

ASTRA 2A - 28.2° EAST



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Direct-to-Home services in the UK and Ireland

The ASTRA 2A satellite is located at 28.2° East, ASTRA's prime orbital position for Direct-to-Home services in the UK and Ireland, providing capacity mainly for the transmission of broadcast and broadband multimedia services to consumer audiences.

SATELLITE INFORMATION

Satellite launch information

Launch date: 30.08.1998
 Launch vehicle: Proton
 Launch site: Baikonur, Kazakhstan
 Launch mass: 3635 kg

Satellite orbital information

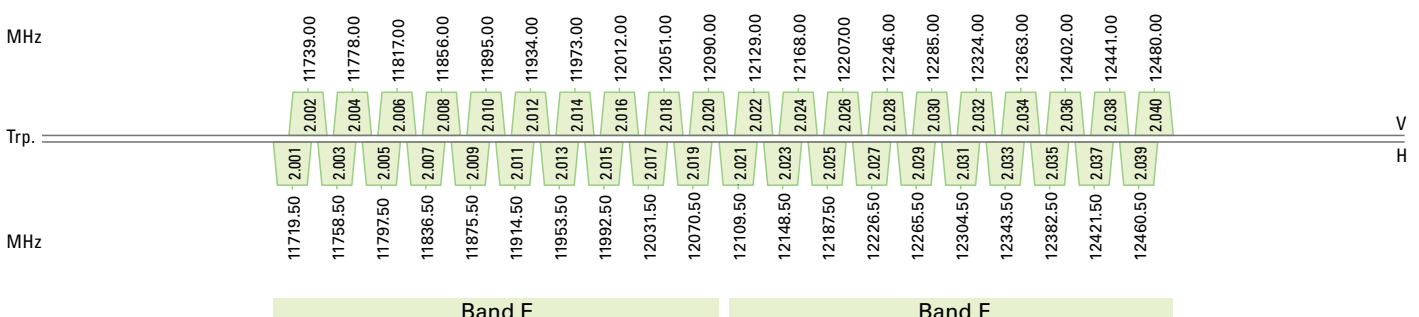
Satellite manufacturer: Hughes
 Orbital location: 28.2° East
 Stabilization system: 3 axis type
 Expected lifetime: 15 years
 Total power consumption: 7000 Watts

Satellite transponder information

Transponder capacity: 28
 TWTA output power: 98 Watts
 EIRP: 51 dBW
 All transponders are eclipse protected
 Transponder bandwidth: 33 MHz in BSS

CHANNEL CAPACITY

Total: 56 channels
 11.70 - 12.50 GHz: 40 channels (Band E / Band F)
 Channel Number Allocation and Downlink Centre Frequencies



ASTRA 2A FOOTPRINTS



Typical dish sizes:

50 cm

60 cm

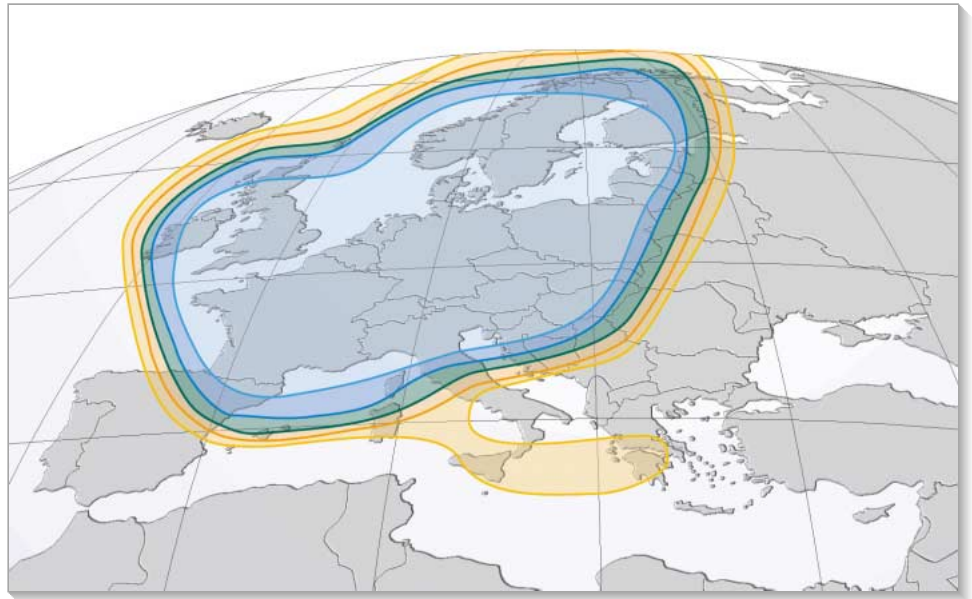
75 cm

90 cm

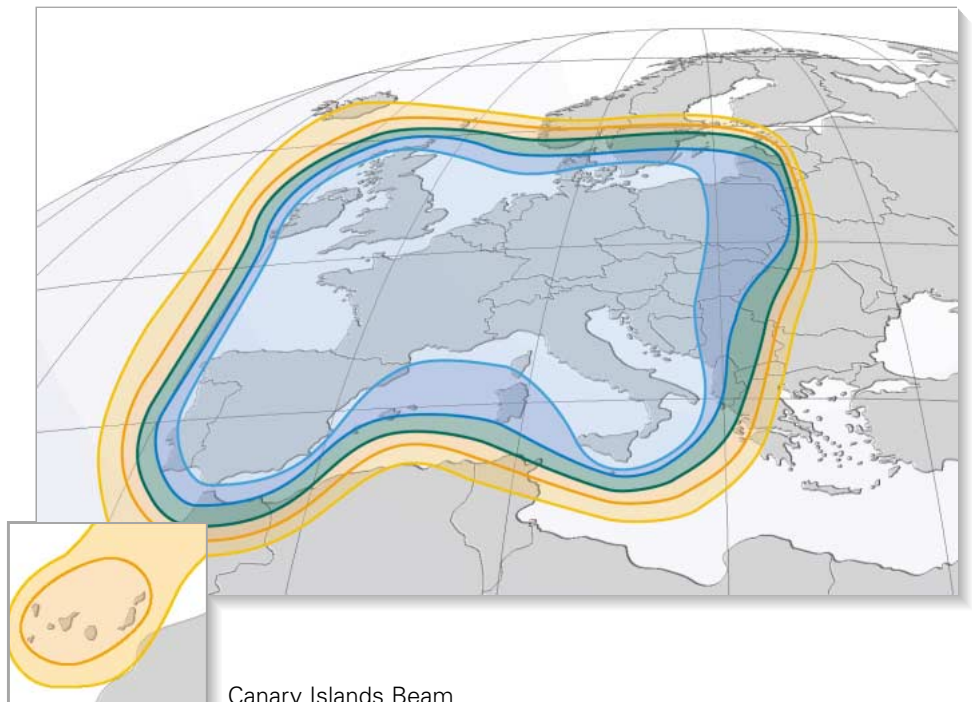
120 cm

The size of the satellite dish required to receive transmissions from the ASTRA satellites depends on the beam as well as on the geographical location of the dish. The ASTRA 2A satellite uses two beams, resulting in a north beam and a south beam.

North Beam



South Beam



Canary Islands Beam

ASTRA ORBITAL POSITIONS AND BACK-UP – SAFEGUARDING REVENUE

By co-locating satellites at one orbital position, ASTRA can offer easy ways of expanding service ranges and highest transmission security.

The key advantage is that audiences can use the same direct-to-home reception equipment when broadcasters and broadband service providers extend their services at the same orbital position.

The ASTRA satellite system through its co-located satellites at prime orbital positions also has the strength to

provide a unique form of in-orbit back-up. If for any reason, a transponder is switched off, a back-up transponder on the same satellite or a co-located satellite can be immediately activated. The back-up system can therefore guarantee high operational security and continuity of service for both our customers and the end consumer.

Freq. (GHz)	10.70	10.95	11.20	11.70	12.10	12.50	12.75	
	Band D		Band C	Band E			Band F	Band G**
ASTRA 2A				✓	✓			
ASTRA 2B				✓	✓		✓	
ASTRA 2D	✓							
ASTRA 2C*	✓		✓	✓	✓			
	Low Band (32 transponders)			High Band (56 transponders)				

*ASTRA 2C is not yet operational at 28.2° East **outside Europe

Updates of footprints, transponder lists and frequency plans, the complete ASTRA channel line-up and more information about SES ASTRA, the ASTRA Satellite System and ASTRA products and services can be found on www.ses-astra.com or contact us:

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