

**Applicant:**

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**Antenna model:**

GC-Zero 70 KA-SAT auto-deploy system with  
Viasat Surfbeam 2  
72 cm consumer User Terminal

**Diameter:**  
0.75H x 0.72V m  
2-ports feed

**Standard:**  
M

**Type Approval date:**  
30-11-2012

**System Description:**

Vehicle mounted auto-deploy mobile antenna with a Dawson ACU model MAC 11 and based on ViaSat Surfbeam 2, 72 cm User Terminal. Single optic front fed offset, 1 piece, metallic reflector. Integrated Viasat TRIA (feed, BUC, OMT, LNB and polarization switch), circular polarization. BUC: maximum rating 3 Watt and maximum output power 2 Watt.

**Maximum Allowed EIRP:**

29.4 dBW/40kHz for digital carriers transmitted at the 18 dB/K satellite receive contour of KA-SAT (EESS 502 refers) and from orbital separation of the adjacent satellite  $\geq 2.0^\circ$ .

**Tx Frequency:**

29.50 – 30.00 GHz

**Rx Frequency:**

19.70 - 20.20 GHz

**Tx Gain:**

43.4 dBi (typical at 29.75 GHz)

**Rx Gain:**

40.0 dBi (typical at 19.95 GHz)

**Tx XPD:**

>25.0 dB within -1 dB contour

**Rx XPD:**

>21.0 dB within -1 dB contour

**Pointing error:**

< 0.34° (auto-pointing); <0.4° (wind)

**G/T:**

17.1 dB/K

**Restrictions:**

- 1) The terminal shall be used solely in VSAT Networks which are conformed with the EU regulations (<http://telecom.esa.int/telecom/www/object/index.cfm?fobjectid=24463>) for blanket license agreement.
- 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/satellites/pdf/esog110.pdf> ESOG 110).
- 3) This type approval has been performed at the outdoor test range of Politecnico of Torino from October 2011 and completed by measurements by CTS in Leatherhead on one unit in the month of July 2012 and one unit in the month of November 2012.
- 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 characterized configuration needs to be notified to Eutelsat and may be subject to further tests.
- 6) The reflector has to be replaced with a spare one by Dawson in case of visible damage to it.