

Test & Measurement



Application

The system has been developed to analyze the digital bitstream (I/Q data) on the fiber interface between the BBU and RRH (Remote Radio Head) to measure the effects of Passive Intermodulation (PIM).



Housing Challenge

The cases had to accommodate a customer-specific form factor, thus no standard case was available on the market. In addition, the case had to be EMC shielded, which was a challenge because specially developed rubber frames provided by the customer had to be mounted on the case. The rubber frames protect the surface of the case, eliminate mounting feet and provide the frames a firm grip even when the enclosures are stacked. To keep the system compact, passive cooling without mechanical fans was required.



Solution



In order to shorten the development time for a non-standard case, nVent takes advantage of its existing Interscale case concept. This allows easy adaptation to the case design, and EMC protection is guaranteed thanks to a special locking mechanism of the side panels. The rubber frame assembly is screwless and easy to remove. For the case with higher heat dissipation, a heat sink with a thermal pad to the processor was used to increase the cooling performance. Both cases were painted according to the customer's requirements.

Project Details

Location	Germany
Industry	Test & Measurement
Application	PIM testing in complex multi-band 4G and 5G networks
Technology	Case for Single Board
Product scope / Client	AceAxis through distribution partner 4Most
Date/Time frame	2019 / 2020
Contract scope	Serial Production