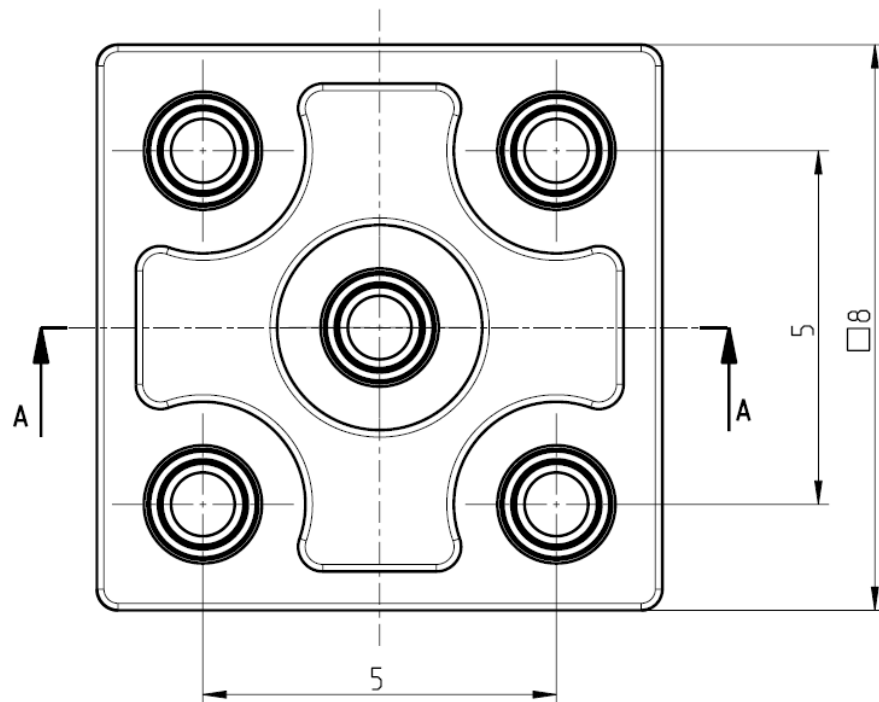
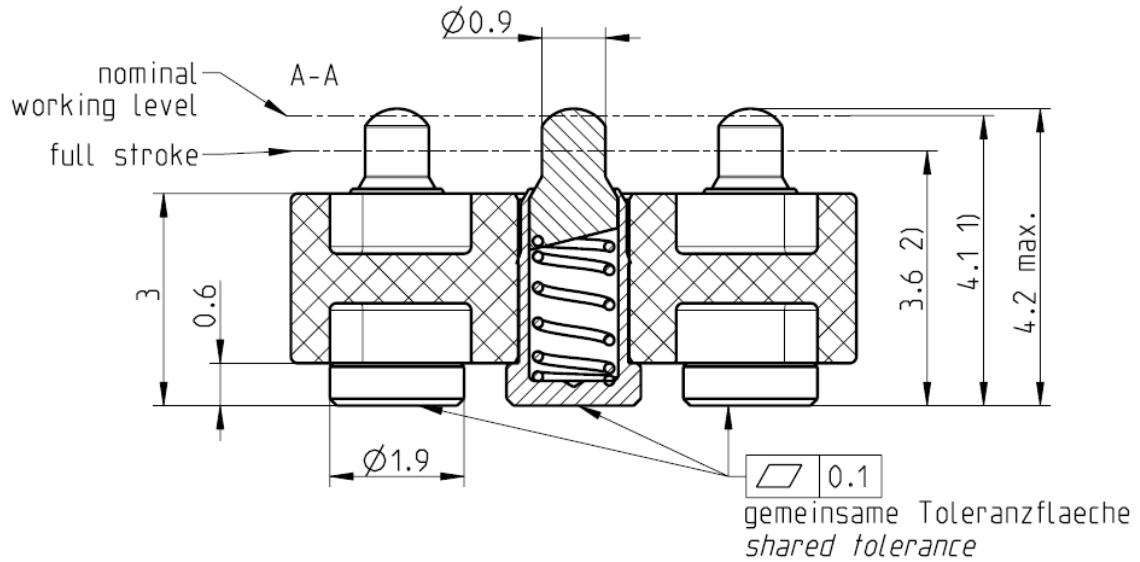


99CI

SPRING LOADED PIN  
CONTROLLED IMPEDANCE

**99CI104-042L**



All dimensions are in mm; tolerances according to ISO 2768 m-H

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CONTROLLED IMPEDANCE

**99CI104-042L**

**Documents**

Tape & reel packaging VG132.85000

**Material and Plating**

**Connector parts**

Piston  
Ferrule  
Spring  
Dielectric

**Material**

Brass  
Brass  
Stainless steel (1.4310)  
LCP

**Plating**

3 µm Ni / 0.15 µm Au  
3 µm Ni / 0.15 µm Au

**Electrical Data**

Impedance 50 Ω  
 Frequency DC to 6 GHz  
 Return loss ≥ -32 dB, DC to 2 GHz  
 ≥ -27 dB, 2 to 4 GHz  
 ≥ -20 dB, 4 to 6 GHz  
 Insertion loss ≤ 0.04 x √f(GHz) dB  
 Insulation resistance ≥ 5 x10<sup>3</sup> MΩ  
 Contact resistance ≤ 25 mOhm after 5 cycles with operational stroke  
 Test voltage 1000 V rms  
 Working voltage 480 V rms  
 Power handling (at 20 °C, sea level, VSWR 1.0) ≤ 100 W @ 2 GHz  
 RF-leakage ≥ 40 dB up to 6 GHz  
 - VSWR in application depends decisive on PCB layout -

**Mechanical Data**

Durability > 1,000  
 Max. pin travel 0,6 mm  
 Nominal height 4,2 mm  
 Travel vs Force At 0.1 mm F1 = 0.2 N ±0.1 N  
 At 0.6 mm F2 = 0.7 N ± 0.1 N

**Environmental Data**

Operational temperature -40°C to +90°C  
 Storage temperature (\*) -55 °C to +100 °C  
 Salt mist (\*) IEC 60068-2-52  
 Duration 48h  
 NaCl-saturation 5% of Mass  
 ph-value 6.5-7.2 @ 35±2°C  
 Cycle test Measure resistance 1,000 cycles  
 Measure resistance IEC 61760-1, +260°C for 10 sec.  
 compliant  
 Max. soldering temperature 2002/95/EC (RoHS)

Cu layer (top)

Solder resist layout (top)

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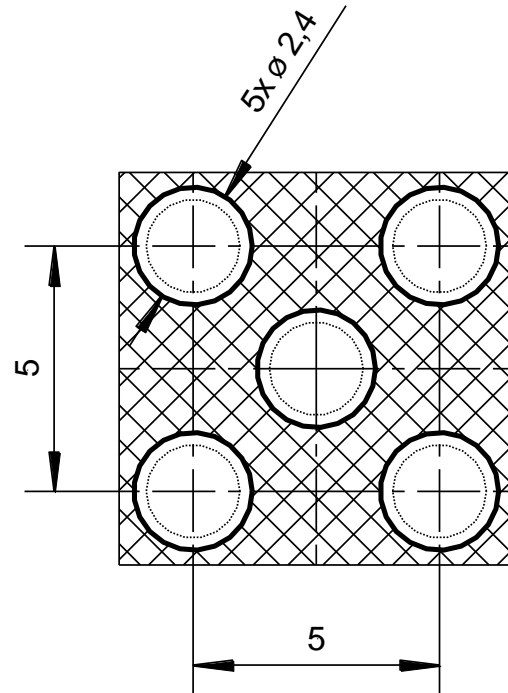
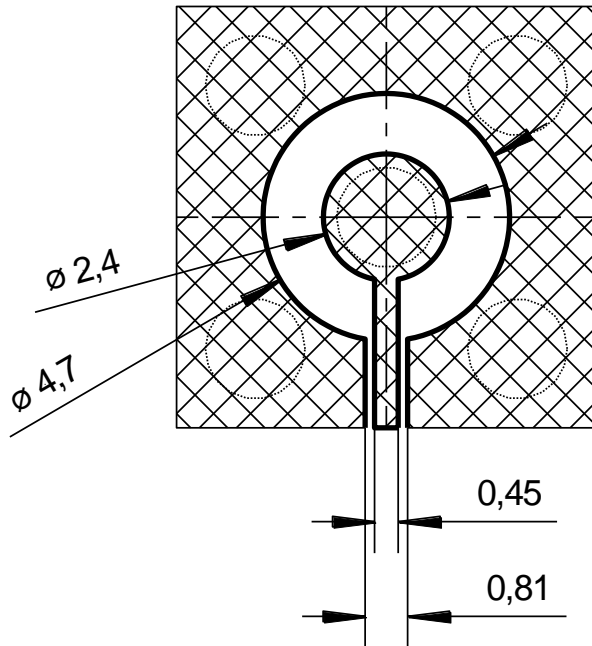
SPRING LOADED PIN  
CONTROLLED IMPEDANCE

**99CI104-042L**

**PCB Layout**

Cu layer (top)

Solder resist layout (top)



Leiterplattenmaterial: FR 4  
Cu-Schichtdicke 0,35 $\mu$ m  
Oberfläche Hartvergoldet

A wide variety of transmissionline topologies and pcb-parameters like permittivity, substrate thickness, and board-stackup are applied by customers. These parameters have a strong impact on the high frequency performance of the mounted connector. Please note, that the given layout is not optimised to fit all of the possible board configurations regarding RF-performance, it represents a recommendation for optimum solderability of the connector. In order to guarantee optimum high frequency properties of the connector, an RF-analysis of the connector to board transition is recommended.

**Packing**

Standard 50 pcs Blister  
Weight 0.35 g/pcs

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
M. Wimmer	25.02.2015	C. Kainzmaier	07.06.18	c00	18-0940	M. Margardt	07.08.18

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