Testing Procedure for ESP32SSR

Testing was done at two voltage levels common for ESP32 integration. These voltages were 3.3 and 5 volts.

Two tests were conducted to test reliability on the device.

Test one –

3.3volts using 62Ohm resistors in series with orange LED's for each channel of the relay board.

Test took place over 48 hours using an ESP32 running a timed blink script which would illuminate each LED for one second.

Test Two –

5volts using 82Ohm resistors in series with orange LED's for each channel of the relay board.

Test took place over 48 hours using an ESP32 running a timed blink script which would illuminate each LED for one second.

Total time for each test was 172800 seconds giving each switched component a time of 43200 seconds of on switched time in each test which is equivalent to 86400 one second button presses combined total.

No failures at component level.

No measurable increase in component temperature levels above normalised room temperature of 22 degrees.