

Weight reduction and miniaturisation of mechatronic assemblies

Reference: TD-DE-1033



ECHNOLOGY DESCRIPTION

The MID (Mechatronic Integrated Devices) technology enables the manufacturing of three-dimensional, injection-moulded circuit carriers and the integration of mechanical, electronic, thermal, fluidic, and optical functions in components of virtually any shape. The associated advantages include an increased degree of miniaturisation, the implementation of new functions and applications, and the shortening of process chains.



INNOVATIVE ASPECTS

Spatial electronics make it possible to optimise existing systems and products with a view to the diverse requirements.

Compared to the conventional design of electronic systems on printed circuit boards, the third dimension allows more degrees of freedom in product design.

In particular, this allows savings in installation space, weight and the number of individual components required. In the case of components from the field of high-frequency technology, the third dimension makes it possible to shorten conduction paths and thus, to reduce signal losses to a minimum.





TAGS

TECHNOLOGY READINESS (in space application)

COUNTRY OF ORIGIN

Germany

LATEST UPDATE

06/2024

TRL 9 (2024)

#weight saving

#injection-mould. #3D lavout #spatial electr.

APPLICATION AREAS

Aviation

Consumer Products

#miniaturisation

Flectrical & Electronic Engineering

Food & Agriculture

#cost saving

Health

Maritime & Aquatic

Safety & Security

TECH CARD

SPACE

FOR BUSTNESS

BUSINESS

FOR SPACE

