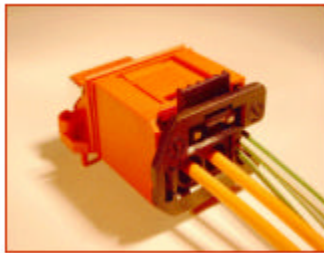


DELPHI

Direct Header Concept for

MOST[®]



MOST[®] Components



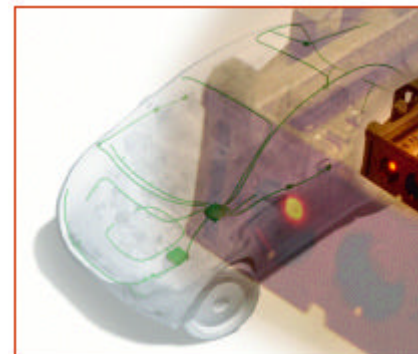
Wiring

Harness Assembly in
Production



Process Technology

Fiber Lead Assembly Process
installed

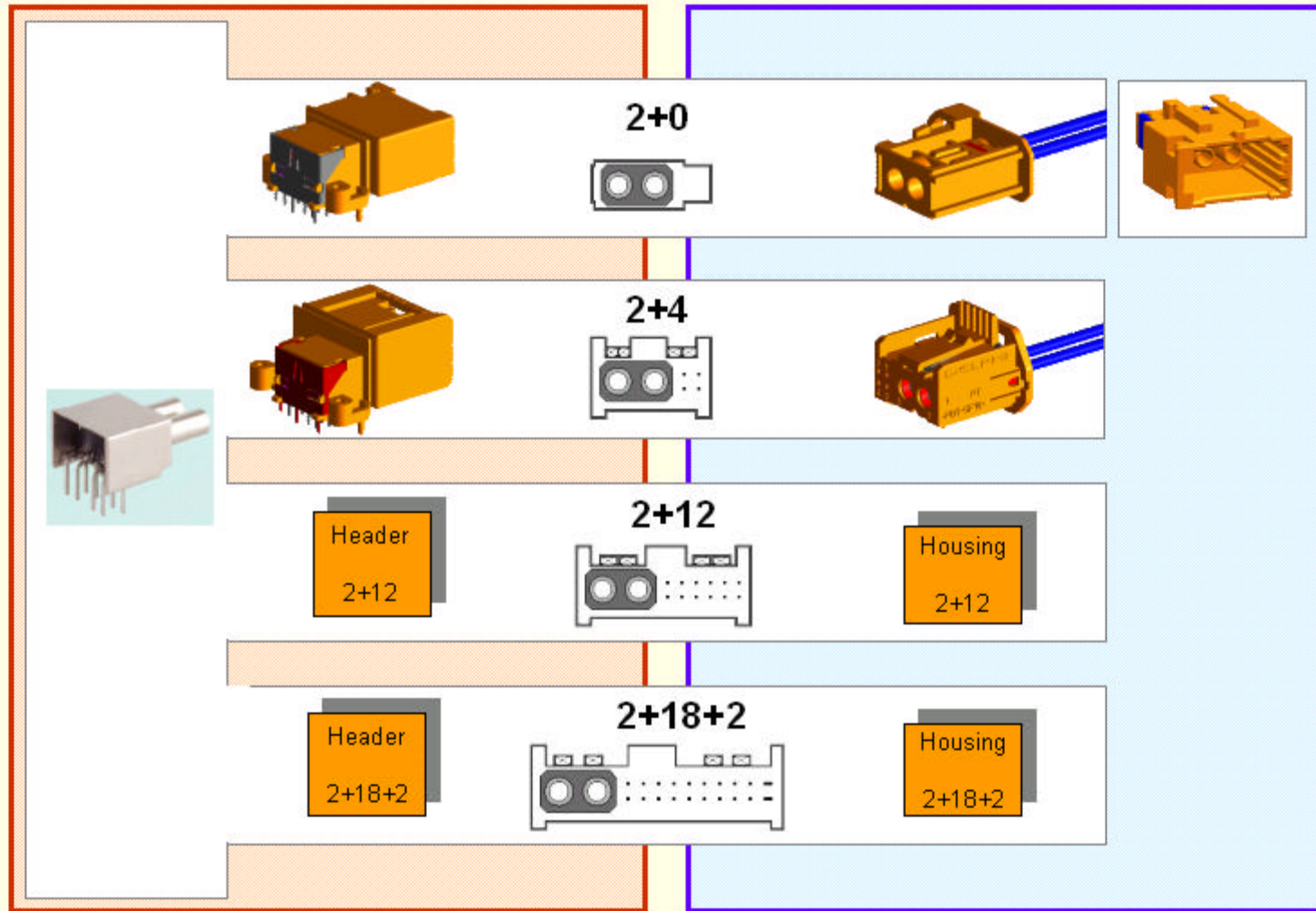


Physical Layer
Integration

Vehicle
Architecture
Option Handling

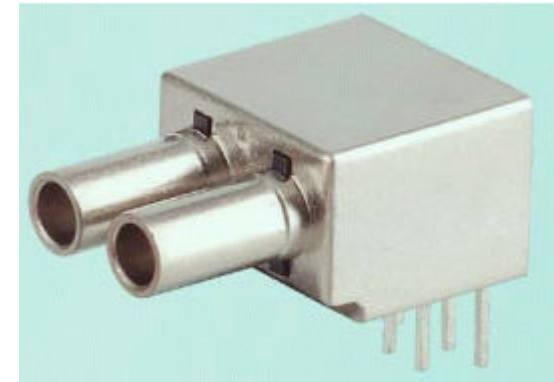
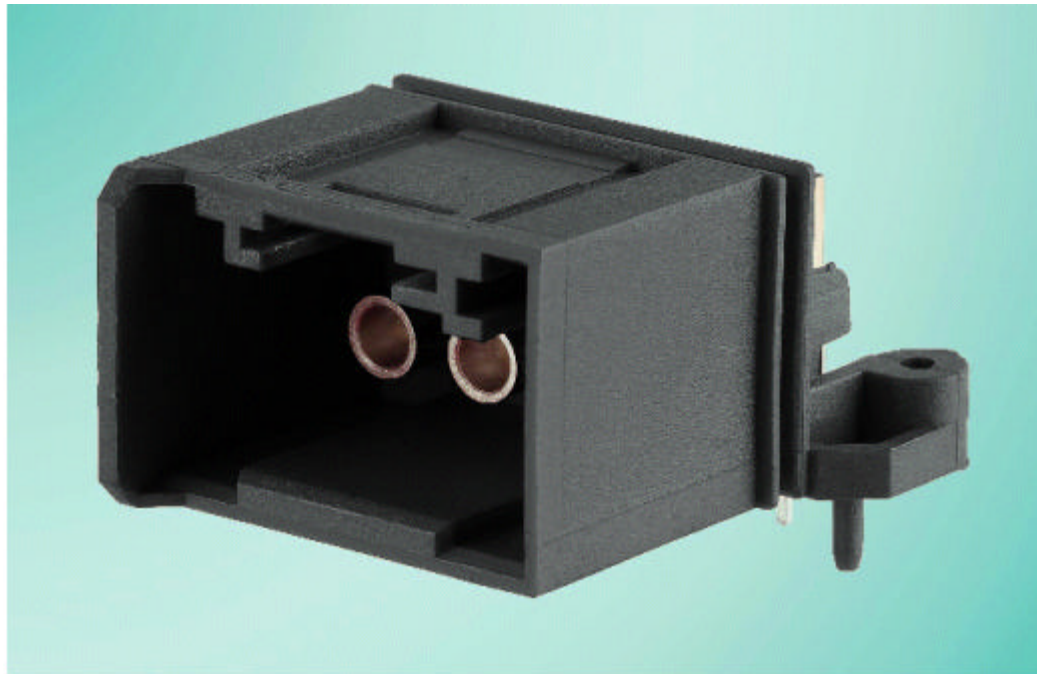
DELPHI

Delphi MOST[®] Components Family



DELPHI

MOST[®] Direct Header

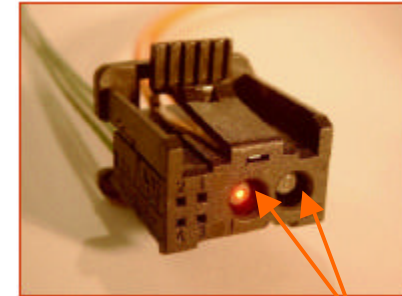
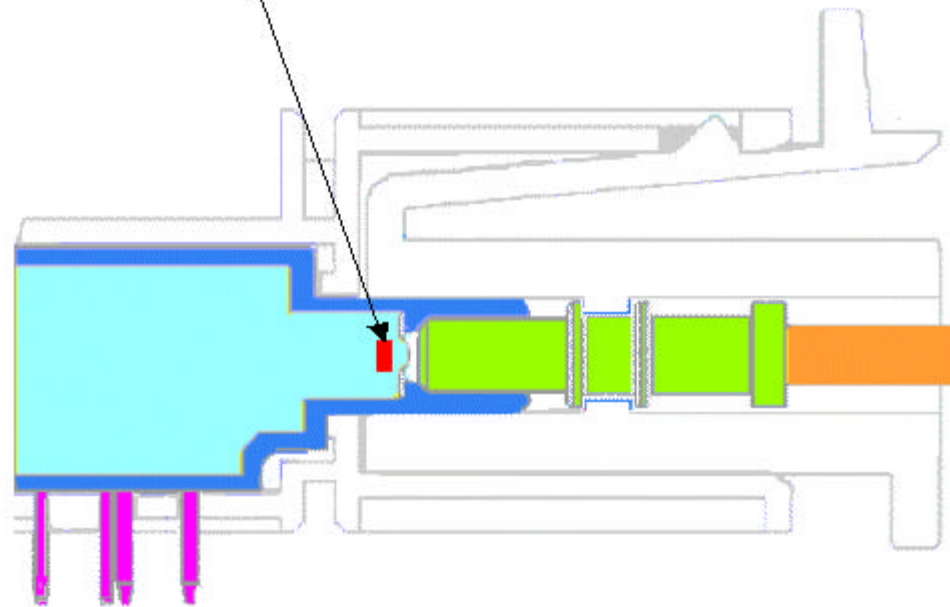


With
Optical Converter Assembly
OCA

Header without Light Guide

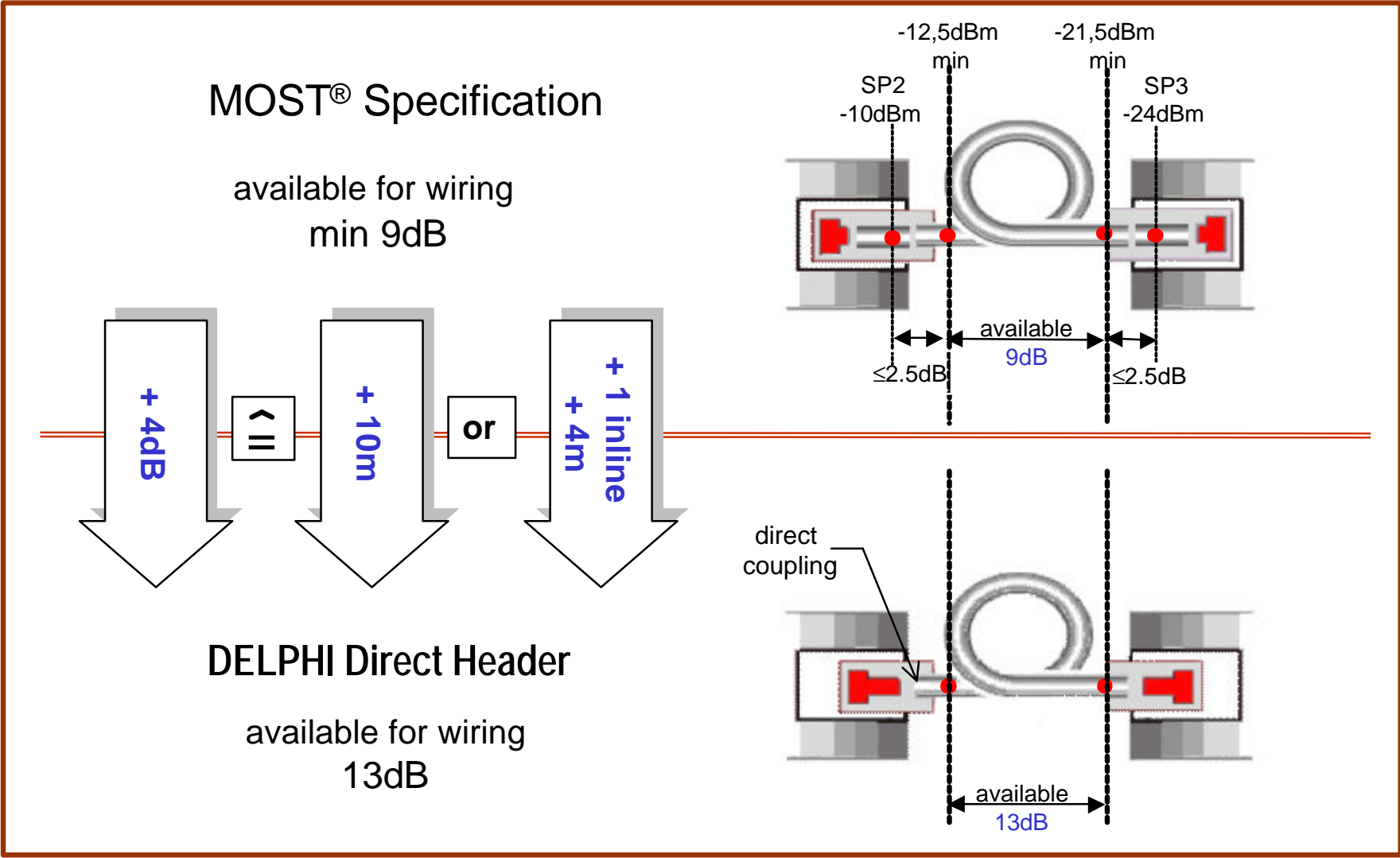


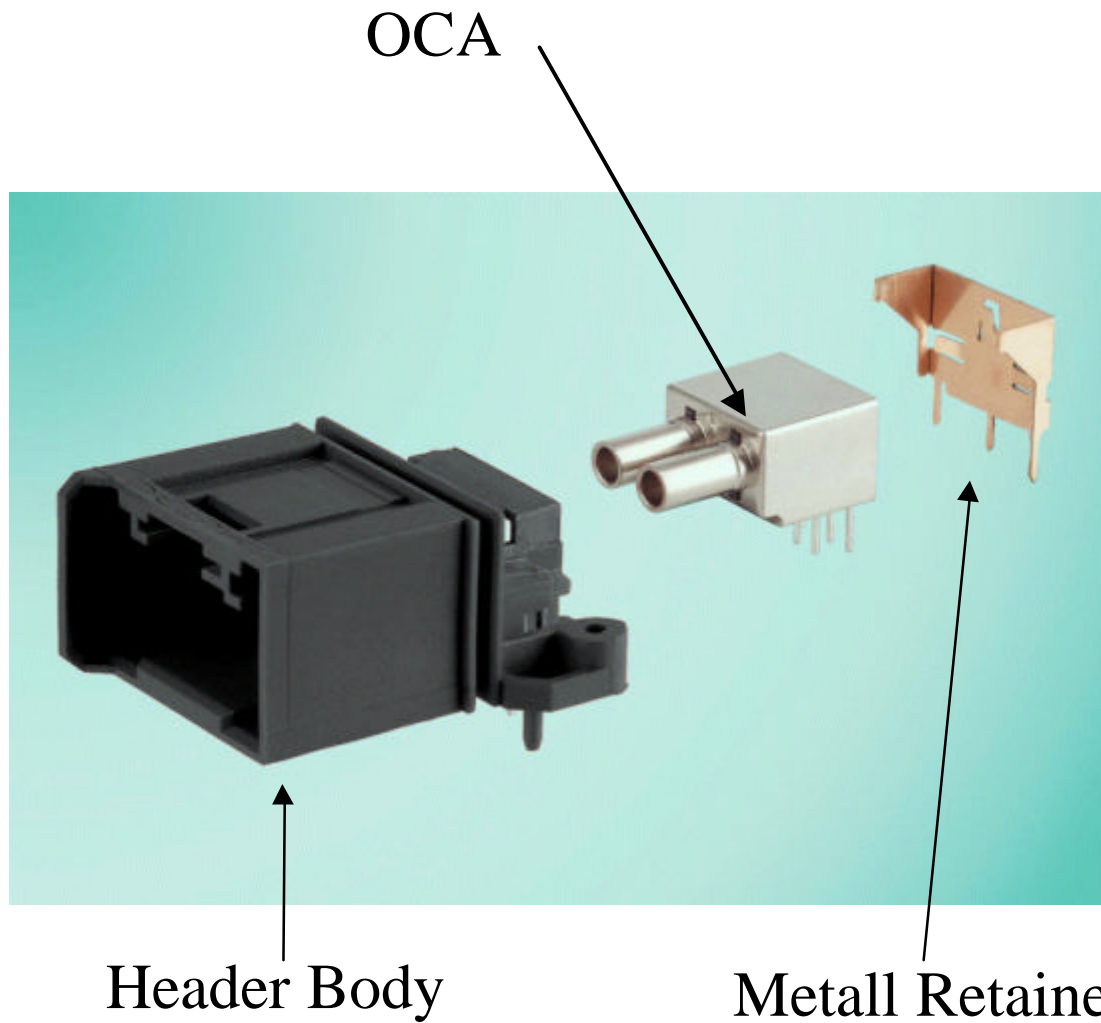
LED and PD **directly**
placed in front of fiber



**protected
fibers**

- Power Budget Improvement
for flexible vehicle architecture
- Easy Header Assembly
for less assembly work expenditure and high reliability
- Tolerance Insensitivity
to axial clearance of connector





Easy Assembly

Only 3 parts to handle

Reduction of

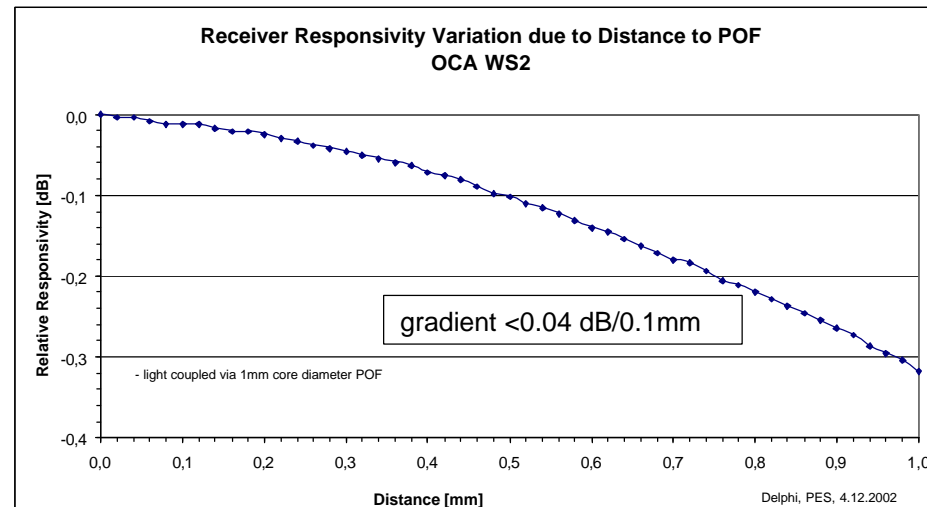
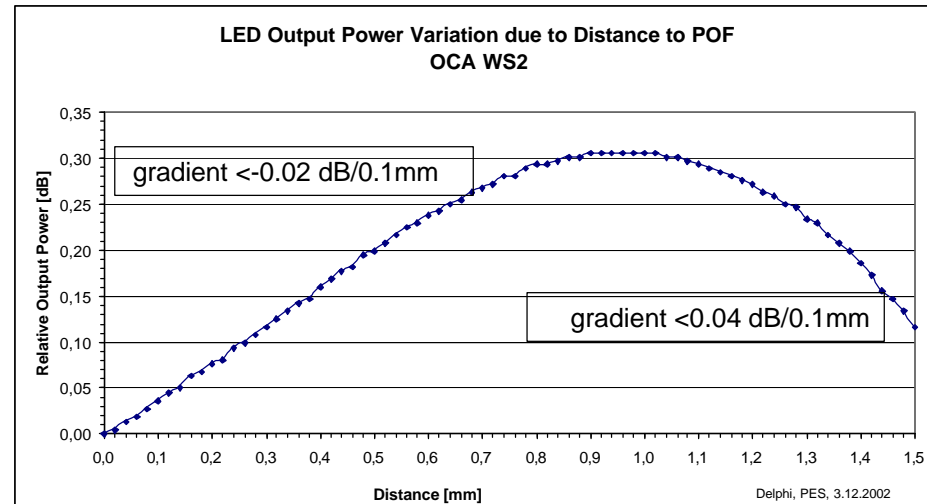
- working steps
- possible failures
- parts
- cost

Increase of reliability

Same OCA for all header bodies

Axial displacement

Low optical power variation caused by the axial tolerances of MOST connectors due to construction of LED/PD in OCA.



DELPHI

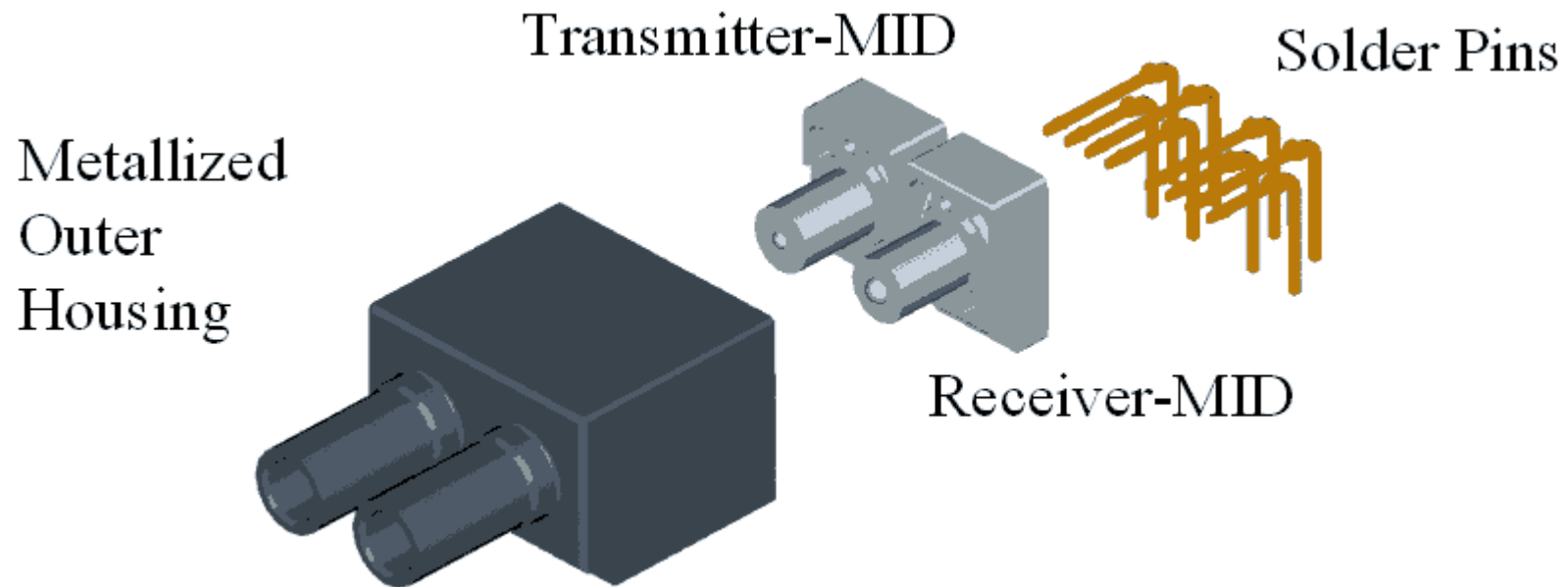
Cooperation

**Matsushita
Electric Works, Ltd. & DELPHI**

Cooperation
for OCA Development



Optical Converter Assembly



MID: Molded Interconnect Devices

High Temperature Test
3000h @ 85°C : < 0,2dB

Humidity Test
1000h @ 85°C, 85% rel : < 0,2dB

Temperature Shock Test
100 cycles -40 .. +85 : no degradation

Vibration Test
5g sine with superimposed
temperature 24h/axis : < 0,2 dB

Mechanical Shock Test
13000 shocks/axis @ 30g : no failure

Highest Temperature Test
2500h @ 95°C : no degradation

Soldering Test
260 °C for 5 sec

- Advantages of the Delphi - MEW System
 - 13 dB optical dynamic for the transmission line
 - Simplified header assembly
 - Same optical part for all header versions
 - Direct header solution (without pigtail)
 - Thermal decoupling of optical and electrical parts resulting in
 - low heat transfer to optical parts during soldering
 - low heat transfer from electrical to optical parts during operation
 - System tested at 95°C without degradation
 - EMI protection due to complete metallized housing incl. tubes
 - Possible to exchange the transceiver chipset for next generation MOST