# Angle Tracking Unit Testbench Documentation

## Description of module

This module is a System Verilog document which is used to test the Angle Tracking Unit under simulated conditions.

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## Required Tests

1. Test to see if ATU tracks angle correctly
2. Test to see if ATU tracks angle correctly when new angle is entered
3. Test to see if ATU tracks angle correctly when in anti-clockwise mode
4. Test to see reset functions correctly
5. Test to see if pulse monitoring can be turned off
6. Test to see if angle goes from 0 to 360 instead of negative angle
7. Test to see if angle goes from 359 to 0 instead of >360

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## How Required Tests Were Completed

1. This can be seen under the commented title "TEST 1"
2. This can be seen under the commented title "TEST 2"
3. This can be seen under the commented title "TEST 3"
4. This can be seen under the commented title "TEST 4"
5. This can be seen under the commented title "TEST 5"
6. This can be seen under the commented title "TEST 6"
7. This can be seen under the commented title "TEST 7"

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## Additional Information

None