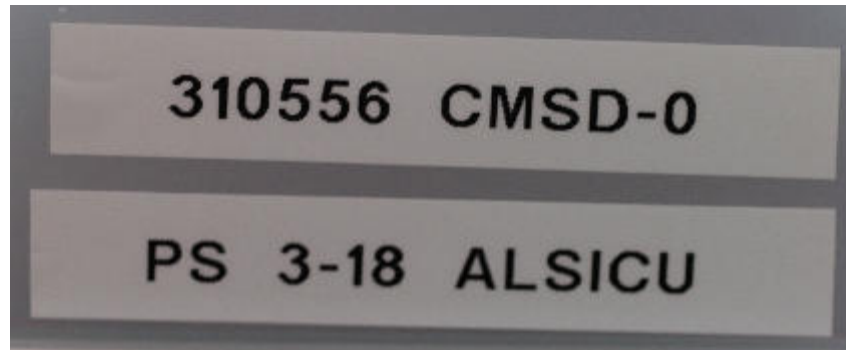


Wafers with two different metallization materials have been produced

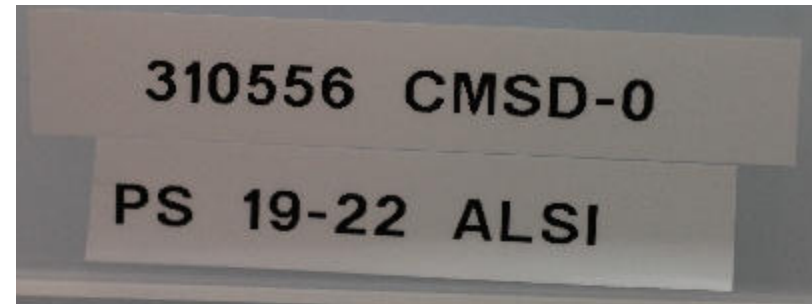
WAFER DETAILS



CIS batch serial number

16 wafers of AlSiCu metallization
first wafer of 16 was under
optical and laser scan
microscope investigation

Substrate material:
CZ-Si, <100>, n-doped (P), 0.5 – 1 Ohm.cm,
double side polished, 400 µm thickness



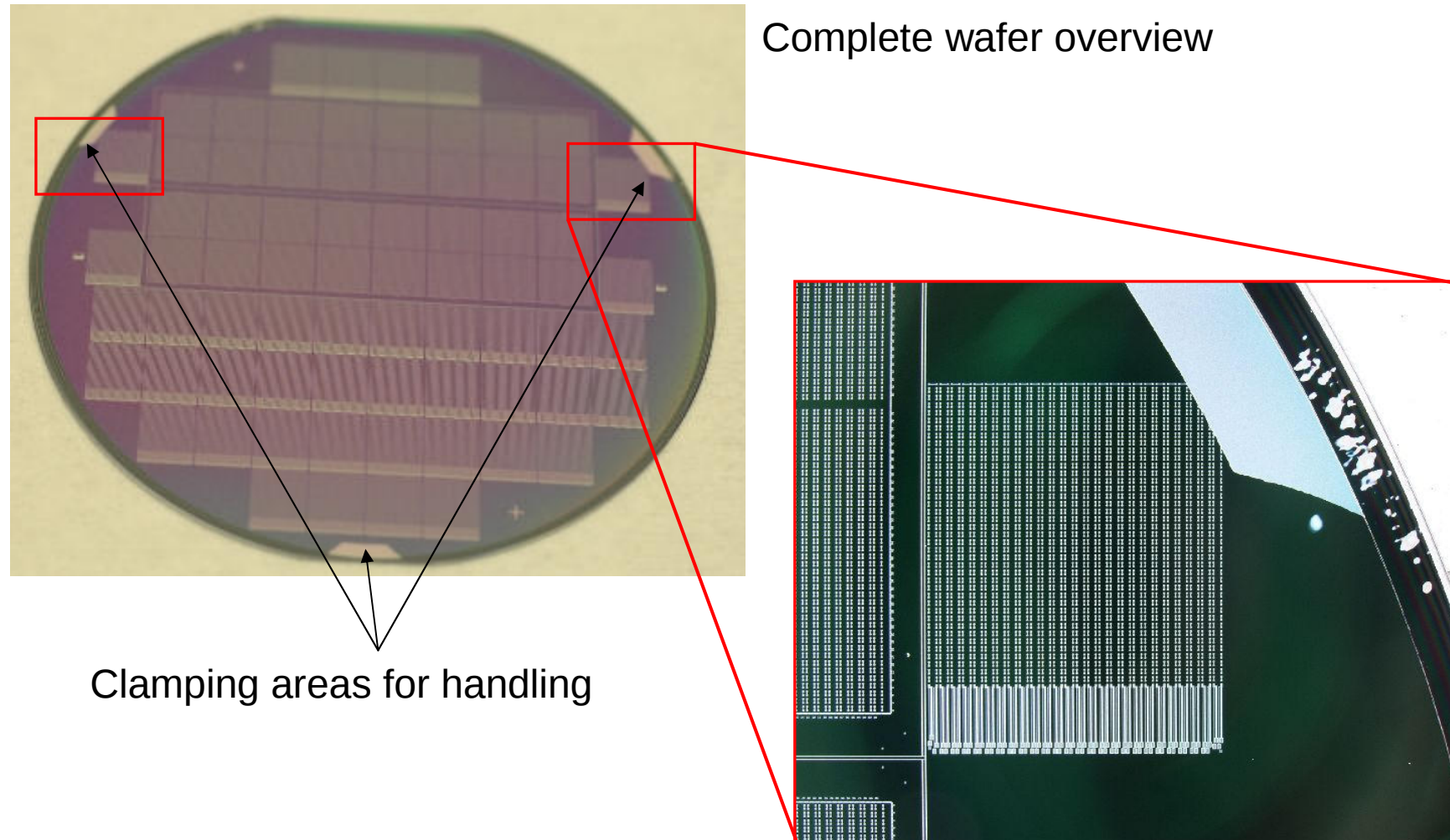
CIS batch serial number

4 wafers of AlSi metallization

Metal (wt%):
Al 98.5 Si 1 Cu 0.5
Al 99 Si 1

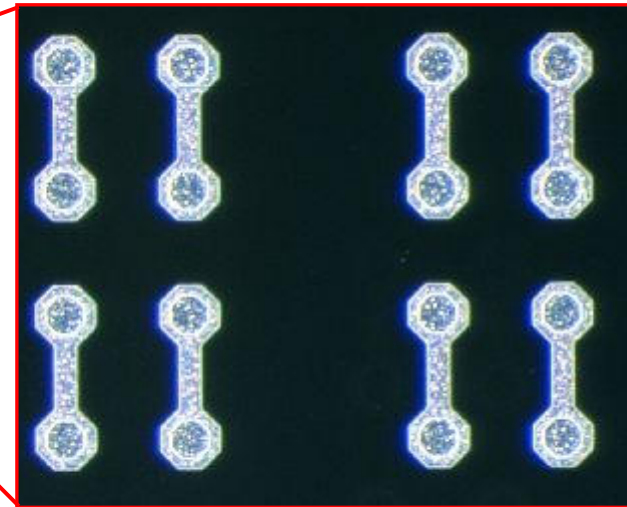
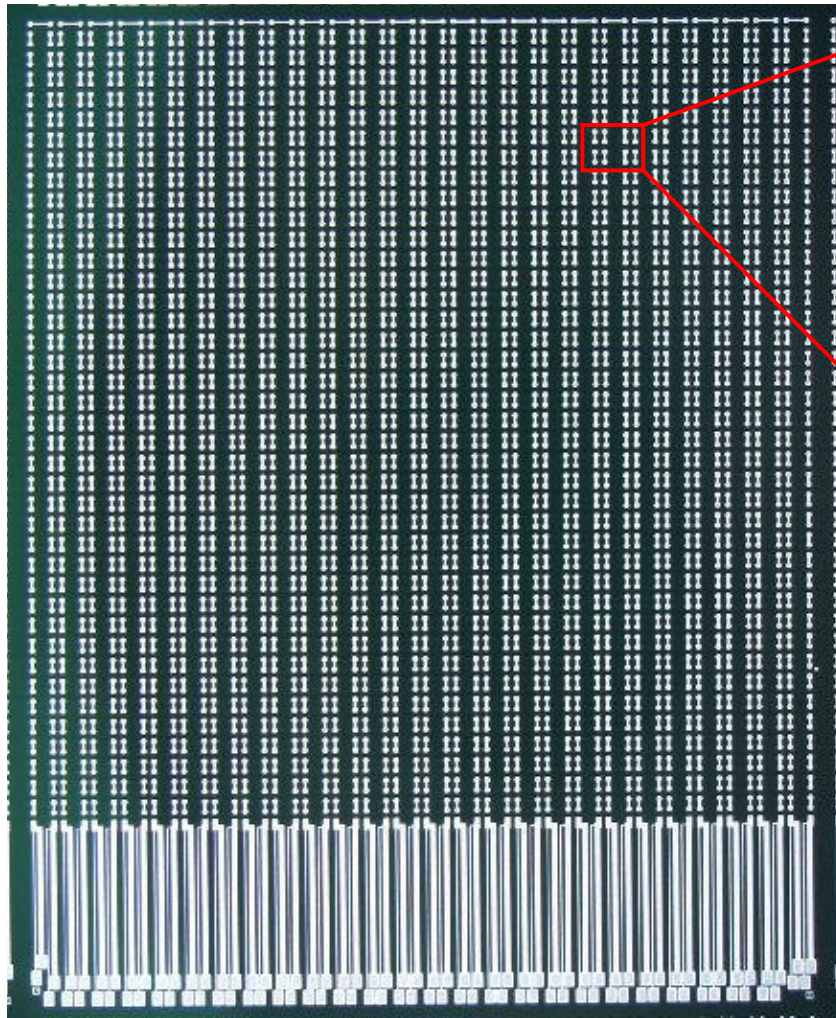
Process related wafer clamping extends into design area and comprises the use of two ROC dummies

PICTURE OF TOTAL AlSiCu WAFER AND ZOOM OF AFFECTED CHIP AREA



Each ROC contains 26 double columns (DC) with 80 pads up and 80 pads down a daisy chain

MICROGRAPH OF WHOLE CHIP LAYOUT AND ZOOM TO DAISY CHAIN PADS



daisy chain pad structure for tests

Pad pitch = 100 μm

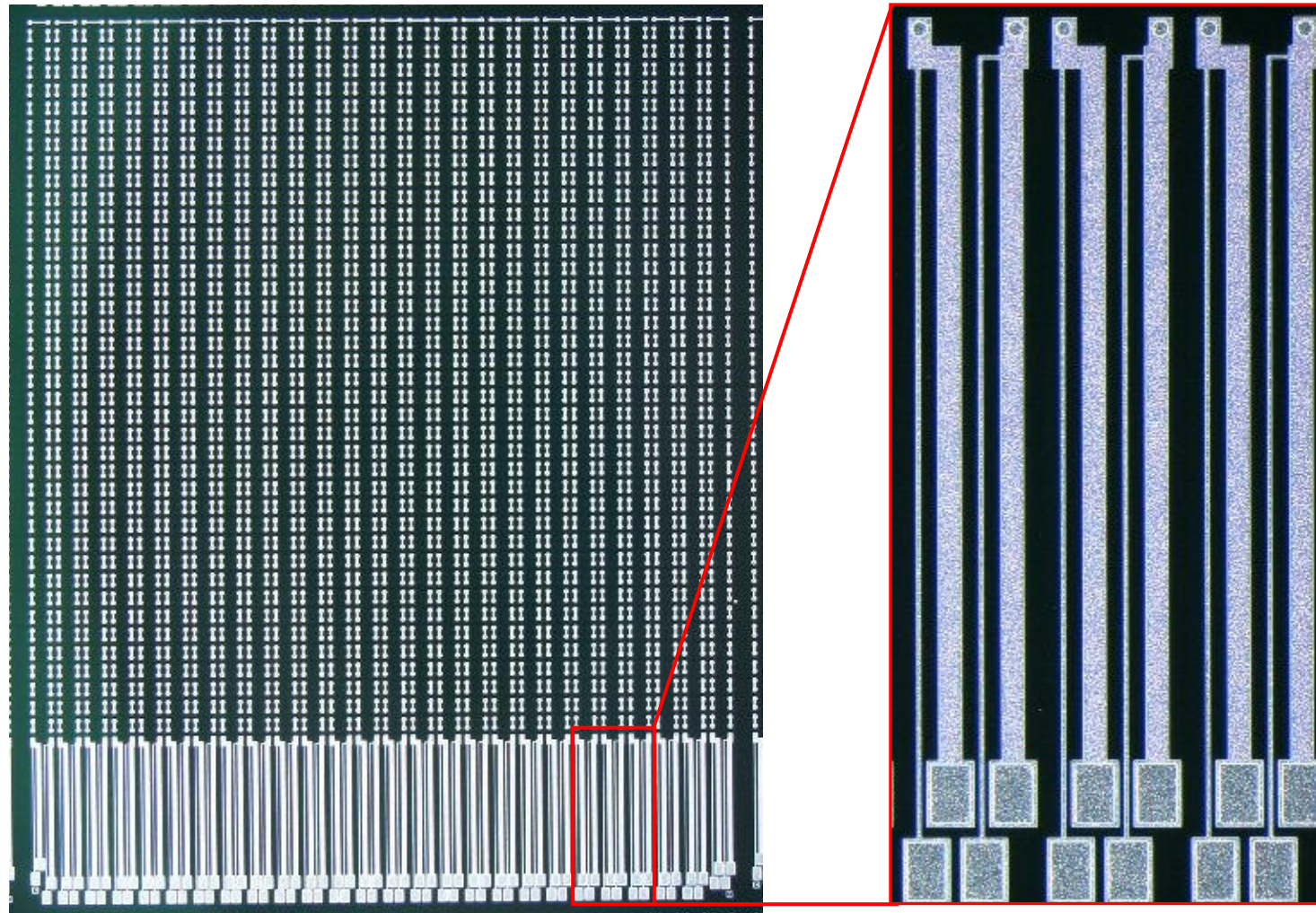
DC pitch = 150 μm

Pad metal = 50 μm

Passivation opening = 30 μm

Each DC is connected with four larger pads for signal application and sensing

MICROGRAPH OF WHOLE CHIP LAYOUT AND ZOOM TO CONNECTOR PADS



Also the sensor dummies are placed on that wafer

MICROGRAPHS OF A SENSOR DUMMY

