



SURPRISE

**SUPER-RESOLVED COMPRESSIVE INSTRUMENT IN THE VISIBLE
AND MEDIUM INFRARED FOR EARTH OBSERVATION APPLICATIONS**



Optical Assembly

[D6.1]

IFAC



1. Summary of Deliverable content

The optical section of the SURPRISE demonstrator was fully assembled at CNR-IFAC labs. The assembly integrated the reworked DMD, the spectrometer, the MIR detectors and optical components. The reworked DMD, which constitutes a key component of the demonstrator, was provided by CSEM, together with its electronics and the master unit.

The report provides the description of the main technical data of all the items purchased for the construction of the demonstrator and also of those specifically manufactured at IFAC mechanical workshop. As a general rule, COTS components were used as much as possible.

The procedures for the assembly of the demonstrator and its alignment have been also detailed by illustrating the step-by-step procedures adopted to align the different parts of the system and to ensure their fine positioning.

On the basis of the results of the first tests and verifications, the selected mechanical components allowed the correct mounting and alignment of the optical components.

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