

## **CSM100 Optocoupler / Optoisolator**

## The CSM100 Optocoupler Has Been Selected by ESA for PROBA-3 Mission

We are delighted to announce that our CSM100 optocoupler / optoisolator device has been selected and approved by the European Space Agency for use in the PROBA-3 satellite mission. The CSM100 optoisolator is Europe's very first 4-Pin hermetically sealed ceramic optocoupler device.



The component is composed of an infrared emitting diode and silicon phototransistor with a high current ratio. This radiation hard optocoupler operates within the full temperature range of  $-55^{\circ}$ C to  $+125^{\circ}$ C and has an input-to-output isolation voltage of  $1,000V_{DC}$ . Package styles for this device include a 4-Pad LCC however, we can also offer this part in a 6-Pad LCC solder dip options available.

The CSM100 is TID tested to 150 Krad(Si), extended to 1 Mrad, with a low dose rate (ELDRS) of 0.1rad/s and Neutron exposure of 1E12 neutrons/cm, extended to 5E13 neutron/cm. It is Displacement Damage Tested to 1 MeV x 10<sup>13</sup>. This makes the component suitable to be used in high-radiation deep spaceflight applications including satellites, launch vehicles, space craft, and planetary rovers.

Our radiation hard transistor optocoupler was received by ESA Materials and Electrical Components Laboratory for testing and approval. The device was observed by ESA to see if the optoisolator lid seal would be suitable in the frame of the PROBA-3 project.

The PROBA-3 Mission is the third satellite mission in ESA's series of PROBA Satellites in ESA's General Support Technology Program. These satellite missions are designed to make new advances in spacecraft technology and enter unexplored areas of our solar system.

ESA's ambitious PROBA-3 Mission is the world's very first precision formation flying mission, where the aim is to achieve solar coronagraphy. Two satellites will fly through space with a fixed configuration and use the telescope on the larger spacecraft to observe the Sun's corona more closely than ever before. The mission is set to be launched in 2022.

We are AS9100D and ISO9001 quality approved. Our multi-chip components are screened in compliance with MIL-PRF-385334 (MIL-STD-883 Testing Methods) and our single-chip parts are screened to MIL-PRF-19500 (MIL-STD-750 Testing Methods).



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