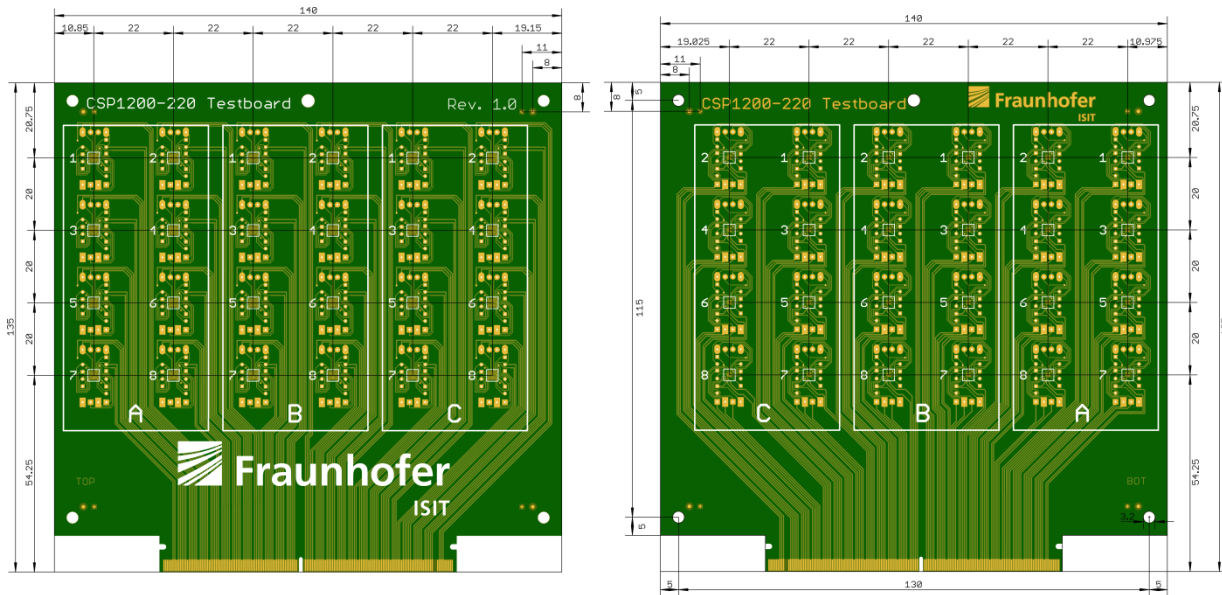
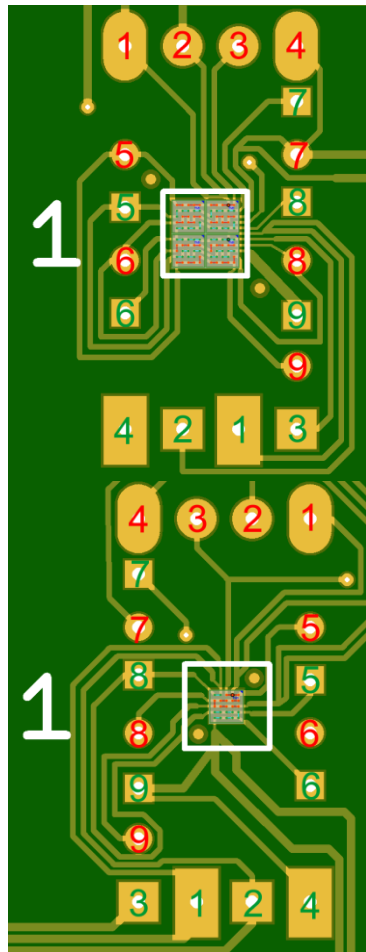


BOARD:



PINOUT:



Chain 1 – Chain 2


- 1: Kelvin probe +
- 2: Kelvin probe PCB (middle con.)
- 3: Kelvin probe die (middle con.)
- 4: Kelvin probe –

- 1 – 4: complete daisy chain
- 5 – 7: 1st row per chain
- 6 – 8: 2nd row per chain
- 6 – 9: 3rd row per chain
- 5 – 9: 4th row per chain

Chain 1 – Chain 2

- 1: Kelvin probe +
 - 2: Kelvin probe PCB (middle con.)
 - 3: Kelvin probe die (middle con.)
 - 4: Kelvin probe –
- (only Chain 1 offers single contact kelvin probe)

- 1 – 4: complete daisy chain
- 5 – 3 / 2 – 8: 1st row contacts
- 5 – 8: 2nd row
- 7 – 9: 3rd row
- 5 – 8: 4th row
- 6 – 9: 5th row

	PRODUCT DATA SHEET	page: 2 of 2
	CSP1200-220 Testboard Rev. 1.0	last update 03.02.2017

TECHNICAL DATA:

- Fits into the DDC Multiplexer Hardware, which offers automated measurement, analysis and protocoling with the DDC Multiplexer Software
- top side carries up to 24 CSP1200-220 dies in 2x2 geometry
 - 2 kelvin sensing structures for 4-point probe
- bottom side carries up to 24 CSP1200-220 dies
 - 1 kelvin sensing structure for 4-point probe
- the dummy component with two daisy chains allows
 - easy measurement of short cuts between adjacent contacts
 - advanced reliability tests with voltage applied between adjacent pads
- different types of fiducial marks for automated placement

TECHNICAL INFORMATION:

die pitch	22mm x 20mm
fiducials	4 x 2 global fiducials: circular (d=1mm) and cross (w=1mm) 2 circular fiducials per die (d=400µm)
die geometry	Top side: 2x2 CSP1200-220 dies Bottom side: Single CSP1200-220 die
pad layout top side	100 pads with 100µm diameter and 220µm contact pitch
pad layout bottom side	25 pads with 100µm diameter and 220µm contact pitch
pad metal	Chemical gold (ENIG)
normal uses	High throughput die and flip chip placing from wafer feeder, encapsulation and underfill processes. Reliability tests with voltage applied between adjacent pads.
typical technologies	<ul style="list-style-type: none"> • soldering • stud-bump bonding • solder flip chip • anisotropic conductive adhesive flip chip (ACA / ESC5) • isotropic conductive adhesive flip chip (ICA)
contact	<p>Fraunhofer Institut für Siliziumtechnologie Fraunhoferstraße 1; D-25524 Itzehoe Internet: http://www.isit.fraunhofer.de</p> <p>Dr.-Ing. Dipl. Phys. Dirk Kähler Phone +49 (0) 48 21 / 17 – 46 04 Fax +49 (0) 48 21 / 17 – 42 50 Email: dirk.kaehler@isit.fraunhofer.de</p> <p>Dr.-Ing. Wolfgang Reinert Phone +49 (0) 48 21 / 17 – 42 16 Fax +49 (0) 48 21 / 17 – 42 50 Email: wolfgang.reinert@isit.fraunhofer.de</p>

* Specifications subject to change without notice.

* All specified dimensions are approximate.