

NevoSwitch® dCSS

**GREAT VERSATILITY AND FLEXIBILITY
FOR QUATTRO OR WIDEBAND SATELLITE RECEPTIONS**



Fully flexible multiswitch in compliance with **dCSS** technology, easily adaptable to **Quattro** or **WideBand** satellite receptions.



DCFLEX
Functionality



Versatile
Topology



ECO
Mode



T.F.
Technology



100% Made in
Televes Corporation

Televes

MADE IN
Televes

NevoSwitch dCSS

Compact multiswitch equipped with 5 inputs, one passive terrestrial and four inputs for satellite, which user outputs are compliant with **SCR I (EN50494)**, **SCR II (EN 50607)** and the **Legacy** mode, which makes it compatible with any new or existing set top boxes.

The four satellite inputs **can be selected in Quattro mode** for reception of the polarities of 1 satellite, **or in WideBand mode** for reception of 2 satellites.

Highlights

Satellite reception selection switch: **Quattro mode or WideBand mode** reception.

DCFLEX functionality, the installer chooses the powering method: From the power supply, from the receiver, or from the cascade through the satellite inputs or outputs.

TForce technology: the device adjusts the output level of the terrestrial signal to optimal values at any times.

Versatile: use the same product for both star or cascade topologies just by flipping a switch.

Wide voltage range: **Voltages from 12 V to 18 V** make it compatible with most existing systems.

Made of zamak, which gives it **high shielding (A class)**. In addition, it presents a **great isolation** between inputs and outputs.

ECO mode: the device reduces consumption as the number of connected user decreases.

100% designed, developed & manufactured in **Europe** by Televes Corporation.

dCSS technology: full distribution over a single coaxial cable

dCSS technology is the evolution of the SCR (Satellite Channel Router) technology, which allows full distribution of one or **several satellite signals to multiple users over a single coaxial cable**. This is achieved by means of a static or dynamic user band assignment and the use of DiSEqC commands for satellite signal tuning. Each band is assigned a user tuner, and on each any input band and polarity can be selected using frequency processing.

dCSS technology offers the possibility to use **up to 32 user bands**, which is almost equivalent to occupying the whole satellite band. It can be used in multiple scenarios (individual and communal distribution), and in dynamic or static operation modes. The latter is the most flexible and inexpensive alternative to the headends with intermediate frequency processing that came along with early analogue and digital satellite distributions. This technology can also be combined with optical fiber, which significantly extends the reach of the satellite distribution.

REF.	DESCRIPTION	T/C	EAN13
5 INPUTS: 1 SATELLITE (QUATTRO) OR 2 SATELLITES (WIDEBAND)			
719301	dCSS NevoSwitch 5x5x2	✓	8424450173909
719302	dCSS NevoSwitch 5x5x4	✓	8424450175163
714508	Quattro Amplifier 5x5 "F" MATV/SAT G 10/11dB Vs 114/118dBμV		8424450181614
714509	Quattro Amplifier 5x5 "F" MATV/SAT G 27/31dB Vs 114/118dBμV		8424450173398
730901	WideBand Amplifier 5x5 "F" MATV/SAT G 10/13dB Vs 114/118dBμV		8424450270417
730902	WideBand Amplifier 5x5 "F" MATV/SAT G 27/29dB Vs 114/118dBμV		8424450270424

T/C: Terminal/Cascade

THE SEVERAL SWITCHES INTEGRATED INTO THIS MULTISWITCH PROVIDE GREAT VERSATILITY AND FLEXIBILITY TO ADAPT IT TO ANY TYPE OF INSTALLATION!



DCFLEX: POWERING FLEXIBILITY

1 SAT DC LINK SWITCH (ON/OFF)

It isolates or connects the power of the multiswitch to the power available from the cascade (satellite trunk lines).

OFF (isolated from the cascade): The MSW is powered locally (w/ PSU) or from the user output without adding or drawing power from the cascade.

ON (connected to the cascade): The MSW can add or draw (in the case that needs powering) current from the cascade.

2 TERR. DC SWITCH (ON/OFF)

It isolates or connects the power available from the terrestrial leg of the cascade. It can be useful to line power a masthead amplifier or a BOSS antenna, but it can be also be use to line power the terrestrial side of other MSWs in the cascade.

3 RECEIVER POWER SWITCH (ON/OFF) *

It controls the DC pass from the user outputs towards the multiswitch. You can power the device from the Set-Top-Box (if there is enough power available) or a power inserter.

TERMINAL OR CASCADE TOPOLOGY

6 AUTOLOAD SWITCH

It provides versatility to the device. With the flick of the switch, installation in terminal mode (stand-alone) or cascade mode can be selected depending on the desired scenario.

QUATTRO OR WIDEBAND MODE

4 SAT. MODE SWITCH

It allows to select the satellite signal reception mode.

QUATTRO: User dCSS receivers select signals from any of the polarities (VL / HL / VH / HH) available on **1 satellite**.

WIDEBAND: User dCSS receivers select signals from any of the polarities (V / H) available on up to **2 satellites** (WideBand A, WideBand B).

TERRESTRIAL SIGNAL AMPLIFICATION

5 TERR. AMP. SWITCH

The dCSS NevoSwitch includes TForce technology, based on MMIC components and developed exclusively by Televés. TForce offers an intelligent terrestrial level adjustment:

- It is possible to activate it or not by means of a switch making the multiswitch **ACTIVE** or **PASSIVE** on terrestrial.
- In active mode, the MSW automatically adjust the terrestrial output signal to the OPTIMUM LEVEL.
- In addition, this optimum level is kept balanced IN EVERY USER OUTPUT through the cascade.

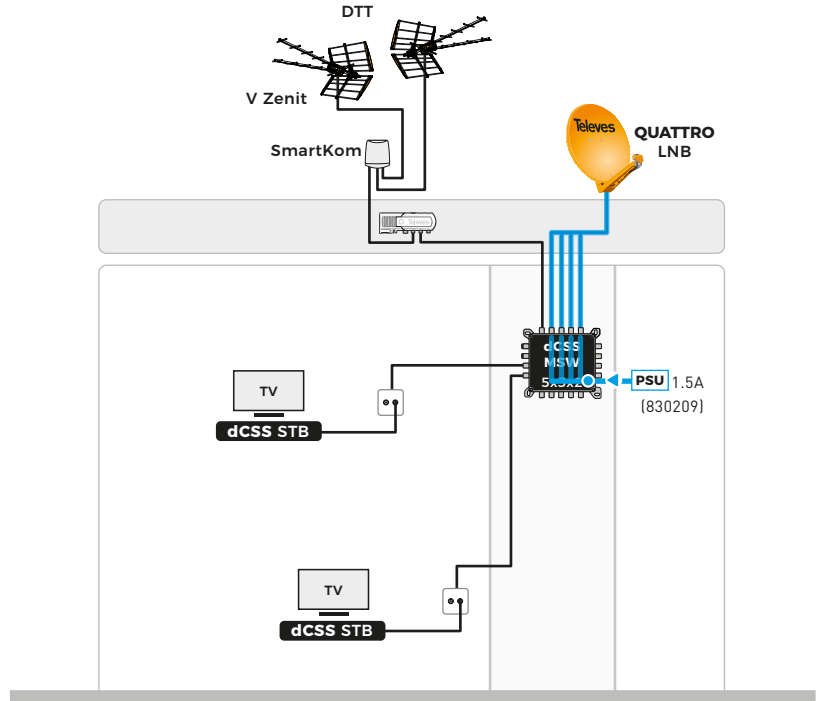
* Only available in reference 719301.

Domestic dCSS installation (1 satellite)

The Quattro LNB and the multiswitch are powered by a single 1.5A PSU.

- SAT. MODE = QUATTRO
- SAT DC LINK = ON
- TERR. DC = OFF
- RECEIVER POWER = OFF
- TERR. AMP. (T.Force) = ACTIVE
- AUTOLOAD = TERMINAL

DC flow from the PSU

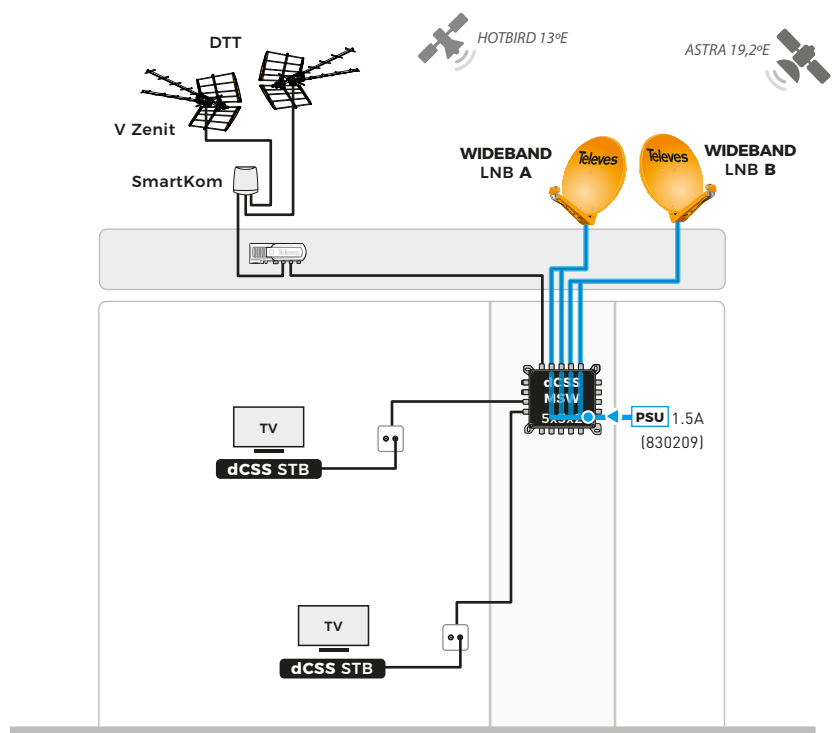


Domestic dCSS installation (2 satellites)

Both WideBand LNBs and the multiswitch are powered by a single 1.5A PSU.

- SAT. MODE = WIDEBAND
- SAT DC LINK = ON
- TERR. DC = OFF
- RECEIVER POWER = OFF
- TERR. AMP. (T.Force) = ACTIVE
- AUTOLOAD = TERMINAL

DC flow from the PSU

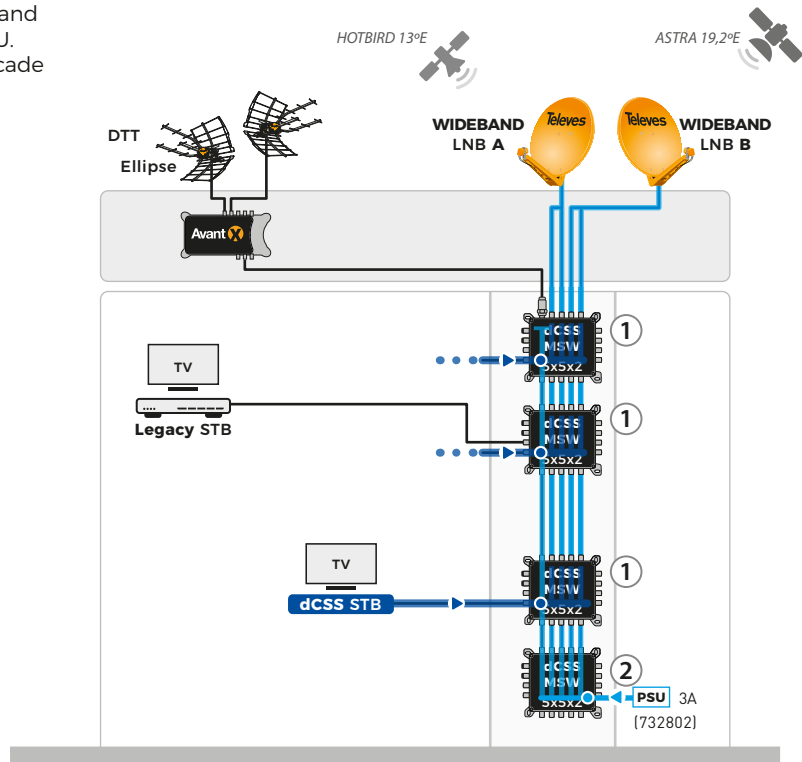


dCSS cascade system installation with distributed satellite powering (2 satellites)

Both WideBand LNBS, terrestrial trunk, cascade load and the latest dCSS multiswitch are powered by a 3A PSU. The SAT lines of other dCSS multiswitches in the cascade are each powered by a dCSS STB connected to it, so additional PSUs are not required.

- ①
 - SAT. MODE = WIDEBAND
 - SAT DC LINK = OFF
 - TERR. DC = ON
 - RECEIVER POWER = ON
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = CASCADE
- ②
 - SAT. MODE = WIDEBAND
 - SAT DC LINK = ON
 - TERR. DC = ON
 - RECEIVER POWER = OFF
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = TERMINAL

DC flow from the PSU DC flow from each STB



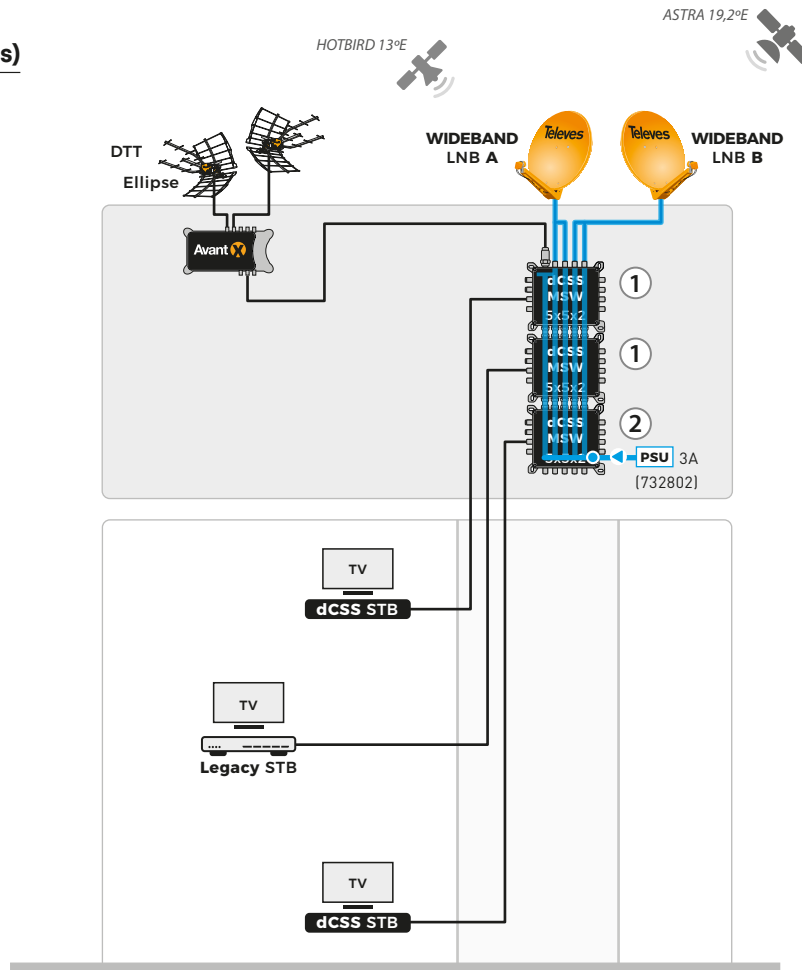
dCSS cascade system installation with centralized satellite powering (2 satellites)

Both WideBand LNBS, terrestrial and satellite trunk lines and the whole cascade of multiswitches are powered by a single 3A PSU.

Thanks to "RECEIVER POWER" switched off, STBs are DC isolated from the cascade and protected against overcurrent.

- ①
 - SAT. MODE = WIDEBAND
 - SAT DC LINK = ON
 - TERR. DC = ON
 - RECEIVER POWER = OFF
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = CASCADE
- ②
 - SAT. MODE = WIDEBAND
 - SAT DC LINK = ON
 - TERR. DC = ON
 - RECEIVER POWER = OFF
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = TERMINAL

DC flow from the PSU

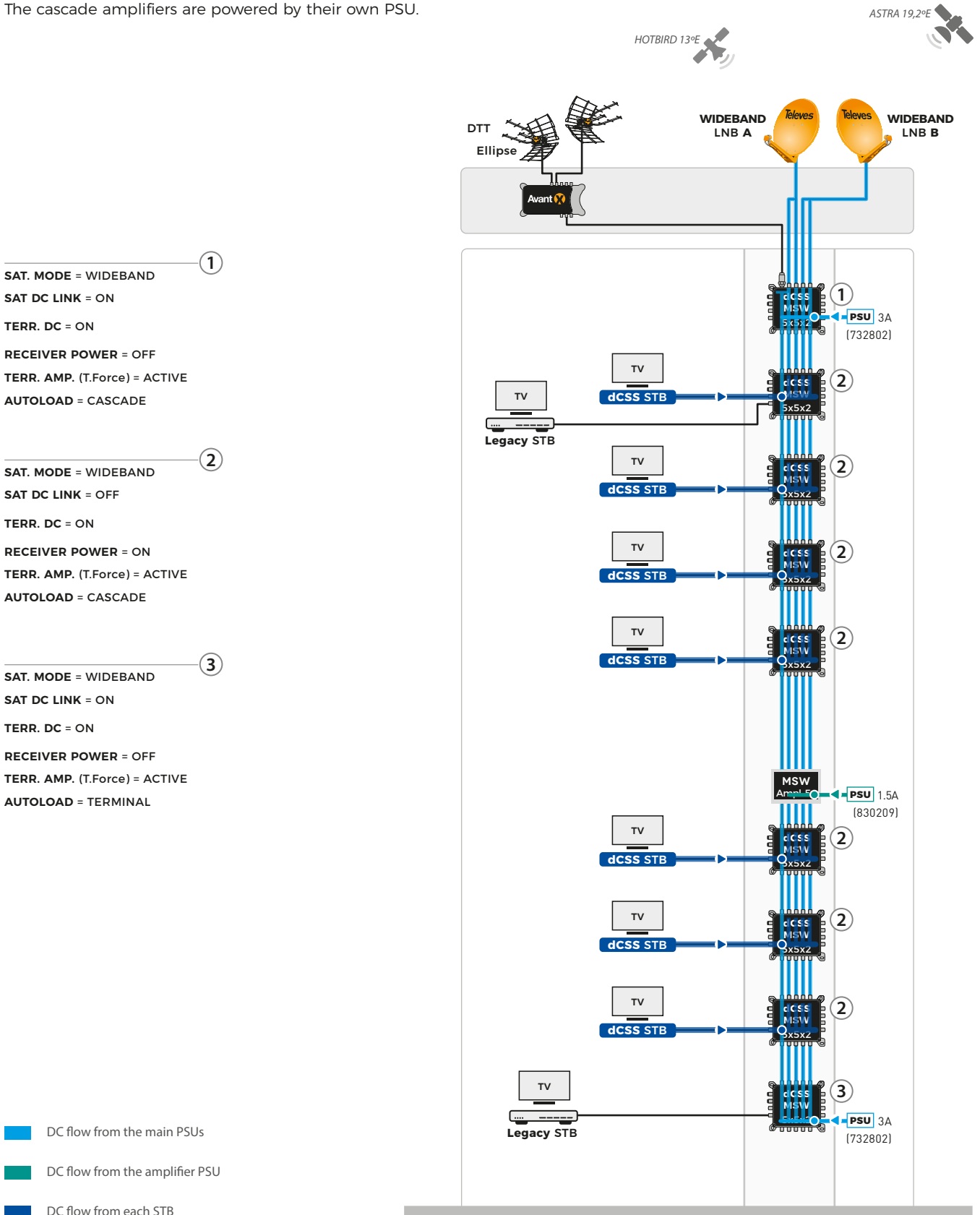


Full dCSS cascade system installation (2 satellites)

The first MSW PSU powers its satellite trunk lines, WideBand LNBs and the upper terrestrial trunk line; while the PSU connected to the latest dCSS MSW powers its satellite trunk lines, the cascade MSWs and the lower terrestrial trunk line.

Some dCSS MSWs ubicated in the installation are locally powered by dCSS STBs connected to them, so no PSUs are needed.

The cascade amplifiers are powered by their own PSU.



- ①
 - SAT. MODE = WIDEBAND
 - SAT DC LINK = ON
 - TERR. DC = ON
 - RECEIVER POWER = OFF
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = CASCADE

- ②
 - SAT. MODE = WIDEBAND
 - SAT DC LINK = OFF
 - TERR. DC = ON
 - RECEIVER POWER = ON
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = CASCADE

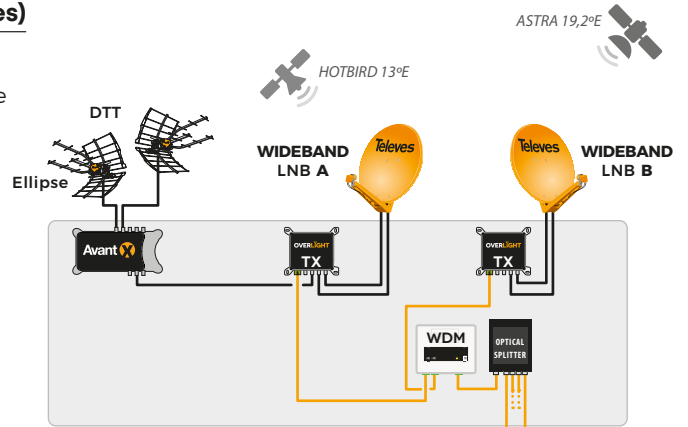
- ③
 - SAT. MODE = WIDEBAND
 - SAT DC LINK = ON
 - TERR. DC = ON
 - RECEIVER POWER = OFF
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = TERMINAL

- █ DC flow from the main PSUs
- █ DC flow from the amplifier PSU
- █ DC flow from each STB

Full dCSS cascade system in a FTTH installation (2 satellites)

A cascade of dCSS multiswitches is realized for each electrical optical reconversion deployment. The devices in the cascade can be powered in various ways.

- **Centralized:** the 3A power supply connected to the terminal dCSS multiswitch powers the all MSW in the cascade, optical receiver and terrestrial and satellite trunk lines. STB receivers are isolated and protected against overcurrent.
- **Distributed:** a 1.5A power supply connected to the terminal dCSS multiswitch powers its satellite trunk lines, the whole terrestrial trunk line and MSWs in the cascade, while the SAT trunk lines of the other dCSS multiswitches in the cascade are powered by one of the dCSS STBs connected to it. The optical receiver is powered by its own power supply.



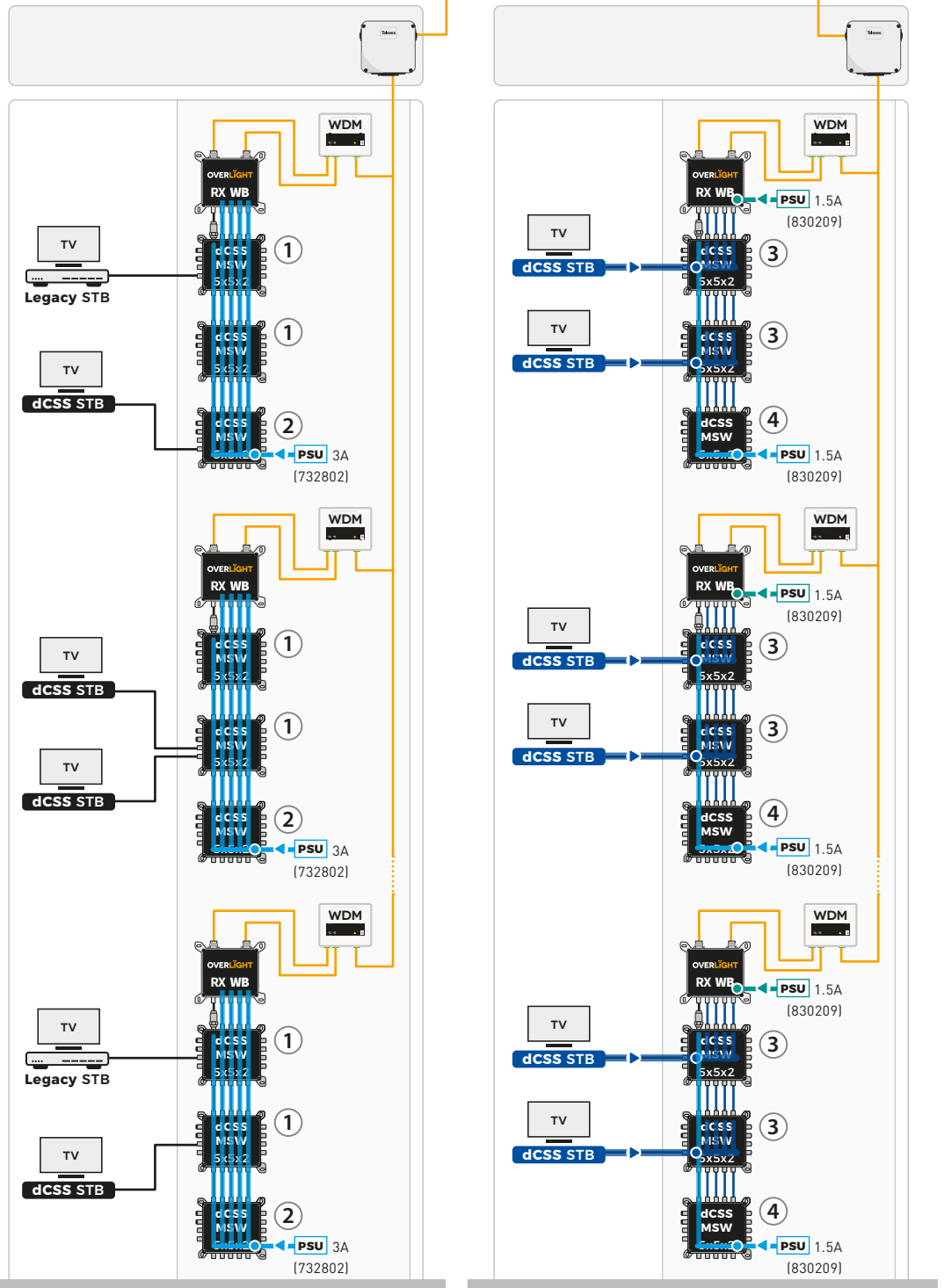
- ①
- SAT. MODE = WIDE BAND
 - SAT DC LINK = ON
 - TERR. DC = ON
 - RECEIVER POWER = OFF
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = CASCADE

- ②
- SAT. MODE = WIDE BAND
 - SAT DC LINK = ON
 - TERR. DC = ON
 - RECEIVER POWER = OFF
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = TERMINAL

- ③
- SAT. MODE = WIDE BAND
 - SAT DC LINK = OFF
 - TERR. DC = ON
 - RECEIVER POWER = ON
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = CASCADE

- ④
- SAT. MODE = WIDE BAND
 - SAT DC LINK = OFF
 - TERR. DC = ON
 - RECEIVER POWER = OFF
 - TERR. AMP. (T.Force) = ACTIVE
 - AUTOLOAD = TERMINAL

- DC flow from the main PSUs
- DC flow from the receiver PSU
- DC flow from each STB



More information:
en.televes.com/nevoswitchdcss

Televes®