MTG. Calibration and Obturation Mechanism (COM)

SENER AEROSPACE & DEFENSE / SPACE / SPAIN

MTG. CALIBRATION AND OBTURATION MECH-ANISM (COM)

Cliente: ESA

País: Spain

The MTG mission (Meteosat Third Generation) is made up of six satellites installed on two different platforms, MTG-I and MTG-S which, in turn have two key instruments: on the one hand, the Flexible Combined Imager (FCI) and, on the other hand, the InfraRed Sounder (IRS), each one integrated into its respective platform and the main purpose of which is to carry out complementary observation tasks.

The **Calibration and Obturation Mechanism (COM)** for the FCI proposed by Sener is similar to a wheel of filters that turns to position the chosen element and into which the **optical devices** are integrated, the black body, the filters and the shutter. For its part the Calibration and Obturation Mechanism (COM) for the IRS has a mirror mechanism which, by turning on its axis, selects between calibration with the black body, calibration with the neutral density filters, the shutter or the view position.

- Features:
- Enables Visual and NIR calibration of the instrument, with MND filters (Metallic Neutral Density).
- Allows IR calibration with BB (Black Bodies).
- Allows light-path obturation (quickly, to prevent sun intrusion).
- Allows free access during viewing.
- Executes predefined transitions between functions.
- Locks the mobile part during launch and releases it after launch.
- Executes heat control of the black body.
- All of this, whilst maintaining the structural integrity and stability.