

GROUND STATION

SUMMARY

C3S's UHF Ground Station guarantees low-latency connection to orbiting small satellites, facilitating reliable tracking, providing stable communication and enabling fast data processing for the success of your mission. Its main features include:

- Modular architecture
- Software Defined Radio for more flexibility
- Remote configuration and operation via optical ethernet connection
- Detailed housekeeping data collection including camera image and basic weather data



SPECIFICATION

Radio

Frequency range (RX & TX)	UHF Commercial band: 400-403 MHz
Frequency stability	+/-1 ppm initial, +/-4 ppm stable
Modulation (RX & TX)	GMSK (optional AFSK, FSK, OOK, PSK)
Data rates (RX & TX)	2.5 to 150 kbps
Output power	Adjustable, up to 50 dBm
Receiver noise figure	1 dB

Rotator

Rotational range	Azimuth: 360°, Elevation: 180°
Rotational speed	max. 8 °/sec
Pointing accuracy	<0.1 °

Antenna

Gain (UHF)	23.8 dBic
Front to back ratio	22 dB
Beamwidth	10°

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TITLE
COMPANY
ADDRESS
CONTACT

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Ground Station Specification

Polarization	RHCP or LHCP
Mechanical	
Height	10 m
Weight (Antenna and mast)	580 kg
Operating Temperature	-40 °C ... +65 °C
Humidity	5 % ... 100 %
Lightning protection	10 kA
Communication	Redundant CAN
Survival wind speed	160 km/h
Cabinet	
Rack size (W x H x D)	650 mm x 1850 mm x 650 mm
Weight	260 kg
Operating Temperature	-20 °C ... +45 °C
Humidity	5 % ... 100 %
Supply voltage	207 V ... 253 V, 50-60 Hz
Supply current	max. 19 A @230 V