



## **Avanti's first satellite uses Ka-band to deliver high speed services across Europe**

HYLAS 1 has a unique flexible payload. The bandwidth of its Ka-band beams can be changed whilst in orbit to maximise satellite efficiency.

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

## HYLAS 1 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

- 4 times more powerful than traditional Ku-band satellites
- A selection of packages available, including raw bandwidth, managed megabit and bespoke customer accounts
- Full management of services through OSS
- Low operating costs for bandwidth and VSAT hardware

HYLAS 1 specifications	
Orbital location	33.5° W
Lift off mass	2300kg
Life	15 years
Payload power	>2.0 kW
Capacity	up to 3 GHz



## 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	18.1 – 19.7 GHz
Active Forward Transponders (Tx)	8	Active Return Transponders (Tx)	2
Forward Channel Bandwidth	250 MHz per beam	Return Channel Bandwidth	120 MHz per beam
EIRP	62 dBW at beam centre	Polarisation	Circular

HYLAS 1 is also complemented by a Ku-band broadcast capability.

Ku-band Broadcast Payload			
Uplink Frequency Range	17.3 – 18.1 GHz	Downlink Frequency Range	11.7 – 12.5 GHz
Active Transponders	Multiple	Nominal Transponder bandwidth	33 MHz
ERIP	54dBW at beam centre	Polarisation	Linear

The Ka-band earth stations for HYLAS 1 are located at Goonhilly and Lands End in Cornwall, UK.



+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.