







OUR SPACE PORTFOLIO

Highly integrated. Fully compliant. With space heritage.

MIL-STD 883 COMPLIANT

ESCC 23201/23202 COMPLIANT

TELCORDIA GR-468 COMPLIANT

SPACE HERITAGE TECHNOLOGY*

INTERFEROMETRY & LIDAR

+ DFB laser diodes @ 1064 nm with output powers from 25 mW - 40 mW cw mode and 600 mW pulsed mode

all in hermetically sealed butterfly packages with fiber or free beam

+ µMOPA @ 1064 nm with output power of 2 W cw or > 6 W pulsed mode in hermetically sealed butterfly package

OPTICAL CLOCKS

- + DFB laser diodes @ 780 nm with output powers from 20 80 mW
- + DFB laser diodes @ 795 nm with output powers from 40 mW 80 mW
- + DFB laser diodes @ 852 nm with output powers from 15 mW 100 mW

all in hermetically sealed butterfly packages with fiber or free beam

+ DFB laser diode @ 895 nm with output power of 50 mW in TO-package

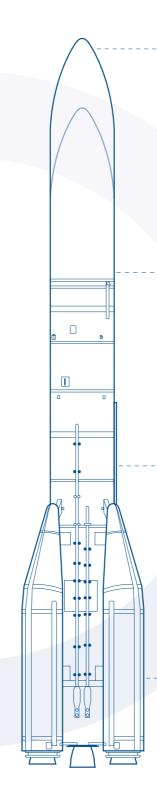
OXYGEN & METHANE GAS DETECTION

- + DFB laser diodes @ 760 nm with output powers from 15 mW 40 mW in hermetically sealed butterfly or TO-packages
- + DFB laser diode @ 1645 nm with 100 mW output power in hermetically sealed butterfly package

INTER- & INTRA-SATELLITE COMMUNICATION

+ Fabry Perot laser diode @ 808 nm with 400 mW - 800 mW

in hermetically sealed butterfly packages with fiber or free beam



SPACE HERITAGE

Space heritage can be used as an asset that reduces qualification efforts for processes and components that have successfully been in space before and are built under the same conditions for new missions. This allows components that have already been tested and qualified for previous space missions to be reused without having to go through the entire Technology Readiness Level (TRL) verification again and thus saves significant time and money. EAGLEYARD supports such approach to save its customers budgets based on our comprehensive space program experience, knowledge and heritage.

DFB laser diodes

@ 760 nm, 852 nm, 1064 nm, 1645 nm **Gain Chips RWE** @ 790 nm

Tapered Amplifier

@ 780 nm

SPACE QUALIFIED

Typically, the result of a customized project with mission-specific requirements driven by the customer, including EAGLEYARD transparency provision of its own space heritage of materials and processes followed by LOT Acceptance Test campaigns and dedicated qualification tests conducted by our Quality Management. It is usually completed with the delivery of the required Flight Models or experimental Flight Models and execution of all related mandatory inspection points and milestones as well as the requested documentary.

DFB laser diodes and BAL laser diodes

@ 670 nm, 808 nm, 980 nm, 1064 nm,

RWL @ 808 nm all *mini*ECLs and *mini*TAs

SPACE QUALIFIABLE

At this level EAGLEYARD guarantees manufacturing and testing of the laser diodes in accordance with its own experience of space related requirements. It includes a specialized bill of materials, customized processes, documentation and additional quality gates. The responsibility of the successful mission suitability of the products itself remains with the customer, because all the corresponding space verification and qualification activities stay with the customer. EAGLEYARD only guarantees the proper design and workmanship compliant with the referenced standards or procedures.

DFB laser diodes and **BAL laser diodes**

@ 670 nm, 808 nm, 980 nm, 1064 nm,

RWL @ 808nm and 1060 nm all *mini*ECLs and *mini*TAs

INDUSTRY LEVEL

Laser diodes built on extensive experience in high-reliability industrial applications accompanied by necessary quality assurance procedures.

All laser diodes in EAGLEYARD's portfolio



*Space heritage for 760 nm, 852 nm and 1064 nm based on GAIA (ESA), CATS (NASA), ExoMars (ESA) and MERLIN (DLR/CNES) programs. All other wavelengths in butterfly platform fulfill relevant parts of ESCC 23201/23202, MIL and Telcordia standards and can be easily qualified for space applications. Laser diodes can be customized as free beam or fiber-coupled or with other standard DFB wavelengths. Generally the DFB-butterfly products can be rated between TRL6 and TRL9 depending on its specific configuration.

Picture shows the Ariane 6 rocket, copyright by ESA.