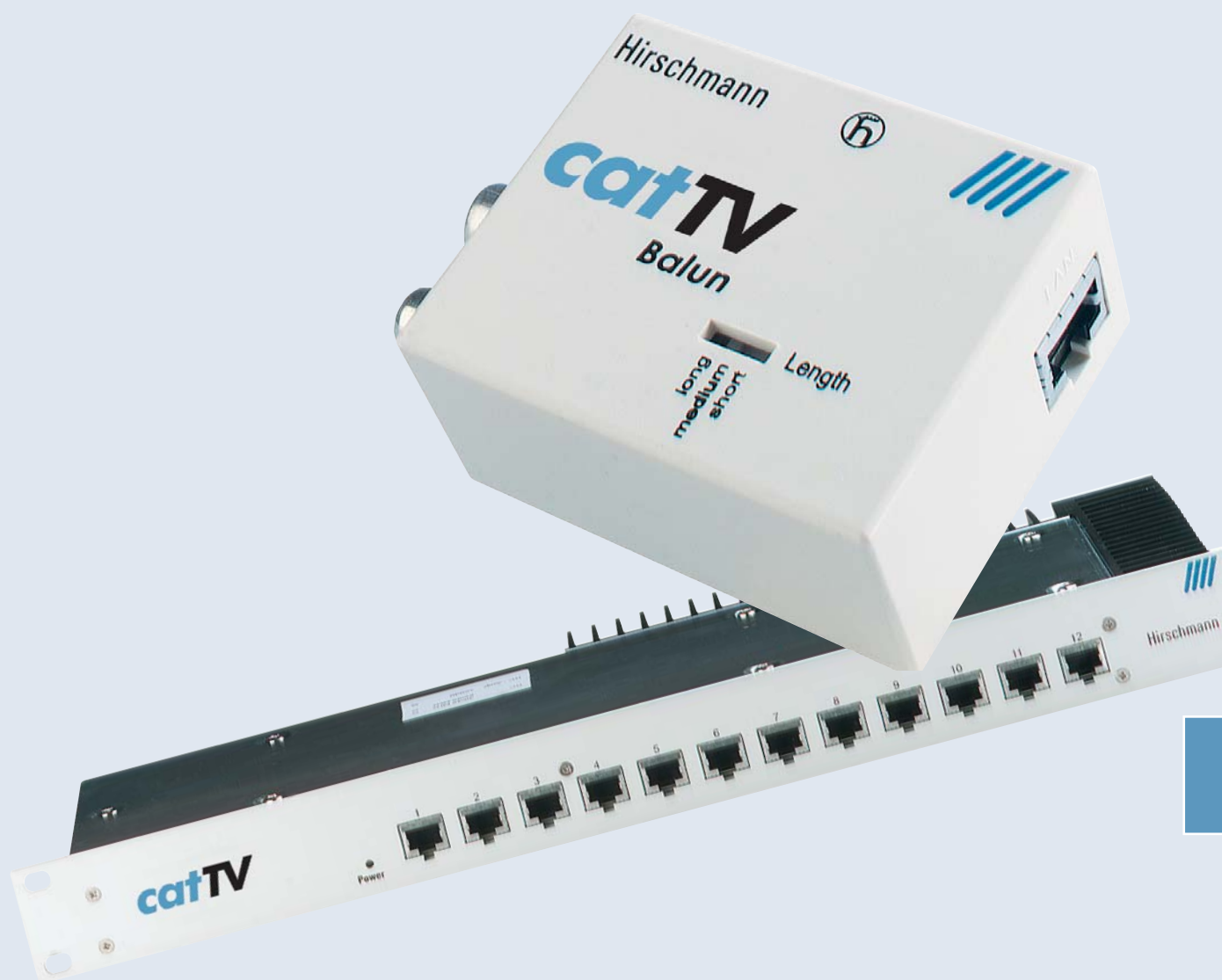


► catTV

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TV, PC, radio and telephone on one cable

Multimedia networks over application-neutral cabling with the aid of catTV:

Hirschmann's catTV technology was developed to be able to also transmit radio, television and added value services over data networks used in the past only for telephone and Internet. As a result additional coaxial cabling is unnecessary. Television reception can be realised at any point on the data network.

- Multimedia application (radio, TV) direct over existing 100 Ohm application-neutral building cabling = "structured cabling" (Twisted pair cabling to category 6/7)
- Using the doubly active catTV system (distribution panel and balun can be adjusted to compensate for link attenuation up to 50 dB. As a result it is also possible to cover the maximum structured cable length (90 m).
- Using the star-shaped, "structured cabling", services can be provided to each subscriber individually

- Enhancements and the incorporation of additional subscribers can be undertaken at low cost without additional installation effort – no additional calibration necessary
- No installation of an additional coax network for the TV multimedia application
- All TV channels available from 45 (85) to 862 MHz can be transmitted
- Suitable for return channel, with active and passive return channel (5-30 MHz or 5-65 MHz)
- Plug and Play system. Matching of the attenuation and the slope to existing cable length is performed straightforwardly using a switch (in 3 steps) at the balun

catTV panel

Active distribution panel for the distribution of CATV signals over application-neutral building cabling.

The catTV panel converts the CATV signal (coaxial/75 Ohm) into a symmetrical signal (sym./100 Ohm) for transmission over the application-neutral building cabling via the patch panel on the subscriber cable.

catTV balun

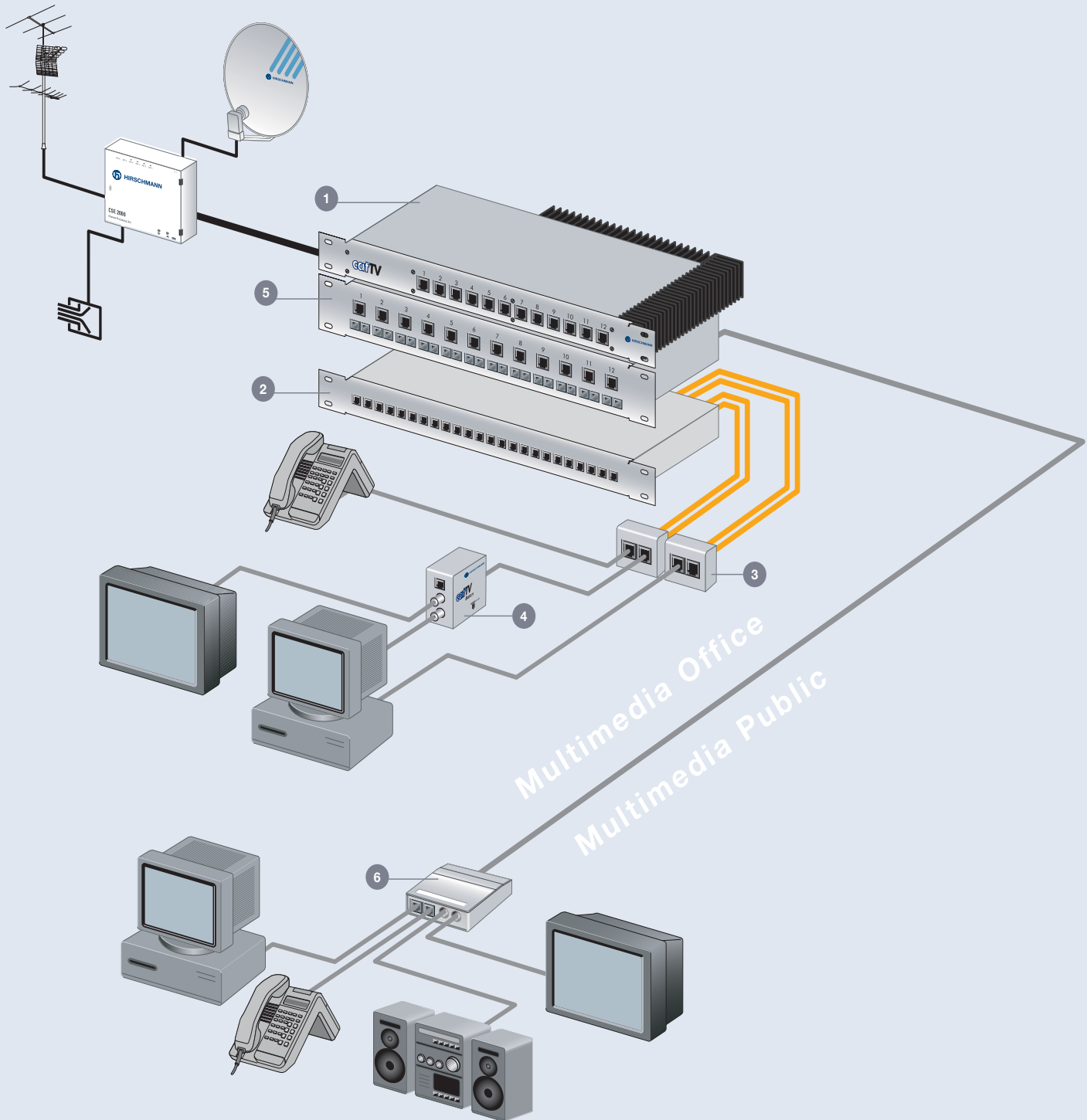
The catTV balun is connected to the RJ45 subscriber outlet using a patch cable. The balun (balanced - unbalanced) converts the symmetrical signal (100 Ohm) received from the catTV panel over the application-neutral cabling into a coaxial signal (75 Ohm) that can process the subscriber unit (e.g. TV and radio).

Multimedia network termination

The multimedia network termination NA 200 is primarily used in multimedia public structures and provides the permanently installed termination of a 6-pair symmetrical multimedia cable. Up to 4 end units - e.g. PC, telephone, TV and radio can be connected to the surface mounted outlet.


catTV for usage in/at

- Office and industrial buildings
- Clinics and hospitals
- Rehabilitation centers
- Banks, saving banks
- Stock exchange workstations
- Brokers
- Insurance buildings
- Airports
- TV stations and TV studios
- Administration buildings
- Hotels, holiday complexes
- Residential areas
- Sport arenas
- Correspondent stations



- 1 catTV panel
- 2 Standard patch panel
- 3 RJ45 double outlet
- 4 catTV balun
- 5 Multimedia patch panel
- 6 Multimedia network termination

catTV panel

catTV panel	Type	NPN 3412	
<ul style="list-style-type: none"> • Injection of the RF signals • Level control + equalizer on the input • Input test point • Amplification per output by means of GaAs hybrids • Conversion of 75 Ω (coaxial) in 100 Ω (symmetrical), RJ 45 • Loading of the cable in pairs (HF 1.2; remote feed/RP 7, 8) • TV signals are only active if balun connected • Standard RP – active and passive modules can be added • Static shutdown of the individual ports possible • External power supply 	Order No.	947 745-001	
			
	Input frequency	MHz	45-862, optional return path
	Input level	dBμV	60-80 ¹⁾ 70-83 ²⁾
	Level control	dB	0-20
	Equalizer	dB	0-18
	Noise factor	dB	7
	Gain	dB	34
	Pre-equalization	dB	15
	Operating level ¹⁾		
	42 channels at 60 dB CSO/CTB	dBμV	94 ¹⁾ 104 ²⁾
	Test point	dBμV	70 ¹⁾ 80 ²⁾
	Input, test point	F-socket	
	Outputs	RJ 45 socket, 6-pole, 100 Ω	
	Controller	Sub-D socket, 15-pole	
	Power supply	28 V DC ±5%; max. 1.9 A	
	Current consumption	930 mA, without balun	
	Power supply	External, protection class 2, short-circuit proofed	
	Operating temperature	0-50 °C	
	Dimensions	mm	483 x 42 x 180 (19", 1 HE)
	Weight	kg	2.8




1) Normal operation. Max. cable attenuation that can be compensated 40 dB. The externally connected passive network components must have a minimum shielding of 75 dB.

2) Special operation. Max. cable attenuation that can be compensated 50 dB. The externally connected passive network components must have a minimum shielding of 85 dB.

catTV balun

- Injection of the signals over RJ 45
- Conversion back from 100 Ohm to 75 Ohm
- Amplification of the RF signal
- Allocation of the signals to the outputs
- 3 variants: without RP, RP 5-30 MHz, RP 5-65 MHz
- Slope and attenuation of max. 50 dB are compensated
- Plug and Play
3 switch settings for straightforward matching to different cable lengths

catTV balun

Type	NBL 0200	NBL 0230	NBL 0265
Order No.	947 747-001	947 749-001	947 748-001
			
Input frequency	MHz	45-862	45-862
Return path	MHz	5-30	5-65
Input level	dBμV	54-90	54-90
Gain	dB	6/-7/-20	6/-7/-20
Pre-equalization	dB	18/10/0	18/10/0
Output level	dBμV	60-77	60-77
Input	RJ 45 socket, 8-pole, 100 Ω symmetrical		
Outputs	TV	plug, IEC, 75 Ω	
	RF	socket, IEC, 75 Ω	
	DATA	-	socket, F, 75 Ω
	phone	RJ 45 socket, 8-pole, 100 Ω symmetrical	
Power supply	10 V	10 V	10 V
Current consumption	70 mA	70 mA	70 mA
Operating temperature	0-50 °C	0-50 °C	0-50 °C
Dimensions	mm	81 x 35 x 59	81 x 35 x 59
Weight	g	112	112

Multimedia network termination

NA 200: base unit with 2 x RJ 45 sockets for telephone/ISDN + Ethernet. Prepared for the use of an HF or RJ module.

Services: e.g. Telephony + Ethernet

Modules:

NAH 200: HF module with passive balun without return channel, 2 F-sockets.

Services: e.g. TV/radio

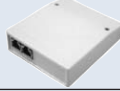



NAH 265: HF module with passive balun and return channel, 2 F-sockets.

Services: e.g. TV/radio + cable modem for Internet and Telephony

NAR 245: RJ module, use with RJ 45-socket, cat 6, class E.

Services: Telephony/Ethernet

Multimedia network termination

Typ	NA 200	NAH 200	NAH 265	NAR 245
Order Code	940 048-001	940 049-001	940 050-001	940 051-001
				
frequency range				
Output "RF"	MHz	5-862	45-862+5-65	
Output "TV"	MHz	45-862	45-862	
Throughp. Attenuat.	MHz	6/11	6/11	
Return loss	dB	14	14	14
Outputs		2 x RJ 45	2 x F	2 x F
				1 x RJ 45