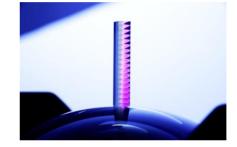




## ECHNOLOGY DESCRIPTION

Microlens arrays with superior form accuracy are used in applications where reliability and the highest efficiency are crucial criteria. They are employed for tasks such as collimation of fibre bundles, beam transformation for fibre coupling, and homogenisation of laser light. The lateral dimensions of the arrays range from a few millimetres at the micro-scale up to 45 millimetres at the macro-scale. The dimensions of the array structures are typically in the sub-millimetre range. A unique production technique allows for the maintenance of shape and pitch accuracy in the submicron range. Customised microlens arrays are available, from lens design, prototyping, and small batch production to mass production.



Reference: TD-DF-1089



## INNOVATIVE ASPECTS

- · monolithic array
- highest transmission due to minimised transition zones
- highest level of precision and uniformity
- reliable and stable quality
- manufacturing process highly economical at large quantities
- high flexibility with respect to geometry



## TECHNOLOGY READINESS (in space application)

TRL 9 (2024)

LATEST UPDATE **COUNTRY OF ORIGIN** Germany 06/2024

**TAGS** #microlens #monolithic #high quality #macro-scale #array **APPLICATION AREAS** Electrical & Chemical Space Aviation Engineering &





