ALMA WVR final report

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\textbf{Abstract}—Omnisys is responsible for the design and production of 58 ALMA Water Vapor Radiometers. The design phase was 18 months followed by a production phase of 18 months.

The ALMA design and performance verification will briefly be presented but the focus on the presentation will be on production and test aspects, including optical and radiometric performance. As of December 2010, all 58 radiometers have been shipped to the ALMA site and passed on site acceptance tests.

The radiometers are tested for optical performance as well as radiometric performance in frequency response, stability, sensitivity, linearity and accuracy. The production verification data will be presented and conclusions drawn. This should give good insight for future THz radiometer design, including many aspects such as optical design, calibration system aspects etc.