



**Avanti's second satellite delivers Ka-band  
satellite communications across Europe,  
the Middle East and Africa**

HYLAS 2 uses customised Ka-band technology to  
deliver quality and flexible services.

[www.avantiplc.com](http://www.avantiplc.com)

## HYLAS 2 Applications

- Broadband Internet access
- Broadcast
- Business Internet Continuity
- Government and Security data communications
- GSM and mobile data backhaul
- IP and interactive TV
- IP Trunking
- Remote site telemetry
- Resilient high-speed corporate data networks
- Satellite News Gathering

## Customer Advantages

- A selection of packages available, including raw bandwidth, managed megabit and bespoke customer accounts
- Full management of services through OSS
- Highly competitive rates
- Low cost VSAT terminal equipment

### HYLAS 2 specifications

Lift off mass	3200kg
Life	15 years
Polarisation	Circular (LHCP/RHCP)
Payload power	5.0 kW



## Ka-band Broadband Payload

Uplink Frequency Range		Downlink Frequency Range	
Forward	27.5 – 29.5 GHz	Forward	19.7 – 20.2 GHz
Return	29.5 – 30.0 GHz	Return	17.7 – 19.7 GHz
Active Forward Transponders (Tx)	24	Active Return Transponders (Tx)	6
Forward Channel Bandwidth	230 MHz per beam	Return Channel Bandwidth	220 MHz per beam

HYLAS 2 provides 3 beam types - [wet](#), [intermediate](#) and [dry](#)  
- to optimise link budgets and coverage in different climatic regions.

Typical Dry Beam		Typical Wet Beam	
EIRP (at edge of coverage)	up to 58 dBW	EIRP (at edge of coverage)	up to 61.5 dBW
G/T (at edge of coverage)	up to 11.5 dB/K-1	G/T (at edge of coverage)	up to 14.0 dB/K-1

[Steerable Beam](#) - steerable to anywhere on the Earth's disc

Frequency Range of Operations			
Ka-band Non-Civilian	30.0 - 31.0 GHz	Bandwidth in Forward	2 x 230 MHz channels
	20.2 - 21.2 GHz		
Ka-band Civilian	28.0 - 30.0 GHz	Bandwidth in Return	2 x 220 MHz channels
	17.7 - 19.7 GHz		



+44 (0)20 7749 1666  
marketing@avantiplc.com  
www.avantiplc.com

Avanti's first satellite called HYLAS 1, launched on 26 November 2010 and is the first superfast broadband satellite launched in Europe. The second satellite, called HYLAS 2, launched on 2 August 2012 and extends Avanti's coverage to Africa and the Middle East. Avanti's third satellite, HYLAS 3, to be launched in partnership with ESA, will provide further capacity in the EMEA region. Over 80% of Avanti's fleet capacity will address the high growth telecommunications markets of Africa, the Caucasus and the Middle East.