TESS-W

STARS4ALL Photometer
tess.stars4all.eu

TESS-W is a standalone, weatherproof Wi-Fi photometer. It is used to measure the brightness of the night sky and its apparent IR temperature. It allows monitoring of changes in sky brightness and cloud cover throughout the night and over many years. It currently forms part of the STARS4ALL photometer network, where data is shared openly.

Technical Specifications.

- Power supply: USB 5v, 70mA, 350 mA below 10ºC when the heater is activated.
- Power cable length 5m. (Power supply not included).
- Internal heater against dew and snow, prevents measurement distortions.
- WiFi 802.11b/gn communication.
- Dimensions: 88x74x46, Weight 200 g.
- Operating temperature -30ºC to 50ºC.
- IR sensor, MLX90614 thermopile FOV 35º
- IR temperature resolution + - 0.02 ºC
- IR temperature measurement range -40 .. +380 ºC
- Temperature accuracy + - 0.5 ºC
- TSL237 brightness sensor.
- Brightness measurement FOV 17º.
- UVIR filter 400 to 740 nm.
- Brightness accuracy + - 0.1 mag/arcs2.
- Brightness range 9 to 23 mag/arcs2.
- LICA UCM calibration.

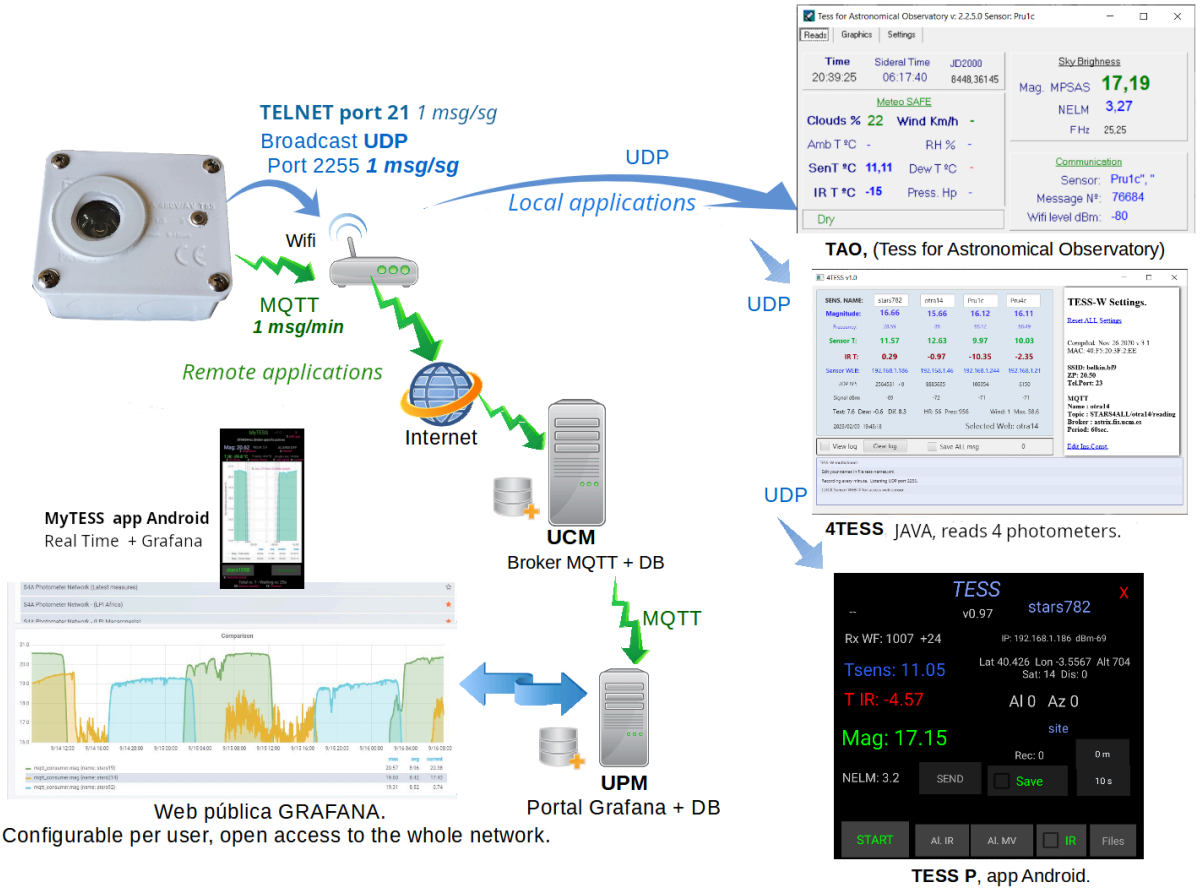
Access to data.

The TESS-W photometer communicates via a network. The data is accessible locally via UDP, but above all, with internet access, it is useful to send it to the STARS4ALL servers hosted at the UCM and UPM in Madrid.

Remotely, all data is openly available in several ways:

1-The Grafana portal allows you to download it, and its graphs can be incorporated into our website via links.

2- The data is also directly accessible by connecting to the university server via the MQTT protocol.



Más información, manuales y descargas disponibles en tessskysensor.blogspot.com