



# Multi switch systems

Innovative solutions offering  
value and freedom to  
community network subscribers

Simply **more**  
- more simply





# **M**odular systems matching the demands of both subscribers and installers

A multi switch system is the rational way of providing satellite signals to a multitude of users in residential, public and office buildings. In terms of costs, individual freedom and variety of TV-channels, the right multi switch system is competitive to both individual solutions and larger TV-systems.

Triax's range of multi switch systems offers every opportunity of creating the perfect match between needs and actual solution. With 5 different solutions you can fulfil critical system demands at any location, i.e.

- **Number of subscribers**

Solutions for an almost unlimited number of outlets, but also with competitive small-scale solutions for 4, 6 and up to 16 subscribers.

- **Number of positions/polarities**

Rational solutions for 1, 2 and 4 satellite position systems (4, 8, and 16 polarities). But also fully modular and flexible solutions for 2, 3 and 4 satellite positions.

- **Terrestrial signals**

All Triax multi switches support loop-through for terrestrial signals. Systems are also available with support for a terrestrial return path.

- **Expandability**

You are safe with a Triax system. In case the need for more subscriber outputs arises in the future, all multi switch systems are easily expandable either via TAPs or cascadable units.

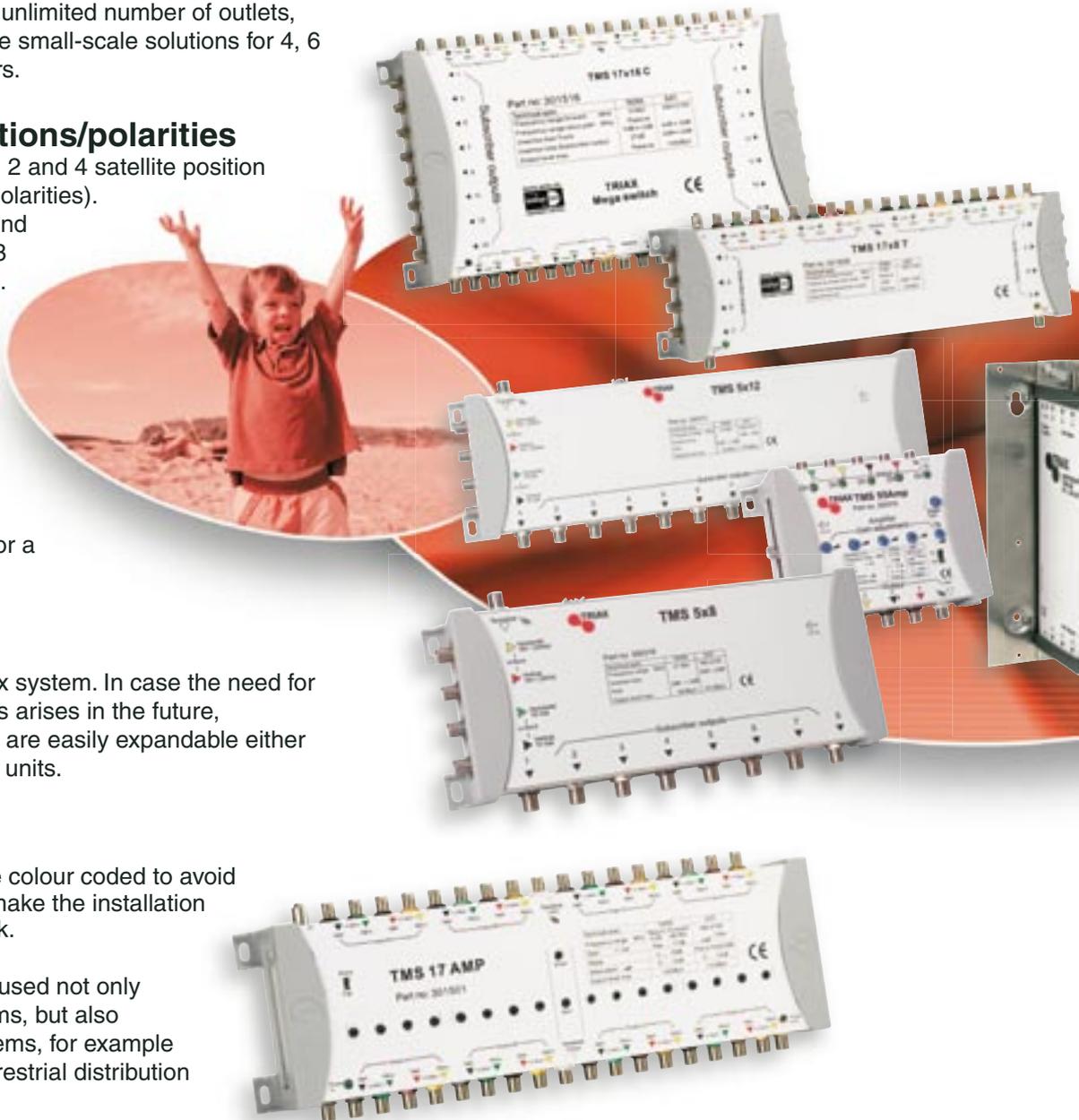
- **Colour coding**

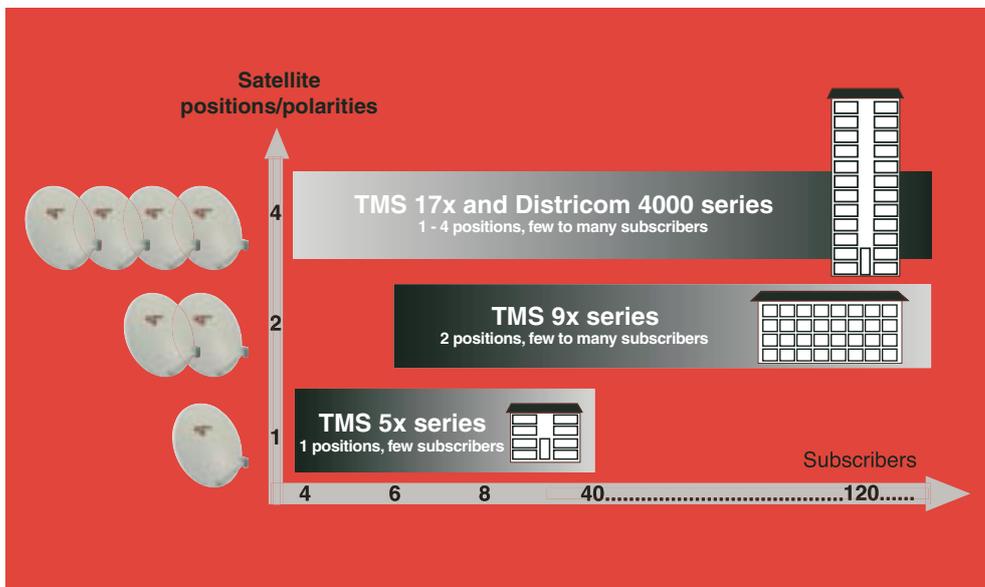
All input connectors are colour coded to avoid installation errors and make the installation an easy and simple task.

Our multi switches can be used not only for establishing new systems, but also for improving existing systems, for example adding satellite TV to a terrestrial distribution system.

## **Fulfilling subscriber needs the most efficient way**

Each of our multi switch systems offers unique subscriber benefits in terms of performance and individual freedom. Advanced technology is used to provide these benefits, but is applied in a logical, modular way helping the professional installer save time.





The number of satellite positions/polarities and subscriber outputs is the prime criteria for choosing the right multi switch system. You are always welcome to contact Triax regarding configuration of your multi switch system.

### TMS 5x and TMS 9x multi switches

offer a flexible and cost effective system for providing single and two position satellite distribution in small and medium sized networks. The system's uniqueness in design and performance makes community networks attractive even in buildings with only 2 or 3 households.

### TMS 9xC and TMS17x multi switches

are rational solutions for building 2- and 4-satellite position systems for many subscribers using relatively few components. These cascadable systems can easily be extended with more subscribers.

### Districom multi switches

are the ideal system for providing freedom of choice to the individual subscriber. The modularity of the system makes it a competitive choice in both single and multi satellite systems, in small as well as in large community networks. The extensive modularity of this system makes it fully expandable in terms of both satellite positions and subscriber outputs.



### Designed for saving installation time

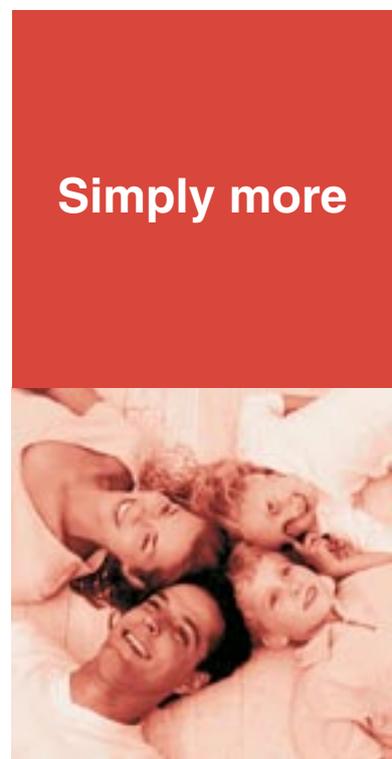
Our different multi switch systems are market leading in designs that save time in both initial installation and later changes or expansions. The design idea is based upon plug-and-play type modules, which means that units are easily combined to suit individual subscriber needs, at initial installation and later. It is also very easy to use components across system families, should the need arise.

### Let us help with answers or a complete system proposal

Giving precise and understandable answers is probably the most important way of keeping it simple. Triax support is only a phone call away.

Furthermore we offer you complete planning and documentation of community networks.

Based on computer software, we can provide you with specifications of the right solution, including drawings, performance calculations and a part list of all the equipment needed. All you have to do is to specify network requirement, using the checklist on [www.com.com](http://www.com.com) and specify demands by e-mail from the website.



Simply more



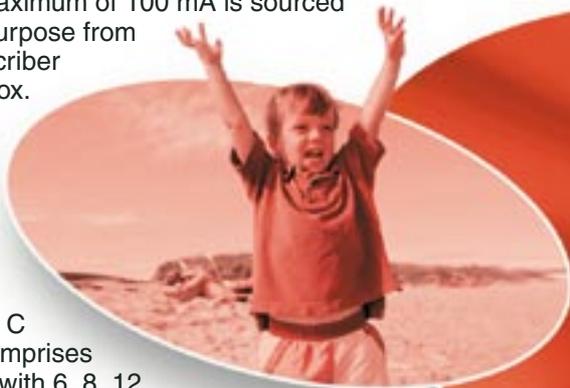


# One unit. Many users. TMS Mega DiSEqC Switches

## Triax TMS 17x C cascadable multi switch for 4 satellite positions and terrestrial signals

With Triax TMS 17x C it is easy to install cascadable multi switch systems for use where four satellite positions are required. A terrestrial input is available to allow terrestrial as well as satellite signals to be available on all subscriber outputs.

TMS 17x C has an active satellite signal path and a passive terrestrial signal path allowing a terrestrial return path if needed. Consequently a set-top box is not required at subscriber outlet to receive terrestrial signals. Satellite position switching is done via DiSEqC signals from the subscriber set-top box. A maximum of 100 mA is sourced for this purpose from the subscriber set-top box.



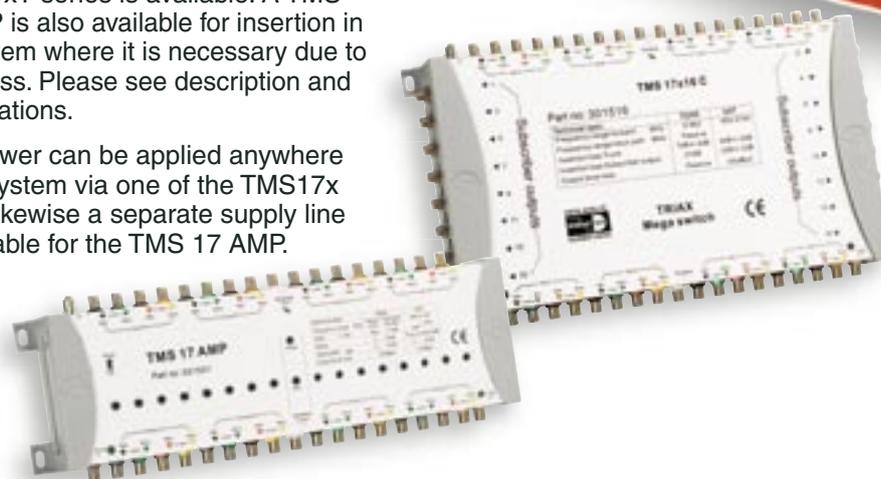
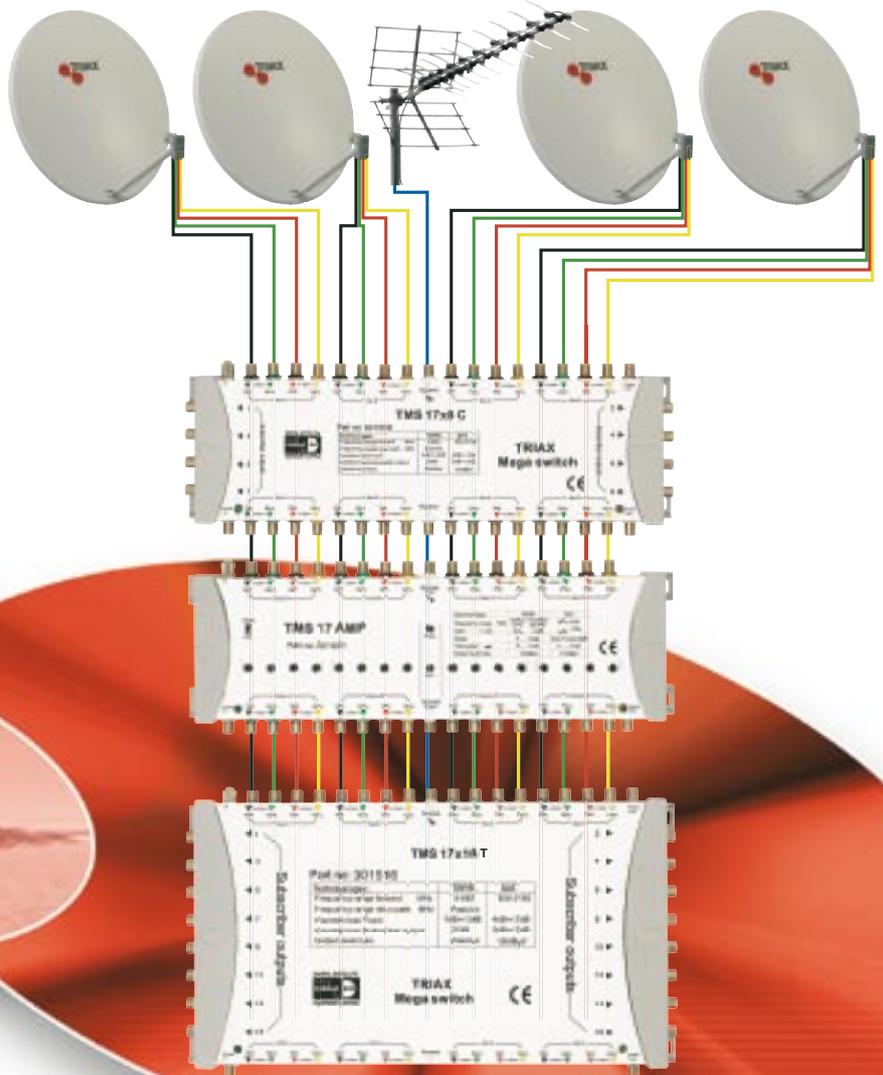
TMS 17x C series comprises versions with 6, 8, 12 or 16 subscriber outputs in one cascadable unit allowing a large number of subscriber outputs to be realized with this product.

For the termination of the system a TMS 17xT series is available. A TMS 17 AMP is also available for insertion in the system where it is necessary due to cable loss. Please see description and specifications.

LNB power can be applied anywhere in the system via one of the TMS17x units. Likewise a separate supply line is available for the TMS 17 AMP.

The Triax TMS 17x switch system can provide many users with satellite programs from four satellite positions with a minimum of components. In a star configuration one TMS 17x switch can serve from 6 up to 16 subscribers, and by using cascade models and line-amplifiers the system can easily

be extended to a very high number of subscribers. All Triax 17x switches have 16 satellite inputs and 1 terrestrial input. An aerial or a cable system can easily be distributed together with the satellite signals.



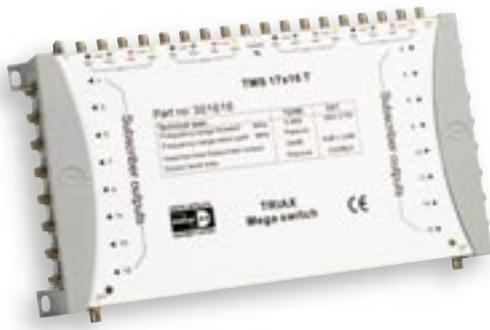
## TMS 17x line amplifier

The TMS 17 AMP has 16 x satellite line amplifiers with 18-24 dB amplification each (switchable 6 dB/flat slope) and one terrestrial 17 dB amplifier. The terrestrial amplifier also has an adjustable slope of 0-15 dB. Separate attenuators allow 0-10 dB adjustable attenuation on all amplifiers.

## Triax TMS 17x T terminating multi switch for 4 satellite positions and terrestrial signals

Triax TMS 17xT is an easy-to-install terminating multi switch for use where four satellite positions are required and is used as the last unit in a cascaded TMS 17xC system.

All other features are equivalent to the 17x C series.



## Triax TMS 9x P multi switch for 2 satellite positions and terrestrial signals. Stand alone with power supply

Triax TMS 9x P is a stand alone system for use where two satellite positions are required. A terrestrial input is also available to allow terrestrial as well as satellite signals to be available on all subscriber outputs.

The series comprises versions with 4, 6, 8, 12 or 16 subscriber outputs in one installation, but can also be used as part of a larger, easily expandable and cascadable system.

TMS 9xP is an active system with internal amplifiers to compensate for the insertion loss. The integrated power supply powers the amplifiers and the LNB in the system. A set-top box is not required at users' outlet to receive terrestrial signals.

## Triax TMS 9x C cascadable multi switch for 2 satellite positions and terrestrial signals

The TMS9xC series is a cascadable system for use where two satellite positions are required. Also terrestrial input is available to allow terrestrial as well as satellite signals to be available on all subscriber outputs.

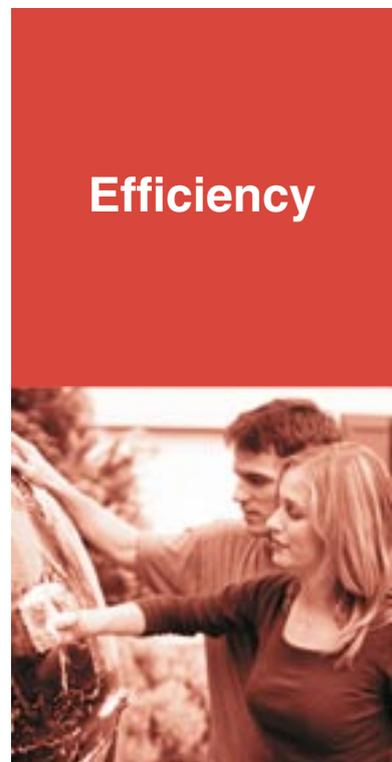
TMS9xC series comprises versions with 4, 6 and 8 subscriber outputs in one cascadable unit allowing a large number of subscriber outputs to be realized with this product.

A TMS 9 AMP amplifier is also available for insertion in the system where it is necessary due to cable loss.

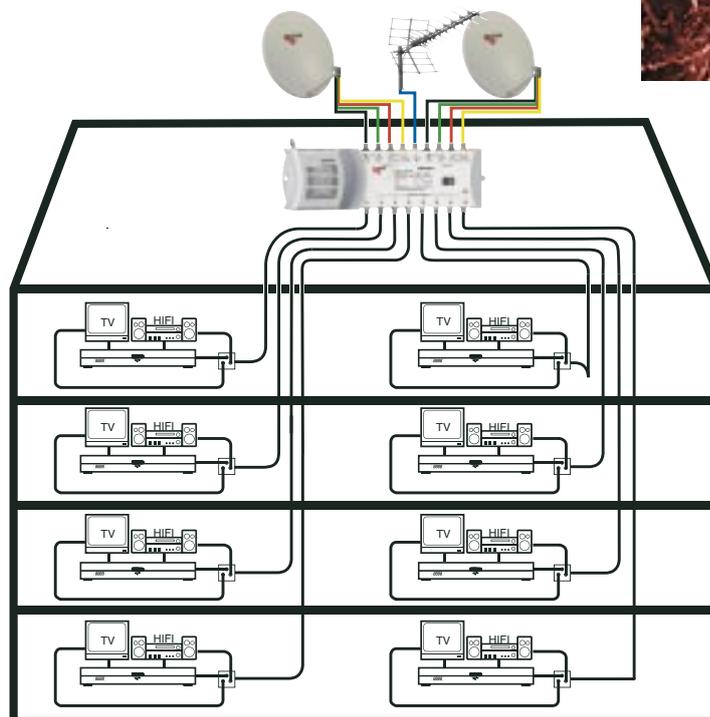
TMS 9xC has an active signal path and a passive terrestrial return path. A set-top box is not required at subscriber outlet to receive terrestrial signals. Satellite position switching is done via DiSEqC signals from the subscriber set-top box.

A maximum of 100 mA is sourced for this purpose from the subscriber set-top box.

Supports network remote power via trunk distribution lines.



Efficiency





# Plug-and-watch TMS multi switch system

## Easy coupling of satellite and terrestrial signals

All TMS multi switches have integrated loop-in of VHF/UHF, whether the signals come directly from aerials or from an existing cabling.

If the installation requires that attenuation of the terrestrial signals is kept at a minimum, you simply choose a switch with integrated amplifier.

To make upgrading with SAT-IF easy, the terrestrial amplification is designed to replicate signal levels in traditional splitters.

## Star or cascade networks

With Triax TMS units you can create both star and cascade networks. So, only a stock of a few variants is required to build different types of installations.

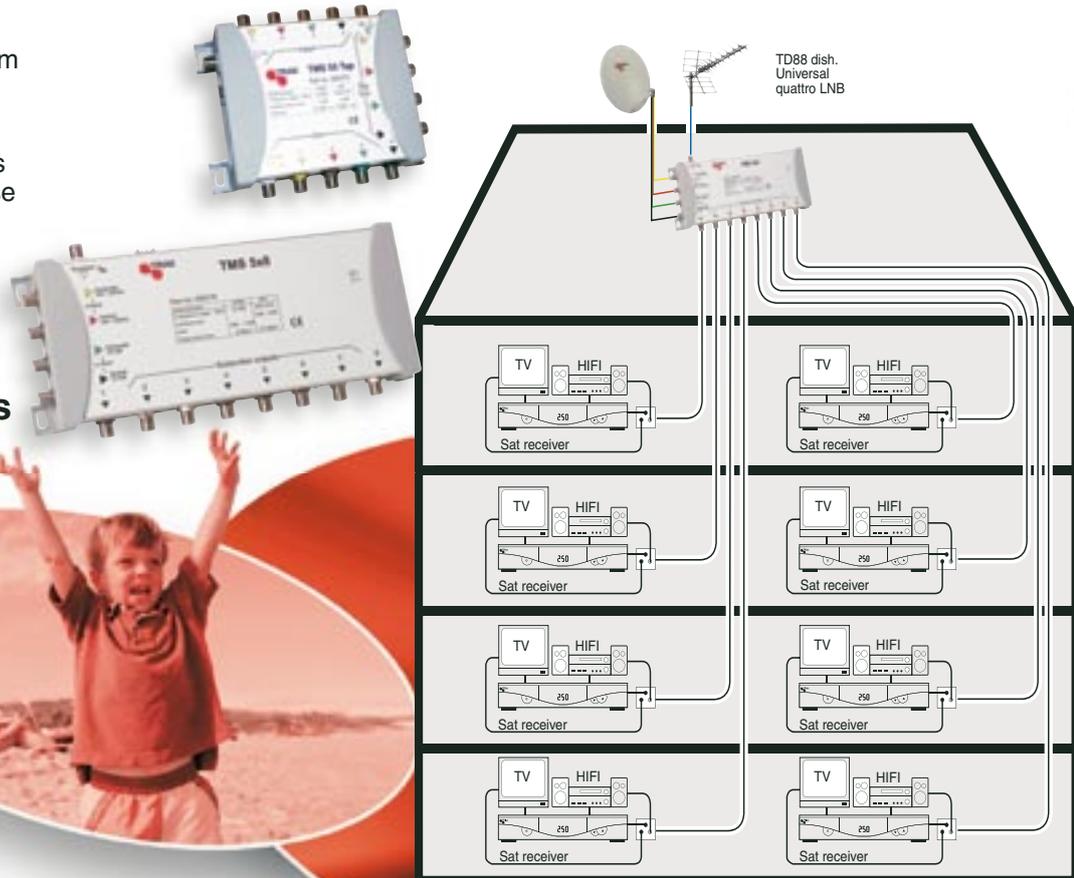
## Triax TMS 5x multi switch for 1 satellite position and terrestrial signals. External power supply

Triax TMS 5x is a modular system for use where only one satellite position is required. A terrestrial input is available to allow terrestrial as well as satellite signals to be available on all subscriber outputs. The TMS 5x series comprises versions with 4, 6, 8, 12 or 16 subscriber outputs in one installation, but can also be used as part of a larger, easily expandable and cascadable system.

TMS 5x is an active system with internal amplifiers to compensate for the insertion loss. The units depend upon external power supply (eg. TMS 5 PSU) and can also be powered via a TMS 5xP unit in the system. A set-top box is not required at users' outlet to receive terrestrial signals.

Design is not only a question of appearance. Logic in the technical design of the TMS 17x, TMS 9x and TMS 5x multi switch system reduces the time needed to design, install, change and expand collective, single position or multi position systems.

TMS switches can be used individually in small, high performance systems - for example in semi-detached houses - or switches can be interconnected in flexible systems serving up to several users.



## TMS 55 line amplifier

Triax TMS 55 AMP is a line amplifier to be used with the TMS 5x series multi switch products. It is used to amplify the satellite and terrestrial signals to compensate for cable losses in the system. A switch allows terrestrial power to be switched off in the upward direction (to avoid DC short circuits in some types of aerials).

The TMS 55 AMP has 4 x satellite line amplifiers with 20 dB amplification each (fixed 5 dB slope) and one terrestrial line amplifier with a 17 dB amplification. The terrestrial amplifier also has an adjustable slope of 7-12 dB. Separate attenuators allow 0-15 dB adjustable attenuation on the satellite signals and 0-17 dB adjustable attenuation on the terrestrial signal.

All input connectors are colour coded to avoid installation errors and make the installation an easy and simple task.

The TMS 5x series family also comprises the TMS 55 TAP and TMS 5-PSU units allowing installers to build larger cascadable systems with many subscriber outputs.

## Triax TMS 5x P multi switch for 1 satellite position and terrestrial signals. With power supply

Triax TMS 5x P is an easy to install stand alone system for use where only one satellite position is required. A terrestrial input is available to allow terrestrial as well as satellite signals to be available on all subscriber outputs. The TMS 5x P series comprises versions with 4, 6, 8, 12 and 16 subscriber outputs in one installation, but can also be used as part of a larger, easily expandable and cascadable system.



TMS 5xP is an active system with internal amplifiers to compensate for the insertion loss. The integrated power supply powers the amplifiers and the LNB in the system. A set-top box is not required at users' outlet to receive terrestrial signals.

All input connectors are colour coded to avoid installation errors and make the installation an easy and simple task.

## TMS 5-PSU power supply/ power inserter

Triax TMS 5 PSU is an easy to install power supply/power inserter to be used with the TMS 5x series products.

It is used to insert power into the trunk distribution lines and supplies the LNB as well as amplifiers and multi switches in the system. A switch allows power to be sourced up, down or in both directions in the system.

The correct use of quattro LNB units in TMS 5x multi switch systems is recommended.

However, this unit provides 14 VDC and 18 VDC on the vertical and horizontal distribution lines respectively. This means that by adding a 22 kHz inserter on the two high band lines, an existing quad LNB in an old installation can be used to simulate a quattro LNB.

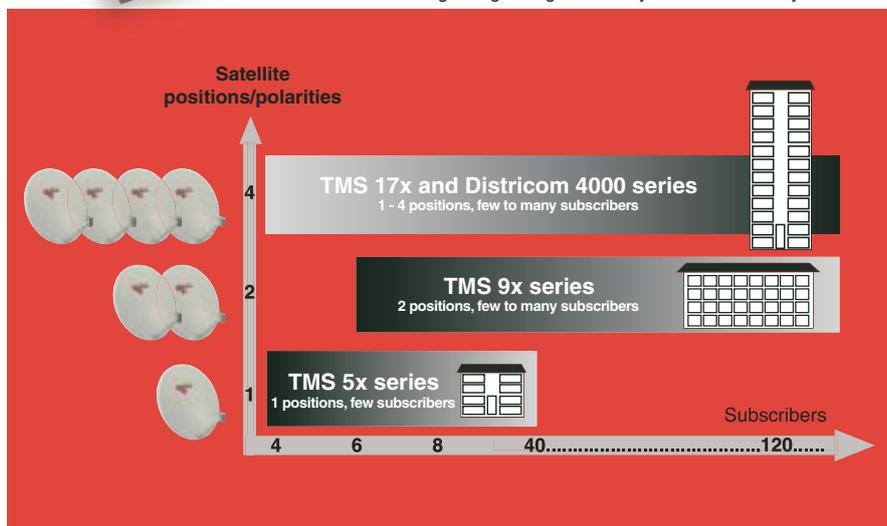
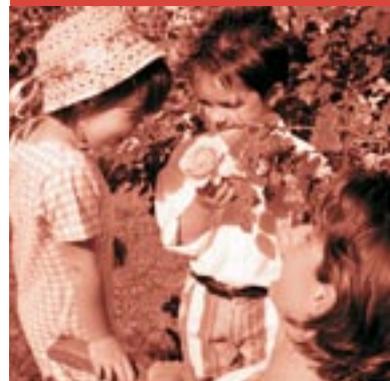


## SAT amplifier

In our range you will also find a high gain 4-line and a 9-line amplifier.

The number of satellite positions and subscriber outputs is the prime criteria for choosing the right multi switch system. You are always welcome to contact Triax regarding configuration of your multi switch system.

Logic





# Maximum flexibility Districom 4000

A flexible system allows you to minimize the initial investment without compromising future expandability and subscriber possibilities. Districom 4000 is state-of-the-art in flexibility, and it is flexible in a logical, straightforward way. By adding or changing modules, you can at any time change the number of subscriber outputs as well as satellite positions per subscriber.

from up to 4 satellite positions and 16 polarities.

All Districom units support a return path, and the system can be used also for interactive transmission of data, eliminating the need for additional Internet cabling. Even if the need is not immediate, the option is worth taking into account.



Districom 4000 is cascadable and can feed from 4 up to an almost unlimited number of outlets with terrestrial signals and satellite IF signals

## TDM multi switches

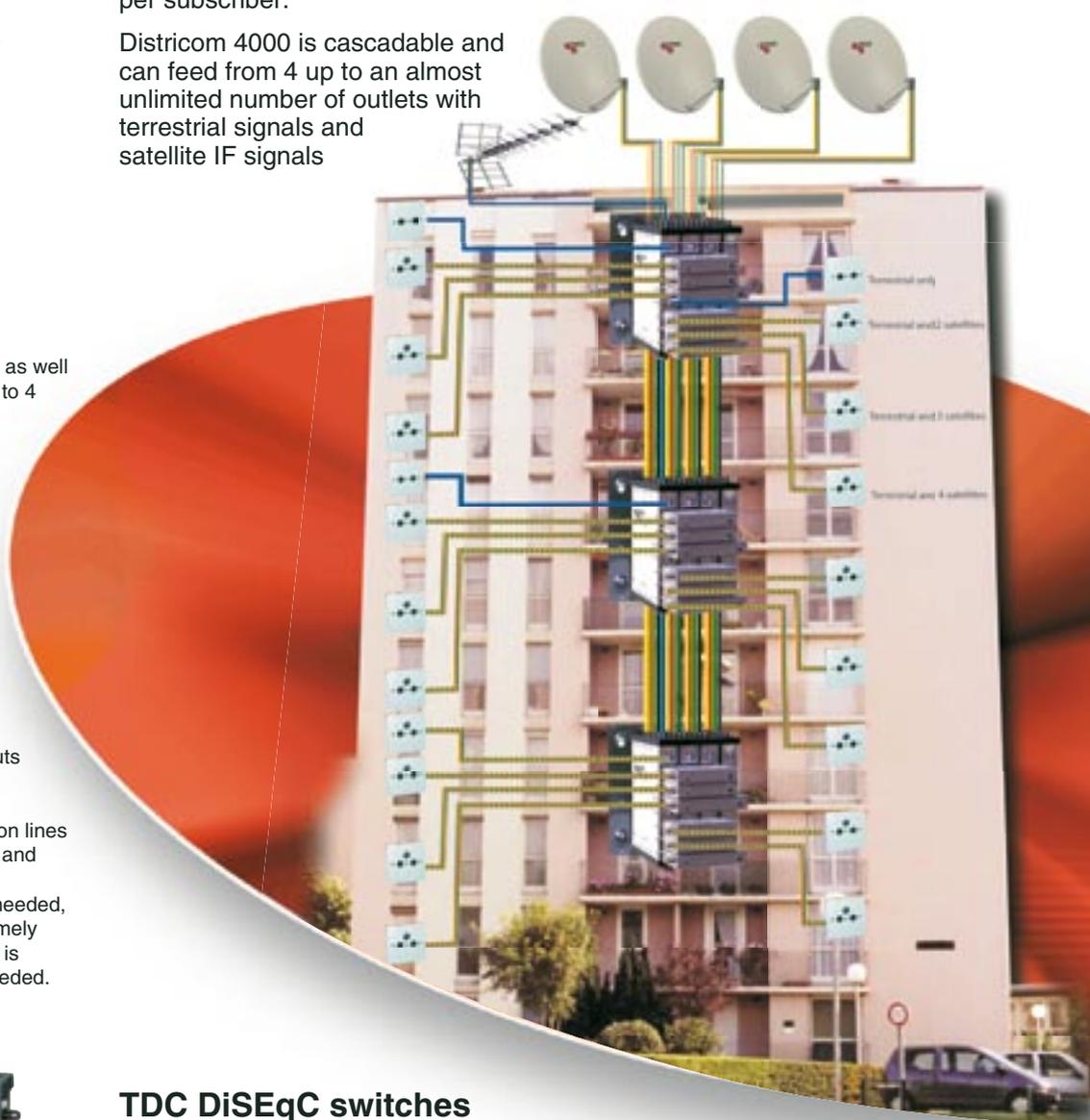
Multi switch modules for single satellite as well as multi satellite configurations with up to 4 satellite positions and 16 polarities.

**TDM 400** series is satellite only and is used, where terrestrial signals are not needed, or already installed. In an existing system, TDM 400 allows you to reuse the antenna cable by looping in the new satellite signals.

**TDM 500** series combines satellite and terrestrial signals in one cable.

**Features of both TDM 400 and TDM 500 include:**

- Modules with 4, 6 or 8 subscriber outputs
- Cascadable system with numerous configuration possibilities
- DC available on all satellite distribution lines for power supply to LNBS, amplifiers and other system units
- Where active DiSEqC switches are needed, the TDC DiSEqC switches are extremely easy to plug-in and the configuration is equally easily changed whenever needed.



## TDC DiSEqC switches

DiSEqC switches are used for switching between 2, 3 or 4 satellite positions. In the Districom 4000 system it is extremely easy to plug-in the switches and later change the configuration, when the needs of a subscriber change.

The product range includes DiSEqC switches with 2, 3 and 4 inputs to allow subscribers differentiated access based on the number of available satellites.



One series TDC 200, 300 or 400 is for use in completely new systems, combining satellite signals and terrestrial signals in one cable.

The other series TDC 250, 350 and 450 is for extension of existing systems, enabling you to reuse the existing antenna cable by looping-in the new satellite signals, so there is no need to pull new cables into the subscriber's flat.

## A complete and coherent modular system

The Districom 4000 program includes all units typically needed in a distribution system. Modular and coherent technical design of all units

### TDP double power supply

The TDP comprises two completely separated power supplies for maximum reliability and security. TDP supplies power to all units through the satellite distribution lines and from any point in the multi switch distribution system. With the TDL 200 power cable (see right) it is possible to loop-through the power from one module to the next.



### TDA line amplifiers

For amplification of each of the 4 polarities per satellite position. The amplifiers have fixed tilt to compensate for the cable loss in the system. Available with TDA fixed gain on 15 dB or with adjustable gain on 19-25 dB. Level can be separately adjusted per each polarity. DC feed-through on all lines.



yields plug-and-play advantages, reducing the installation time needed and facilitating later changes and expansions of the system.

### Unique cable system

To simplify installation, TRIAX supplies a unique type of cable with a colour coding system starting from the LNB and continuing through the whole system.



### TDL 200

Power cable enabling you to daisy-chain power from one module to the next.



### TDA 122 amplifier

Module for amplification of terrestrial signals. 22 dB gain and variable attenuation. Options include selectable return path modules for 5-30, 5-55 or 5-65 MHz.



### TDD 110 tap

With a low through-loss of only 2 dB and a tap-loss of 6 dB in the whole 5-2400 MHz range, this unit is used in the trunk-line when you need connections for extra subscribers. On/off switch for DC feed-through.



### TDR 200 splitter

Typically used for expanding the Districom system to more storeys. With a low insertion-loss of only 6 dB in the whole 5-2400 MHz range, the splitter allows you to get more out of your system. On/off switch for DC feed-through.



### TDF 500

Mounting plate for easy fixture, access and change of up to five Districom modules.

### CCD camera system with UHF modulator

Surveillance of buildings, entrance doors, garages etc. can easily be integrated in a Triax SMATV system.

Triax's line powered camera is for in- and outdoor use (waterproof) and available as both colour and black/white camera.



### Applications where Districom 4000 is at its best

- In multi satellite systems with differentiated and changing subscriber needs - for example in buildings with multi ethnic users or businesses with interest in 24 hours global news
- In buildings where horizontal distribution reduces the costs of cabling and satisfying individual subscriber needs
- In renovation of existing terrestrial installations where additional IF satellite distribution is required, but the existing antenna cable can be reused.

Flexibility



@  
Internet distribution  
can be integrated  
now or later

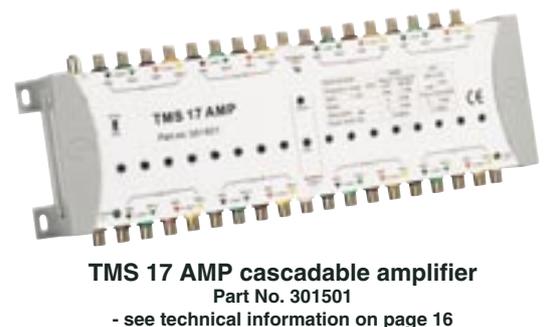
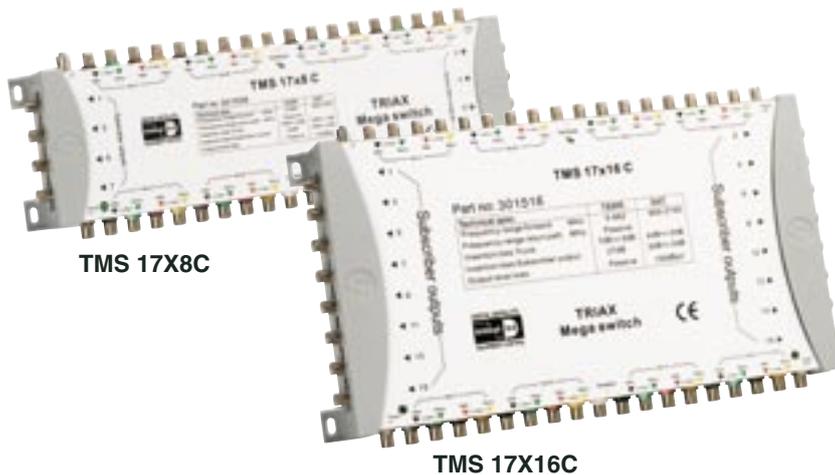
# TMS 17xC multi switches with 16 polarities, 1 terr. input. External supply



## Technical data

### Cascadable multi switches with 16 polarities, 1 terr. input. External power supply

TYPE		TMS 17x6C	TMS 17x8C	TMS 17x12C	TMS 17x16C
Part No.		301506	301508	301512	301516
Number of inputs		16 SAT, 1 TER			
Number of outputs		16 SAT, 1 TER			
Subscriber outputs		6	8	12	16
Connectors	F-con	female	female	female	female
Frequency range SAT	MHz	950-2150 (active)	950-2150 (active)	950-2150 (active)	950-2150 (active)
Frequency range TER	MHz	5-862 (passive)	5-862 (passive)	5-862 (passive)	5-862 (passive)
Gain SAT	dB	0	0	-2	-2
Gain TER	dB	-24	-24	-27	-27
Insertion loss trunkline SAT	dB	3	3	4	4
Insertion loss trunkline TER	dB	4	4	4	4
Isolation LNB to LNB	dB	35	30	35	35
Isolation TER to SAT	dB	20	20	20	20
Isolation SAT to TER	dB	30	30	30	30
Isolation cross polarisation H/V	dB	28	28	28	28
Isolation out - out TER	dB	25	25	25	25
Isolation out - out SAT	dB	30	30	30	30
Return loss SAT inputs	dB	12	12	12	12
Return loss SAT outputs	dB	12	12	12	12
Return loss TER inputs	dB	8	8	8	8
Return loss TER outputs	dB	8	8	8	8
Output level SAT (IMD <sub>3</sub> - 35 dB)	dBμV	100	100	100	100
Impedance input/output	Ohm	75	75	75	75
Switching	VDC	13V - 18V - 13V/22 kHz 18V/22 kHz - DiSEqC 2.0 Toneburst	13V - 18V - 13V/22 kHz 18V/22 kHz - DiSEqC 2.0 Toneburst	13V - 18V - 13V/22 kHz 18V/22 kHz - DiSEqC 2.0 Toneburst	13V - 18V - 13V/22 kHz 18V/22 kHz - DiSEqC 2.0 Toneburst
Supply voltage	VDC	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)
Power supply		External power adaptor	External power adaptor	External power adaptor	External power adaptor
LNB power supply max.	A	1.3	1.3	1.3	1.3
Power link (for amplifiers in the line)		Yes	Yes	Yes	Yes
Control LEDs		Green for power Yellow for power link			
Colourcoding of IF and TER inputs		Yes	Yes	Yes	Yes
Temperature range	°C	0...+55	0...+55	0...+55	0...+55
Dimensions (H x D x W)	mm				



**TMS 17 AMP cascadable amplifier**  
Part No. 301501  
- see technical information on page 16



# TMS 17xT multi switches with 16 polarities, 1 terr. input. External supply

## Technical data

### Terminated Multi Switches with 16 polarities, 1 terr. input. External power

TYPE		TMS 17x6T	TMS 17x8T	TMS 17x12T	TMS 17x16T
Part No.		301606	301608	301612	301616
Number of inputs		16 SAT, 1 TER			
Number of outputs		16 SAT, 1 TER			
Subscriber outputs		6	8	12	16
Connectors	F-con	female	female	female	female
Frequency range SAT	MHz	950-2150 (active)	950-2150 (active)	950-2150 (active)	950-2150 (active)
Frequency range TER	MHz	5-862 (passive)	5-862 (passive)	5-862 (passive)	5-862 (passive)
Gain SAT	dB	-2	0	-2	0
Gain TER	dB	-21	-22	-24	-24
Noise figur SAT	dB				
Isolation LNB to LNB	dB	35	35	35	35
Isolation TER to SAT	dB	20	20	20	20
Isolation SAT to TER	dB	30	30	30	30
Isolation cross polarisation H/V	dB	28	28	28	28
Isolation out - out TER	dB	25	25	25	25
Isolation out - out SAT	dB	30	30	30	30
Return loss SAT inputs	dB	12	12	12	12
Return loss SAT outputs	dB	12	12	12	12
Return loss TER inputs	dB	8	8	8	8
Return loss TER outputs	dB	8	8	8	8
Output level SAT (IMD <sub>3</sub> - 35 dB)	dBμV	100	100	100	100
Impedance input/output	Ohm	75	75	75	75
Switching	VDC	13V - 18V - 13V/22 kHz 18V/22 kHz - DiSEqC 2.0 Toneburst	13V - 18V - 13V/22 kHz 18V/22 kHz - DiSEqC 2.0 Toneburst	13V - 18V - 13V/22 kHz 18V/22 kHz - DiSEqC 2.0 Toneburst	13V - 18V - 13V/22 kHz 18V/22 kHz - DiSEqC 2.0 Toneburst
Supply voltage	VDC	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)
Power supply		External power adaptor	External power adaptor	External power adaptor	External power adaptor
LNB power supply max.	A	1.3	1.3	1.3	1.3
Power link (for amplifiers in the line)		Yes	Yes	Yes	Yes
Control LEDs		Green for power Yellow for power link			
Colourcoding of IF and TER inputs		Yes	Yes	Yes	Yes
Temperature range	°C	0...+55	0...+55	0...+55	0...+55
Dimensions (H x D x W)	mm				



**TMS 17 PSUMB power supply and mounting bracket**  
Part No. 301504  
- see technical information on page 17



TMS 17x8T

TMS 17x16T

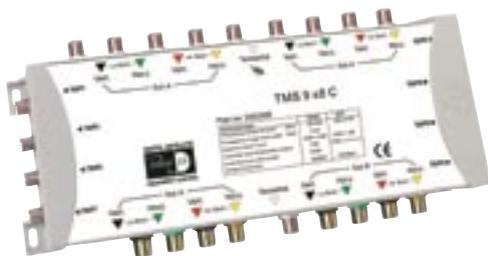
# TMS 9xC multi switches with 8 polarities, 1 terr. input. External supply



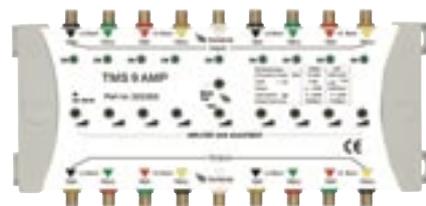
## Technical data

### Cascadable multi switches with 8 polarities, 1 terr. input. External power supply

TYPE		TMS 9x4C	TMS 9x6C	TMS 9x8C	
Part No.		300364	300366	300368	
Number of inputs		8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	
Number of outputs		8 SAT, 1 TER	8 SAT, 1 TER	8 SAT, 1 TER	
Subscriber outputs		4	6	8	
Connectors	F-con	female	female	female	
Frequency range SAT	MHz	950-2150 (active)	950-2150 (active)	950-2150 (active)	
Frequency range TER	MHz	5-862 (active)	5-862 (active)	5-862 (active)	
Return path TER	MHz	5-65 (passive)	5-65 (passive)	5-65 (passive)	
Gain SAT (with 5 dB slope)	dB	- 3 to 2 ( $\pm$ 1.0)	- 3 to 2 ( $\pm$ 1.0)	- 3 to 2 ( $\pm$ 1.0)	
Gain TER	dB	- 21 to 0 ( $\pm$ 2.0)	- 22 to 0 ( $\pm$ 2.0)	- 24 to 0 ( $\pm$ 2.0)	
Insertion loss trunkline SAT	dB	2 ( $\pm$ 2.0)	3 ( $\pm$ 2.0)	4 ( $\pm$ 2.0)	
Insertion loss trunkline TER	dB	4 ( $\pm$ 1.0)	4 ( $\pm$ 1.0)	5 ( $\pm$ 1.0)	
Isolation LNB to LNB	dB	35	35	35	
Isolation TER to SAT	dB	23	23	23	
Isolation SAT to TER	dB	28	28	28	
Isolation cross polarisation H/V	dB	28	28	28	
Isolation out - out TER	dB	28	28	28	
Isolation out - out SAT	dB	30	30	30	
Return loss SAT inputs	dB	13	13	13	
Return loss SAT outputs	dB	8	8	8	
Return loss TER inputs	dB	11	11	11	
Return loss TER outputs	dB	8	8	8	
Output level SAT (IMD <sub>3</sub> - 35 dB)	dB $\mu$ V	100	100	100	
Output level TER (IMD <sub>3</sub> - 60 dB)	dB $\mu$ V	88	88	88	
Impedance input/output	Ohm	75	75	75	
Switching	VDC	14V - 18V 14V/22 kHz - 18V/22 kHz DiSEqC 2.0	14V - 18V 14V/22 kHz - 18V/22 kHz DiSEqC 2.0	14V - 18V 14V/22 kHz - 18V/22 kHz DiSEqC 2.0	
Supply voltage	VDC	15 ( $\pm$ 1.0)	15 ( $\pm$ 1.0)	15 ( $\pm$ 1.0)	
Power supply		External power adaptor	External power adaptor	External power adaptor	
Max. current pass per F-connector	mA	500	500	500	
Colourcoding of IF and TER inputs		Yes	Yes	Yes	
Temperature range	$^{\circ}$ C	0...+55	0...+55	0...+55	
Dimensions (H x D x W)	mm	124 x 51 x 253	124 x 51 x 253	152 x 51 x 253	



TMS 9x8C



TMS 9 AMP cascading amplifier  
Part No. 300365

- see technical information on page 16



**TMS 9xP multi switches with 8 polarities, 1 terr. input. With power supply**

**Technical data**

**Terminated multi switches with 8 polarities, 1 terr. input. With power supply**

TYPE		TMS 9x4P	TMS 9x6P	TMS 9x8P	TMS 9x12P	TMS 9x16P
Part No.		300344	300346	300348	300342	300347
Number of inputs		8 SAT, 1 TER				
Subscriber outputs		4	6	8	12	16
Connectors	F-con	female	female	female	female	female
Frequency range SAT	MHz	950-2150	950-2150	950-2150	950-2150	950-2150
Frequency range TER	MHz	47-862	47-862	47-862	47-862	47-862
Gain SAT	dB	2	2	2	0	0
Gain TER	dB	- 2	- 2	- 2	4	2
Isolation LNB to LNB	dB					
Isolation TER to SAT	dB	28	28	28	30	30
Isolation SAT to TER	dB	30	30	30	30	28
Isolation cross polarisation H/V	dB	28	28	28	25	25
Isolation out - out TER	dB	26	26	26	28	30
Isolation out - out SAT	dB	30	30	30	30	30
Return loss SAT inputs	dB	14	14	14	10	10
Return loss SAT outputs	dB	7	7	7	10	10
Return loss TER inputs	dB	11	11	11	12	12
Return loss TER outputs	dB	8	8	8	10	10
Output level SAT (IMD <sub>3</sub> - 35 dB)	dBμV	100	100	100	100	100
Output level TER (IMD <sub>3</sub> - 60 dB)	dBμV	85	85	85	83	82
Impedance input/output	Ohm	75	75	75	75	75
Switching	VDC	13V - 18V 13V/22 kHz - 18V/22 kHz DiSEqC 2.0	13V - 18V 13V/22 kHz - 18V/22 kHz DiSEqC 2.0	13V - 18V 13V/22 kHz - 18V/22 kHz DiSEqC 2.0	13V - 18V 13V/22 kHz - 18V/22 kHz DiSEqC 2.0	13V - 18V 13V/22 kHz - 18V/22 kHz DiSEqC 2.0
Supply voltage	VDC	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)
Power supply		Included	Included	Included	Included	Included
LNB power supply max.	mA	1000	1000	1000	1000	1000
Colourcoding of IF and TER inputs		Yes	Yes	Yes	Yes	Yes
Temperature range	°C	0...+55	0...+55	0...+55	0...+55	0...+55
Dimensions (H x D x W)	mm	103 x 71 x 359	103 x 71 x 359	103 x 71 x 359	103 x 71 x 459	103 x 71 x 559



**TMS 9x4P**



**TMS 9x6P**



**TMS 9x8P**



**TMS 9x12P**



**TMS 9x16P**

# TMS 5x multi switches with 4 polarities, 1 terr. input. External supply



**TMS 55 AMP amplifier**  
Part No. 300315  
- see technical information on page 16

## Technical data

### Modular multi switches with 4 polarities, 1 terr. input. External power supply

TYPE Part No.		TMS 5x4 300314	TMS 5x6 300316	TMS 5x8 300318	TMS 5x12 300312	TMS 5x16 300317
Number of inputs		4 SAT, 1 TER				
Subscriber outputs		4	6	8	12	16
Connectors	F-con	female	female	female	female	female
Frequency range SAT	MHz	950-2150	950-2150	950-2150	950-2150	950-2150
Frequency range TER	MHz	47-862	47-862	47-862	47-862	47-862
Gain SAT	dB	- 6	- 5	- 5	0	0
Gain TER	dB	4	3	3	4	2
Isolation TER to SAT	dB	22	25	25	22	22
Isolation SAT to TER	dB	22	28	28	22	22
Isolation cross polarisation H/V	dB	25	28	28	25	25
Isolation out - out TER	dB	30	28	28	28	28
Isolation out - out SAT	dB	30	35	35	35	35
Return loss SAT inputs	dB	12	11	11	11	10
Return loss SAT outputs	dB	7	9	9	8	8
Return loss TER inputs	dB	11	11	11	11	10
Return loss TER outputs	dB	7	9	9	8	8
Output level SAT (IMD <sub>3</sub> - 35 dB)	dBμV	100	101	101	100	100
Output level TER (IMD <sub>3</sub> - 60 dB)	dBμV	88	85	85	85	85
Impedance input/output	Ohm	75	75	75	75	75
Switching	VDC	13V - 18V 13V/22 kHz 18V/22 kHz				
Supply voltage	VDC	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)
Power supply		External power adaptor				
LNB power supply max.	mA	600	600	600	600	600
Colourcoding of IF and TER Inputs		Yes	Yes	Yes	Yes	Yes
Temperature range	°C	0...+55	0...+55	0...+55	0...+55	0...+55
Dimensions (H x D x W)	mm	103 x 71 x 249	103 x 71 x 359	103 x 71 x 359	103 x 71 x 459	103 x 71 x 559



TMS 5x4



TMS 5x6



TMS 5x8



TMS 5x12



TMS 5x16

**TMS 55 TAP**  
Part No. 300313  
- see technical  
information on  
page 17



**TMS 5xP multi switches  
with 4 polarities, 1 terr.  
input. With power supply**

## Technical data

### Single multi switches with 4 polarities, 1 terr. input. With power supply

TYPE		TMS 5x4P	TMS 5x6P	TMS 5x8P	TMS 5x12P	TMS 5x16P
Part No.		300324	300326	300328	300322	300327
Number of inputs		4 SAT, 1 TER				
Subscriber outputs		4	6	8	12	16
Connectors	F-con	female	female	female	female	female
Frequency range SAT	MHz	950-2150	950-2150	950-2150	950-2150	950-2150
Frequency range TER	MHz	47-862	47-862	47-862	47-862	47-862
Gain SAT	dB	- 6	- 5	- 5	- 5	- 3
Gain TER	dB	4	3	3	0	4
Isolation TER to SAT	dB	22	25	25	22	22
Isolation SAT to TER	dB	22	28	28	22	22
Isolation cross polarisation H/V	dB	25	28	28	25	25
Isolation out - out TER	dB	30	28	28	28	28
Isolation out - out SAT	dB	30	35	35	35	35
Return loss SAT inputs	dB	12	11	11	11	10
Return loss SAT outputs	dB	7	9	9	8	8
Return loss TER inputs	dB	11	11	11	11	10
Return loss TER outputs	dB	7	9	9	8	8
Output level SAT (IMD <sub>3</sub> - 35 dB)	dBμV	100	101	101	100	100
Output level TER (IMD <sub>3</sub> - 60 dB)	dBμV	88	85	85	85	85
Impedance input/output	Ohm	75	75	75	75	75
Switching	VDC	13V - 18V 13V/22 kHz 18V/22 kHz				
Supply voltage	VDC	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)	15 (± 0.5)
Power supply		Included	Included	Included	Included	Included
LNB power supply max.	mA	600	600	600	600	600
Colourcoding of IF and TER Inputs		Yes	Yes	Yes	Yes	Yes
Temperature range	°C	0...+55	0...+55	0...+55	0...+55	0...+55
Dimensions (H x D x W)	mm	103 x 71 x 249	103 x 71 x 359	103 x 71 x 359	103 x 71 x 459	103 x 71 x 559



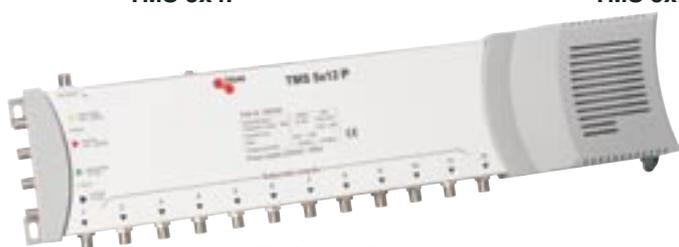
**TMS 5x4P**



**TMS 5x6P**



**TMS 5x8P**

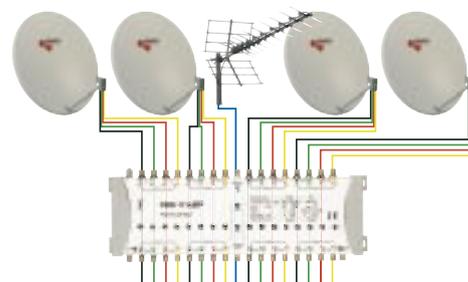


**TMS 5x12P**



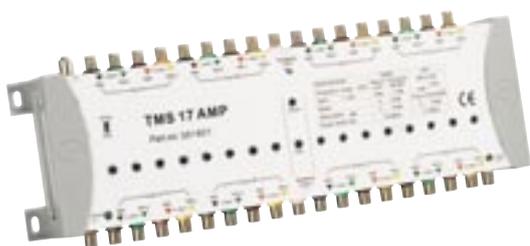
**TMS 5x16P**

# TMS amplifiers with 17 - 9 - 8 - 5 - 4 input



## Technical data IF amplifiers

TYPE		TMS 17 Amp	TMS 9 Amp	TMS 55 Amp	SAT 400	SAT 900
Part No.		301501	301501	300315	300564	300565
Number of inputs		16 SAT, 1 TER + Power link	8 SAT, 1 TER	4 SAT, 1 TER	4 SAT	8 SAT
Number of outputs		16 SAT, 1 TER + Power link	8 SAT, 1 TER	4 SAT, 1 TER	4 SAT	8 SAT
Connectors	F-con	female	female	female	female	female
Frequency range SAT	MHz	950-2150	950-2150	950-2150	950-2200	950-2400
Frequency range TER	MHz	5-862	47-862	47-862	5-862 (passive)	
Return path - switchable	MHz	5-30 or 5-65				
Return path TER	MHz	5-65 (passive)			5-65 (passive)	
Gain SAT 950 - 2150 MHz	dB	18...24 ( $\pm 2$ )	14 ( $\pm 2$ )	20...25 ( $\pm 2$ )	21 ( $\pm 2$ )	32...36 (4 dB tilt)
Gain TER forward	dB	17	17 ( $\pm 2$ )	17 ( $\pm 2$ )		
Noise figur SAT	dB	< 8			< 10.0	< 16.0
Noise figur TER	dB	< 7				
Adjustable attenuator SAT	dB	0...10	0...20	0...15	0...10	0...20
Adjustable attenuator TER	dB	0...10	0...20	0...17		
Equalizer SAT	dB	0 or 6 (switchable)	10 (fixed)	5 (fixed)	0...8	0...10
Equalizer TER	dB	0...15 (adjustable)	2...15 (adjustable)	7...12 (adjustable)		
Isolation SAT to SAT	dB	30				> 25
Isolation TER to SAT	dB	22				
Max. output level SAT (IMD <sub>3</sub> - 35 dB)	dB $\mu$ V	110	110	110	107	115
Max. output level TER (IMD <sub>3</sub> - 60 dB)	dB $\mu$ V	105	105	105		
Return loss	dB	10	10	10		
Impedance input/output	Ohm	75	75	75		
Supply voltage	VDC	18 (via power link)	18 (via DC plug or trunk)	18 (via DC plug or trunk)	14 (via trunk)	15 (built in)
Power supply		External power adaptor	External power adaptor	External power adaptor	External power adaptor	Internal
Colourcoding of IF and TER inputs		Yes	Yes	Yes		
Temperature range	$^{\circ}$ C	0...+55	0...+55	0...+55	0...+55	0...+55
Dimensions (H x D x W)	mm			105 x 43 x 196	125 x 53 x 170	140 x 121 x 250



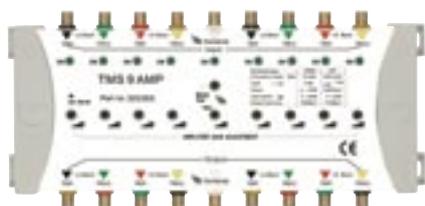
TMS 17 AMP cascading amplifier



TMS 55 AMP cascading amplifier



SAT 400



TMS 9 AMP cascading amplifier



SAT 900

## Technical data

### TMS power supply/power inserter

TYPE		TMS 17 PSUMB	TMS 5 PSU
Part No.		301504	300309
Number of inputs			4 SAT, 1 TER
Number of outputs		1	4 SAT, 1 TER
Inputs (230V)		1	PSU included
Connectors	F-con	female	female
Input voltage	V/AC	96 to 250	180 to 264
Frequency range	Hz	47 - 63	50
Frequency range SAT	MHz		950 - 2150
Frequency range TER	MHz		DC to 862
Insertion loss SAT	dB		1
Insertion loss TER	dB		1
Impedance input/output	Ohm		75
Supply direction switch			Up - Down - Both
Max. current	A	1 x 1.3	
Output voltage	VDC	15 (± 0.5)	3 x 14 2 x 18
Supply power	W		26
Cable length from supply	mm	1800	
Colourcoding of IF and TER inputs			Yes
Temperature range	°C	0 - 50	0 - 50
Dimensions (H x D x W)	mm	64 x 111 x 35	
Remarks		Incl. power cable, mounting bracket and 1800 mm power cable with F-male	



TMS 17 PSUMB



TMS 5 PSU

## Technical data

### TMS tap

TYPE		TMS 55 Tap
Part No.		300313
Number of inputs		4 SAT, 1 TER wide
Number of outputs		4 SAT, 1 TER wide
Number of taps		4 SAT, 1 TER wide
Connectors	F-con	female
Frequency range SAT	MHz	950-2150
Frequency range wideband	MHz	47-862
Through loss SAT	dB	1.0
Through loss TER	dB	1.0
Tap loss SAT	dB	14...11
Tap loss TER	dB	12
Isolation trunkline	dB	> 30
Isolation SAT - TER	dB	
Isolation TER - SAT	dB	
Power consumption	VA	
Temperature range	°C	0...+55
Dimensions (H x D x W)	mm	105 x 43 x 196



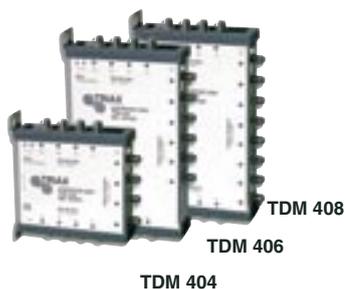
TMS 55 tap

# TRIAX Districom 4000 multi switches with up to 16 polarities and terrestrial input



## Technical data - multi switches up to 16 polarities

TYPE		TDM 404	TDM 406	TDM 408
Part No.		364404	364406	364408
Number of inputs		4 x SAT	4 x SAT	4 x SAT
Number of outputs		4 x SAT	4 x SAT	4 x SAT
Subscriber outputs		4	6	8
Connectors	F-con	female	female	female
Frequency range	MHz	950-2200	950-2200	950-2200
Through loss (cascade)	dB	3.0 (± 1)	4.5 (± 1)	4.5 (± 1)
Tap loss	dB	2 to 4 (± 2)	1 to 5 (± 2)	1 to 5 (± 2)
Isolation	dB	≥ 35	≥ 35	≥ 35
Isolation subscriber output	dB	≥ 25 dB min. (>30 dB typ.)	≥ 25 dB min. (>30 dB typ.)	≥ 25 dB min. (>30 dB typ.)
Impedance	Ohm	75	75	75
Return loss	dB	≥ 10 dB min. (typical)	≥ 10 dB min. (typical)	≥ 10 dB min. (typical)
Max. input level	dBμV	100	100	100
Output level	dBμV	100	100	100
Noise figure	dB	≤ 8	≤ 8	≤ 8
Power consumption from receiver	mA	≤ 90	≤ 90	≤ 90
Power supply voltage	VDC	15 ± 1	15 ± 1	15 ± 1
Power supply current	mA	≤ 15	≤ 15	≤ 15
Power connector	mm	2 x 1.3	2 x 1.3	2 x 1.3
Control		V: 11,5 to 14V, H: 16-19V, Hi: 22 kHz - 0.6 (± 2)	V: 11,5 to 14V, H: 16-19V, Hi: 22 kHz - 0.6 (± 2)	V: 11,5 to 14V, H: 16-19V, Hi: 22 kHz - 0.6 (± 2)
Control LEDs for service purpose		Yes	Yes	Yes
Colourcoding of IF and TER inputs		Yes	Yes	Yes
Temperature range	°C	0 - 50	0 - 50	0 - 50
Max. current	mA	500	500	500
Dimensions (H x D x W)	mm	145 x 138 x 36	234 x 138 x 36	234 x 138 x 36



## Technical data - multi switches with terrestrial in/output

TYPE		TDM 504	TDM 506	TDM 508
Part No.		364504	364506	364508
Number of inputs		4 x SAT, 1 x TER	4 x SAT, 1 x TER	4 x SAT, 1 x TER
Number of outputs		4 x SAT, 1 x TER	4 x SAT, 1 x TER	4 x SAT, 1 x TER
Subscriber outputs		4	6	8
Connectors	F-con	female	female	female
Frequency range	MHz	950-2200	950-2200	950-2200
Through loss Ter	dB	2.5 ± 1	2,5 ± 1	2,5 ± 1
(cascade) Sat	dB	3.0 ± 1	4,5 ± 1	4,5 ± 1
Tap loss (Ter - passive)	dB	16 to 18.5 (± 1) tap 1 to 4	22 to 24 (± 2) tap 1 to 6	22 to 24 (± 2) tap 1 to 8
(SAT - active)	dB	3 to 5 (± 2)	1 to 5 (± 2)	1 to 5 (± 2)
Isolation	dB	≥ 20 dB min. (>30 dB typ.)	≥ 20 dB min. (>30 dB typ.)	≥ 20 dB min. (>30 dB typ.)
Isolation subscriber output	dB	≥ 25 dB min. (>30 dB typ.)	≥ 25 dB min. (>30 dB typ.)	≥ 25 dB min. (>30 dB typ.)
Impedance	Ohm	75	75	75
Return loss SAT/TER	dB	≥ 10/≥ 12	≥ 10/≥ 12	≥ 10/≥ 12
Max. input level	dBμV	100	100	100
Output level sat	dBμV	100	100	100
Noise figure	dB	≤ 7	≤ 7	≤ 7
Power consumption from receiver	mA	≤ 90	≤ 90	≤ 90
Power supply voltage	VDC	15 ± 1	15 ± 1	15 ± 1
Power supply current	mA	≤ 15	≤ 15	≤ 15
Power connector	mm	2 x 1.3	2 x 1.3	2 x 1.3
Control		V: 11,5 to 14V, H: 16-19V, Hi: 22 kHz - 0.6 (± 2)	V: 11,5 to 14V, H: 16-19V, Hi: 22 kHz - 0.6 (± 2)	V: 11,5 to 14V, H: 16-19V, Hi: 22 kHz - 0.6 (± 2)
Control LEDs for service purpose		Yes	Yes	Yes
Colourcoding of IF and TER inputs		Yes	Yes	Yes
Temperature range	°C	0 - 50	0 - 50	0 - 50
Max. current	mA	500	500	500
Dimensions (H x D x W)	mm	145 x 138 x 36	234 x 138 x 36	234 x 138 x 36



# TRIAx Districom 4000 SAT/TER DiSEqC switches

## Technical data - SAT/TER DiSEqC switches

TYPE		TDC 200	TDC 300	TDC 400
Part No.		364200	364300	364400
Satellite inputs (via TDM module)		2	3	4
Terrestrial inputs (via TDM module)		via SAT A	via SAT A	via SAT A
Input connectors F-quick	F-con	male	male	male
Output connector	F-con	female	female	female
Frequency range SAT	MHz	950-2200	950-2200	950-2200
Frequency range TER	MHz	5 to 862	5 to 862	5 to 862
Pass-through gain SAT	dB	0 (± 2)	0 (± 2)	0 (± 2)
Pass-through gain TER	dB	3 (± 1)	3 (± 1)	3 (± 1)
Attenuation SAT	dB	0 to -10	0 to -10	0 to -10
Isolation	dB	≥ 30 dB typ. (25 dB min.)	≥ 30 dB typ. (25 dB min.)	≥ 30 dB typ. (25 dB min.)
Isolation SAT-TER	dB	≥ 30 dB typ. (20 dB min.)	≥ 30 dB typ. (20 dB min.)	≥ 30 dB typ. (20 dB min.)
Impedance	Ohm	75	75	75
Return loss SAT/TER	dB	> 10.0/> 12.0	> 10.0/> 12.0	> 10.0/> 12.0
Output level	dBμV	105	105	105
Noise figure	dB	≤ 7	≤ 7	≤ 7
DiSEqC control DiSEqC		DiSEqC 1.0	DiSEqC 1.0	DiSEqC 1.0
Tone frequency	kHz	22 ± 4	22 ± 4	22 ± 4
Tone burst option A or B		Selectable via switch	Selectable via switch	Selectable via switch
Power supply voltage	VDC	11,5 to 19	11,5 to 19	11,5 to 19
Power supply current	mA	≤ 65 mA	≤ 65 mA	≤ 65 mA
Max. current pass	mA	300	300	300
Temperature range	°C	0 - 50	0 - 50	0 - 50
Dimensions (H x D x W)	mm	113 x 66 x 22 mm	113 x 66 x 22 mm	149 x 66 x 22 mm



## Technical data - SAT/TER DiSEqC switches + terrestrial input

TYPE		TDC 250	TDC 350	TDC 450
Part No.		364250	364350	364450
Satellite inputs (via TDM module)		2	3	4
Terrestrial inputs (via TDM module)		0	0	0
Input connectors F-quick	F-con	male	male	male
Output connector	F-con	female	female	female
Frequency range SAT	MHz	950-2200	950-2200	950-2200
Frequency range TER	MHz	5 to 862	5 to 862	5 to 862
Pass-through gain SAT	dB	0 (± 2)	0 (± 2)	0 (± 2)
Pass-through gain TER	dB	3 (± 1)	3 (± 1)	3 (± 1)
Attenuation SAT	dB	0 to -10	0 to -10	0 to -10
Isolation	dB	≥ 30 dB typ. (25 dB min.)	≥ 30 dB typ. (25 dB min.)	≥ 30 dB typ. (25 dB min.)
Isolation SAT-TER	dB	≥ 30 dB typ. (20 dB min.)	≥ 30 dB typ. (20 dB min.)	≥ 30 dB typ. (20 dB min.)
Impedance	Ohm	75	75	75
Return loss SAT/TER	dB	> 10.0/> 12.0	> 10.0/> 12.0	> 10.0/> 12.0
Output level	dBμV	105	105	105
Noise figure	dB	≤ 7	≤ 7	≤ 7
DiSEqC control DiSEqC		DiSEqC 1.0	DiSEqC 1.0	DiSEqC 1.0
Tone frequency	kHz	22 ± 4	22 ± 4	22 ± 4
Tone burst option A or B		Selectable via switch	Selectable via switch	Selectable via switch
Power supply voltage	VDC	11,5 to 19	11,5 to 19	11,5 to 19
Power supply current	mA	≤ 65 mA	≤ 65 mA	≤ 65 mA
Max. current pass	mA	300	300	300
Temperature range	°C	0 - 50	0 - 50	0 - 50
Dimensions (H x D x W)	mm	113 x 66 x 22 mm	113 x 66 x 22 mm	149 x 66 x 22 mm



# TRIAX Districom 4000 Terrestrial amplifier and power supplies

TDA 122



## Technical data - terrestrial ampl.

TYPE		TDA 122
Part No.		364122
Input frequency (standard)	MHz	47-862
Input frequency (with return-path)	MHz	87-862
Number of inputs	F-con	1 female
Number of outputs	F-con	1 female
Gain	dB	22
Attenuation adjustment	dB	0-20 ± 2 dB
Equalizer	dB	0-18
Noise figure	dB	< = 8.5
Max. output level		
3. order according to DIN45004B	dBµV	118
2. order according to DIN45004A1	dBµV	112
CTO/CS0 (42 channels)	dBµV	101
Return-path		
Frequency range	MHz	5-30/5-55/5-65
Gain	dBµV	active or passive
Attenuation adjustment	dB	0-20 ± 2 dB
Overall		
Main voltage	V/DC	15 ± 2 dB
Power current	mA	300
Temperature range	°C	0-50
Dimensions (H x D x W)	mm	234 x 138 x 36

TDP 200



## Technical data - power supplies

TYPE		TDP 200	TDP 201	TDP 203
		Double P 50		
Part No.		364020	364023	364024
Input voltage	V/AC	180 to 240	180 to 240	180 to 240
Frequency range	Hz	50-60	50-60	50-60
Power	VA	< 65	< 65	< 65
Voltage at 2.5A current	V/DC	15 ± 0.5 V	15 ± 0.5 V	15 ± 0.5 V
Max. current	A	2 x 1.25	1 x 1.25	1 x 3.0
Inputs (230V)		2	1	1
Outputs		2	1	1
Cable length	mm	300	250	250
Temperature range	°C	0 - 50	0 - 50	0 - 50
Dimensions (H x D x W)	mm	145 x 138 x 36	95 x 60 x 20	95 x 60 x 20



TDL 200 power cable  
with connectors  
Part No. 364021



# TRIAX Districom 4000 Tap, splitter, amplifiers and mounting plate

## Technical data - tap & splitter

TYPE			TDD 110 Tap	TDR 200 Splitter
Part No.			364060	364050
Number of inputs			4 x SAT	4 x SAT
Number of outputs			4 x SAT	2 pcs 4 x SAT
Number of taps			4 x SAT	
Connectors		F-con	female	female
Frequency range	Pass through	MHz	470-2200	
	Tap	MHz	950-2200	950-2200
Through loss		dB	2.0 ± 1	
Tap loss		dB	10.0 ± 1	6.0 ± 1
Isolation		dB	≥ 20	≥ 16
Isolation tap		dB	≥ 35	≥ 35
Impedance		Ohm	75	75
Return loss		dB	≥ 6 dB min. (10 dB typ.)	≥ 6 dB min. (10 dB typ.)
Return loss trunk		dB		
On/Off switch for DC-pass			Yes	Yes
Power supply voltage		VDC	15 ± 1	15 ± 1
Power supply current		mA	≤ 15	≤ 15
Power connector		mm	2 x 1.3	2 x 1.3
Temperature range		°C	0 - 50	0 - 50
Max. current		mA	500	500
Dimensions (H x D x W)		mm	145 x 138 x 36	145 x 138 x 36



## Technical data - IF amplifiers

TYPE			TDA 415	TDA 425
Part No.			364415	364425
Number of inputs			4 x SAT	4 x SAT
Number of outputs			4 x SAT	4 x SAT
Connectors		F-con	female	female
Frequency range		MHz	950-2200	950-2200
Gain (adjustable on each polarity)		dB	15 ± 2	19 @ 950/25 @ 2000 ± 2
Attenuation adjustment		dB	0 to -10	0 to -10
Tilt (fixed)		dB	5	6
Isolation between amplifiers		dB	≥ 35	≥ 35
Return loss		dB	≥ 10	≥ 10
Impedance		Ohm	75	75
Output level (IMA -35 dB)		dBμV	110	110
Noise figure		dB	6 dB typ. (≥ 7 dB max.)	6 dB typ. (≥ 7 dB max.)
DC through-pass			Yes	Yes
Power supply voltage		VDC	15 ± 1	15 ± 1
Power supply current		mA	≤ 270	≤ 270
Max. current per connector		mA	500	500
Temperature range		°C	0 - 50	0 - 50
Dimensions (H x D x W)		mm	145 x 138 x 36	145 x 138 x 36



## Technical data - mounting plate

TYPE		TDF500	TDF511	TDF512
Part No.		364500	364511	364512
Number of modules		5	5	5
Dimensions (H x D x W)		mm	245 x 220 x 6	245 x 220 x 6
Remarks		Mounting plate for easy fixing of up to 5 modules	Small mounting plate for easy fixing of modules	Large mounting plate for easy fixing of modules



# TRIAX camera with modulator in b/w and color

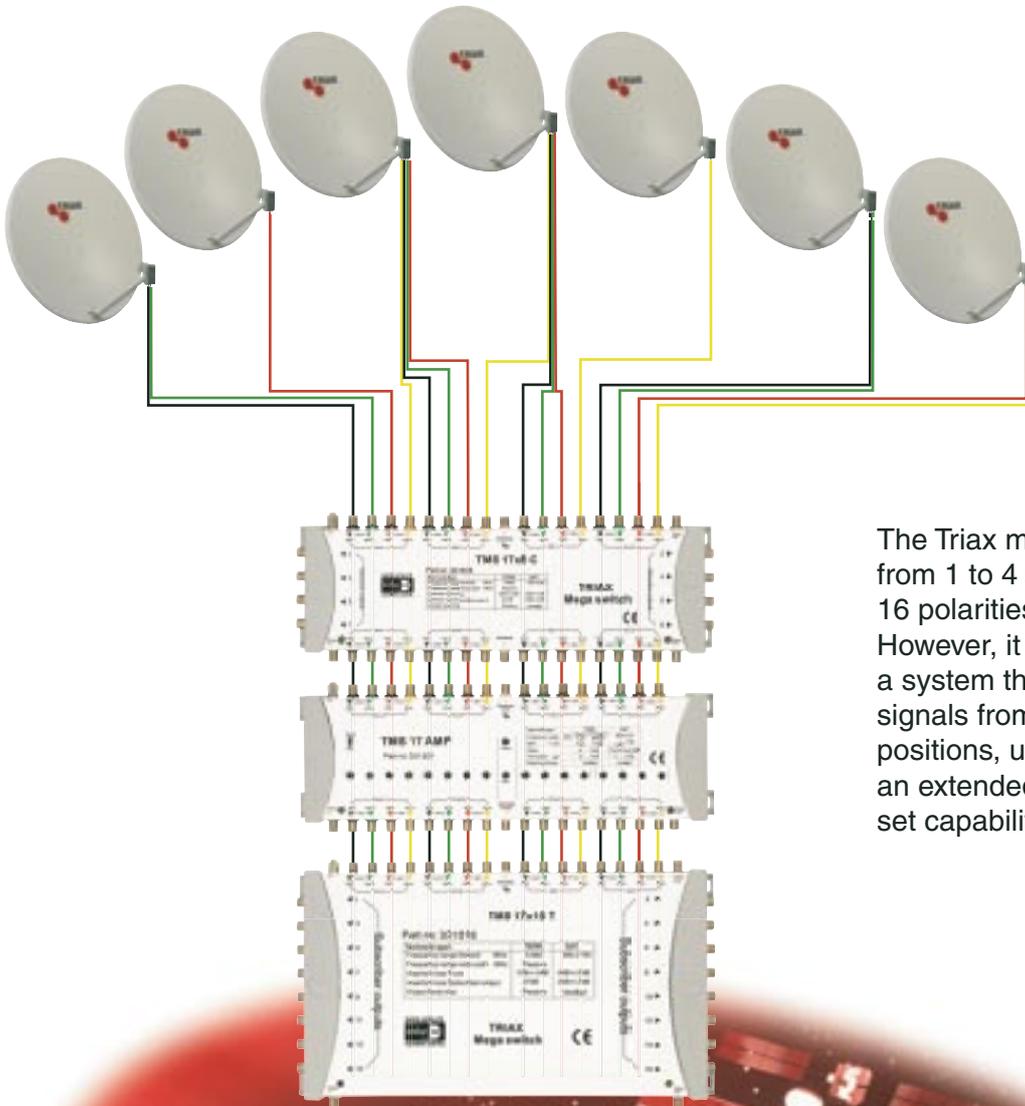


## Technical specifications

TYPE			TCB 015	TCB 007
Part No.			364015	364007
Type			B/W	Colour
TV system			PAL-G	PAL-G
Modulator type			DSB-UHF	DSB-UHF
UHF output channel			Ch. 21-69 <sup>1)</sup>	21-69 <sup>1)</sup>
UHF output level			85 ±5 dBµV	85 ±5
Output power			NA dBm	NA
Modulation			NA	NA
Receiver sensitivity			NA dBm	NA
Receiver noise figure			NA dB	NA
Output frequency range			470-862 MHz	470-862
Transmission frequency			NA GHz	NA
Operational range (free field)			NA m	NA
Audio carrier			5.5 MHz	5.5
Integrated mic.			Yes	Yes
S/N ratio			> 48 dB	> 48
Image sensor			1/4 inch CMOS	1/3 inch CMOS
Lens			F 2.0/3.6 mm 90° Wide angle	F 1.8/6.0 mm 64° Wide angle
Resolution			260 lines	380
Number of pixels			352 x 288 pixels	628 x 582
Min. illumination			0.5 LUX	3
Builtin light			11 IR Leds	NA
Auto iris electronic			1/60 ~ 1/6000 sec	1/60 ~ 1/5000
Operation conditions			Weatherproof outdoor (aluminium housing)	
Power consumption			250 mA	120
Operating voltage			12 VDC	12
Power inserter/supply incl.			Yes	Yes
<b>Power Inserter</b>				
Insertion loss			4 dB	4
VHF/UHF in/out			20 dB	20
VHF/UHF+in/out			0.1 dB	0.1
In/out			0.1 dB	0.1
Max. current			0.8 A	0.8
Dimensions (Camera only)			105 x 50 x 115 mm	105 x 50 x 115
Weight			kg	

1) Modulator UHF channel settable via 2-digit rotary switch (channels 21 thru 69)

## Multi reception and combinations of different polarities from many dishes



The Triax multi switch range supports from 1 to 4 satellite positions, or up to 16 polarities in normal configurations. However, it is also possible to create a system that receives and distributes signals from a larger number of satellite positions, using satellite receivers with an extended DiSEqC and LNB control set capability.

# Thinking one step ahead...

Triax's philosophy is customer-orientation: In both our markets, TV-systems and enclosures, our objective is to save time and trouble for the installers, operators and distributors building their business on our products.

Simplicity and support are key words, expressed both in products and in service.

Our products offer more in performance and simplifying logic, and in our support customers have easy access to understandable, useful and competent answers.

Innovative thinking, service-oriented people and advanced technology has made Triax one of the leading European suppliers of both TV-systems and enclosures.

We offer everything that can be expected from a professional supplier within these fields.

Triax is of course ISO 9001 certified and delivers products according to all acknowledged local and international quality standards.

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