

# MATERION IS VCSEL APPLICATIONS

**Our technological expertise produces the critical materials used in the fabrication of VCSELs**

## **HIGH PERFORMANCE PRODUCTS FOR INCREASED EFFICIENCY**

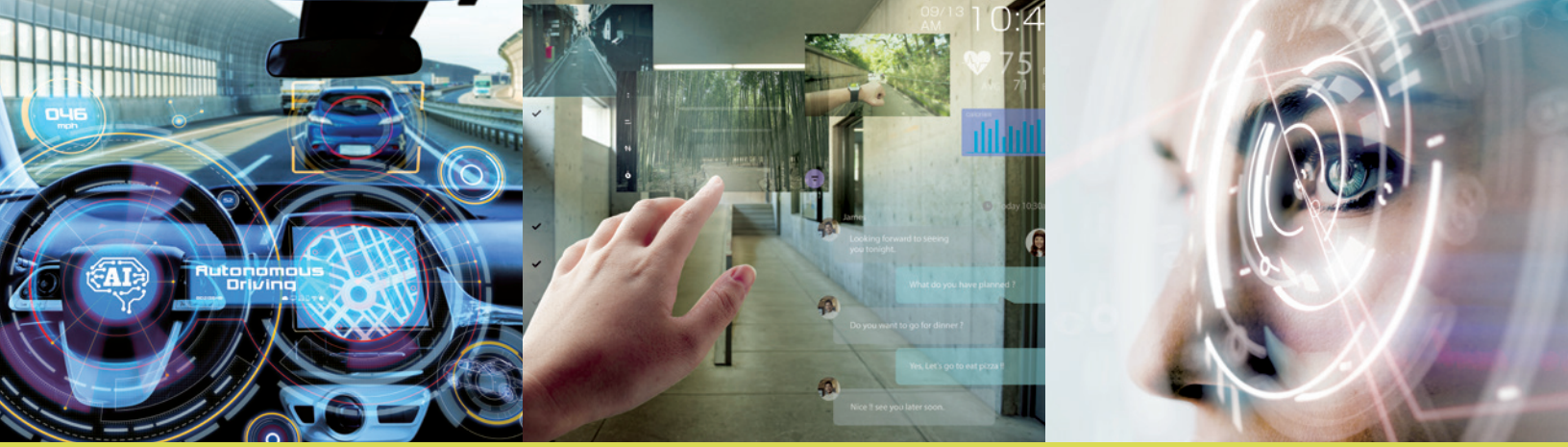
- Precious and non-precious sputtering targets
- Evaporation materials
- Full range of materials & alloys for VCSEL metallization:
  - Au, AuGe, AuSn, Ag, Pd, Pt, Ti, NiV, TiW
- AuSn and AuGe Solders
  - Solder ribbon and preforms
  - Sputter targets for deposition of solder onto VCSEL backside

## **COMPLEMENTARY SERVICES SUPPORT ONE-STOP SOLUTIONS**

- Target Bonding
- Vacuum chamber parts cleaning
- Metals management
- Twin Wire Arc Spray service
- R&D Services
- Global facilities
- Conflict-free Gold



**MATERION**



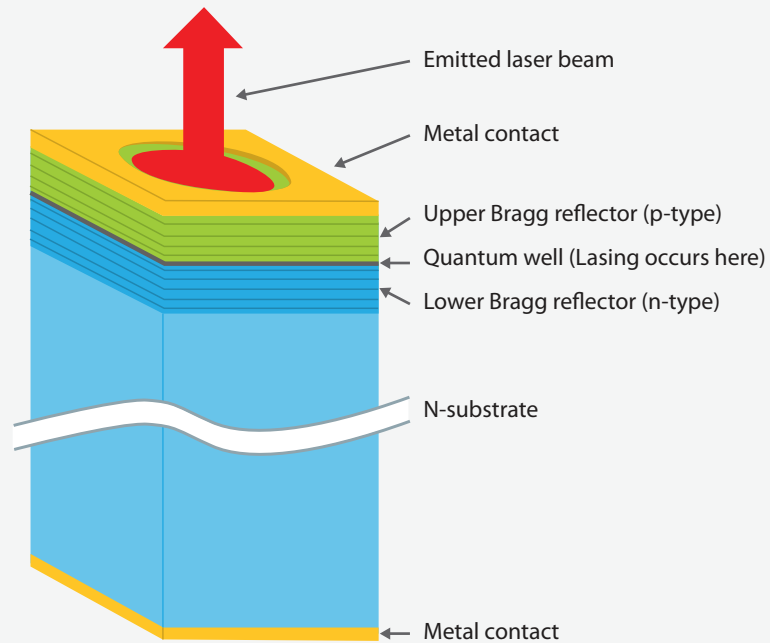
## PREPARING FOR NEXT GENERATION VCSELS

Demand for vertical-cavity surface-emitting lasers is sharply rising as high tech consumer electronics applications are developed for gesture recognition, facial identification, self-driving vehicles and more. Materion has the technological expertise to produce a broad range of high quality PVD products

and services that meet industry requirements and provide these advantages:

- Improved performance
- Increased efficiency
- Reduced costs

## MATERION OFFERS PVD MATERIALS FOR VCSEL TOP AND BOTTOM CONTACTS



### MATERION ADVANCED MATERIALS

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**MATERION CORPORATION**  
[www.materion.com](http://www.materion.com)

**MATERION** is an industry leader in durable and best-cost solutions for metal & ceramic packages and hermetic covers/lids for the microelectronics industry. We manufacture a comprehensive portfolio of packaging materials in precious or non-precious materials and customize innovative electronic package materials to satisfy customers' unique needs.