

KNACKSAT-2 CubeSat Reception Resource

- Deployment Live Stream: <https://www.youtube.com/watch?v=aB4PIOS-hSs>
- Deployment time: 3 February 2026 at 15.55 Bangkok Time (ICT), 17.55 (JST) (subject to change depending on the ISS schedule)



A. Tracking Information

- Satellite name: **KNACKSAT-2**
- NORAD ID / COSPAR ID: TBD
- TLE source (official reference): TBD
- Deployment time: 3 February 2026 at 15.55 Bangkok Time (ICT), 17.55 (JST) (subject to change depending on the ISS schedule)
- **Please track the ISS during the first three days after deployment. We will share the NORAD ID once we confirm the KNACKSAT-2 space object.**

B. Downlink RF Parameters

KNACKSAT-2 Satellite

Satellite name	Callsign	Downlink Frequency	Downlink Mode
KNACKSAT-2	N/A	400.630 MHZ	FSK 9.6 kbps Beacon every 1 minute
	HS0K	145.825 MHZ	APRS-Digipeater 9.6 kbps

Downlink RF telemetry

- Downlink frequency: 400.630 MHz (12.5 kHz bandwidth)
- Frequency band: UHF
- Modulation scheme: FSK
- Data / symbol rate: 9600 bps
- Frame format: AX.25
- Beacon Interval: 1 minute
- Polarization: Linear (satellite is rotating) recommended to use RHCP at GS
- Estimated EIRP at the satellite: 30 dBm

APRS- DP mission

- Downlink/Uplink frequency: 145.825 MHz
- Frequency band: VHF
- Path: No path setting is required
- Modulation scheme: FSK
- Data / symbol rate: 9600 bps
- Frame format: AX.25
- Estimated EIRP at the satellite: 27 dBm

C. Decoder & Data Format

- Recommended receiver: Any SDR operate on UHF frequency (USRP, Airspy, SDRplay, LimeSDR (or equivalent))
- Decoder software (from SDR to Data): HS Soundmodem, GQRX, GNU Radio, any software that can decode AX.25 format

D. Data Submission

- KNACKSAT-2 Packet Forwarder Software Download
<https://drive.google.com/drive/u/2/folders/18fa1jQJff-JiHCe3aBd1pGhCkZLYsv98>
- KNACKSAT-2 Packet Forwarder Software Manual
https://drive.google.com/file/d/1iHfO3wFgxgnFv4PHQVXjML2r8pdHhOGU/view?usp=drive_link
- API Registration for KNACKSAT-2 Packet Forwarder "IMPORTANT"
https://docs.google.com/forms/d/e/1FAIpQLSe3XvkZU3XPdodgZIm94c7DczWjlqJIDF-46hGutW0aE_sLFA/viewform
- KNACKSAT-2 Telemetry Dashboard
<https://dashboard.knacksat.com/telemetry/d/knacksat-telemetry/knacksat-satellite-telemetry-monitor>

<https://dashboard.knacksat.com/telemetry>

E. Reception Participation Rewards

- QSL card
- Top contributor award

F. Contact

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