

# Positioning Accuracy of Trimble DA1 Catalyst Receiver in Ado-Ekiti, Nigeria

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## SUMMARY

In recent times, the development of lightweight Global Navigation Satellite Systems receivers has significantly impacted the ease of position determination with higher accuracy. Trimble DA1 Catalyst receiver is a piece of lightweight equipment with the capacity to receive signals from GPS, Galileo, GLONASS, QZSS, MSS and SBAS satellite signals. The receiver has a submeter positioning accuracy of 0.30m Horizontal and vertical RMS as specified by the manufacturer. The receiver is relatively low-cost and handy for several purposes. The aim of this work is to verify the achievable accuracy of the Trimble DA1 catalyst for mapping, and land rights field data collection in Ado-Ekiti Nigeria. The Catalyst was used in determining positions of points within and around the Federal Polytechnic Ado-Ekiti Campus. Values obtained using the equipment were compared with the ones obtained from static and RTK modes of millimetre accuracy GNSS receivers. The results obtained showed a generally consistent result between observations made with the Trimble DA1 catalyst. The work concludes that the DA1 catalyst is fit for several purposes without trading off accuracy.