

# **Issues for In-flight calibration of the RazakSAT MAC**

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Abstract: All of the channels of the Medium-sized Aperture Camera instrument on board the RazakSAT is not built with on-board calibration device. Pre-flight calibration and characterisation will be carried out in the laboratory, but as for in-flight calibration, it has to be carried out with external reference sources. At the near equatorial low earth orbit with inclination of 9 degrees, the in-flight calibration of the RazakSAT is to deal with challenging issues owing to nature of the orbit itself. Common practice uses lunar calibration or imaging of vicarious ground targets, where each of these approaches has its own issues to deal with, in order to provide an efficient calibration as well as characterisation to the MAC. This paper relates the issues for in-flight calibration of the RazakSAT MAC, covering the stellar calibration approach, vicarious ground target imaging, including target selections and also effects due to BRDF, followed by the conceptual establishment of the in-flight calibration plan.