

**Applicant:**

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Antenna model:
EXPLORER 8100 Ka
With Viasat E TRIA

Diameter:
1 m

Standard:
M

Type Approval (Ref. EB-028) date:
21-08-2015

Most recent test data received on:
13-08-2015

System Description:

Vehicular mounted auto-deploy system with Cobham ACU using Viasat E TRIA for KA-SAT operation. Single piece 1.00 m Carbon fiber reflector for long focal length. Motorized auto-deploy AZ/EL mount, heavy and stable antenna back structure and feed boom. Single optic front fed offset.

Configurations: Antenna presented and tested works Viasat network on KA-SAT using the Viasat E TRIA. Antenna is designed for an exchange of the RF front end and for operation in Ku band. Antenna need an additional approval for operation in Ku band.

Maximum Allowed EIRP for digital carriers transmitted at the 18 dB/K satellite receive contour of KA-SAT (EESS 502 refers):

20.2 dBW / 4 KHz (equivalent to 30.2 dBW / 40 kHz) for an orbital separation of the adjacent satellite $\geq 1.5^\circ$

Tx Frequency:
29.50-30.00 GHz

Rx Frequency:
19.70-20.20 GHz

Tx Gain:
47.7 dBi (average at 29.75 GHz)

Rx Gain:
44.1 dBi (average at 19.95 GHz)

Tx XPD:
 ≥ 20.5 dB within -1 dB contour

Rx XPD:
 ≥ 20.4 dB within -1 dB contour

Pointing Error:
 $\leq 0.2^\circ$ @ 72 Km/h

G/T:
22.2 dB/K, assuming the Viasat E TRIA with 1.5 dB NF

Restrictions and remarks:

- 1) The terminal shall be used solely in VSAT Networks which are conformed with the EU regulations for blanket license agreement. Otherwise the operator has to be in possession of an operating license for above mentioned terminal from its local regulatory office.
- 2) The authorization to operate the terminal is conditioned to the approval to access the Eutelsat S.A. Space Segment (ref. <http://www.eutelsat.com/files/contributed/satellites/pdf/esog110.pdf> ESOG110).
- 3) This type approval has been performed at the outdoor test range of Politecnico di Torino on three units of the same model, in the month of August 2015.
- 4) The type approval's validity is subject to regular submission of patterns to confirm that the system remains compliant with the Eutelsat standard at the inspection date.
- 5) Any change to the type approved configuration needs to be notified to Eutelsat and may be subject to further tests.
- 6) This approval allows only operation in Viasat technology networks on KA-SAT.
- 7) The antenna system can only be operated for maximum wind speeds of up to 72 Km/h (45mph).