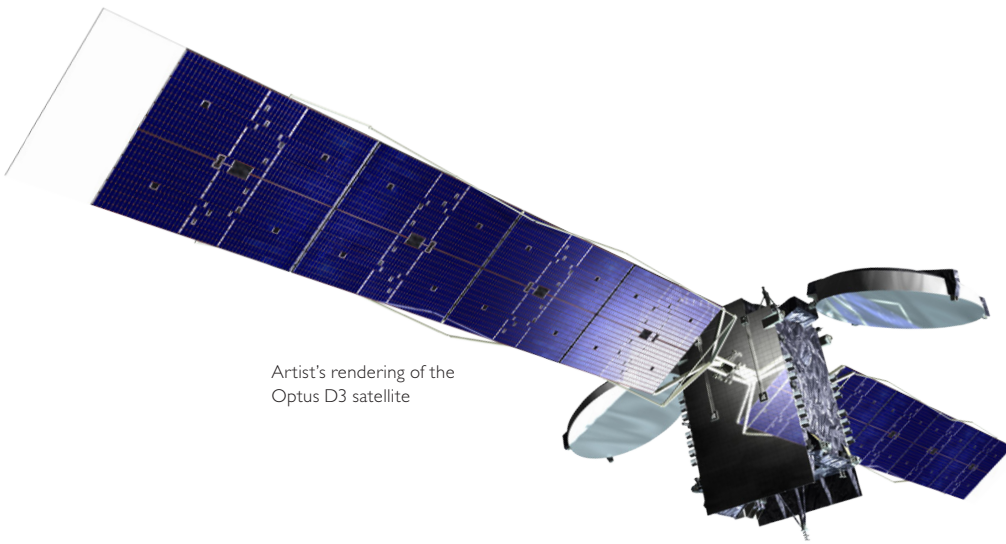




Optus D3

Ku-band Communications and Broadcasting for Australia and New Zealand



Artist's rendering of the Optus D3 satellite

Mission Description

Built for Australia-based Optus Networks Pty Limited, Optus D3 provides Ku-band fixed communications and direct television broadcasting services to Australia and New Zealand. The Orbital-built satellite is providing further market expansion at the same orbital slot as the Optus C1 satellite which was launched in 2003 and is located at 156 degrees East Longitude. Optus D3 carries 24 active Ku-band transponders and generates approximately 5.0 kilowatts of payload power.

Spacecraft

Orbital's highly successful Geosynchronous Earth Orbit (GEO) communications satellites are based on the company's GeoStar spacecraft platform, which is able to accommodate all types of commercial communications payloads and is compatible with all major commercial launchers. The company's GeoStar product line includes the GEOStar-2 design, which is optimized for smaller satellite missions that can support up to 5.0 kW of payload power. Orbital has also developed the higher-power GEOStar-3 spacecraft design, delivering the next increment of payload power for applications between 5.0 and 7.5 kW, allowing Orbital to offer its innovative and reliable satellite design to the medium-class of communications satellites.

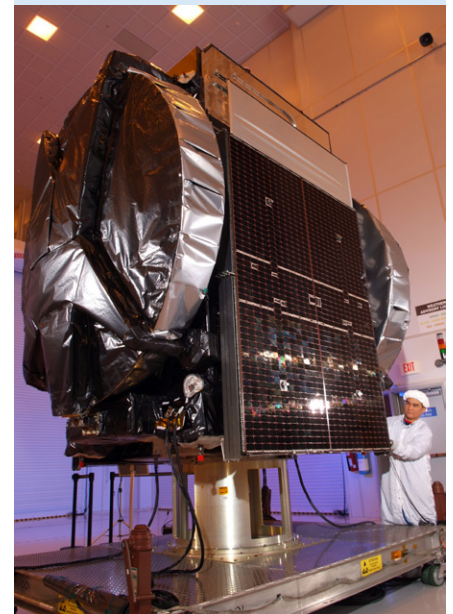
QUICK FACTS:



Coverage:
Australia and New Zealand

Mission:
Ku-band fixed communications and direct television to Australia and New Zealand

Customer:
Optus Networks, Pty. - Sydney, Australia



Optus D3 in Orbital's Satellite Manufacturing Facility in Dulles, VA

Optus D3

Specifications

Spacecraft

Launch Mass:	2,500 kg (5,500 lb.)
Solar Arrays:	Four panels per array, UTJ Gallium Arsenide cells
Stabilization:	3-axis stabilized; zero momentum system
Propulsion:	Liquid bi-propellant transfer orbit system; Monopropellant (hydrazine) on-orbit system
Batteries:	Two 5140 W-Hr capacity Li-Ion batteries (BOL)
Mission Life:	15 years
Orbit:	156 degrees East Longitude

Payload

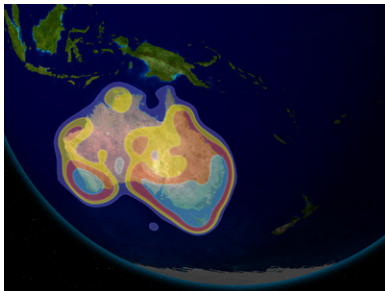
Frequency:	Ku-band
Repeater:	24 active transponders with 28-for-24 125 W TWTA's (primary transponders) and 10-for-8 44 W TWTA's (backup transponders)
Payload Power:	5.0 kW
Antenna:	Two 2.3 m deployable dual-shell gridded shaped reflectors

Launch

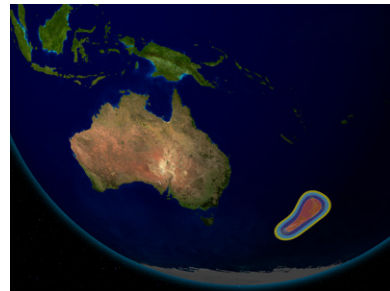
Launch Vehicle:	Ariane 5
Site:	Kourou, French Guiana
Date:	August 21, 2009

Coverage Contour Maps

Australia Antenna Pattern



New Zealand Antenna Pattern



Mission Partners

Optus of Australia

A leader in providing integrated communications in Australia

Orbital Sciences Corporation

Prime contractor for three Optus Ku-band satellites

Arianespace, S.A.

Launch provider



Optus D3 was launched into orbit on an Ariane 5 launch vehicle in 2009