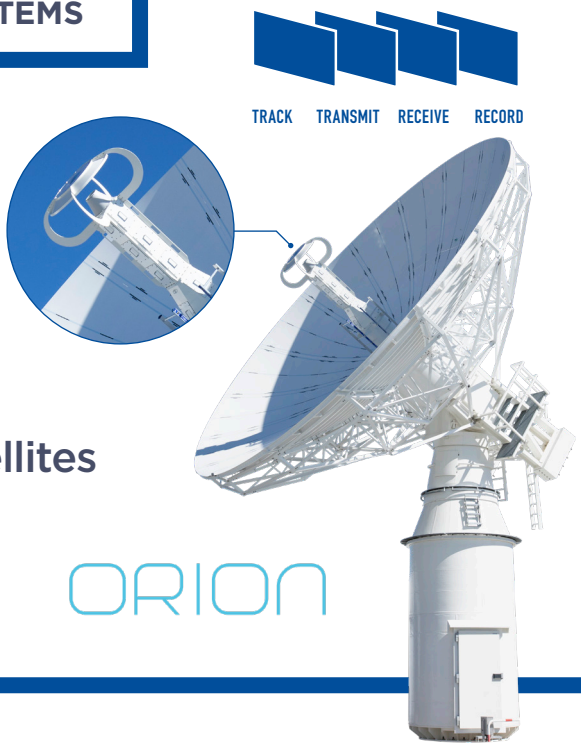
DATA SYSTEMS

ORION 730 / 930 1100 / 1300

Turnkey Systems
Ready for Next Generation Satellites
S / X / Ka-band

SATELLITE TRACKING SOLUTIONS



ORION

ORION Series antennas are the flagship antenna systems of Safran Data Systems. Their **state-of-the-art technology and full motion tracking capabilities** have made them successful worldwide.

The ORION Series is defined as **Fully capable complete package including all capabilities** (simultaneous dual polarization, single channel monopulse tracking and test capabilities in all bands), baseband equipment and services. It ensures our customers a smooth deployment, easy operational start and a long service life in all environments.

- Scientific Missions
- Earth Observation Satellites
- Service Providers

TRI-BAND S / X / KA
Safran Data Systems Patented Concentric Feed

3-AXIS PEDESTAL
Targeting any point in the 360° Hemisphere

CORTEX SERIES BASEBAND
The Space Community Standard

100% IN-HOUSE COMPONENTS
High Performance & Secured Maintenance

SATELLITE AGNOSTIC
Versatile Architecture

THE RESILIENT ASSET FOR THE NEW STANDARDS

SAFRAN

SATELLITE TRACKING SOLUTIONS

ORION 730 / 930 / 1100 / 1300

	MODEL	ORION 730	ORION 930	ORION 1100	ORION 1300
	DIAMETER	7.3m (24 ft)	9.3m (30.5 ft)	11.5m (37.7 ft)	13.5m (44.3 ft)
	CONFIGURATION	Mono, Bi or Tri-Band X or S+X or S+Ka or S+X+Ka			
S-Band Rx [2.200 – 2.300 GHz] Tx [2.025 – 2.120 GHz]	G/T Mid-Band, 5° Elevation, Clear Sky, +20°C, Continental	>19.5 dB/K	>21.5 dB/K	>23.5 dB/K	>25 dB/K
	Rx Polarization	LHCP and RHCP (Simultaneous)			
	EIRP @ Psat	58 dBW Option: 63 dBW	60 dBW Option: 65 dBW	61.5 dBW Option: 66.5 dBW	62.5 dBW Option: 67.5 dBW
	Tx Polarization	LHCP or RHCP (Switchable)			
X-Band Rx [7.900 – 8.500 GHz]	G/T Mid-Band, 5° Elevation, Clear Sky, +20°C, Continental	>33.0 dB/K (Bi-Band) >31.5 dB/K (Tri-Band)	>35 dB/K (Bi-Band) >33.5 dB/K (Tri-Band)	>37 dB/K (Bi-Band) >35.5 dB/K (Tri-Band)	>38.5 dB/K (Bi-Band) >37 dB/K (Tri-Band)
	Rx Polarization	LHCP + RHCP			
	Specific Filtering	Included – Radar Low Pass Filter			
Ka-Band Rx [25.500 – 27.000 GHz]	G/T Mid-Band, 5° Elevation, Clear Sky, +20°C, Continental	>37.5 dB/K	>39.5 dB/K	>41.5 dB/K	N/A
	Rx Polarization	LHCP and RHCP (Simultaneous)			
Operational Modes	Auto-Track Mode	Single Channel Monopulse – Triband/Polarization Switchable in each band (Safran Data Systems Patented)			
Accuracy	Pointing Accuracy	0.045°rms	0.040°rms	0.034°rms	0.034°rms
	Tracking Accuracy	0.015°rms	0.015°rms	0.010°rms	0.010°rms
Environmental Conditions	Operating Wind	110 km/h (69 mi/h) gust	80 km/h (50 mi/h) gust	Under Radome	Under Radome
	Operating Temperature	-20° C to + 50° C (-4°F to +122° F) • -40°C to +50 °C (-40° F to +122° F) with Available Options: Winter Package, Deicing, Radome			

PEDESTAL SPECIFICATIONS

Tracking Any Satellite from 400km (250 miles) Altitude

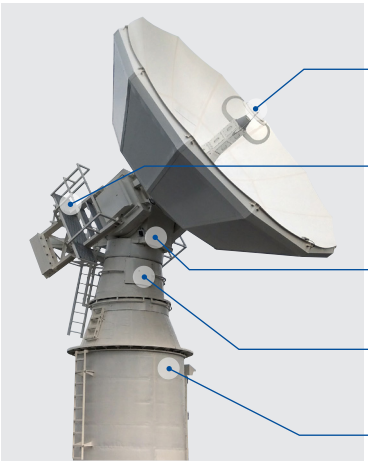
Azimuth Travel Range ..... 540°
Elevation Travel Range ..... 0°-90° + Train Axis
Angular Velocity ..... 12°/s El - 10°/s Az
Angular Acceleration ..... 10°/s² El / 10°/s² Az

BASEBAND

CORTEX

The Space Community Standard

TT&C Modem ..... Cortex CRT
High Rate Demodulator ..... Cortex HDR



Tri-Band Concentric Feed
No compromise on performance

Designed for Safety Maintenance
With hatches & platforms

Dual-Drive Architecture
With Safran Data Systems counters torque algorithm

3-Axis Pedestal
For polar operations

RF / IF Distribution Riser
Simplifying infrastructure

ORION Series
Highest Quality, Best Performance & Ultimate Service Level

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