

# INTERACTIVE SATELLITE TERMINAL (IST) TYPE APPROVAL/CHARACTERIZATION

June 2021



**EUTELSAT**

# INTERACTIVE SATELLITE TERMINAL (IST) TYPE APPROVAL/CHARACTERIZATION

This list aims at providing Eutelsat customers with guidance on the selection of the most appropriate earth station equipment to access the Eutelsat capacity with Interactive Satellite Terminal (also known as Smart LNB).

Any IST which are regularly deployed on the Eutelsat satellites may be eligible for being included in this list.

## **The criteria for inclusion are:**

Eutelsat is in possession of a full set of RF electrical characteristics related to the IST, measured on an accredited test range;

The IST's RF performance fully meets the minimum Eutelsat requirements (EESS 503).

There is no known record of operational problems or interference issues related to this IST;

The IST shall be used solely in Eutelsat Broadcast Interactive System (EBIS) Networks which are conformed to the EU regulations (<http://telecom.esa.int>) for blanket license agreement;

For drive-away systems, the use of stabilization jacks during operations is mandatory;

The authorization to operate the terminal is conditioned to the procedure to access the Eutelsat S.A. Space Segment (ref. <http://www.eutelsat.com/files/contributed/satellites/pdf/esog120.pdf>, ESOG 120).

Inclusion in the list is a decision which pertains uniquely and ultimately to Eutelsat alone. At any moment a given VSAT may be removed from the list, should Eutelsat deem necessary to do so.

This characterization does not replace in any way the Eutelsat type approval program, cfr. <http://www.eutelsat.com/files/contributed/satellites/pdf/typeapproval.pdf>

For a given VSAT, additional RF characteristics not explicitly listed (e.g. other operating frequency bands) can be found at the URL address of the manufacturer datasheet, if available.

## **Notes:**

- The agreement's validity is subject to regular submission of patterns to confirm that the system remains compliant with the Eutelsat standard I (EESS 503) at the inspection date.
- Any change to the agreed configuration needs to be notified to Eutelsat and may be subject to further tests.
- Transmissions in the 13.75 GHz to 14.00 GHz frequency band are subject to additional constraints imposed by the Radio Regulations. Earth stations operating in the band 13.75 - 14.00 GHz shall have minimum antenna diameter of 1.2 m.

**Applicant:**

EGATEL  
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[fvaldes@egatel.es](mailto:fvaldes@egatel.es)

**Certificate:**

EI-001

**Antenna model:**

Winegard DS-7401

**Antenna aperture dimensions:**

0.91 m H x 0.63 m V

**Standard:**

I

**Antenna ID:**

D\_60

**Approval date:**

29-06-2018

**Last revision:**

01-02-2019

**Validity period:**

see Remark 4

**Last test data submitted on:**

05-03-2018

**System Description:**

Antenna system for fixed IST applications with antenna ID D\_60 (EESS 503 refers). Front Fed Offset configuration. Single piece elliptical metallic reflector manufactured by Winegard, with two port linear polarization feed, manufactured by Egatel, with maximum permissible rating as per remark 3. The antenna is not authorized to operate in auto acquisition mode.

**Maximum Allowed EIRP:** For digital carriers transmitted by N terminals at the satellite receive contour of 0 dB/K each terminal ESD shall be (EESS 502 refers):

**In the 14.00 - 14.50 GHz band:**

31.9 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$

33.5 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.5^\circ$

37.8 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 3.0^\circ$

**In the 13.75 - 14.00 GHz band:**

29.7 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$

31.3 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.5^\circ$

35.6 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 3.0^\circ$

**Tx Frequency:**

13.75 - 14.50 GHz

**Rx Frequency:**

10.70 -12.75 GHz

**Tx Gain:**

38.25 dBi (av. at 14.25 GHz) – min is 37.2 dBi

**Rx Gain:**

36.8 dBi (av. at 11.70 GHz) min is 35.5 dBi

**Tx XPD:**

$\geq 20$  dB within -1 dB contour

**Rx XPD:**

$\geq 20$  dB within -1 dB contour

**G/T:**

16.7 dB/K theoretical @ 11.725 GHz at 30° EI

**Restrictions and remarks:**

- 1 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>, ESOG 110).
- 2 RF performance tests were performed on one antenna unit at the Applied CCR Antenna Test Facility at Munich University of Applied Sciences on the 5 March 2018.
- 3 The Winegard/Egatel is authorized to operate with a Smart LNB with a power of 1 W.
- 4 This Summary's validity is subject to regular submission of patterns to confirm that the system remains compliant with measured performance at the inspection date.
- 5 Any change to this configuration needs to be notified to Eutelsat and may be subject to further tests.
- 6 Wind load tests showed that the antenna can withstand wind speeds up to 72 Km/h.
- 7 The service quality in conjunction with operations in certain Rx bands and/or reduced orbital separations from the adjacent satellites may be impaired due to excessive Rx sidelobe level.

**Applicant:**

EGATEL  
Parque Tecnológico de Galicia, Av. Ourense, 1, 32901  
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Website : <http://www.egatel.es/>

Email : [egatel@egatel.es](mailto:egatel@egatel.es) or  
[fvaldes@egatel.es](mailto:fvaldes@egatel.es)

**Certificate:**

EI-002

**Antenna model:**

Sinuta VF075SMART01S

**Antenna aperture dimensions:**

0.75 m H x 0.80 m V

**Standard:**

I-x

**Antenna ID:**

D\_60

**Approval date:**

31-08-2018

**Last revision:**

01-02-2019

**Validity period:**

see Remark 4

**Last test data submitted on:**

13-06-2018

**System Description:**

Antenna system for fixed IST applications with antenna ID D\_60 (EESS 503 refers). Front Fed Offset configuration. Single piece elliptical metallic reflector manufactured by Sinuta, with two port linear polarization feed, manufactured by Egatel, with maximum permissible rating as per remark 3. The antenna is not authorized to operate in auto acquisition mode.

**Maximum Allowed EIRP:** For digital carriers transmitted by N terminals at the satellite receive contour of 0 dB/K each terminal ESD shall be (EESS 502 refers):

**In the 14.00 - 14.50 GHz band:**

32.5 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$

32.6 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.0^\circ$

34.0 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.5^\circ$

35.4 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 3.0^\circ$

**In the 13.75 - 14.00 GHz band:**

30.0 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$

30.1 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.0^\circ$

31.5 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.5^\circ$

32.9 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 3.0^\circ$

**Tx Frequency:**

13.75 - 14.50 GHz

**Rx Frequency:**

10.70 -12.75 GHz

**Tx Gain:**

38.8 dBi (av. at 14.25 GHz) – min is 37.0 dBi

**Rx Gain:**

36.9 dBi (av. at 11.70 GHz) - min is 35.5 dBi

**Tx XPD:**

$\geq 23.8$  dB within -1 dB contour

**Rx XPD:**

$\geq 24$  dB within -1 dB contour

**G/T:**

16.8 dB/K theoretical @ 11.70 GHz at  $30^\circ$  EI

**Restrictions and remarks:**

- 1 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>, ESOG 110).
- 2 RF performance tests were performed on one antenna unit at the Applied CCR Antenna Test Facility at Munich University of Applied Sciences on the 6-13 June 2018.
- 3 The Sinuta/Egatel is authorized to operate with a Smart LNB with a power of 1 W.
- 4 This Summary's validity is subject to regular submission of patterns to confirm that the system remains compliant with measured performance at the inspection date.
- 5 Any change to this configuration needs to be notified to Eutelsat and may be subject to further tests.
- 6 Wind load tests showed that the antenna can withstand wind speeds up to 72 Km/h.



**Applicant:**

TELE SYSTEM DIGITAL SRL  
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**Certificate:**

EI-003

**Antenna model:**

Fuba 60 cm

**Antenna aperture dimensions:**

0.60 m

**Standard:**

I

**Antenna ID:**

D\_60

**Approval date:**

13-06-2019

**Validity period:**

See Remark 4

**Last test data submitted on:**

17-04-2019

**System Description:**

Antenna system for fixed IST applications with antenna ID D\_60 (EESS 503 refers). Front Fed Offset configuration. Single piece elliptical metallic reflector manufactured by Tele System, with two port linear polarization feed, manufactured by Egatel and feed horn by AzureShine, with maximum permissible rating as per remark 3. The antenna is not authorized to operate in auto acquisition mode.

**Maximum Allowed EIRP:** For digital carriers transmitted by N terminals at the satellite receive contour of 0 dB/K each terminal ESD shall be (EESS 502 refers):

**In the 14.00 - 14.50 GHz band:**

30.04 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$

29.93 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.0^\circ$

30.35 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.5^\circ$

32.40 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 3.0^\circ$

**In the 13.75 - 14.00 GHz band:**

28.19 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$

29.97 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.0^\circ$

28.35 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.5^\circ$

30.25 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 3.0^\circ$

**Tx Frequency:**

13.75 - 14.50 GHz

**Rx Frequency:**

10.70 -12.75 GHz

**Tx Gain:**

37.2 dBi (av. at 14.25 GHz) – min is 37.2 dBi

**Rx Gain:**

35 dBi (av. at 11.70 GHz) - min is 35.5 dBi

**Tx XPD:**

$\geq 20.5$  dB within -1 dB contour

**Rx XPD:**

$\geq 22.71$  dB within -1 dB contour

**G/T:**

16 dB/K theoretical @ 11.70 GHz at 30° EI

**Restrictions and remarks:**

- 1 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>, ESOG 110).
- 2 RF performance tests were performed on one antenna unit at Thale Alenia Space range in Cannes on April 2019.
- 3 The Sinuta/Egatel is authorized to operate with a Smart LNB with a power of 1 W.
- 4 This Summary's validity is subject to regular submission of patterns to confirm that the system remains compliant with measured performance at the inspection date.
- 5 Any change to this configuration needs to be notified to Eutelsat and may be subject to further tests.
- 6 Wind load tests showed that the antenna can withstand wind speeds up to 72 Km/h.



**Applicant:**

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**Certificate:**

EI-004

**Antenna model:**

Fuba 80

**Antenna aperture dimensions:**

0.72 m

**Standard:**

I

**Antenna ID:**

D\_60

**Approval date:**

13-06-2019

**Validity period:**

See Remark 4

**Last test data submitted on:**

17-04-2019

**System Description:**

Antenna system for fixed IST applications with antenna ID D\_60 (EESS 503 refers). Front Fed Offset configuration. Single piece elliptical metallic reflector manufactured by Tele system, with two port linear polarization feed, manufactured by Egatel and feed by AzureShine, with maximum permissible rating as per remark 3. The antenna is not authorized to operate in auto acquisition mode.

**Maximum Allowed EIRP:** For digital carriers transmitted by N terminals at the satellite receive contour of 0 dB/K each terminal ESD shall be (EESS 502 refers):

**In the 14.00 - 14.50 GHz band:**

32.72 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$

32.82 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.0^\circ$

34.99 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.5^\circ$

38.41 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 3.0^\circ$

**In the 13.75 - 14.00 GHz band:**

30.78 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$

30.87 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.0^\circ$

32.56 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.5^\circ$

35.65 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 3.0^\circ$

**Tx Frequency:**

13.75 - 14.50 GHz

**Rx Frequency:**

10.70 -12.75 GHz

**Tx Gain:**

38.6 dBi (av. at 14.25 GHz) – min is 37.2 dBi

**Rx Gain:**

36.5 dBi (av. at 11.70 GHz) - min is 37.4 dBi

**Tx XPD:**

$\geq 20.29$  dB within -1 dB contour

**Rx XPD:**

$\geq 22.6$  dB within -1 dB contour

**G/T:**

16 dB/K theoretical @ 11.70 GHz at 30° EI

**Restrictions and remarks:**

- 1 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>, ESOG 110).
- 2 RF performance tests were performed on one antenna unit at Thale Alenia Space range in Cannes on April 2019.
- 3 The Sinuta/Egatel is authorized to operate with a Smart LNB with a power of 1 W.
- 4 This Summary's validity is subject to regular submission of patterns to confirm that the system remains compliant with measured performance at the inspection date.
- 5 Any change to this configuration needs to be notified to Eutelsat and may be subject to further tests.
- 6 Wind load tests showed that the antenna can withstand wind speeds up to 72 Km/h.





**Applicant:**  
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**Certificate:**  
EI-005  
**Antenna model:**  
Emme Esse 74 cm  
**Antenna aperture dimensions:**  
0.74 m H x 0.80 m V  
**Standard:**  
I-x  
**Antenna ID:**  
D\_60  
**Approval date:**  
13-06-2019  
**Validity period:**  
See Remark 4  
**Last test data submitted on:**  
17-04-2019

## System Description:

Antenna system for fixed IST applications with antenna ID D\_60 (EESS 503 refers). Front Fed Offset configuration. Single piece elliptical metallic reflector manufactured by EMME-ESSE, with two port linear polarization feed, manufactured by Egatel, with maximum permissible rating as per remark 3. The antenna is not authorized to operate in auto acquisition mode.

**Maximum Allowed EIRP:** For digital carriers transmitted by N terminals at the satellite receive contour of 0 dB/K each terminal ESD shall be (EESS 502 refers):

### In the 14.00 - 14.50 GHz band:

31.25 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$   
31.18 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.0^\circ$   
31.20 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.5^\circ$   
32.00 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 3.0^\circ$

### In the 13.75 - 14.00 GHz band:

31.60 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$   
31.60 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.0^\circ$   
32.02 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 2.5^\circ$   
33.28 – 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 3.0^\circ$

**Tx Frequency:**  
13.75 - 14.50 GHz

**Rx Frequency:**  
10.70 -12.75 GHz

**Tx Gain:**  
38.2 dBi (av. at 14.25 GHz) – min is 37.2 dBi

**Rx Gain:**  
37.4 dBi (av. at 11.70 GHz) - min is 37.4 dBi

**Tx XPD:**  
 $\geq 22.9$  dB within -1 dB contour

**Rx XPD:**  
 $\geq 22.9$  dB within -1 dB contour

**G/T:**  
16.8 dB/K theoretical @ 11.70 GHz at  $30^\circ$  EI

## Restrictions and remarks:

- 1 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>, ESOG 110).
- 2 RF performance tests were performed on one antenna unit at Thale Alenia Space range in Cannes on April 2019.
- 3 The Sinuta/Egatel is authorized to operate with a Smart LNB with a power of 1 W.
- 4 This Summary's validity is subject to regular submission of patterns to confirm that the system remains compliant with measured performance at the inspection date.
- 5 Any change to this configuration needs to be notified to Eutelsat and may be subject to further tests.
- 6 Wind load tests showed that the antenna can withstand wind speeds up to 72 Km/h.

**Applicant:**

AYECKA  
Salit Even Shoam - EVP Products & Projects  
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Kfar-Saba  
Israel 4464316

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Email : salite@ayecka.com

**Certificate:**

EI-006

**Antenna model:**

Sinuta 72SA

**Antenna aperture dimensions:**

0.75 m H x 0.80 m V

**Standard:**

I

**Antenna ID:**

D\_60

**Approval date:**

26-02-2020

**Validity period:**

See Remark 4

**Last test data submitted on:**

04-12-2019

**System Description:**

Antenna system for fixed IST applications with antenna ID D\_60 (EESS 503 refers). Front Fed Offset configuration. Single piece elliptical metallic reflector manufactured by Sinuta, with two port linear polarization feed, manufactured by AYECKA, with maximum permissible rating as per remark 3. The antenna is not authorized to operate in auto acquisition mode.

**Maximum Allowed EIRP:** For digital carriers transmitted by N terminals at the satellite receive contour of 0 dB/K each terminal ESD shall be (EESS 502 refers):

**In the 14.00 - 14.50 GHz band:**

$32.8 - 10 \times \log N$  dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$

**In the 13.75 - 14.00 GHz band:**

$30.8 - 10 \times \log N$  dBW / 40 kHz for an orbital separation from the adjacent satellite  $\geq 1.5^\circ$

**Tx Frequency:**

13.75 - 14.50 GHz

**Rx Frequency:**

10.70 -12.75 GHz

**Tx Gain:**

38.9 dBi (av. at 14.25 GHz) – min is 37.2 dBi

**Rx Gain:**

37 dBi (av. at 11.70 GHz) - min is 35.5 dBi

**Tx XPD:**

$\geq 20$  dB within -1 dB contour

**Rx XPD:**

$\geq 22.0$  dB within -1 dB contour

**G/T:**

16.6 dB/K theoretical @ 11.70 GHz at  $30^\circ$  EI

**Restrictions and remarks:**

- 1 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>, ESOG 110).
- 2 RF performance tests were performed on one antenna unit at Thale Alenia Space range in Cannes on December 2019.
- 3 The Ayecka/Sinuta 72SA is authorized to operate with a Smart LNB with a power of 1 W.
- 4 This Summary's validity is subject to regular submission of patterns to confirm that the system remains compliant with measured performance at the inspection date.
- 5 Any change to this configuration needs to be notified to Eutelsat and may be subject to further tests.
- 6 Wind load tests showed that the antenna can withstand wind speeds up to 72 Km/h.



**Applicant:**

Orazio Pulvirenti  
Eutelsat  
Office: +33153984680  
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**Certificate:**  
EI-007

**Antenna model:**

GV-A0XX-6200-00 with Feed Model: 07-0705-4007, plus OMT v 3.0 from Egatel

**Diameter:**  
1 m

**Standard:**  
I

**Antenna ID:**  
D\_75

**Characterization Date:**  
01/06/2021

**Last test data submitted on:**  
10/02/2021

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**System Description:**

Antenna system with 100 cm galvanized steel reflector, operating in Ku frequency band antenna with F/D of 0.8, two port linear polarization feed and BUC of 1 W. The antenna has been manufactured by Azure Shine International Inc. The feed is from Azurshine and it is combined with the Egatel OMT. The integrated terminal is targeted to the IST application called Smart LNB.

OMT v3.0 from Egatel for SLNB  
Feed Model: 07-0705-4007

**Maximum Allowed EIRP:** For digital carriers transmitted at the satellite receive contour of 0 dB/K (EESS 502 refers):

**In the 13.75 - 14.00 GHz band:**

34.1 - 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite > 1.5°  
38.2 - 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite > 2.0°  
41.4 - 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite > 2.5°

**In the 14.00 - 14.50 GHz band:**

36.2 - 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite > 1.5°  
39.7 - 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite > 2.0°  
43.7 - 10 x log N dBW / 40 kHz for an orbital separation from the adjacent satellite > 2.5°

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**Tx Frequency:**

13.75 – 14.50 GHz

**Tx Gain:**

41.7 dBi (typical at 14.25 GHz)

**Tx XPD:**

≥21.8 dB within -1 dB contour (worst case at 13.75 GHz)

**Pointing and windload error:**

< 0.32°

**Rx Frequency:**

10.70 -12.50 GHz

**Rx Gain:**

32.8 dBi (typical at 11.70 GHz)

**Rx XPD:**

≥22 dB at boresight and at 10.70 GHz

**G/T:**

13.5 dB/K theoretical assuming LNB NF= 0.8 dB.

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**Restrictions and remarks:**

- 1) The access is assumed to be in TDMA mode on digital carriers of maximum 10 MSym/s
- 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>, ESOG 110).
- 3) This Characterization has been performed at the test range of NDSatCom in Friedrichshafen (Germany) from December 2020 to February 2021.
- 4) The Characterization's validity is subject to regular submission of patterns to confirm that the system remains compliant with the Eutelsat standard.
- 5) The transmission in the band 13.75 – 14.00 GHz for antennas with diameter <1.2 m is subject to additional constraints imposed by the ITU radio regulation in force.

Eutelsat is one of the world's leading and most experienced operators of communications satellites.

Our extensive network of high-performance satellites, located between 133° West and 174° East, provides capacity to clients that include broadcasters and broadcasting associations, pay-TV operators, video, data and Internet service providers, enterprises and government agencies.

Eutelsat's satellites provide ubiquitous coverage of Europe, the Middle East, Africa, Asia-Pacific and the Americas, enabling video, data, broadband and government communications to be established irrespective of a user's location.

Headquartered in Paris, with offices and teleports around the globe, Eutelsat represents a workforce of 1,200 men and women from 46 countries who are experts in their fields and work with clients to deliver the highest quality of service.

What can we do for you? Please visit  
[www.eutelsat.com/enquiries](http://www.eutelsat.com/enquiries)

