

GENERAL DATA		
Equipment / System name:	Microstrip transmission line method for characterization of joints	
Equipment / System number:	_	
Alias:	MsJOINTS	
Location:	Building INTA B-14	
Picture(s):		

TESTING CAPABILITIES		
Types of tests that can be carried out in the Facility	Scattering Parameters measurements Surface Current measurement	
Maximum dimensions of the equipment under test	396 mm x 260 mm	
Restrictions / Limitations	N/A	
Remarks	The operating frequency band for the microstrip line test setup is selected according to the frequency range that represents the transients generated by a direct lightning strike and the subsequent indirect effects. For reference, an aluminum plate with the same dimensions as the samples is measured.	



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Issue: 01

TECHNICAL CHARACTERISTICS		
General Characteristics	Measurements of S-parameters and surface current measurements are carried out in order to determine the behaviour of materials and joints against the transients generated by the direct and indirect effects of a lightning strike	
Test frequency	S-parameters measurements: 9 KHz – 10 MHz Surface current measurement: 9 KHz – 1 MHz	
Test equipment	Measurement instrument: Rhode-Schwarz® ZNC vector network analyzer In the surface current measurements, a multi-gap loop B-dot ground plane sensor F-90 of Fischer Custom Communications, Inc. is used to retrieve the current on the surface of the samples under test	





Figure. Surface current measurement and calibration with a multi-gap loop B-dot ground plane sensor on the samples surface under test.