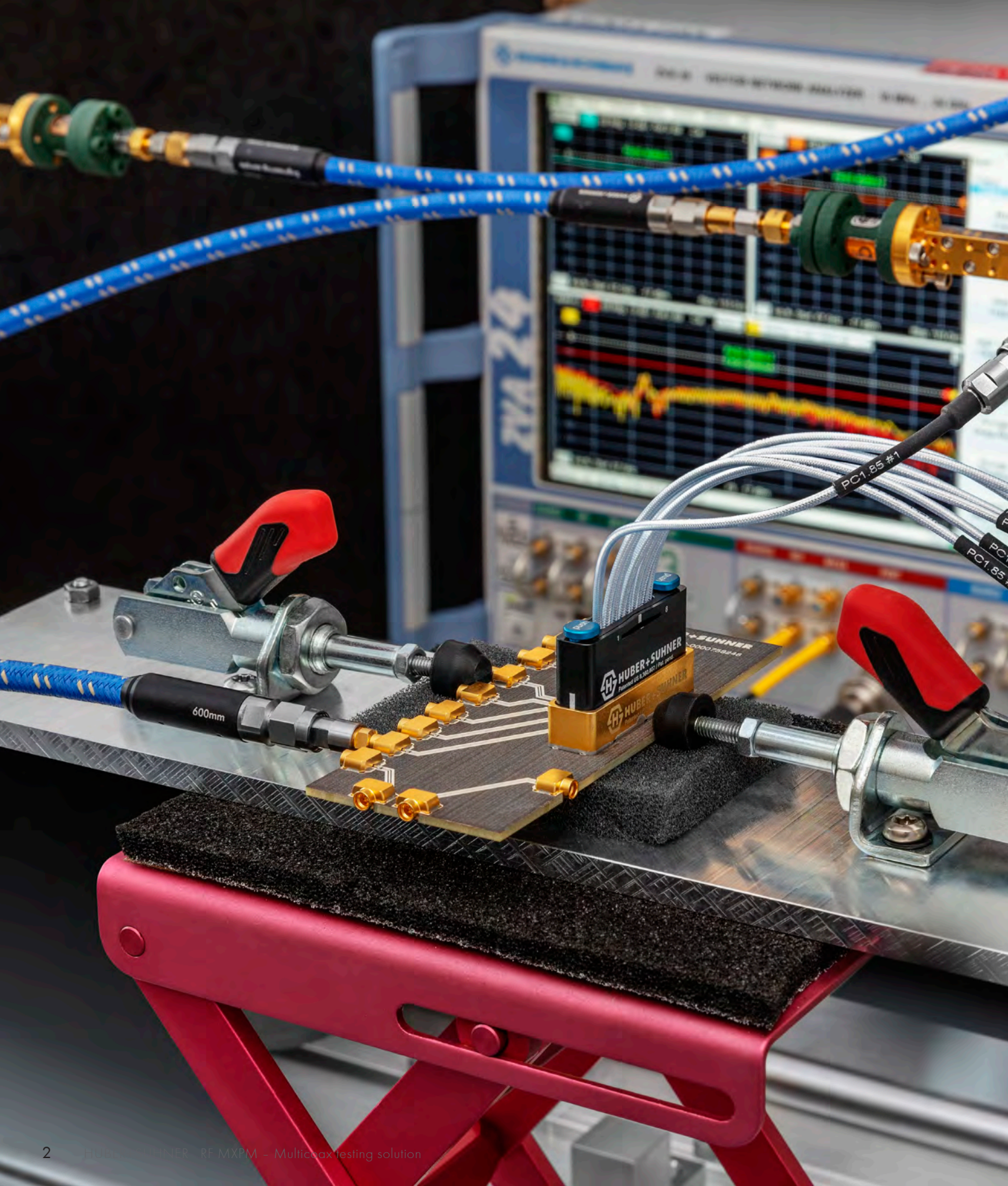
MXPM70

Multicoax testing solution

Edition 2018/07



Speed. Reliability. Efficiency.



MXPM70 – 70 GHz multicoax solution

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 socket

Benefits

- **Pioneering design**
The pioneering and advantageous design allows ultra-precise and highly repeatable S-parameter measurements of up to 70 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 from mechanical damage when disconnected
- **Reduced expenses for PCB architecture**
The cost-efficient PCB socket protects expensive and sensitive PCB material, eliminates imprecise and rough surfaces and greatly reduces architecture expenses, especially since there is no mandatory requirement for hard-gold plating

Range of standard products (1x8 and 2x8 ganged systems)

- 1x8 and 2x8 straight PCB sockets (semi-SMD technology)
- 1x8 and 2x8 breakout assemblies MXPM-to-PC1.85
- 1x8 and 2x8 jumper assemblies MXPM-to-MXPM
- Customised assemblies on request



MXPM70 – Technical data

Electrical data (typical)	Testing condition	Performance
Impedance		50 Ω
Interface frequency max.		70 GHz
Return loss	Gated measurement: cable connector/ PCB transition PCB: Rogers RO3003 Cable: Multiflex 53-02	≥ 20 dB up to 50 GHz ≥ 17 dB up to 70 GHz
Insertion loss		According Multiflex 53-02
Phase match		+/- 1 ps

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

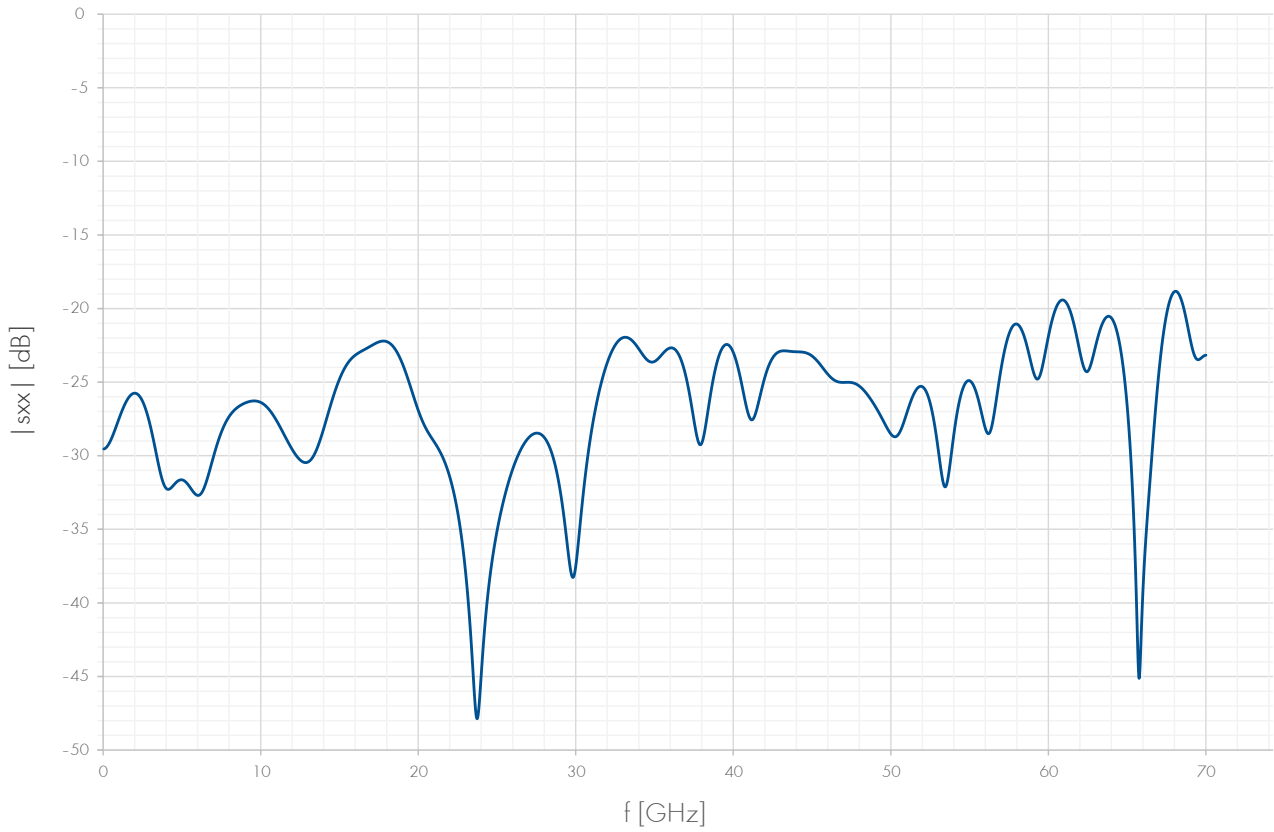
Electrical data (typical)	Testing condition	Performance
Temperature range		0°C ... +85 °C / 32 °F ... 185 °F
2011/65/EU (RoHS)		Compliant
2006/1907/EC (REACH)		Compliant

Material data cable connector	Material	Surface plating
Centre contact	Copper beryllium alloy	SUCOPRO gold plating
Outer contact	Copper beryllium alloy	SUCOPRO gold plating
Body	Alluminium	Black/blue anodised
Isolator	PEEK	N/A
Other parts	Neodym (magnets)	N/A

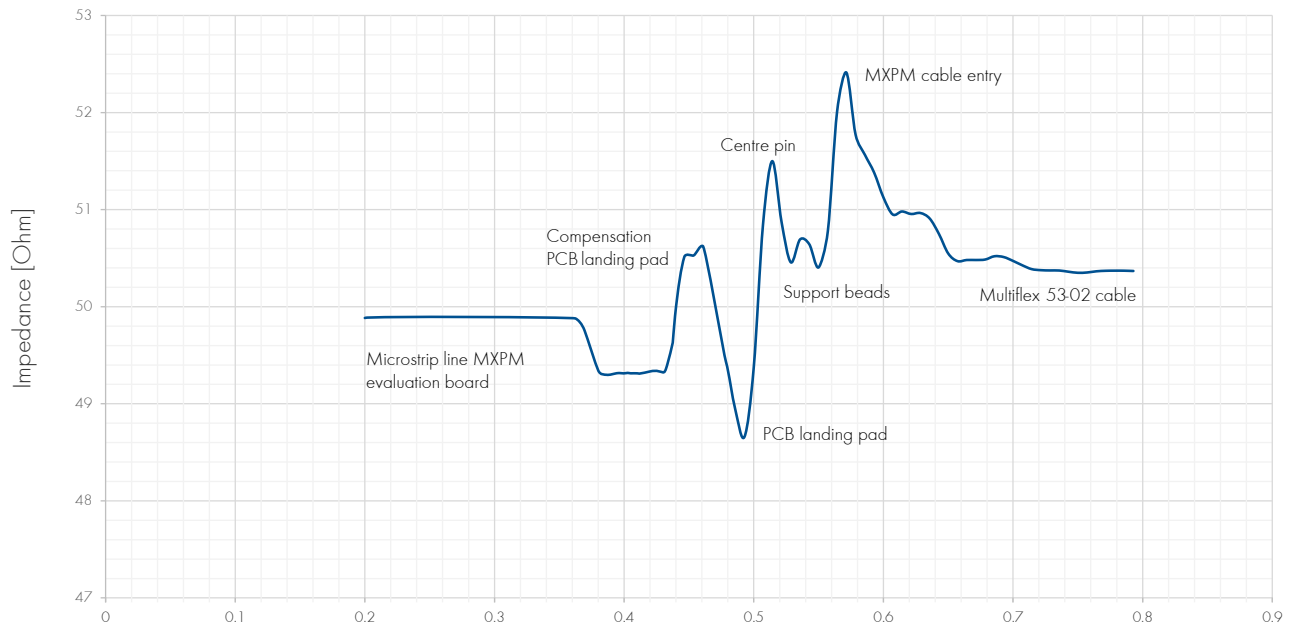
Material data PCB socket	Material	Surface plating
Body	Brass	SUCOPRO gold plating
Outer contact	Brass	SUCOPRO gold plating
Other parts	Stainless steel	N/A

MXPM70 - Technical data

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

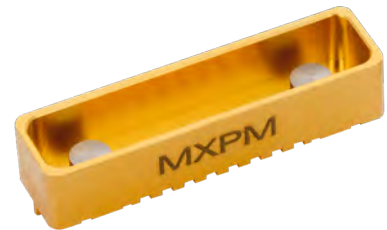
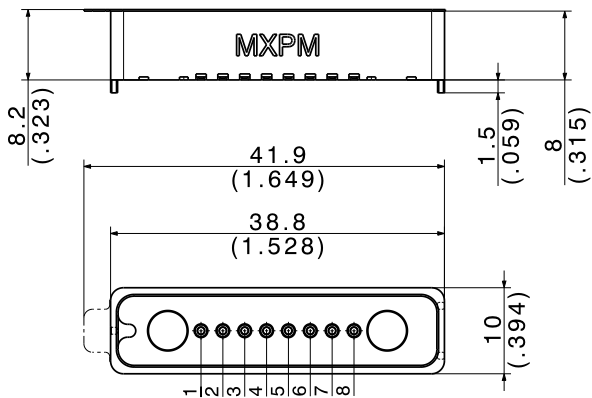


Time domain: Cable connector/PCB transition (evaluation board V2.1, typical)



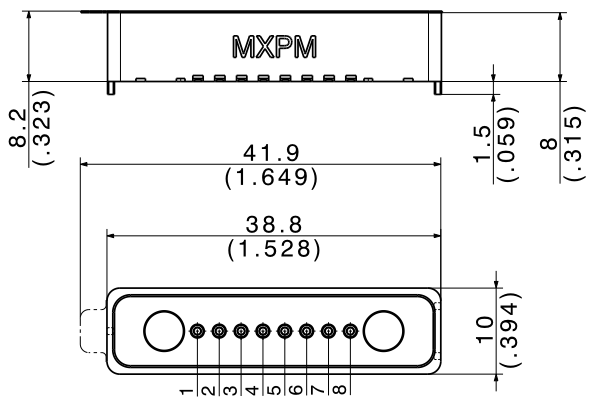
MXPM70 – PCB socket

- Pitch 2.54 mm (0.1 in.)
- Via-in-pad capable
- Semi-SMD technology – guide pins for better mechanical stability of solder joint



Ordering information

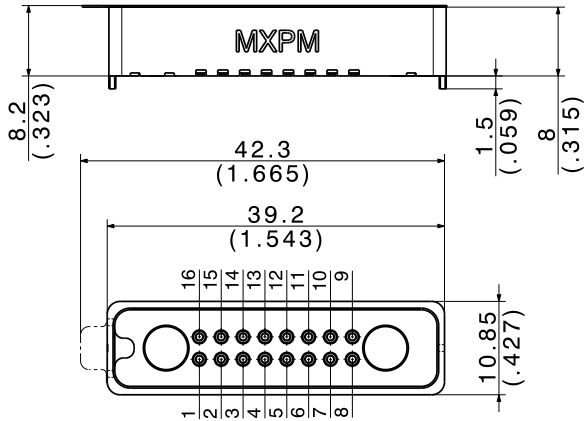
Type 1x8 ganged	Item number	Packaging	Characteristics
1x8A_82_MXPM-S50-0-1/-11_NE	85091041	Single	Asymmetric design (keyed)
1x8A_82_MXPM-S50-0-1/-11_NM	85104380	Tape + Reel 100	



Ordering information

Type 1x8 ganged	Item number	Packaging	Characteristics
1x8A_82_MXPM-S50-0-2/-11_NE	85085226	Single	Symmetric design (unkeyed)
1x8A_82_MXPM-S50-0-2/-11_NM	85104409	Tape + Reel 100	

MXPM70 – PCB socket



Ordering information

Type 2x8 ganged	Item number	Packaging	Characteristics
2x8A_82_MXPM-S50-0-1/-11_NE	85091060	Single	Asymmetric design (keyed)
2x8A_82_MXPM-S50-0-1/-11_NM	85104412	Tape + Reel 100	