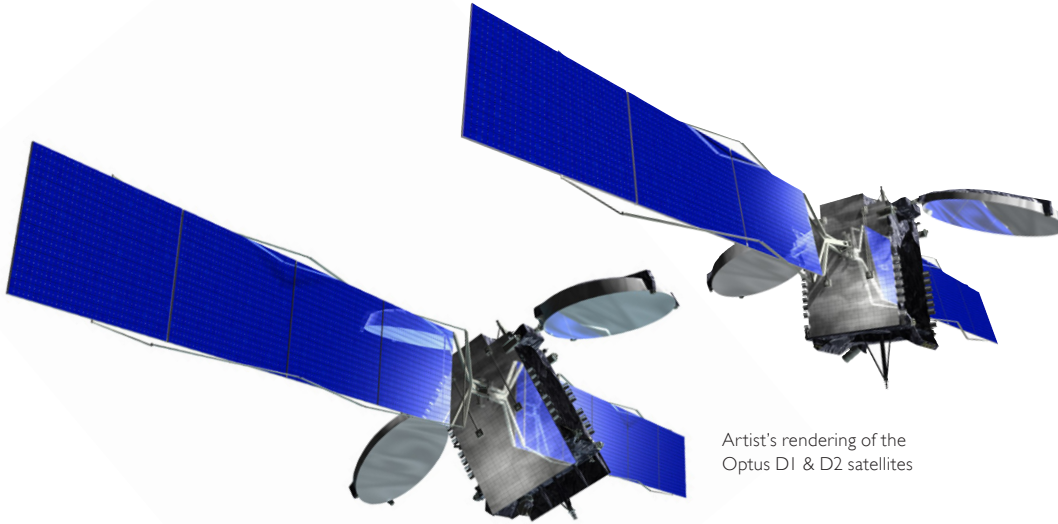




Optus D1 & D2

Ku-band Communications and Broadcasting for Australia and New Zealand



Artist's rendering of the Optus D1 & D2 satellites

Mission Description

Built for Australia-based Optus Networks Pty Limited, the Optus D-Series satellites provide Ku-band fixed communications and direct television broadcasting services to Australia and New Zealand. The Orbital-built satellites satisfy Optus' need to replace aging on-orbit spacecraft as well as satisfy higher than anticipated demand for access to their C1 satellite. D1 was launched in October 2006 and replaced the Optus B1 satellite at 160 degrees East Longitude; D2 was launched in October 2007 and replaced the Optus B3 satellite at 152 degrees East Longitude.

Spacecraft

The D-Series satellites are based on Orbital's flight-proven GEOStar-2 bus. Each satellite carries 24 active Ku-band transponders on a platform that is ideal for telephony, data and broadcasting applications. Both spacecraft generate approximately 3.8 kilowatts of payload power.

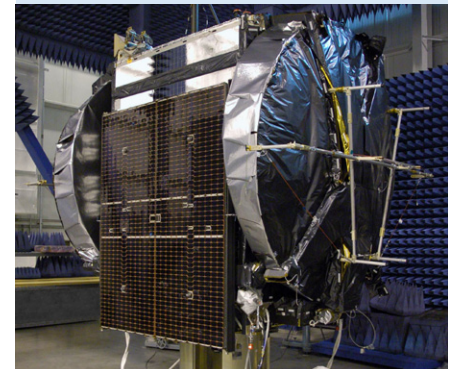
QUICK FACTS:



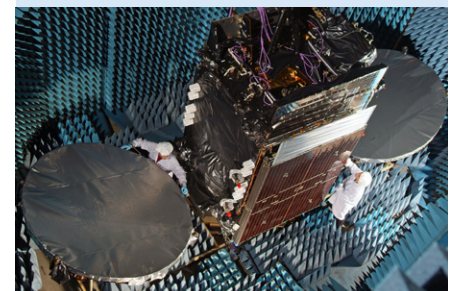
Coverage:
Australia and New Zealand

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

Customer:
Optus Networks, Pty. - Sydney, Australia



Optus D1 in Orbital's Satellite Manufacturing Facility



Optus D2 in the Antenna Range at Orbital's Satellite Manufacturing Facility in Dulles, VA

Optus D1 & D2

Specifications

Optus D1

Spacecraft

Launch Mass:	2,300 kg (5,060 lb.)
Solar Arrays:	Three 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 4750 W-Hr capacity Li-Ion batteries (BOL)
Mission Life:	15+ years
Orbit:	160 degrees East Longitude

Payload

Frequency:	Ku-band
Repeater:	24 active transponders with 20-for-16 150 W TWTA's and 10-for-8 44 W TWTA's
TWTA Power:	3.8 kW
Antenna:	Two 2.3 m deployable dual-shell gridded shaped reflectors

Launch

Launch Vehicle:	Ariane 5
Site:	Kourou, French Guiana
Date:	October 13, 2006

Optus D2

Spacecraft

Launch Mass:	2,375 kg (5,225 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 4750 W-Hr capacity Li-Ion batteries (BOL)
Mission Life:	15+ years
Orbit:	152 degrees East Longitude

Payload

Frequency:	Ku-band
Repeater:	24 active transponders with 20-for-16 125 W TWTA's and 10-for-8 44 W TWTA's
TWTA Power:	4.0 kW
Antenna:	Two 2.3 m deployable dual-shell gridded shaped reflectors

Launch

Launch Vehicle:	Ariane 5
Site:	Kourou, French Guiana
Date:	October 5, 2007

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 D1 was launched aboard an Ariane 5 rocket in 2006



Optus D2 was launched aboard an Ariane 5 rocket in 2007