

# Manual test fixture

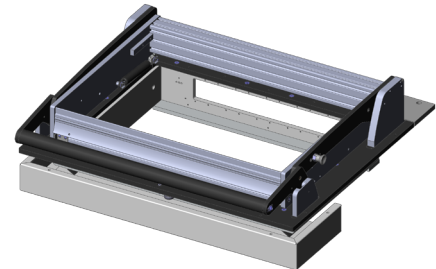
## MA 2113/SPEA 3030

Item 32701



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- Manual test fixtures with parallel closing drive mechanism for testing medium PCB quantities with the highest quality and precision
- Interchangeable test fixtures with and without pre-configured test system interface
- Standard, ESD, and RF exchangeable kits that can be installed without tools and used without readjustment
- Modularly configurable signal transmission using interface blocks, which can be quickly detached
- Detailed accompanying documents (e.g., customising guidelines)
- Maximum opening angle may vary due to the length tolerance of +/- 2 mm of the gas spring



**Note:**

By replacing the gas springs, an additional weight of 3 kg can be loaded onto the pressure frame for every 100 N increase.

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### General data

Test system interface:	SPEA 3030
Product group:	Manual test fixtures (MA)
Main series:	MA xxxx
Subseries:	MA 21xx
Series:	MA 2113
Size:	xx13
Test fixture type:	Exchangeable test fixture
Contact stroke generation:	Manual
Housing type:	Without housing
Max. interface signals:	1700
Interface blocks required:	Test system side
Max. internal interface blocks:	10
Contacting direction:	Single-sided (bottom)
Max. contact force:	2,000 N [7,193 ozf]
Approx. parallel contact stroke:	15 mm [.59 in]
Min. temperature:	10 °C [50 °F]
Max. temperature:	60 °C [140 °F]
Low voltage:	Yes, with suitable additional option
ESD-compliant:	<p>Yes, with compatible exchangeable kit</p>
RoHS-compliant:	Yes

### Technical data

Test probe installation height, top:	16 mm [.629 in]
Test probe installation height, bottom:	10.5 mm [.413 in]
Test probe installation height, dual-stage, bottom:	16 mm [.629 in]
Free space above PCB:	58 mm [2.28 in]
Force of gas pressure springs:	400 N (L: 200 N / R: 200 N)
Pressure frame opening angle:	69 °
Standard version:	<p>Yes, with compatible exchangeable kit</p>
Useable area, standard (WxD):	440 x 310 mm [17.3 x 12.2 in]
ESD version:	<p>Yes, with compatible exchangeable kit</p>
Useable area, ESD (WxD):	440 x 310 mm [17.3 x 12.2 in]
Radio frequency version:	<p>Yes, with compatible exchangeable kit</p>
Useable area, radio frequency (WxD):	375 x 240 mm [14.7 x 9.44 in]
Rigid pin version:	No
Dual-stage version:	<p>Yes, with compatible additional option</p>
Useable area, dual-stage (WxD):	440 x 310 mm [17.3 x 12.2 in]
Additional contacting unit (ZSK), top:	Yes, with suitable additional option
Outer dimensions, open (WxDxH):	616 x 565 x 501 mm [24.2 x 22.2 x 19.7 in]
Outer dimensions, closed (WxDxH):	616 x 612 x 110 mm [24.2 x 24 x 4.33 in]

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Prices and delivery times on request.  
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