Abstract *(paper not available)*

Secondary Arc Characterization of MTG PVA

Fabrizio Scortecci[1], Gianfranco Meniconi[1], Damiano Pagano[1], Giorgio Saltanocchi[2], Giulia Damonte[2], Pietro Zanella[2], Fausto Mangiarotti[2]

[1]Aerospazio Tecnologie Srl.(Italy); [2]SELEX ES (Italy)

The electrostatic discharge type has been investigated by SELEX ES at AEROSPAZIO Tecnologie in the frame of the MTG programme. The test campaign has been focused on the characterisation of the secondary arc between the cell strings in a PVA coupon produced after a primary arc obtained through an electron gun. The Electrostatic Discharge can create a conductive path between adjacent cells thanks to the creation of a plasma due to the vaporization of metal during the discharge at the emission site. A temporary current path, sustained by the Solar Array power, is thus created and the string starts to output in this channel. If the photovoltaic available power is sufficient, the arc can self-sustain and could create a loss of insulation. Following two major test phases have been performed: Qualification : to test the PVA technology at the MTG mission boundary conditions Characterization : to test the PVA technology ESD limits. The paper will report the results obtained.

_____

_____

****