

Dual S/X-Band Ground Station **Specification**

- Groundcom **GCS-S/X** is a turnkey, cost-effective ground station system designed to address the operational needs of modern New Space missions.
- Its modular architecture, scalable design, and compatibility with multiple frequency bands make it an adaptable solution for both single-satellite missions and large-scale constellations.



Telemetry,
Tracking and
Command (TT&C)



Payload Data
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Model

GCS-S/Xv1

Antenna and radio

Frequency [MHz]	Tx: 2025 - 2120 Rx: 2200 - 2300 Rx: 7900 - 8400
Antenna Type	Prime-focus fed parabolic reflector
Antenna Diameter [m]	3
Beamwidth ¹ [°]	S-band ~3.1 X-band ~0.9
Antenna Gain [dBi]	S-band: >34 X-band: >45.5
EIRP S-band [dBW]	>49
G/T [dB/K]	S-band: >11.5 dB/K X-band: >23.5 dB/K
Polarization	S-band: LHCP/RHCP (remotely switchable) X-band: LHCP/RHCP (remotely switchable)
Modulation	Customizable
Data types	Customizable

¹ Full Width at Half Maximum beamwidth

Motion

Rotator Range Of Motion	Azimuth: 0-720°, Elevation ² : 0-180°
Tracking Accuracy [°]	< 0.3
Pointing Accuracy [°]	< 0.2
Angular Velocity [°/s]	>15
Tracking	Software track based on TLE ³

Operation

Power supply (max.)	2,3A@230 VAC / 4,8A@115 VAC, 45-65 Hz
Back-up fuse [A]	2 x 16, char. C
Temperature [°C]	-20 to +60
Max. wind during operation (without/with radome) [km/h]	75/180
Weight (without/with radome) [kg]	ca. 450-500/900
Height (radome) [m]	4.19
Width (radome) [m]	3.85

Control

API commands	Yes
GUI SW	Yes
Satellite database	Yes
Scheduling	Yes
Real time monitoring	Yes
Remote access	Yes
Data storage	Yes

² Includes elevation flip to remove key-hole effect

³ Two line element data

Ground station GCS-S/X 3D model visualization

