

SiC Based Power Plant and Avionics

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In this presentation DAC will present the advantages that can be obtained from the application of SiC devices in the aeronautical field with respect to the classic Si devices currently in use. Furthermore, in line with the requirements of the WInSiC4AP project, the two demonstrators relating to the LiPo interface and the brushless motor drivers that will be used on a "UAV" system produced by REDAM / OMI will be described. The presentation will follow the following line-up: a) initially the reasons that lead to the increasing use of electronic power devices in the aeronautical field will be explained; b) subsequently, the limits of Silicon technologies will be analyzed with reference to the needs dictated by aeronautical applications and how SiC devices allow them to be overcome; c) finally, as part of the WInSiC4AP project, two demonstrators will be shown, as application examples of SiC devices.