

# Ellipse Mix Antenna BIII/UHF, 2nd Digital Dividend (LTE700)

## Intelligence taken to the limit

Ellipse Mix is an intelligent antenna that adapts automatically and in real time to the conditions signals are received. It has been designed to offer a stable and quality reception of DTT (mixed BIII/UHF) signals, optimizing the rejection of the LTE band (up to channel 48) thanks to a SAW filter that offers great selectivity.
A new concept of DTT antenna that eliminates any interference even in the limits of the TV band, combining a break-through design in a 100% stainless mechanical frame that houses the new generation of Tforce electronics, featuring a revolutionary SAW filter.

PSU included: intelligence is activated when the antenna is powered (according to reference).

| | |
|---|---|
| Ref. | 148822 |
| Logical ref. | ELLIPSEVU-6 |
| EAN13 | 8424450207437 |

| **Other features** | |
|---|---|
| Colour | Orange |
| Power Supply Unit | 12V, EU plug |
| Supply method | Multiple packing |

| **Packaging info** | |
|---|---|
| Box | 6 pcs. |

| **Physical data** | |
|---|---|
| Net weight | 2,100.00 g |
| Gross volume | 33.50 dm³ |
| Gross weight | 2,100.00 g |
| Width | 986.00 mm |
| Height | 686.00 mm |
| Depth | 866.00 mm |
| Main product weight | 2,100.00 g |

## Highlights

- The best antenna for range of DTT coverage: It receives the signal in multiple locations, whether the signal is strong or weak

- The highest dynamic range: it allows the reception of a quality signal in a variety of situations, detecting very weak signals and avoiding overload with overly strong signals
- Capable of adapting to adverse weather conditions, locations with a "fading" effect or to any change in the environment: it is constantly checking the signal and autoadjusting its gain in order to always provide the best output level possible
- VHF and UHF independently controled: Split dual band regulation minimized large signal level differential between both bands
- Optimal C/N: the signal quality is always preserved thanks to a very low noise figure
- Optimal gain: intelligence autoadjusts the gain to the optimal level
- Eliminate any interference, even in the limits of the TV band: thank to its SAW filter (Surface Acoustic Wave), which performs a great selectivity, interferences are filtered, mainly the telephone LTE ones, respecting the last channel of the band
- Special double-U dipole: it's open/close format provides optimal frequency response flatness
- A fully shielded switch box protects the BOSS system from impulsive noise; grounded for full protection against electrical discharge
- Mechanics completely immune to corrosion: Aluminium and fiberglass structure, stainless steel screws and reinforced ZAMAK clamp with an anticorrosive core
- Innovative aerodynamic design: Unsurpassed aesthetics show a meticulous design and passion for details
- Curves enhance reception: the concave surface created by the reflectors focus the signal on the dipole. The convex external side maximize screening and rejection against interference
- Assembly process: Quick assembly in less than 1 minute and all the installation is carried out with no tools required
- A robust and permanent fastening system that avoids malfunctioning over time
- Extremely lightweight and compact: it makes installation in challenging locations easier and offers lower wind resistance
- Low consumption in intelligent mode
- Made in Europe: Manufactured in a fully automated production and verification line that ensures the highest level of performance guarantee

## Discover

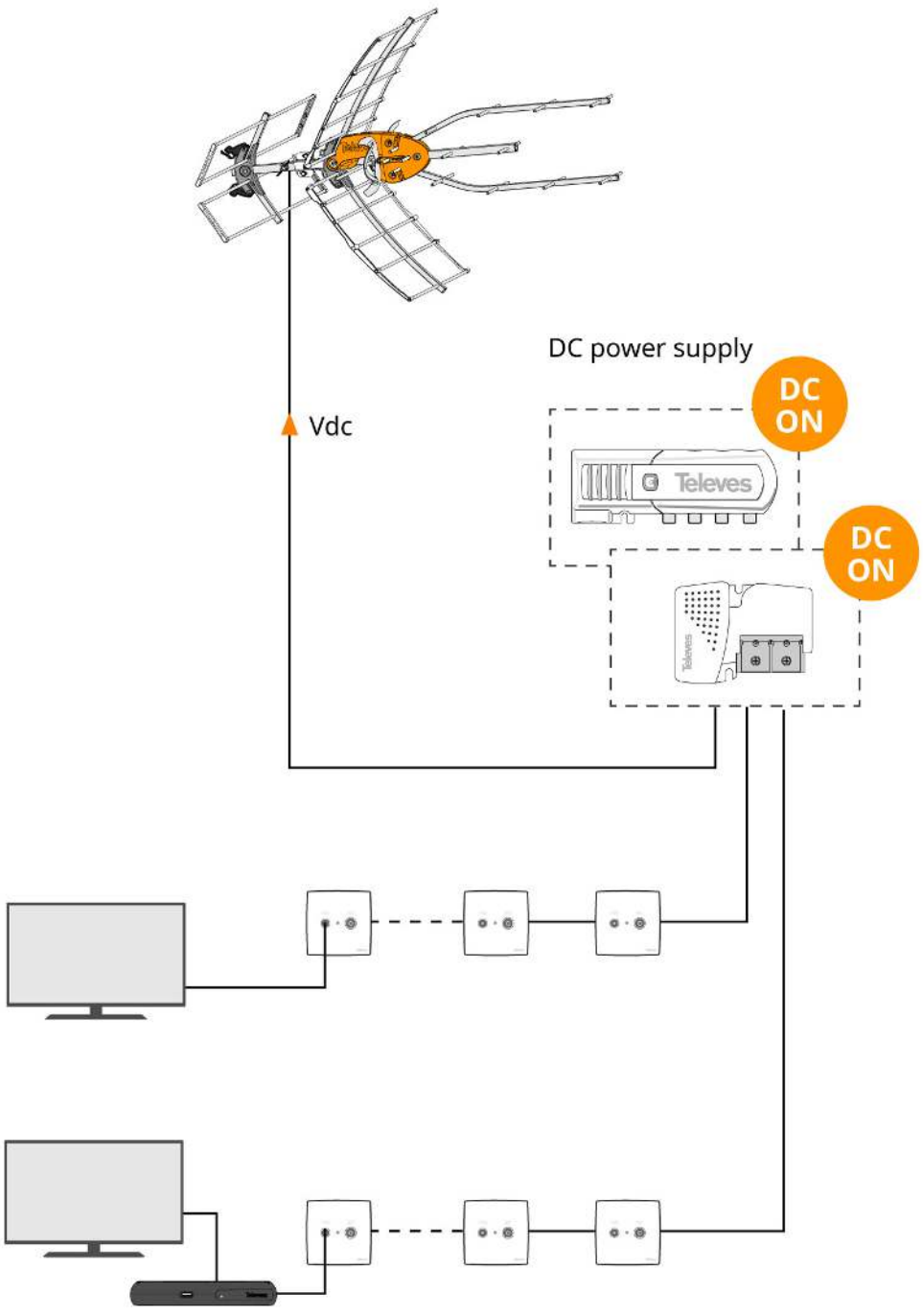
**TForce technology:**

Televes transitions from the traditional silicon era into a new era of electronic component design, allowing integrated circuits to be precisely manufactured for microwave frequency bands. Utilizing “State of the Art” MMIC technology TForce is manufactured using semiconductor compounds such as gallium arsenide (GaAs), providing the resulting products with unparalleled features and performance

Televes has reinvented the antenna concept. Until now, an antenna was just the reception component of a TV installation in which gain and directivity were the main features. The introduction of a smart device like BOSS provides the antenna with the capacity to receive very weak signals without the risk of being affected by very strong signals, the result is a dynamic balance between weak and strong signals that provides optimum signal levels at all times: the "dynamic range" concept turns out to be the most outstanding among quality parameters.

The creation of TForce with BOSS technology using MMIC components is an extraordinary milestone in the optimization of the dynamic range. The technology that allowed the reception of lost signals from distant satellites is now allowing the enhancement of the coverage range in DTT installations.

## Application example


DC power supply
DC ON
Vdc
Televes
DC ON

Televes®

## **Technical specifications** : Ref. 148822

| **Bands** | | HighVHF | UHF |
|---|---|---|---|
| **Frequency range** | MHz | 174 ... 230 | 470 ... 694 |
| **Channels** | | 5 ... 12 | 21 ... 48 |
| **BOSS mode** | | ON | ON |
| **Gain** | dBi | 34 | 38 |
| **Output level** | | Auto*[1] | Auto*[2] |
| **Noise figure** | dB | 2.5 | 2.5 |
| **Signal level of use** | dB | < 15 | < 15 |
| **Powering** | Vdc | 12 | 12 |
| **Max. current** | mA | 70 | 70 |
| **Beamwidth** | ° | 60 | 40 |
| **F/B ratio** | dB | > 20 | > 20 |
| **Wind load (@80miles/h)** | N | 96 | |
| **Wind load (@93miles/h)** | N | 132 | |
| **Mast diameter** | in | 0.787 ... 1.969 | |

*[1] The gain is automatically adjusted according to the level of output.

*[2] The gain is automatically adjusted according to the level of output.