

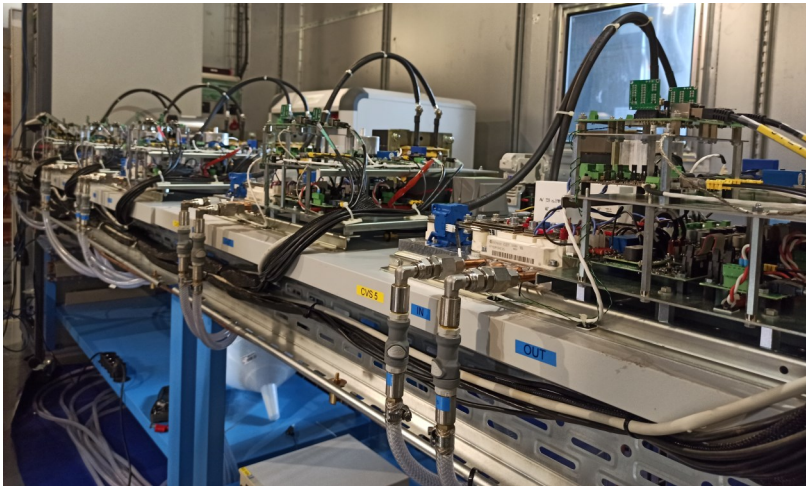


Condition Health Monitoring (CHM) for Power Electronic Switches

CONTEXT

Power electronic switches are used for decades in converters. Up to now, IGBTs is the most used technology to develop such power switches as they are cost effective, robust, and well industrialized in many different power applications .

Recent power SiC switches offer better performance with lower losses. The understanding of root causes leading to failures in such components still requires many investigations .



OUR SERVICES

- To support customers in the definition of their power switch's reliability needs & tests
- To propose and validate monitoring systems of tests
- To realise the tests
- To analyse the results and provide synthesis

We are working on additional services

- To develop ageing models
- To provide health status of component
- To estimate the remaining lifetime of components
- To recommend actions to improve lifetime

You have other needs?

Do not hesitate to contact us.

APPLICATION DOMAIN

- Rail power traction or auxiliaries
- Renewable energy
- Storage
- E-Mobility
- Transmission & distribution

ADVANTAGES

- Accurate VCE & VDS measurement
- Use of DC and AC power cycling tests
- Access to independent experts in power electronics applications and testing services with cutting-edge laboratories

YOUR BENEFITS

- Added-value results enabling the improvement of your converter design and reliability within spotted applications
- Access to preventive maintenance

TESTS

- Double pulse: switching tests on inductive loads
- HTGS: high temperature switching tests at application operation frequency
- PCT AC: conduction and switching thermal cycling tests based on representative mission profile of application
- PCT DC: continuous conduction thermal cycling tests based on representative mission profile of application