Product Data Sheet

https://skymapper.io/skybridge

SKYMAPPER SKYBRIDGE



Intelligent Telescope Network Controller

SkyBridge turns compatible telescopes into active contributors to the SkyMapper network. It enables coordinated observations, remote telescope control, and secure data acquisition while attaching precise time, location, telescope, and device metadata to every capture, creating trusted, verifiable observations from a distributed global network.

WI-FI 6 + 2.5 GbE

NETWORK CONNECTIVITY

Fast, flexible telescope + network connections

TIME STAMPS

GNSS DELIVERED

Precise time + location metadata per capture

SKYKEY + SoC

DEVICE SECURITY

Protected device identity + cryptographic keys

MT7986AV

TELESCOPE CONTROL

Local control, acquisition + telemetry

CONNECT YOUR TELESCOPE

- Receive observation requests
- Local telescope control
- Automated acquisition workflows
- Telescope + device telemetry

TRUST EVERY OBSERVATION

- Precise GNSS time + location
- SkyKey cryptographic device identity
- Cryptographic observation sealing
- Verifiable provenance record

CONTRIBUTE TO THE NETWORK

- Network scheduling + coordination
- Secure observation transfer
- Remote diagnostics + updates
- Support coordinated observations

INITIAL COMPATIBILITY: UNISTELLAR TELESCOPES

$399 ON SHOPIFY | BECOME A SKYKEEPER → **SKYMAPPER.IO/SKYBRIDGE**

Product Data Sheet

SKYMAPPER SKYBRIDGE



CAPABILITIES

TELESCOPE CONTROL + TRUSTED OBSERVATIONS

REAL-TIME TELESCOPE CONTROL
Executes observation requests through SkyViewer, SkyQueue, and SkyMapper network services, coordinating telescope control, acquisition, status, and telemetry.

PRECISE TIME + LOCATION
Integrated GNSS associates each observation with precise capture time, device location, telescope identity, and observation metadata.

TRUSTED OBSERVATION PROVENANCE
Cryptographic hashing makes observation records tamper-evident, while network-level ledger anchoring creates an immutable, verifiable record of each capture.

SECURE NETWORK INTEGRATION
Connects telescopes to SkyMapper for scheduling, telemetry, observation transfer, remote management, and secure over-the-air updates.

LOCAL STORAGE + HANDLING
Securely caches observations and metadata locally, while retaining device logs and diagnostics before transfer to the SkyMapper network.

FLEXIBLE DEPLOYMENT
Compact, fanless design supports residential, classroom, observatory, and protected remote installations with Wi-Fi or Ethernet network connectivity.

AUTOMATED OBSERVATION ACQUISITION
Executes scheduled observation requests, telescope commands, acquisition workflows, and observation transfer through SkyMapper network services.

TELESCOPE STATUS + TELEMETRY
Tracks telescope availability, device status, and telemetry to support coordinated observations, remote diagnostics, and network management.

CORE TECHNOLOGY

Processor / platform	MediaTek MT7986AV system-on-chip
Memory / storage	2 GB DDR4-3200 / 32 GB eMMC 5.1
Connectivity	Dual-band Wi-Fi 6 + dual 2.5 Gb Ethernet
Time / positioning	u-blox NEO-M9N multi-constellation GNSS
Timing accuracy	GNSS-derived time stamps
SkyKey	SkyMapper software wallet; secp256k1 master key for blockchain signing and ownership of device and observations
Key protection	Device-level security using the SoC hardware cryptographic engine; no vendor-locked secure-element chip
Local processing	Telescope control, acquisition, secure caching, telemetry + cryptographic processing

Product Data Sheet

SKYMAPPER SKYBRIDGE

TECHNICAL SPECIFICATIONS

Hardware, Connectivity + Environment

Form factor	Compact rectangular edge-computing enclosure
Footprint	117.0 × 97.5 x 40.0 mm and 200 g (~4.61 × 3.84 × 1.57 inches and 7 oz)
Enclosure material	Carbon-fiber PLA, FDM-printed
Cooling	Passive / fanless
Primary power	External AC adapter; 12 V DC, 3 A max device input
Installation	Residential, classroom, observatory + protected remote sites

CONNECTIVITY + DATA

Wireless	Dual-band Wi-Fi 6 (802.11ax)
Wired	Dual 2.5 Gb Ethernet
Cellular	Not supported
Positioning	u-blox NEO-M9N multi-constellation GNSS
Metadata	Device ID, telescope ID, GNSS time/location, configuration + observation metadata
Security	Encrypted communications + SkyKey device identity
Provenance	Cryptographic hashing + Proof of Space Observation + network-level ledger anchoring

SOFTWARE + MANAGEMENT

- **SkyBridge embedded firmware**
- **SkyViewer integration**
- **SkyQueue scheduling**
- **Remote diagnostics**
- **Secure OTA updates**
- **Device + telescope telemetry**
- **Observation transfer**
- **SkyMapper APIs**
- **Telescope onboarding + pairing**

DEPLOYMENT

Applications, Installation + Product Information

TYPICAL APPLICATIONS

- Distributed observation networks
- Coordinated astronomical-event observation
- Scientific investigations
- Telescope fleet monitoring
- Multi-site research campaigns
- Observatory automation + augmentation

DEPLOYMENT ENVIRONMENTS

- Residential + backyard observatories
- SkyKeeper telescope installations
- Schools + classrooms
- Universities + research installations
- Observatories
- Protected remote sites

INSTALLATION OVERVIEW

1	**SET UP NEAR YOUR COMPUTER**	Place SkyBridge and the telescope near your computer, connect SkyBridge to power, and allow it to start.
2	**LOCAL ACCESS**	Connect your computer to SkyBridge using Ethernet Port 2 and open the local admin dashboard.
3	**NAME**	Set the SkyBridge hostname for identification in SkyViewer.
4	**CONNECT TELESCOPE**	Configure SkyBridge to join the telescope's Wi-Fi network.
5	**CONNECT NETWORK**	Connect SkyBridge to the local/home Wi-Fi network and apply settings (5 GHz, 2.4 GHz reserved for telescope).
6	**VERIFY**	Confirm network connectivity, telescope link, and SkyViewer visibility.

PACKAGE + ORDERING

STANDARD PACKAGE

SkyBridge device
AC power adapter
Ethernet cord + USB2-to-Ethernet adapter
Quick Start Guide
Registration / QR information
Warranty + support information

ORDERING

Price: $399
Initial compatibility: Unistellar telescopes
FCC: Pending*
Warranty: One year from date of delivery

Exact package contents, availability, supported models, installation time and selected accessories remain subject to confirmation.

*As of October 7, 2026:
FCC notice: SkyBridge does not yet have FCC equipment authorization. It is subject to the FCC's rules, and delivery is conditional on receiving the required FCC certification. The FCC's rules do not cover consumer protection, contract, or other federal or state law. If we do not receive FCC certification, we will cancel your pre-order and refund your deposit in full.