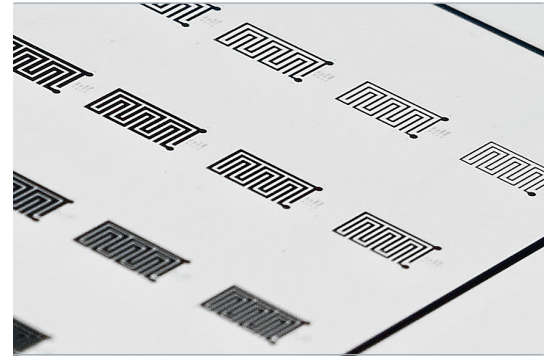


# Patterned Chrome

## Resistance-controlled, patterned Chrome for sensing electrodes

Materion Balzers Optics capabilities in metallic thin film deposition and lithographic patterning enable the fabrication of interdigital electrodes and meandering wires from Chrome for a wide variety of applications. These planar electrodes and resistors are among the most widely used periodic structures in many sensor and transducer designs. With our expertise and leading process technology we enable our customers to develop advanced sensing elements, thereby integrating additional functions into their optical systems.



## Benefits

- Robust sensing elements from resistance controlled Chrome structures
- Tightly controlled and tunable sheet resistance
- High fidelity patterns down to 4µm feature size
- Suitable coatings for electrical contacts by soldering or wire bonding (Gelot™ or Cr/Au alloy) available
- High cosmetical performance (Low pinhole density)

## Applications

- Circuit breaker for eye safe VCSEL illumination in 3D Facial Recognition
- Interdigital, capacitive sensor electrodes
- Heater Windows
- Visual Alignment Marks

## Technical Data

### Specifications

Sheet Resistance	10...200/Ω □ ±2.5%
Chrome Transmittance	refer to graph
Minimum Feature Size	4µm

### Substrate Dimensions

Wafers 150x150 mm or ø150 mm

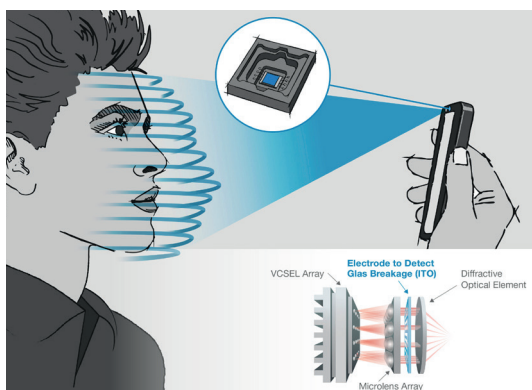
### Environmental Tests

Temp. Cycling	-40 °C...85 °C
Temp. & Hum. Cycling	-20 °...+65 °C / 90% r.H
High Temp. Soak	+85 °C / 85% r.H
Heat Soak	+65 °C / 90% r.H

### Cosmetic Specifications

Scratch / Dig	60/40
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## Patterned Chrome Circuit breaker for eye safe VCSEL illumination



## Patterned Chrome Optical Density vs. Sheet resistance

