

EMP-CENTAURI®



PRODUCT CATALOG

2019

Simple building networking by coaxial cable,
Satellite, TV, Computers

EN



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Engineers in our development department along with production managers greatly appreciate good experience with the products that customers have in practice, as well as their practical observations.

Suggestions and experiences from our customers motivate us to improve the quality and parameters of our products and to develop new models and types.

EMP-Centauri is aware that only a good approach to customers and meeting their needs and requirements is the cornerstone of company success.

PRODUCT LISTING

1 satellite multiswitches

PROFI CLASS

MS5/4PIU-4	4-6
MS5/4PLP-3	4-6
MS5/6PIU-4	4-6
MS5/6PLP-3	4-6
MS5/8PIU-4	4-6
MS5/8PLP-3	4-6
MS5/12PIU-5	4-6
MS5/16PIU-5	4-6
MS5/20PIU-6	4-6
MS5/24PIU-6	4-6
MS5/28PIU-6	4-6

E.LITE CLASS

MS5/4EUP-2	4-6
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MS5/4EIA-4	4-6
MS5/8EUP-4	4-6
MS5/8EIP-8	4-6
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MS5/12EIP-5	4-6
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MS5/12ELP-4	4-6
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2 satellites multiswitches

PROFI CLASS

MS9/4PIU-5 V10	7-9
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MS9/10PIU-5 V10	7-9
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MS9/16PIU-6 V10	7-9
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E.LITE CLASS

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MS9/10ECU-4	7-9
MS9/16ECU-12	7-9
MS9/20ECU-12	7-9
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3 satellites multiswitches

PROFI CLASS

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MS13/8PIU-6 V10	10-12
MS13/12PIU-6 V10	10-12
MS13/16PIU-6 V10	10-12
MS13/20PIU-6 V10	10-12
MS13/26PIU-6 V10	10-12

E.LITE CLASS

MS13/6ECU-4	10-12
MS13/10ECU-4	10-12
MS13/16ECU-12	10-12
MS13/20ECU-12	10-12
MS13/26ECU-17	10-12
MS13/30ECU-17	10-12

4 satellites multiswitches

PROFI CLASS

MS17/4PIU-6 V10	13-15
MS17/8PIU-6 V10	13-15
MS17/12PIU-6 V10	13-15
MS17/16PIU-6 V10	13-15
MS17/20PIU-6 V10	13-15
MS17/26PIU-6 V10	13-15

E.LITE CLASS

MS17/6ECU-4	13-15
MS17/10ECU-4	13-15
MS17/16ECU-12	13-15
MS17/20ECU-12	13-15
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Multiswitches for large number of users

E.LITE CLASS

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5-8 satellites multiswitches

PROFI CLASS

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MS33/12PIU-6	18-19

Cascadable multiswitches

PROFI CLASS

MS3/3+4PLP-2	20-24
MS3/3+8PLP-2	20-24
MS4/4+4PCN-3	20-24
MS4/4+4PLN-3	20-24
MS4/4+8PCN-3	20-24
MS4/4+8PLN-3	20-24
MS5/5+4PCP-3	20-24
MS5/5+4PLP-3	20-24
MS5/5+8PCP-3	20-24
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E.LITE CLASS

NEW - ECU+EEU	
MS5/5+12ECP-4	20-24
MS5/5+12ELP-4	20-24
MS5/5+16ECP-4	20-24
MS5/5+16ELP-4	20-24
MS9/9+6ECU-4	20-24
MS9/9+10ECU-4	20-24
MS9/9+16ECU-12	20-24
MS9/9+20ECU-12	20-24
MS9/9+26ECU-17	20-24
MS9/9+30ECU-17	20-24
MS9/9+32EEU-14	20-24
MS9/9+40EEU-14	20-24
MS9/9+52EEU-13	20-24
MS9/9+60EEU-13	20-24
MS13/13+6ECU-4	20-24
MS13/13+10ECU-4	20-24
MS13/13+16ECU-12	20-24
MS13/13+20ECU-12	20-24
MS13/13+26ECU-17	20-24
MS13/13+30ECU-17	20-24
MS13/13+32EEU-14	20-24
MS13/13+40EEU-14	20-24
MS13/13+52EEU-13	20-24
MS13/13+60EEU-13	20-24
MS17/17+6ECU-4	20-24
MS17/17+10ECU-4	20-24
MS17/17+16ECU-12	20-24
MS17/17+20ECU-12	20-24
MS17/17+26ECU-17	20-24
MS17/17+30ECU-17	20-24
MS17/17+32EEU-14	20-24
MS17/17+40EEU-14	20-24
MS17/17+52EEU-13	20-24
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S2/1PCTpos-1	25
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PRODUCT LISTING

NET CLASS

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MS5/20NEU-12	26-28
MS9/6NEU-4	26-28
MS9/10NEU-4	26-28
MS9/16NEU-12	26-28
MS9/20NEU-12	26-28
MS13/6NEU-4	26-28
MS13/10NEU-4	26-28
MS13/16NEU-12	26-28
MS13/20NEU-12	26-28
MS17/6NEU-4	26-28
MS17/10NEU-4	26-28
MS17/16NEU-12	26-28
MS17/20NEU-12	26-28

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PROFI CLASS

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T4/4+4PCN-3	36-39
T5/5+5PCP-3	36-39

E.LITE CLASS

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2 to 4 LNBS DiSEqC switches

PROFI CLASS

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S2/1PCNpos-W1	40-42
S2/1PCNopt-W1	40-42
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E.LITE CLASS

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5 to 16 LNBS DiSEqC switches

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Single band multiswitches

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G1/1ECNpos-1	54-55
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G1/1ECNposopt-1	54-55
G1/1ECN-1	54-55
G1/1ECNman-1	54-55

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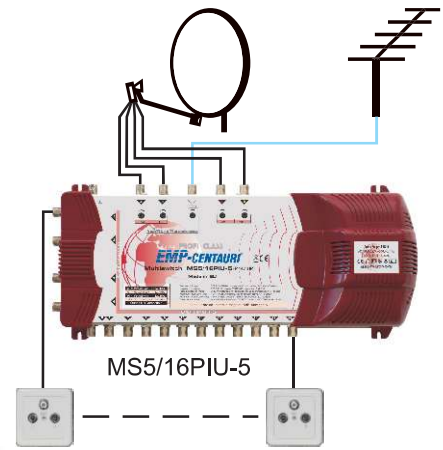
Product marking Guide

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Accessories

1 SATELLITE MULTISWITCHES

1-satellite (4 polarities) standalone multiswitches with an integrated power supply are designed for the distribution of terrestrial and satellite signals from 1 satellite position. We offer models with 4 outputs up to 28 outputs. Multiswitches are compatible with all satellite receivers, and are suitable for both analog and digital reception.



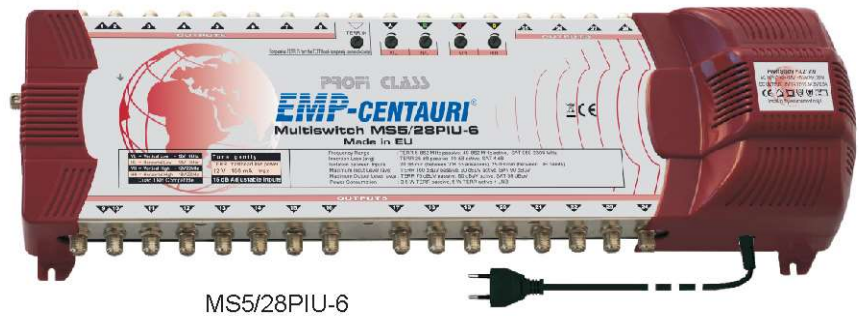
Advantages of PROFI CLASS multiswitches:

- input attenuators at all inputs*
- support for Quad LNB*
- selectable active / passive processing of terrestrial band*
- 12V DC supply for terrestrial preamplifier*
- extended temperature range



* does not apply to types of extension PLP-3

6 YEARS WARRANTY



Overview of PROFI CLASS products - specifications

Part number	Number of inputs	Number of outputs	Description	Frequency range LNB inputs (MHz)	Frequency range Terr. Input passive (MHz)	Frequency range Terr. Input active (MHz)	Frequency range Outputs passive (MHz)	Frequency range Outputs active (MHz)	Control 13/18V + 0/22kHz	Insertion loss Sat. (dB avg)	Insertion loss Terr. active (dB avg)	Insertion loss Terr. passive (dB avg)	Sat. inputs isolation (dB min)
MS5/4PIU-4	5	4	Multiswitch with integrated power supply, 0 to 15 dB attenuators, Quad LNB compatible, switchable active/passive terr. Input	950-2300	5-862	40-862	5-2300	40-2300	●	3	2	19	20
MS5/6PIU-4	5	6		950-2300	5-862	40-862	5-2300	40-2300	●	4	3	20	20
MS5/8PIU-4	5	8		950-2300	5-862	40-862	5-2300	40-2300	●	4	3	20	20
MS5/12PIU-5	5	12		950-2300	5-862	40-862	5-2300	40-2300	●	0	gain 7	21	20
MS5/16PIU-5	5	16		950-2300	5-862	40-862	5-2300	40-2300	●	0	gain 6	22	20
MS5/20PIU-6	5	20		950-2300	5-862	40-862	5-2300	40-2300	●	4	10	23	20
MS5/24PIU-6	5	24		950-2300	5-862	40-862	5-2300	40-2300	●	4	10	24	20
MS5/28PIU-6	5	28		950-2300	5-862	40-862	5-2300	40-2300	●	4	10	25	20
MS5/4PLP-3	5	4	Multiswitch, passive terrestrial, self powered	950-2300	5-862	-	5-2300	-	●	0	-	13	20
MS5/6PLP-3	5	6		950-2300	5-862	-	5-2300	-	●	3	-	15	20
MS5/8PLP-3	5	8		950-2300	5-862	-	5-2300	-	●	3	-	16	20

Main features of E.LITE CLASS multiswitches:

- some models support for Quad LNB
- active or passive terrestrial input depending on product type
- integrated or external power supply

4 YEARS WARRANTY



MS5/8EIP-8

Overview of E.LITE CLASS products - specifications

Part number	Number of inputs	Number of outputs	Description	Frequency range LNB inputs (MHz)	Frequency range Terr. Input passive (MHz)	Frequency range Terr. Input active (MHz)	Frequency range Outputs passive (MHz)	Frequency range Outputs active (MHz)	Control 13/18V + 0/22kHz	Insertion loss Sat. (dB avg)	Insertion loss Terr. active (dB avg)	Insertion loss Terr. passive (dB avg)	Sat. inputs isolation (dB min) Between V/H polarisations	Sat. inputs isolation (dB min) Between low/high bands
MS5/4EUP-2	5	4	Multiswitch, passive terr. input, DC socket	950-2150	5-862	-	5-2150	-	●	12	-	11	20	25
MS5/4EUP-4	5	4		950-2150	5-862	-	5-2150	-	●	3	-	14	20	25
MS5/8EUP-4	5	8		950-2150	5-862	-	5-2150	-	●	3	-	17	20	25
MS5/4EIA-4	5	4	Multiswitch with integrated power supply, active terr. input, Quad LNB compatible	950-2150	-	40-862	-	40-2150	●	3	2	-	20	25
MS5/8EIA-4	5	8		950-2150	-	40-862	-	40-2150	●	3	3	-	20	25
MS5/12EIA-5	5	12		950-2150	-	40-862	-	40-2150	●	0	3	-	20	25
MS5/16EIA-5	5	16		950-2150	-	40-862	-	40-2150	●	0	5	-	20	25
MS5/20EIA-5	5	20		950-2150	-	40-862	-	40-2150	●	4	10	-	20	25
MS5/24EIA-6	5	24		950-2150	-	40-862	-	40-2150	●	4	10	-	20	25
MS5/28EIA-6	5	28		950-2150	-	40-862	-	40-2150	●	4	10	-	20	25
MS5/8EIP-8	5	8		Multiswitch with integrated power supply, passive terr. input, Quad LNB compatible	950-2150	5-862	-	5-2150	-	●	6	-	15	20
MS5/12EIP-5	5	12	950-2150		5-862	-	5-2150	-	●	0	-	20	20	25
MS5/16EIP-5	5	16	950-2150		5-862	-	5-2150	-	●	0	-	22	20	25
MS5/20EIP-6	5	20	950-2150		5-862	-	5-2150	-	●	4	-	23	20	25
MS5/24EIP-6	5	24	950-2150		5-862	-	5-2150	-	●	4	-	24	20	25
MS5/28EIP-6	5	28	950-2150		5-862	-	5-2150	-	●	4	-	25	20	25
MS7/24EIA-6	7	24	Multiswitch with integrated power supply, active terr. Input	950-2150	-	FM 88-108 DAB216-240 UHF 470-862	-	40-2150	●	950-2300MHz - 0/5/10 dB avg 88 - 108MHz - 0/5/10 dB avg 216 - 240MHz - 0/5/10 dB avg 470 - 862MHz - 0/5/10 dB avg			20	25
MS5/12ELP-4	5	12	Multiswitch, passive terr. input, DC socket, DC path from receivers to trunk	950-2150	5-862	-	5-2150	-	●	5	-	19	20	25
MS5/16ELP-4	5	16		950-2150	5-862	-	5-2150	-	●	5	-	20	20	25

Useful information (General)

- Multiswitches are controlled by receiver according to the table:

command sent by receiver	selected input of multiswitch
13 V, 0 kHz	A
18 V, 0 kHz	B
13 V, 22 kHz	C
18 V, 22 kHz	D

- Connect outputs of Quattro LNB to appropriate inputs of multiswitch: VL → A, HL → B, VH → C, HH → D
- If Quad LNB is installed, it doesn't matter how its outputs are connected to inputs of multiswitch

PROFI CLASS

- Switching between active and passive processing of terrestrial band is possible by turning the attenuator at terrestrial input fully clockwise /counterclockwise
- DC supply for preamplifier of terr. antenna is limited to 100 mA max. The supply is disconnected if higher load or short circuit is applied to terrestrial input

E.LITE CLASS

- Models without built-in power supply depend on receiver's LNB power supply. If power related problems would occur, connect external power supply PA 18, see page 52.

Detailed specifications

Part number	Maximum input level* Sat. (dB μ V avg) **	Maximum input level* Terr. passive (dB μ V avg)	Maximum input level* Terr. active (dB μ V avg)	Maximum output level* Sat. (dB μ V avg) **	Maximum output level* Terr. passive (dB μ V avg)	Maximum output level* Terr. active (dB μ V avg)	Power consumption From each receiver (mA \times 18 V)	Power consumption From internal power supply passive (W)	Power consumption From internal power supply active (W)	Terr. preamplifier supply (mA max - 12V DC)	Dimensions (w,d,h) (power cord length 130 cm)	Temperature range
PROFI CLASS												
MS5/4PIU-4	90	100	93	87	81	91	40	4 + LNB	6 + LNB	100	26,5 x 15,2 x 8,7cm	-30 ~ +70 °C
MS5/6PIU-4	90	100	93	86	80	90	40	4 + LNB	6 + LNB	100	27,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS5/8PIU-4	90	100	93	86	80	90	40	4 + LNB	6 + LNB	100	27,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS5/12PIU-5	90	100	85	90	79	92	40	5 + LNB	9 + LNB	100	34,5 x 15,2 x 8,7cm	-30 ~ +70 °C
MS5/16PIU-5	90	100	85	90	78	91	40	5 + LNB	9 + LNB	100	35,4 x 15,2 x 8,7cm	-30 ~ +70 °C
MS5/20PIU-6	90	100	90	86	77	80	40	3,5 + LNB	5 + LNB	100	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS5/24PIU-6	90	100	90	86	76	80	40	3,5 + LNB	5 + LNB	100	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS5/28PIU-6	90	100	90	86	75	80	40	3,5 + LNB	5 + LNB	100	47,5x 15,2 x 8,7cm	-30 ~ +70 °C
MS5/4PLP-3	90	105	-	90	92	-	55	-	-	-	13,5 x 10,4 x 4,1cm	-30 ~ +70 °C
MS5/6PLP-3	90	105	-	87	90	-	55	-	-	-	13,5 x 10,4 x 4,1cm	-30 ~ +70 °C
MS5/8PLP-3	90	100	-	87	84	-	55	-	-	-	13,5 x 10,4 x 4,1cm	-30 ~ +70 °C
E.LITE CLASS												
MS5/4EUP-2	90	100	-	78	89	-	60	-	-	-	13,6 x 10,4 x 3,3cm	-25 ~ +60 °C
MS5/4EUP-4	90	100	-	87	86	-	55	-	-	-	17,5 x 15,2 x 4,5cm	-25 ~ +60 °C
MS5/8EUP-4	90	100	-	87	83	-	55	-	-	-	18,2 x 15,2 x 4,5cm	-25 ~ +60 °C
MS5/4EIA-4	90	-	93	87	-	91	40	-	6 + LNB	-	26,5 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/8EIA-4	90	-	93	87	-	90	40	-	6 + LNB	-	27,5 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/12EIA-5	90	-	89	90	-	86	40	-	5 + LNB	-	34,7 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/16EIA-5	90	-	89	90	-	84	40	-	5 + LNB	-	35,4 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/20EIA-6	90	-	90	86	-	80	40	-	5 + LNB	-	47,0 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/24EIA-6	90	-	90	86	-	80	40	-	5 + LNB	-	47,0 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/28EIA-6	90	-	90	86	-	80	40	-	5 + LNB	-	47,0 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/8EIP-8	90	100	-	84	85	-	40	0,5 + LNB	-	-	26,0 x 11,4 x 5,3cm	-25 ~ +60 °C
MS5/12EIP-5	90	100	-	90	80	-	40	2 + LNB	-	-	34,7 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/16EIP-5	90	100	-	90	78	-	40	2 + LNB	-	-	35,4 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/20EIP-6	90	100	-	86	77	-	40	3,5 + LNB	-	-	47,0 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/24EIP-6	90	100	-	86	76	-	40	3,5 + LNB	-	-	47,0 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/28EIP-6	90	100	-	86	75	-	40	3,5 + LNB	-	-	47,0 x 15,2 x 8,7cm	-25 ~ +60 °C
MS7/24EIA-6	90	-	95	80 outputs 1-8 85 outputs 9-16 90 outputs 17-24	-	85 outputs 1-8 90 outputs 9-16 95 outputs 17-24	45	-	9 + LNB	-	47,0 x 15,2 x 8,7cm	-25 ~ +60 °C
MS5/12ELP-4	90	110	-	85	91		Current consumption 50 mA		DC current pass 500 mA max		18,2 x 15,2 x 4,5cm	-25 ~ +60 °C
MS5/16ELP-4	90	110	-	85	91		Current consumption 50 mA		DC current pass 500 mA max		18,2 x 15,2 x 4,5cm	-25 ~ +60 °C

Notes: 1* TERR: EN 50083-3/60dB IMA3[dBuV]; SAT: EN 50083-3/35dB IMA3[dBuV]

2** Max. input level increases when input attenuator is used. The given value is valid for no attenuation

MS5/4PLP-3



MS5/28EIA-6

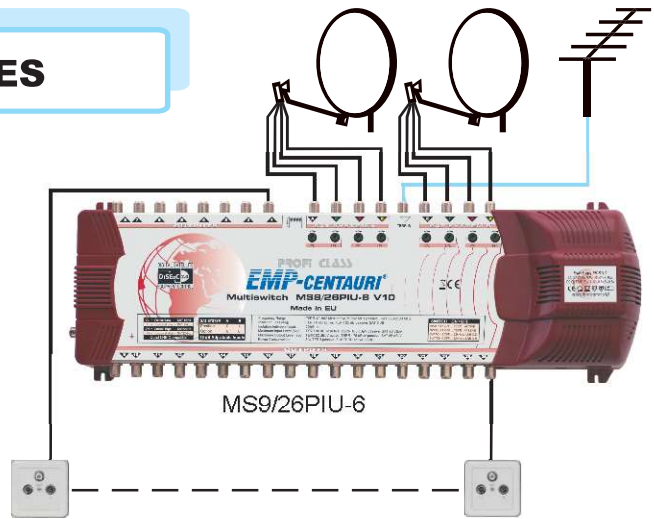


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2 SATELLITES MULTISWITCHES

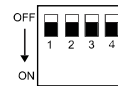
2-satellites (8 polarities) standalone multiswitches with an integrated power supply are designed for the distribution of terrestrial and satellite signals from 2-satellite positions for up to 26 subscribers. Multiswitches are compatible with all satellite receivers which support DiSEqC control system. They are suitable for both analog and digital reception.

The multiswitches with integrated power supplies are designed for maximum efficiency in full operation, eliminating need for stand-by mode functionality.

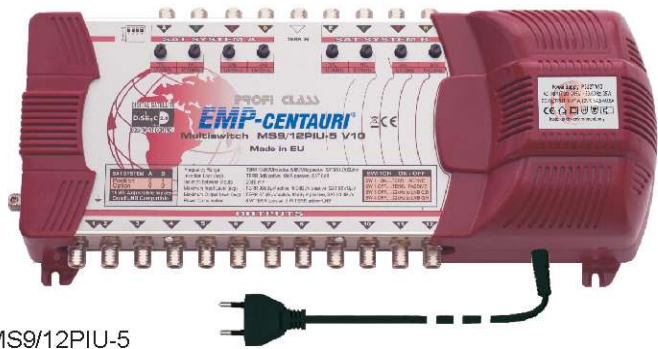


Advantages of PROFI CLASS multiswitches:

- input attenuators at all inputs
- configurable support for Quad LNBS
- selectable active / passive processing of terrestrial band
- 12V DC supply for terrestrial preamplifier
- extended temperature range



6 YEARS WARRANTY



MS9/12PIU-5

Overview of PROFI CLASS products - specifications

Part number	Number of inputs	Number of outputs	Description	Frequency range LNB inputs (MHz)	Frequency range Terr. input passive (MHz)	Frequency range Terr. input active (MHz)	Frequency range Outputs passive (MHz)	Frequency range Outputs active (MHz)	Control DiSEqC 1.0 (2.0) commands	Insertion loss Sat. (dB avg)	Insertion loss Terr. passive (dB avg)	Insertion loss Terr. active (dB avg)	Sat. inputs isolation (dB min) Between V/H polarisations	Sat. inputs isolation (dB min) Between low/high bands	Sat. inputs isolation (dB min) between sat. systems
MS9/4PIU-5 V10	9	4	DiSEqC multiswitch with integrated power supply, 0 to 15 dB attenuators, Quad LNB compatible, switchable active/passive terr. input	950-2300	5-862	40-862	5-2300	40-2300	•	0	12	3 gain	20	20	25
MS9/6PIU-5 V10	9	6		950-2300	5-862	40-862	5-2300	40-2300	•	0	14	1 gain	20	20	25
MS9/8PIU-5 V10	9	8		950-2300	5-862	40-862	5-2300	40-2300	•	0	16	0	20	20	25
MS9/10PIU-5 V10	9	10		950-2300	5-862	40-862	5-2300	40-2300	•	0	18	1	20	20	25
MS9/12PIU-5 V10	9	12		950-2300	5-862	40-862	5-2300	40-2300	•	0	18	3	20	20	25
MS9/16PIU-6 V10	9	16		950-2300	5-862	40-862	5-2300	40-2300	•	0	21	5	20	20	25
MS9/20PIU-6 V10	9	20		950-2300	5-862	40-862	5-2300	40-2300	•	4	24	7	20	20	25
MS9/26PIU-6 V10	9	26	950-2300	5-862	40-862	5-2300	40-2300	•	5	25	8	20	20	25	

Main features of E.LITE CLASS multiswitches:

- designed for Quattro LNB
- switchable active / passive terrestrial input *
- external power supply (included) *



* models ECU **4 YEARS WARRANTY**



Overview of E.LITE CLASS products - specifications

Part number	Number of inputs	Number of outputs	Description	Frequency range LNB inputs (MHz)	Frequency range Terr. Input passive (MHz)	Frequency range Terr. Input active (MHz)	Frequency range Outputs passive (MHz)	Frequency range Outputs active (MHz)	Control DiSEqC 1.0 (2.0) commands	Insertion loss Sat. (dB avg)	Insertion loss Terr. active (dB avg)	Insertion loss Terr. passive (dB avg)	Sat. inputs isolation (dB min) Between V/H polarisations	Sat. inputs isolation (dB min) Between low/high bands	Sat. inputs isolation (dB min) Between sat. systems
MS9/4EIP-8	9	4	DiSEqC multiswitch with integrated power supply, passive terr. input, Quad LNB compatible	950-2150	5-862	-	5-2150	-	●	5	-	13	25	25	30
MS9/8EIP-9	9	8		950-2150	5-862	-	5-2150	-	●	8	-	16	25	25	30
MS9/6ECU-4	9	6	DiSEqC multiswitch with external power supply, switchable active/passive terr. input	950-2150	40-862	40-862	40-2150	40-2150	●	5	3	20	20	25	25
MS9/10ECU-4	9	10		950-2150	40-862	40-862	40-2150	40-2150	●	5	3	20	20	25	25
MS9/16ECU-12	9	16		950-2150	40-862	40-862	40-2150	40-2150	●	5	8	25	20	25	25
MS9/20ECU-12	9	20		950-2150	40-862	40-862	40-2150	40-2150	●	5	8	25	20	25	25
MS9/26ECU-17	9	26		950-2150	40-862	40-862	40-2150	40-2150	●	5	12	30	20	25	25
MS9/30ECU-17	9	30		950-2150	40-862	40-862	40-2150	40-2150	●	5	12	30	20	25	25

Useful information (General)

- ▶ Multiswitches are controlled from receiver by analog and DiSEqC commands. In receiver's configuration menu set LNB type to Universal and differentiate received satellites by DiSEqC 1/2 (A/B) parameter
- ▶ Multiswitches are not compatible with Monoblock LNBs
- ▶ If higher than available number of user outputs is required, simply use two multiswitches instead of one, routing LNB outputs via signal splitters
- ▶ If terrestrial band is used, terminate all unused outputs by 75 ohm loads.

PROFI CLASS

- ▶ Switching between active and passive processing of terrestrial band is performed by lever No. 1 of configuration DIP-switch
- ▶ 22 kHz tone required for Quad LNB can be disabled by DIP-switch
- ▶ DC supply for preamplifier of terr. Antenna is limited to 150 mA max. The supply is disconnected if higher load or short circuit is applied to terrestrial input. To keep power consumption at minimum level, it is recommended to include an external DC block if short-circuit conditions should persist on terrestrial input

E.LITE CLASS

- ▶ A suitable cascadable unit can be placed before to extend the number of available outputs
- ▶ Switching between active and passive processing of terrestrial band is performed by rotary knob

Detailed specifications

Part number	Maximum input level* Sat. (dB μ V avg) **	Maximum input level* Terr. passive (dB μ V avg)	Maximum input level* Terr. active (dB μ V avg)	Maximum output level* Sat. (dB μ V avg) **	Maximum output level* Terr. passive (dB μ V avg)	Maximum output level* Terr. active (dB μ V avg)	Power consumption From each receiver (mA-18 V)	Power consumption From internal power supply passive (W)	Power consumption From internal power supply active (W)	Terr. preamplifier supply (mA max - 12V DC)	Dimensions (w,d,h) (power cord length 130 cm)	Temperature range
PROFI CLASS												
MS9/4PIU-5 V10	90	100	90	90	88	93	50	3 + LNB	4,5 + LNB	150	34,7 x 15,2 x 8,7cm	-30 ~ +70 °C
MS9/6PIU-5 V10	90	100	90	90	86	91	50	3 + LNB	4,5 + LNB	150	34,7 x 15,2 x 8,7cm	-30 ~ +70 °C
MS9/8PIU-5 V10	90	100	90	90	84	90	50	3 + LNB	4,5 + LNB	150	34,7 x 15,2 x 8,7cm	-30 ~ +70 °C
MS9/10PIU-5 V10	90	100	90	90	82	89	50	3 + LNB	4,5 + LNB	150	34,7 x 15,2 x 8,7cm	-30 ~ +70 °C
MS9/12PIU-5 V10	90	100	90	90	82	87	50	3 + LNB	4,5 + LNB	150	34,7 x 15,2 x 8,7cm	-30 ~ +70 °C
MS9/16PIU-6 V10	90	100	90	90	79	85	50	3 + LNB	4,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS9/20PIU-6 V10	90	100	90	86	76	83	50	3 + LNB	4,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS9/26PIU-6 V10	90	100	90	85	75	82	50	3 + LNB	4,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
E.LITE CLASS												
MS9/4EIP-8	90	100	-	85	87	-	70	3 + LNB	-	-	26,0 x 11,4 x 5,3cm	-25 ~ +60 °C
MS9/8EIP-9	90	100	-	82	84	-	40	6 + LNB	-	-	36,0 x 11,4 x 5,3cm	-25 ~ +60 °C
MS9/6ECU-4	105	105	105	100	102	102	100	-	-	-	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS9/10ECU-4	105	105	105	100	102	102	100	-	-	-	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS9/16ECU-12	105	105	105	100	97	97	100	-	-	-	18,6 x 25,0 x 5,1cm	-25 ~ +60 °C
MS9/20ECU-12	105	105	105	100	97	97	100	-	-	-	18,6 x 25,0 x 5,1cm	-25 ~ +60 °C
MS9/26ECU-17	105	105	105	100	93	93	90	-	-	-	18,6 x 33,0 x 5,1cm	-25 ~ +60 °C
MS9/30ECU-17	105	105	105	100	93	93	90	-	-	-	18,6 x 33,0 x 5,1cm	-25 ~ +60 °C

Notes: 1* TERR: EN 50083-3/60dB IMA3[dBuV]; SAT: EN 50083-3/35dB IMA3[dBuV]

2** Max. input level increases when input attenuator is used. The given value is valid for no attenuation

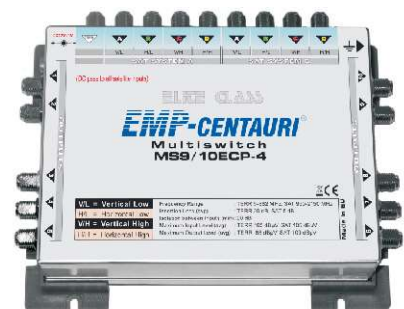
Useful information (General)

- Multiswitches are controlled by receiver according to the table:

command sent by receiver	selected input of multiswitch	PROFI CLASS multiswitches selected input of multiswitch	ELITE CLASS multiswitches selected input of multiswitch
13 V, 0 kHz, DiSEqC A (1)	A	A	A
18 V, 0 kHz, DiSEqC A (1)		B	B
13 V, 22 kHz, DiSEqC A (1)		C	C
18 V, 22 kHz, DiSEqC A (1)		D	D
13 V, 0 kHz, DiSEqC B (2)	B	E	A
18 V, 0 kHz, DiSEqC B (2)		F	B
13 V, 22 kHz, DiSEqC B (2)		G	C
18 V, 22 kHz, DiSEqC B (2)		H	D

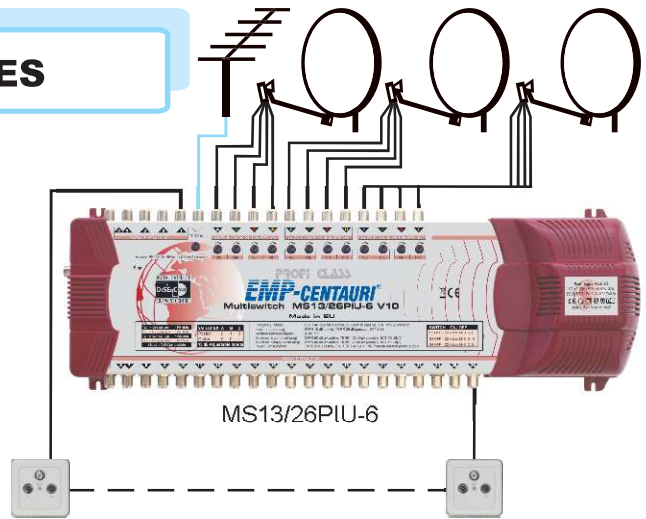
- Connect outputs of Quattro LNB to appropriate inputs of multiswitch:
VL → A or E, HL → B or F, VH → C or G, HH → D or H
- If Quad LNB is installed, it doesn't matter how its outputs are connected to inputs of multiswitch
- For all output configurations are available also "ECP" versions with fixed user output SAT loss 5 dB and passive terrestrial band.

MS9/10 ECP-4



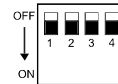
3 SATELLITES MULTISWITCHES

3-satellites (12 polarities) standalone multiswitches with an integrated power supply are designed for the distribution of terrestrial and satellite signals from 3-satellite positions for up to 26 subscribers. Multiswitches are compatible with all satellite receivers, which support DiSEqC control system. They are suitable for both analog and digital reception. The multiswitches and integrated power supplies are designed for maximum efficiency in full operation, eliminating need for stand-by mode functionality.

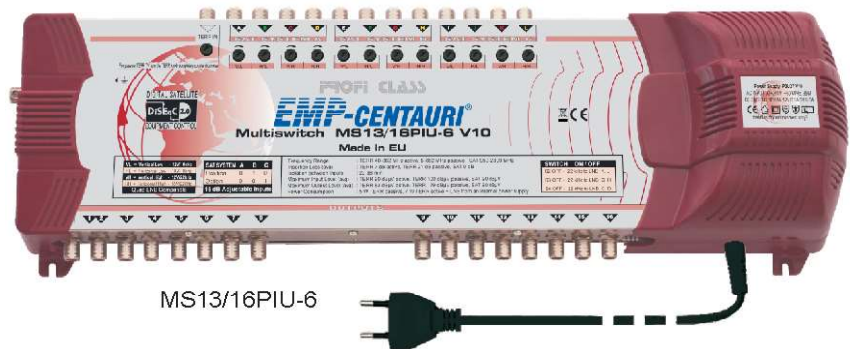


Advantages of PROFI CLASS multiswitches:

- input attenuators at all inputs
- configurable support for Quad LNBS
- selectable active / passive processing of terrestrial band
- 12V DC supply for terrestrial preamplifier
- extended temperature range



6 YEARS WARRANTY



Overview of PROFI CLASS products - specifications

Part number	Number of inputs	Number of outputs	Description	Frequency range LNB inputs (MHz)	Frequency range Terr. Input passive (MHz)	Frequency range Terr. Input active (MHz)	Frequency range Outputs passive (MHz)	Frequency range Outputs active (MHz)	Control DiSEqC 1.0 (2.0) commands	Insertion loss Sat. (dB avg)	Insertion loss Terr. passive (dB avg)	Insertion loss Terr. active (dB avg)	Sat. inputs isolation (dB min) Between V/H polarisations	Sat. inputs isolation (dB min) Between low/high bands	Sat. inputs isolation (dB min) between sat. systems
MS13/4PIU-6 V10	13	4	DiSEqC multiswitch with integrated power supply, 0 to 15 dB attenuators, Quad LNB compatible, switchable active/passive terr. input	950-2300	5-862	40-862	5-2300	40-2300	•	0	12	0	20	20	25
MS13/8PIU-6 V10	13	8		950-2300	5-862	40-862	5-2300	40-2300	•	0	16	2	20	20	25
MS13/12PIU-6 V10	13	12		950-2300	5-862	40-862	5-2300	40-2300	•	0	19	5	20	20	25
MS13/16PIU-6 V10	13	16		950-2300	5-862	40-862	5-2300	40-2300	•	0	21	7	20	20	25
MS13/20PIU-6 V10	13	20		950-2300	5-862	40-862	5-2300	40-2300	•	4	24	9	20	20	25
MS13/26PIU-6 V10	13	26		950-2300	5-862	40-862	5-2300	40-2300	•	5	25	10	20	20	25

Main features of E.LITE CLASS multiswitches:

- designed for Quattro LNB
- switchable active / passive terrestrial input *
- external power supply (included)



* models ECU **4 YEARS WARRANTY**

Overview of E.LITE CLASS products - specifications

Part number	Number of inputs	Number of outputs	Description	Frequency range LNB inputs (MHz)	Frequency range Terr. Input passive (MHz)	Frequency range Terr. Input active (MHz)	Frequency range Outputs passive (MHz)	Frequency range Outputs active (MHz)	Control DiSEqC 1.0 (2.0) commands	Insertion loss Sat. (dB avg)	Insertion loss Terr. active (dB avg)	Insertion loss Terr. passive (dB avg)	Sat. inputs isolation (dB min) Between V/H polarisations	Sat. inputs isolation (dB min) Between low/high bands	Sat. inputs isolation (dB min) Between sat. systems
MS13/6ECU-4	13	6	DiSEqC multiswitch with external power supply, switchable active/passive terr. Input	950-2150	40-862	40-862	40-2150	40-2150	•	5	3	20	20	25	25
MS13/10ECU-4	13	10		950-2150	40-862	40-862	40-2150	40-2150	•	5	3	20	20	25	25
MS13/16ECU-12	13	16		950-2150	40-862	40-862	40-2150	40-2150	•	5	8	25	20	25	25
MS13/20ECU-12	13	20		950-2150	40-862	40-862	40-2150	40-2150	•	5	8	25	20	25	25
MS13/26ECU-17	13	26		950-2150	40-862	40-862	40-2150	40-2150	•	5	12	30	20	25	25
MS13/30ECU-17	13	30		950-2150	40-862	40-862	40-2150	40-2150	•	5	12	30	20	25	25

Useful information (General)

- ▶ Multiswitches are controlled from receiver by analog and DiSEqC commands. In receiver's configuration menu set LNB type to Universal and differentiate received satellites by DiSEqC 1/2/3 (A/B/C) parameter
- ▶ Multiswitches are not compatible with Monoblock LNBS
- ▶ If higher than available number of user outputs is required, simply use two multiswitches instead of one, routing LNB outputs via signal splitters
- ▶ If terrestrial band is used, terminate all unused outputs by 75 ohm loads.

PROFI CLASS

- ▶ Switching between active and passive processing of terrestrial band is performed by lever No. 1 of configuration DIP-switch
- ▶ 22 kHz tone required for Quad LNB can be disabled by DIP-switch
- ▶ DC supply for preamplifier of terr. Antenna is limited to 150 mA max. The supply is disconnected if higher load or short circuit is applied to terrestrial input.
To keep power consumption at minimum level, it is recommended to include an external DC block if short-circuit conditions should persist on terrestrial input

E.LITE CLASS

- ▶ A suitable cascadable unit can be placed before to extend the number of available outputs
- ▶ Switching between active and passive processing of terrestrial band is performed by rotary knob

Detailed specifications

Part number	Maximum input level* Sat. (dB μ V avg) **	Maximum input level* Terr. passive (dB μ V avg)	Maximum input level* Terr. active (dB μ V avg)	Maximum output level* Sat. (dB μ V avg) **	Maximum output level* Terr. passive (dB μ V avg)	Maximum output level* Terr. active (dB μ V avg)	Power consumption From each receiver (mA-18 V)	Power consumption From internal power supply passive (W)	Power consumption From internal power supply active (W)	Terr. preamplifier supply (mA max -12V DC)	Dimensions (w,d,h) (power cord length 130 cm)	Temperature range
PROFI CLASS												
MS13/4PIU-6 V10	90	100	90	90	88	90	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS13/8PIU-6 V10	90	100	90	90	84	88	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS13/12PIU-6 V10	90	100	90	90	81	85	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS13/16PIU-6 V10	90	100	90	90	79	83	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS13/20PIU-6 V10	90	100	90	86	76	81	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS13/26PIU-6 V10	90	100	90	85	75	80	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
E.LITE CLASS												
MS13/6ECU-4	105	105	105	100	102	102	100	-	-	-	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS13/10ECU-4	105	105	105	100	102	102	100	-	-	-	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS13/16ECU-12	105	105	105	100	97	97	100	-	-	-	18,6 x 25,0 x 5,1cm	-25 ~ +60 °C
MS13/20ECU-12	105	105	105	100	97	97	100	-	-	-	18,6 x 25,0 x 5,1cm	-25 ~ +60 °C
MS13/26ECU-17	105	105	105	100	93	93	90	-	-	-	18,6 x 33,0 x 5,1cm	-25 ~ +60 °C
MS13/30ECU-17	105	105	105	100	93	93	90	-	-	-	18,6 x 33,0 x 5,1cm	-25 ~ +60 °C

Notes: 1* TERR: EN 50083-3/60dB IMA3[dBuV]; SAT: EN 50083-3/35dB IMA3[dBuV]

2** Max. input level increases when input attenuator is used. The given value is valid for no attenuation

Useful information (General)

- Multiswitches are controlled by receiver according to the table:

command sent by receiver	selected input of multiswitch	PROFI CLASS multiswitches selected input of multiswitch	ELITE CLASS multiswitches selected input of multiswitch
13 V, 0 kHz, DiSEqC A (1)	A	A	A
18 V, 0 kHz, DiSEqC A (1)		B	B
13 V, 22 kHz, DiSEqC A (1)		C	C
18 V, 22 kHz, DiSEqC A (1)		D	D
13 V, 0 kHz, DiSEqC B (2)	B	E	A
18 V, 0 kHz, DiSEqC B (2)		F	B
13 V, 22 kHz, DiSEqC B (2)		G	C
18 V, 22 kHz, DiSEqC B (2)		H	D
13 V, 0 kHz, DiSEqC C (3)	C	I	A
18 V, 0 kHz, DiSEqC C (3)		J	B
13 V, 22 kHz, DiSEqC C (3)		K	C
18 V, 22 kHz, DiSEqC C (3)		L	D

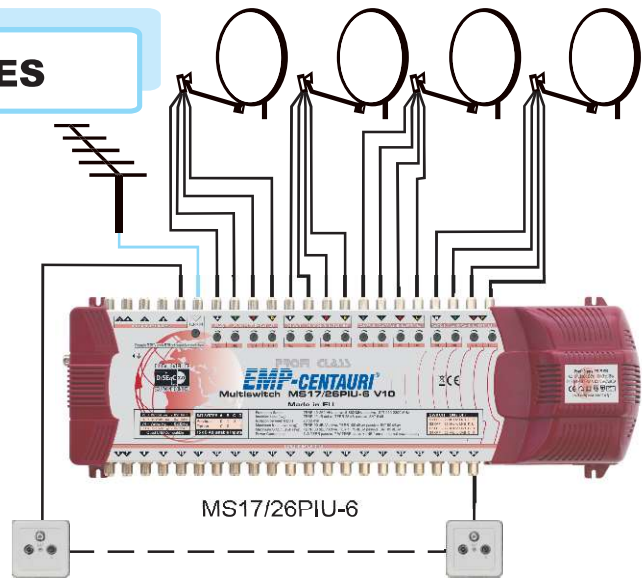
- Connect outputs of Quattro LNB to appropriate inputs of multiswitch:
VL→ A or E or I, HL→ B or F or J, VH→ C or G or K, HH→ D or H or L
- If Quad LNB is installed, it doesn't matter how its outputs are connected to inputs of multiswitch
- For all output configurations are available also "ECP" versions with fixed user output SAT loss 5 dB and passive terrestrial band.



MS13/10 ECP-4

4 SATELLITES MULTISWITCHES

4-satellites (16 polarities) standalone multiswitches with an integrated power supply are designed for the distribution of terrestrial and satellite signals from 4-satellite positions for up to 26 subscribers. Multiswitches are compatible with all satellite receivers, which support DiSEqC control system. They are suitable for both analog and digital reception. The multiswitches and integrated power supplies are designed for maximum efficiency in full operation, eliminating need for stand-by mode functionality.

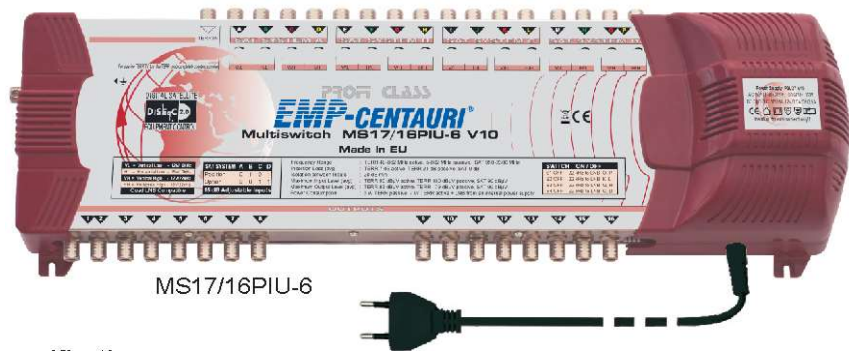


Advantages of PROFI CLASS multiswitches:

- input attenuators at all inputs
- configurable support for Quad LNBs
- selectable active / passive processing of terrestrial band
- 12V DC supply for terrestrial preamplifier
- extended temperature range



6 YEARS WARRANTY



Overview of PROFI CLASS products - specifications

Part number	Number of inputs	Number of outputs	Description	Frequency range LNB inputs (MHz)	Frequency range Terr. Input passive (MHz)	Frequency range Terr. Input active (MHz)	Frequency range Outputs passive (MHz)	Frequency range Outputs active (MHz)	Control DiSEqC 1.0 (2.0) commands	Insertion loss Sat. (dB avg)	Insertion loss Terr. passive (dB avg)	Insertion loss Terr. active (dB avg)	Sat. inputs isolation (dB min) Between V/H polarisations	Sat. inputs isolation (dB min) Between low/high bands	Sat. inputs isolation (dB min) Between sat. systems
MS17/4PIU-6 V10	17	4	DiSEqC multiswitch with integrated power supply, 0 to 15 dB attenuators, Quad LNB compatible, switchable active/passive terr. input	950-2300	5-862	40-862	5-2300	40-2300	•	0	12	0	20	20	25
MS17/8PIU-6 V10	17	8		950-2300	5-862	40-862	5-2300	40-2300	•	0	16	2	20	20	25
MS17/12PIU-6 V10	17	12		950-2300	5-862	40-862	5-2300	40-2300	•	0	19	5	20	20	25
MS17/16PIU-6 V10	17	16		950-2300	5-862	40-862	5-2300	40-2300	•	0	21	7	20	20	25
MS17/20PIU-6 V10	17	20		950-2300	5-862	40-862	5-2300	40-2300	•	4	24	9	20	20	25
MS17/26PIU-6 V10	17	26		950-2300	5-862	40-862	5-2300	40-2300	•	5	25	10	20	20	25

Main features of E.LITE CLASS multiswitches:

- designed for Quattro LNB
- switchable active / passive terrestrial input *
- external power supply (included)



* models ECU **4 YEARS WARRANTY**



MS17/20ECU-12



Overview of E.LITE CLASS products - specifications

Part number	Number of inputs	Number of outputs	Description	Frequency range LNB inputs (MHz)	Frequency range Terr. Input passive (MHz)	Frequency range Terr. Input active (MHz)	Frequency range Outputs passive (MHz)	Frequency range Outputs active (MHz)	Control DiSEqC 1.0 (2.0) commands	Insertion loss Sat. (dB avg)	Insertion loss Terr. active (dB avg)	Insertion loss Terr. passive (dB avg)	Sat. inputs isolation (dB min) Between V/H polarisations	Sat. inputs isolation (dB min) Between low/high bands	Sat. inputs isolation (dB min) Between sat. systems
MS17/6ECU-4	17	6	DiSEqC multiswitch with external power supply, switchable active/passive terr. Input	950-2150	40-862	40-862	40-2150	40-2150	●	5	3	20	20	25	25
MS17/10ECU-4	17	10		950-2150	40-862	40-862	40-2150	40-2150	●	5	3	20	20	25	25
MS17/16ECU-12	17	16		950-2150	40-862	40-862	40-2150	40-2150	●	5	8	25	20	25	25
MS17/20ECU-12	17	20		950-2150	40-862	40-862	40-2150	40-2150	●	5	8	25	20	25	25
MS17/26ECU-17	17	26		950-2150	40-862	40-862	40-2150	40-2150	●	5	12	30	20	25	25
MS17/30ECU-17	17	30		950-2150	40-862	40-862	40-2150	40-2150	●	5	12	30	20	25	25

Useful information (General)

- ▶ Multiswitches are controlled from receiver by analog and DiSEqC commands. In receiver's configuration menu set LNB type to Universal and differentiate received satellites by DiSEqC 1/2/3/4 (A/B/C/D) parameter
- ▶ Multiswitches are not compatible with Monoblock LNBs
- ▶ If higher than available number of user outputs is required, simply use two multiswitches instead of one, routing LNB outputs via signal splitters
- ▶ If terrestrial band is used, terminate all unused outputs by 75 ohm loads.

PROFI CLASS

- ▶ Switching between active and passive processing of terrestrial band is performed by lever No. 1 of configuration DIP-switch
- ▶ 22 kHz tone required for Quad LNB can be disabled by DIP-switch
- ▶ DC supply for preamplifier of terr. Antenna is limited to 150 mA max. The supply is disconnected if higher load or short circuit is applied to terrestrial input. To keep power consumption at minimum level, it is recommended to include an external DC block if short-circuit conditions should persist on terrestrial input

E.LITE CLASS

- ▶ A suitable cascadable unit can be placed before to extend the number of available outputs
- ▶ Switching between active and passive processing of terrestrial band is performed by rotary knob

Detailed specifications

Part number	Maximum input level* Sat. (dB μ V avg)**	Maximum input level* Terr. passive (dB μ V avg)	Maximum input level* Terr. active (dB μ V avg)	Maximum output level* Sat. (dB μ V avg)**	Maximum output level* Terr. passive (dB μ V avg)	Maximum output level* Terr. active (dB μ V avg)	Power consumption From each receiver (mA \times 18 V)	Power consumption From internal power supply passive (W)	Power consumption From internal power supply active (W)	Terr. preamplifier supply (mA max - 12V DC)	Dimensions (w,d,h) (power cord length 130 cm)	Temperature range
PROFI CLASS												
MS17/4PIU-6 V10	90	100	90	90	88	90	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS17/8PIU-6 V10	90	100	90	90	84	88	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS17/12PIU-6 V10	90	100	90	90	81	85	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS17/16PIU-6 V10	90	100	90	90	79	83	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS17/20PIU-6 V10	90	100	90	86	76	81	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
MS17/26PIU-6 V10	90	100	90	85	75	80	75	4,5 + LNB	6,5 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +70 °C
E.LITE CLASS												
MS17/6ECU-4	105	105	105	100	102	102	100	-	-	-	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS17/10ECU-4	105	105	105	100	102	102	100	-	-	-	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS17/16ECU-12	105	105	105	100	97	97	100	-	-	-	18,6 x 25,0 x 5,1cm	-25 ~ +60 °C
MS17/20ECU-12	105	105	105	100	97	97	100	-	-	-	18,6 x 25,0 x 5,1cm	-25 ~ +60 °C
MS17/26ECU-17	105	105	105	100	93	93	90	-	-	-	18,6 x 33,0 x 5,1cm	-25 ~ +60 °C
MS17/30ECU-17	105	105	105	100	93	93	90	-	-	-	18,6 x 33,0 x 5,1cm	-25 ~ +60 °C

Notes: 1* TERR: EN 50083-3/60dB IMA3[dBuV]; SAT: EN 50083-3/35dB IMA3[dBuV]

2** Max. input level increases when input attenuator is used. The given value is valid for no attenuation

Useful information (General)

► Multiswitches are controlled by receiver according to the table:

command sent by receiver	selected input of multiswitch	PROFI CLASS multiswitches selected input of multiswitch	ELITE CLASS multiswitches selected input of multiswitch
13 V, 0 kHz, DiSEqC A (1)	A	A	A
18 V, 0 kHz, DiSEqC A (1)		B	B
13 V, 22 kHz, DiSEqC A (1)		C	C
18 V, 22 kHz, DiSEqC A (1)		D	D
13 V, 0 kHz, DiSEqC B (2)	B	E	A
18 V, 0 kHz, DiSEqC B (2)		F	B
13 V, 22 kHz, DiSEqC B (2)		G	C
18 V, 22 kHz, DiSEqC B (2)		H	D
13 V, 0 kHz, DiSEqC C (3)	C	I	A
18 V, 0 kHz, DiSEqC C (3)		J	B
13 V, 22 kHz, DiSEqC C (3)		K	C
18 V, 22 kHz, DiSEqC C (3)		L	D
13 V, 0 kHz, DiSEqC D (4)	D	M	A
18 V, 0 kHz, DiSEqC D (4)		N	B
13 V, 22 kHz, DiSEqC D (4)		O	C
18 V, 22 kHz, DiSEqC D (4)		P	D

- Connect outputs of Quattro LNB to appropriate inputs of multiswitch:
VL→A or E or I or M, HL→B or F or J or N, VH→C or G or K or O, HH→D or H or L or P
- If Quad LNB is installed, it doesn't matter how its outputs are connected to inputs of multiswitch
- For all output configurations are available also "ECP" versions with fixed user output SAT loss 5 dB and passive terrestrial band.



MS17/6 ECP-4

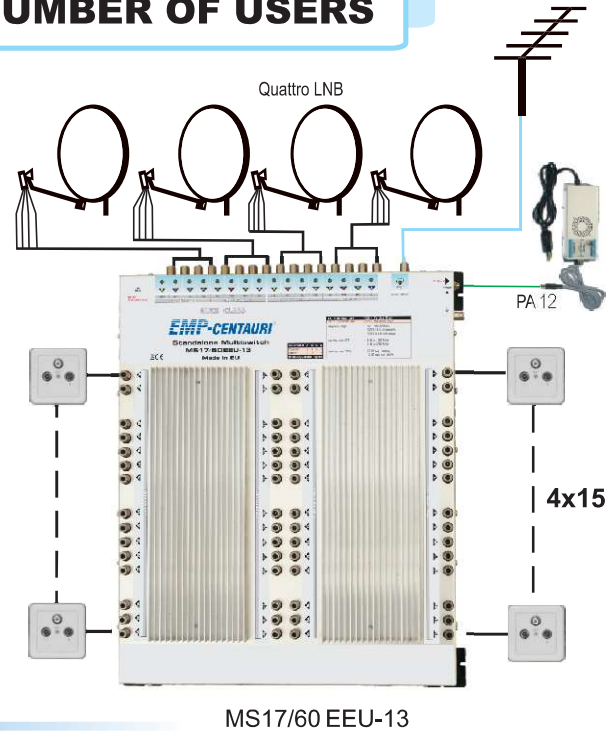
MULTISWITCHES FOR LARGE NUMBER OF USERS

Main features:

- available models for 1, 2, 3 or 4 Quattro LNBs
- designed for Quattro LNBs
- 32 to 60 user outputs
- external power supply (included)
- input attenuators at all satellite inputs
- selectable active / passive processing of terrestrial band

TV/SAT Wall Socket at every output

4 YEARS WARRANTY



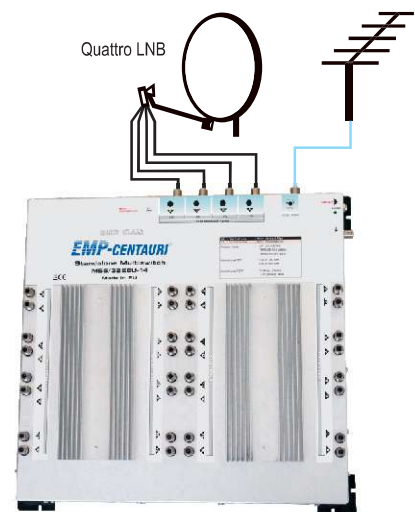
MS17/60 EEU-13

Specifications series EEU

Part number	Number of inputs	Number of outputs	Frequency range Sat. inputs (MHz)	Frequency range Terr. input passive (MHz)	Frequency range Terr. input active (MHz)	Frequency range Outputs passive (MHz)	Frequency range Outputs active (MHz)	Control 13/18V + 0/22kHz	Control DiSEqC 1.0 (2.0) commands
MS5/32EEU-14	5	32	950-2150	5-840	40-840	5-2150	40-2150	●	-
MS5/40EEU-14	5	40	950-2150	5-840	40-840	5-2150	40-2150	●	-
MS5/52EEU-13	5	52	950-2150	5-840	40-840	5-2150	40-2150	●	-
MS5/60EEU-13	5	60	950-2150	5-840	40-840	5-2150	40-2150	●	-
MS9/32EEU-14	9	32	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS9/40EEU-14	9	40	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS9/52EEU-13	9	52	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS9/60EEU-13	9	60	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS13/32EEU-14	13	32	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS13/40EEU-14	13	40	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS13/52EEU-13	13	52	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS13/60EEU-13	13	60	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS17/32EEU-14	17	32	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS17/40EEU-14	17	40	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS17/52EEU-13	17	52	950-2150	5-840	40-840	5-2150	40-2150	-	●
MS17/60EEU-13	17	60	950-2150	5-840	40-840	5-2150	40-2150	-	●

Description: DiSEqC multiswitch with external power supply, SAT inputs attenuators, switchable active/passive terr. input

MS 5/32 EEU-14
1 satellites / 32 user outputs



MS5/32 EEU-14

Specifications series EEU

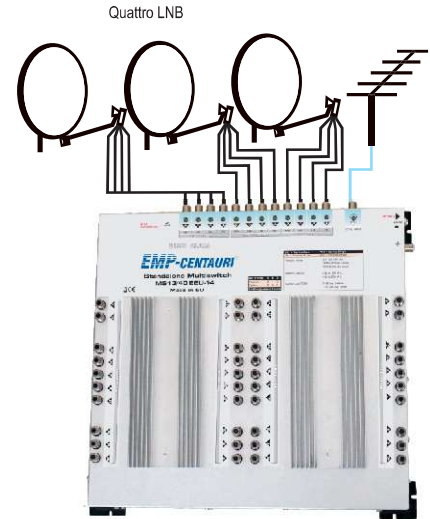
Part number	Insertion loss Sat.	Insertion loss Terr. Passive (dB avg)	Insertion loss Terr. Active (dB gain avg)	Sat. inputs isolation (dB min) Between V/H polarisations	Sat. inputs isolation (dB min) Between low/high bands	Sat. inputs isolation (dB min) Between sat. systems	Maximum input level* Sat. (dB μ V avg) **	Maximum input level* Terr. active (dB μ V avg)	Maximum output level* Sat. (dB μ V avg) **	Maximum output level* Terr. active (dB μ V avg)
MS5/32EEU-14	5 dB (950 MHz) ~ 0 dB (2150 MHz)	27	2	25	25	-	80	85	80	87
MS5/40EEU-14		27	2	25	25	-	80	85	80	87
MS5/52EEU-13		27	2	25	25	-	80	85	80	87
MS5/60EEU-13		27	2	25	25	-	80	85	80	87
MS9/32EEU-14		27	2	25	25	30	80	85	80	87
MS9/40EEU-14		27	2	25	25	30	80	85	80	87
MS9/52EEU-13		27	2	25	25	30	80	85	80	87
MS9/60EEU-13		27	2	25	25	30	80	85	80	87
MS13/32EEU-14		27	2	25	25	30	80	85	80	87
MS13/40EEU-14		27	2	25	25	30	80	85	80	87
MS13/52EEU-13		27	2	25	25	30	80	85	80	87
MS13/60EEU-13		27	2	25	25	30	80	85	80	87
MS17/32EEU-14		27	2	25	25	30	80	85	80	87
MS17/40EEU-14		27	2	25	25	30	80	85	80	87
MS17/52EEU-13		27	2	25	25	30	80	85	80	87
MS17/60EEU-13		27	2	25	25	30	80	85	80	87

Notes: 1* TERR: EN 50083-3/60dB IMA3[dBuV]; SAT: EN 50083-3/35dB IMA3[dBuV]

2** Max. input level increases when input attenuator is used. The given value is valid for no attenuation

MS 13/40 EEU-14

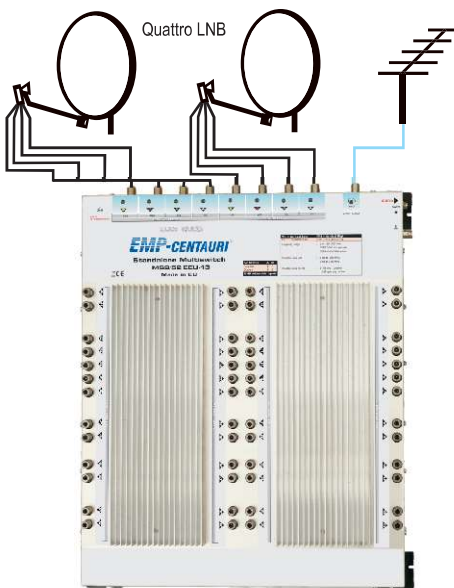
3 satellites / 40 user outputs



MS13/40 EEU-14

MS 9/52 EEU-13

2 satellites / 52 user outputs



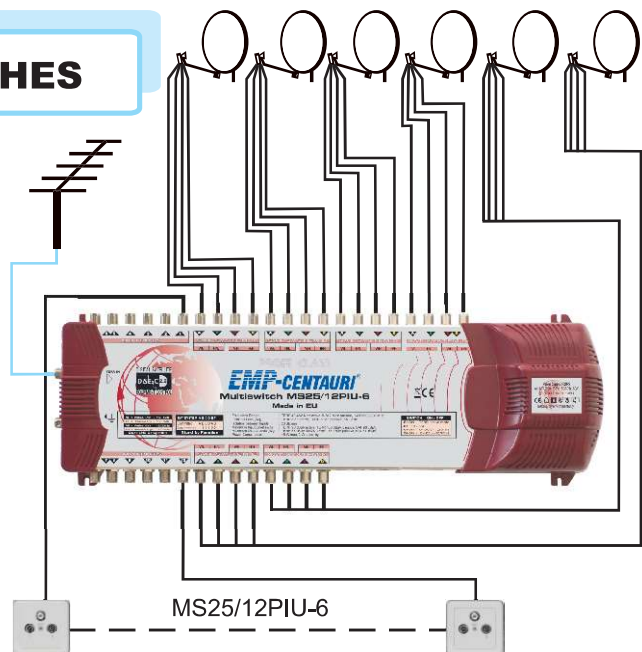
MS9/52 EEU-13

Specifications series EEU

Part number	Power consumption From each receiver (18 V)	Power consumption From internal power supply passive (W)	Power consumption From internal power supply active (W)	Dimensions (w,d,h) (power cord length 130 cm)	Temperature range
MS5/32EEU-14	55 mA	5 + LNB	6 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS5/40EEU-14	55 mA	5 + LNB	6 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS5/52EEU-13	55 mA	5 + LNB	6 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS5/60EEU-13	55 mA	5 + LNB	6 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS9/32EEU-14	70 mA	7 + LNB	8 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS9/40EEU-14	70 mA	7 + LNB	8 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS9/52EEU-13	70 mA	7 + LNB	8 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS9/60EEU-13	70 mA	7 + LNB	8 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS13/32EEU-14	85 mA	9 + LNB	10 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS13/40EEU-14	85 mA	9 + LNB	10 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS13/52EEU-13	85 mA	9 + LNB	10 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS13/60EEU-13	85 mA	9 + LNB	10 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS17/32EEU-14	100 mA	11 + LNB	12 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS17/40EEU-14	100 mA	11 + LNB	12 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS17/52EEU-13	100 mA	11 + LNB	12 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C
MS17/60EEU-13	100 mA	11 + LNB	12 + LNB	35,5 x 35,0 x 5,0cm	-25 ~ +50 °C

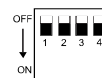
5-8 SATELLITES MULTISWITCHES

Unique compact solution for the distribution of terrestrial and satellite signals from up to 8-satellite positions for up to 12 subscribers. Multiswitches are compatible with all satellite receivers, which support DiSEqC 1.1 or DiSEqC 1.2 control system. Due to the high number of connected LNBS the multiswitches offer stand-by mode functionality, that minimizes power consumption.

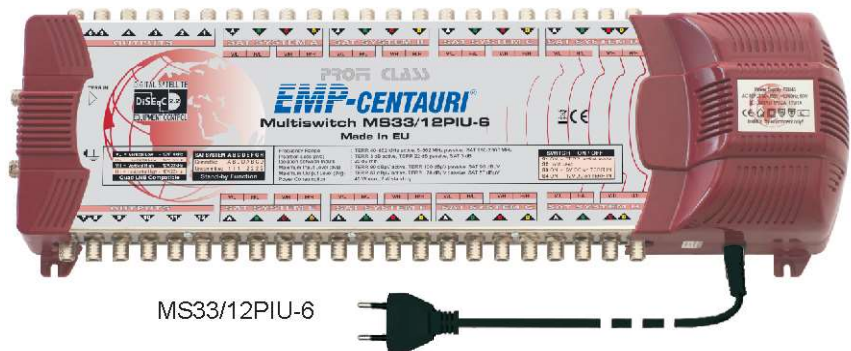


Advantages of PROFI CLASS multiswitches:

- support Quad LNBS
- selectable active / passive processing of terrestrial band
- selectable DC supply for terrestrial preamplifier 12V / 5V / OFF



6 YEARS WARRANTY



Overview of PROFI CLASS products - specifications

Part number	Number of inputs	Number of outputs	Description	Frequency range LNB inputs (MHz)	Frequency range Terr. Input passive (MHz)	Frequency range Terr. Input active (MHz)	Frequency range Outputs passive (MHz)	Frequency range Outputs active (MHz)	Control 13/18V + 0/22kHz	Control DiSEqC 1.0 (2.0) commands	Insertion loss Sat. (dB avg)	Insertion loss Terr. passive (dB avg)	Insertion loss Terr. active (dB avg)	Sat. inputs isolation (dB min)
MS21/12PIU-6	21	12	DiSEqC multiswitch with integrated power supply, Quad LNB compatible, switchable active/passive terr. input	950-2300	5-862	40-862	5-2300	40-2300	•	•	3	22	3	20
MS25/12PIU-6	25	12		950-2300	5-862	40-862	5-2300	40-2300	•	•	3	22	3	20
MS29/12PIU-6	29	12		950-2300	5-862	40-862	5-2300	40-2300	•	•	3	22	3	20
MS33/12PIU-6	33	12		950-2300	5-862	40-862	5-2300	40-2300	•	•	3	22	3	20

Detailed specifications

Part number	Maximum input level* Sat. (dB μ V avg) **	Maximum input level* Terr. passive (dB μ V avg)	Maximum input level* Terr. active (dB μ V avg)	Maximum output level* Sat. (dB μ V avg) **	Maximum output level* Terr. passive (dB μ V avg)	Maximum output level* Terr. active (dB μ V avg)	Power consumption From each receiver (mA-18 V)	Power consumption From internal power supply passive (W)	Power consumption From internal power supply active (W)	Terr. preamplifier supply (mA max - 12V DC)	Dimensions (w,d,h) (power cord length 130 cm)	Temperature range
MS21/12PIU-6	90	100	90	87	78	87	45	2,1-5,5 + LNB	2,3-7 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +60 °C
MS25/12PIU-6	90	100	90	87	78	87	45	2,1-6,5 + LNB	2,3-8 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +60 °C
MS29/12PIU-6	90	100	90	87	78	87	45	2,1-7,5 + LNB	2,3-9 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +60 °C
MS33/12PIU-6	90	100	90	87	78	87	45	2,1-8,5 + LNB	2,3-10 + LNB	150	47,0 x 15,2 x 8,7cm	-30 ~ +60 °C

Notes: 1* TERR: EN 50083-3/60dB IMA3[dBuV]; SAT: EN 50083-3/35dB IMA3[dBuV]

2** Max. input level increases when input attenuator is used. The given value is valid for no attenuation

Useful information (General)

- Individual LNBs are accessible using following DiSEqC 1.1 commands:

Sat system (LNB)	"committed command"	"uncommitted command"
A (1)	A (1,AA)	1
B (2)	B (2,AB)	1
C (3)	C (3,BA)	1
D (4)	D (4,BB)	1
E (5)	E (5,AA)	2
F (6)	F (6,AB)	2
G (7)	G (7,BA)	2
H (8)	H (8,BB)	2

- If the receiver does not support DiSEqC 1.1, user has to resort to DiSEqC 1.2 motor commands (not USALS)
- With standard DiSEqC 1.0 setting only sat systems A to D are available
- Multiswitches are not compatible with Monoblock LNBs
- Stand-by circuitry monitors usage of any LNB and if not watched by any user, shuts off power to this LNB and relevant inner circuits
- Terrestrial input can provide 12 V or 5 V DC (selectable by DIP-switch), up to 150 mA
- If higher than available number of user outputs is required, simply use two multiswitches instead of one, routing LNB outputs via signal splitters
- Terminate all unused outputs by 75 ohm loads, if terrestrial band is used

MS29/12PIU-6



MS21/12PIU-6

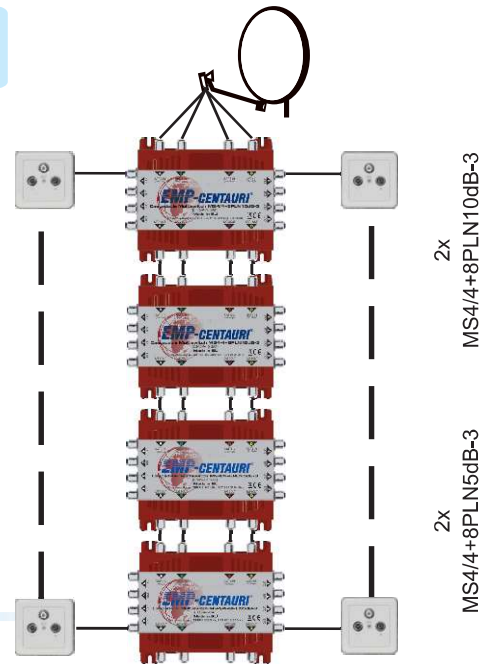


For more info see the website www.emp-centauri.eu or contact us at support@emp-centauri.eu, phone +420 376 323 853

CASCADABLE MULTISWITCHES

Cascadable multiswitches are designed for distribution of satellite signals from up to 4 satellite positions (16 polarities) for up to 80 subscribers with or without terrestrial television. Cascades are flexible, the number of satellite positions or subscribers can be easily adapted to local requirements.

Basic building block of cascade systems is cascadable multiswitch. EMP-Centauri offers units with up to 20 user outputs, with or without terrestrial band processing, with stepped loss to maintain balanced signal levels within whole system.



Advantages of PROFI CLASS multiswitches:

- low insertion loss on trunk outputs
- stepped insertion loss on user outputs
- optionally passive terrestrial band
- DC path from user outputs to trunk lines

6 YEARS WARRANTY



MS5/5+8PCP10dB-3

Overview of PROFI CLASS products - specifications

Part number	Number of inputs	Number of trunk outputs	Number of user outputs	Frequency range Sat.trunks (MHz)	Frequency range Terr.trunk (MHz)	Frequency range User outputs (MHz)	Control 13/18V	Control 13/18V(+0/22 kHz)	Insertion loss-user outputs Sat. (dB avg)	Insertion loss-user outputs Terr. (dB avg)	Insertion loss-trunk outputs Sat. (dB avg)	Insertion loss-trunk outputs Terr. (dB avg)	Sat. inputs isolation At user outputs (dB min)	Sat. inputs isolation At trunk outputs (dB min)
MS3/3+4PLP-2	3	3	4	950-2300	5-862	5-2300	●		0	23	2	3	20	30
MS3/3+8PLP-2	3	3	8	950-2300	5-862	5-2300	●		2	25	2	5	20	30
MS4/4+4PLN-3	4	4	4	trunk lines 950-2300	950-2300	950-2300	●		- 5/10	-	- 2	-	25	30
MS4/4+4PCN-3	4	4	4	trunk lines 950-2300	950-2300	950-2300	●		- 5/10	-	- 2	-	25	30
MS4/4+8PCN-3	4	4	8	trunk lines 950-2300	950-2300	950-2300	●		- 5/10	-	- 2	-	25	30
MS4/4+8PLN-3	4	4	8	trunk lines 950-2300	950-2300	950-2300	●		- 5/10	-	- 2	-	25	30
MS5/5+4PLP-3	5	5	4	950-2300	5-862	5-2300	●		5dB (5/18), 10dB (10/21)		2	3	25	30
MS5/5+4PCP-3	5	5	4	950-2300	5-862	5-2300	●		5dB (5/18), 10dB (10/21)		2	3	25	30
MS5/5+8PCP-3	5	5	8	950-2300	5-862	5-2300	●		5dB (5/21), 10dB (10/24)		2	3	25	30
MS5/5+8PLP-3	5	5	8	950-2300	5-862	5-2300	●		5dB (5/21), 10dB (10/24)		2	3	25	30

Overview of PROFI CLASS products - continued

Part number	Maximum input level* Sat. (dB μ V avg)	Maximum input level* Terr. (dB μ V avg)	Maximum user output level* Sat. (dB μ V avg) **	Maximum user output level* Terr. (dB μ V avg)	Maximum input level* Sat. / Terr. (dB μ V avg)	Maximum user output level* 5 dB Sat. / Terr. (dB μ V avg)	Maximum user output level* 10 dB Sat. / Terr. (dB μ V avg)	Power consumption From each receiver (mA-18 V)	Dimensions (w.d.h)	Temperature range
MS3/3+4PLP-2	90	110	90	87				40	10,7 x 7,1 x 3,1cm	-30 ~ +70 °C
MS3/3+8PLP-2	90	110	88	85				40	10,7 x 7,6 x 3,1cm	-30 ~ +70 °C
MS4/4+4PLN-3					90	85	80	50	12,7 x 10,4 x 4,1cm	-30 ~ +70 °C
MS4/4+4PCN-3					90	85	80	50	12,7 x 10,4 x 4,1cm	-30 ~ +70 °C
MS4/4+8PCN-3					90	85	80	50	13,5 x 10,4 x 4,1cm	-30 ~ +70 °C
MS4/4+8PLN-3					90	85	80	50	13,5 x 10,4 x 4,1cm	-30 ~ +70 °C
MS5/5+4PLP-3					90/110	85/92	80/89	50	12,7 x 10,4 x 4,1cm	-30 ~ +70 °C
MS5/5+4PCP-3					90/110	85/92	80/89	50	12,7 x 10,4 x 4,1cm	-30 ~ +70 °C
MS5/5+8PCP-3					90/110	85/89	80/86	50	13,5 x 10,4 x 4,1cm	-30 ~ +70 °C
MS5/5+8PLP-3					90/110	85/89	80/86	50	13,5 x 10,4 x 4,1cm	-30 ~ +70 °C

Notes: *Terr.: EN 50083-3/60dB IMA₃ [dB μ V]; SAT: EN 50083-3/35dB IMA₃ [dB μ V]

Main features:

- designed for Quattro LNBS

4 YEARS WARRANTY

Overview of E.LITE CLASS products - specifications

NEW - Cascadable multiswitch, active/passive terrestrial TV



Part number	Number of inputs	Number of trunk outputs	Number of user outputs	Frequency range Sat.trunks (MHz)	Frequency range Terr.trunk (MHz)	Frequency range User outputs (MHz)	Control 13/18V+0,22kHz+ DISEqC 1.0 / 2.0	Insertion loss-user outputs Sat. (dB)	Insertion loss-user outputs Terr.active / passive (dB avg)	Insertion loss-trunk outputs Sat. (dB avg)	Insertion loss-trunk outputs Terr. (dB avg)	Weight (kg)	Dimensions (w.d.h)	Temperature range
MS9/9+32EEU-14	9	9	32	950-2150	40-840	40-2150	●	5-0(slope)	0/30	gain 1	4	3,25	37,5 x 35,0 x 6,5cm	-25 ~ +50 °C
MS9/9+40EEU-14	9	9	40	950-2150	40-840	40-2150	●	5-0(slope)	0/30	gain 1	4	3,25	37,5 x 35,0 x 6,5cm	-25 ~ +50 °C
MS9/9+52EEU-13	9	9	52	950-2150	40-840	40-2150	●	8-0(slope)	5/32	gain 1	4	3,67	37,5 x 45,0 x 6,5cm	-25 ~ +50 °C
MS9/9+60EEU-13	9	9	60	950-2150	40-840	40-2150	●	8-0(slope)	5/32	gain 1	4	3,67	37,5 x 45,0 x 6,5cm	-25 ~ +50 °C
MS13/13+32EEU-14	13	13	32	950-2150	40-840	40-2150	●	5-0(slope)	0/30	gain 1	4	3,25	37,5 x 35,0 x 6,5cm	-25 ~ +50 °C
MS13/13+40EEU-14	13	13	40	950-2150	40-840	40-2150	●	5-0(slope)	0/30	gain 1	4	3,25	37,5 x 35,0 x 6,5cm	-25 ~ +50 °C
MS13/13+52EEU-13	13	13	52	950-2150	40-840	40-2150	●	8-0(slope)	5/32	gain 1	4	3,67	37,5 x 45,0 x 6,5cm	-25 ~ +50 °C
MS13/13+60EEU-13	13	13	60	950-2150	40-840	40-2150	●	8-0(slope)	5/32	gain 1	4	3,67	37,5 x 45,0 x 6,5cm	-25 ~ +50 °C
MS17/17+32EEU-14	17	17	32	950-2150	40-840	40-2150	●	5-0(slope)	0/30	gain 1	4	3,25	37,5 x 35,0 x 6,5cm	-25 ~ +50 °C
MS17/17+40EEU-14	17	17	40	950-2150	40-840	40-2150	●	5-0(slope)	0/30	gain 1	4	3,25	37,5 x 35,0 x 6,5cm	-25 ~ +50 °C
MS17/17+52EEU-13	17	17	52	950-2150	40-840	40-2150	●	8-0(slope)	5/32	gain 1	4	3,67	37,5 x 45,0 x 6,5cm	-25 ~ +50 °C
MS17/17+60EEU-13	17	17	60	950-2150	40-840	40-2150	●	8-0(slope)	5/32	gain 1	4	3,67	37,5 x 45,0 x 6,5cm	-25 ~ +50 °C

Overview of E.LITE CLASS products - specifications

NEW - Cascadable multiswitch, active/passive terrestrial, self-powered

4 YEARS WARRANTY

Part number	Number of inputs	Number of trunk outputs	Number of user outputs	Frequency range Sat.trunks (MHz)	Frequency range Terr.trunk (MHz)	Frequency range User outputs (MHz)	Control 13/18/+0,22kHz+ DISEqC	Insertion loss-user outputs Sat. (dB)	Insertion loss-user outputs Terr.active / passive (dB avg)	Insertion loss-trunk outputs Sat. (dB avg)	Insertion loss-trunk outputs Terr. (dB avg)	Weight (kg)	Dimensions (w.d.h)	Temperature range
MS9/9+6ECU-4	9	9	6	950-2150	40-862	40-2150	●	5-20(adjustable)	8/25	3	5	1,05	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS9/9+10ECU-4	9	9	10	950-2150	40-862	40-2150	●	5-20(adjustable)	8/25	3	5	1,05	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS9/9+16ECU-12	9	9	16	950-2150	40-862	40-2150	●	5-20(adjustable)	12/26	3	5	1,05	18,6 x 24,5 x 5,1cm	-25 ~ +60 °C
MS9/9+20ECU-12	9	9	20	950-2150	40-862	40-2150	●	5-20(adjustable)	12/26	3	5	1,05	18,6 x 24,5 x 5,1cm	-25 ~ +60 °C
MS9/9+26ECU-12	9	9	26	950-2150	40-862	40-2150	●	5-20(adjustable)	20/35	5	6	1,05	18,6 x 33,2 x 5,1cm	-25 ~ +60 °C
MS9/9+30ECU-12	9	9	30	950-2150	40-862	40-2150	●	5-20(adjustable)	20/35	5	6	1,05	18,6 x 33,2 x 5,1cm	-25 ~ +60 °C
MS13/13+6ECU-4	13	13	6	950-2150	40-862	40-2150	●	5-20(adjustable)	8/25	3	5	1,05	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS13/13+10ECU-4	13	13	10	950-2150	40-862	40-2150	●	5-20(adjustable)	8/25	3	5	1,05	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS13/13+16ECU-12	13	13	16	950-2150	40-862	40-2150	●	5-20(adjustable)	12/26	3	5	1,05	18,6 x 24,5 x 5,1cm	-25 ~ +60 °C
MS13/13+20ECU-12	13	13	20	950-2150	40-862	40-2150	●	5-20(adjustable)	12/26	3	5	1,05	18,6 x 24,5 x 5,1cm	-25 ~ +60 °C
MS13/13+26ECU-12	13	13	26	950-2150	40-862	40-2150	●	5-20(adjustable)	20/35	5	6	1,05	18,6 x 33,2 x 5,1cm	-25 ~ +60 °C
MS13/13+30ECU-12	13	13	30	950-2150	40-862	40-2150	●	5-20(adjustable)	20/35	5	6	1,05	18,6 x 33,2 x 5,1cm	-25 ~ +60 °C
MS17/17+6ECU-4	17	17	6	950-2150	40-862	40-2150	●	5-20(adjustable)	8/25	3	5	1,05	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS17/17+10ECU-4	17	17	10	950-2150	40-862	40-2150	●	5-20(adjustable)	8/25	3	5	1,05	18,6 x 15,6 x 5,1cm	-25 ~ +60 °C
MS17/17+16ECU-12	17	17	16	950-2150	40-862	40-2150	●	5-20(adjustable)	12/26	3	5	1,05	18,6 x 24,5 x 5,1cm	-25 ~ +60 °C
MS17/17+20ECU-12	17	17	20	950-2150	40-862	40-2150	●	5-20(adjustable)	12/26	3	5	1,05	18,6 x 24,5 x 5,1cm	-25 ~ +60 °C
MS17/17+26ECU-12	17	17	26	950-2150	40-862	40-2150	●	5-20(adjustable)	20/35	5	6	1,05	18,6 x 33,2 x 5,1cm	-25 ~ +60 °C
MS17/17+30ECU-12	17	17	30	950-2150	40-862	40-2150	●	5-20(adjustable)	20/35	5	6	1,05	18,6 x 33,2 x 5,1cm	-25 ~ +60 °C

MS9/9+6ECU-4



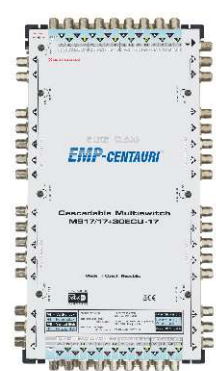
MS13/13+20ECU-12



MS5/5+16ELP5dB-4



MS17/17+30ECU-17



► For all output configurations are available also "ECP" versions with fixed user output SAT loss 5 dB and passive terrestrial band.

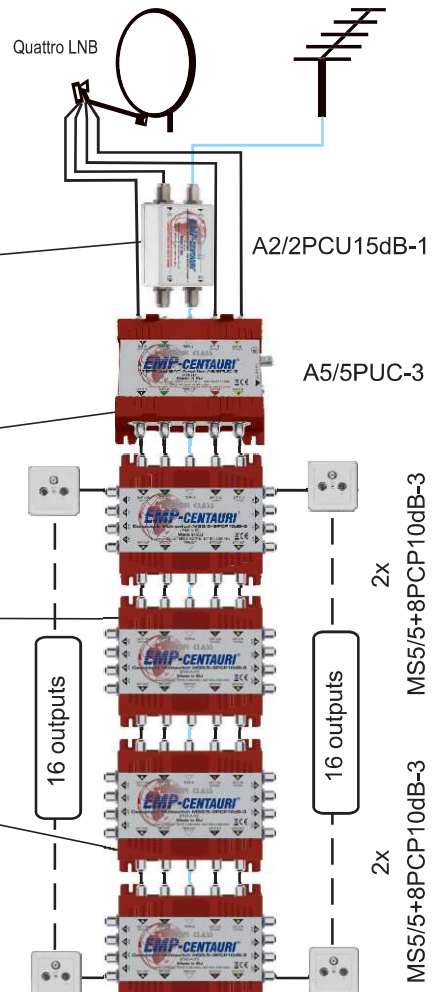
Cascadable multiswitch, passive terrestrial, self-powered, DC path from receivers to trunk

Part number	Number of inputs	Number of trunk outputs	Number of user outputs	Frequency range Sat.trunks (MHz)	Frequency range Terr.trunk (MHz)	Frequency range User outputs (MHz)	Control 13/18/+0,22kHz	Insertion loss-user outputs 5 dB Sat./ Terr (dB avg)	Insertion loss-user outputs 10 dB Sat./ Terr (dB avg)	Insertion loss-trunk outputs Sat. (dB avg)	Insertion loss-trunk outputs Terr. (dB avg)	Dimensions (w.d.h)	Temperature range
MS5/5+12ELP-4	5	5	12	950-2150	5-862	5-2150	●	5-24	10/27	4	3	18,2 x 15,2 x 4,5cm	-25 ~ +60 °C
MS5/5+16ELP-4	5	5	16	950-2150	5-862	5-2150	●	5-25	10/28	4	3	18,2 x 15,2 x 4,5cm	-25 ~ +60 °C

Recommended cascade distribution configuration for 1 satellite

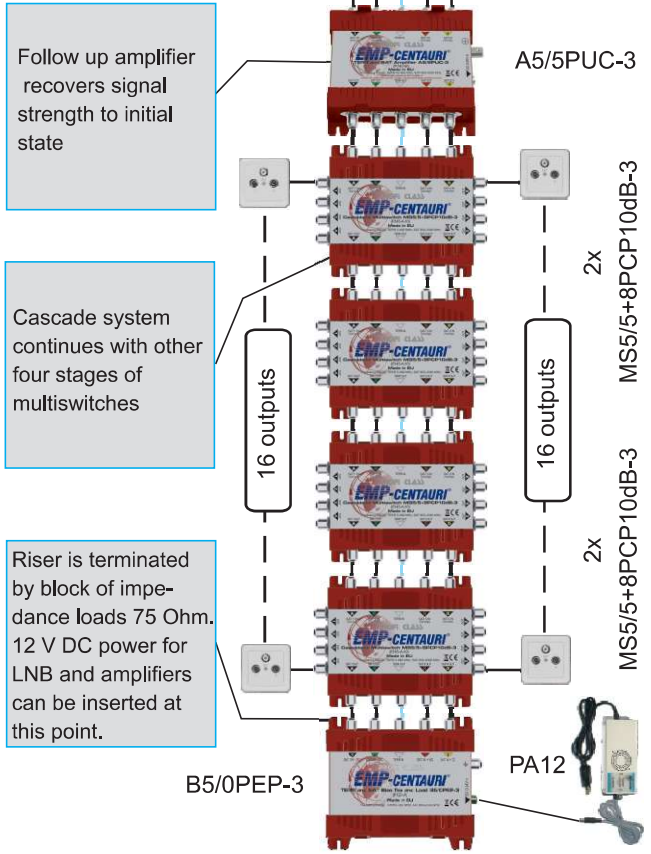
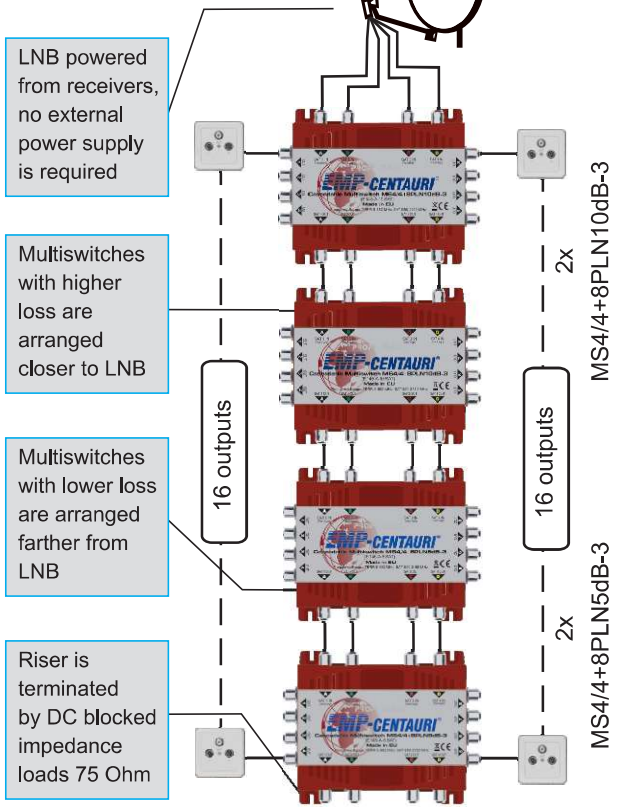
Maximum recommended system: 8 stages, 64 user outputs

- Terrestrial band preamplifier – optional, depending on signals level
- Block satellite&terrestrial amplifier, compensates for signal losses in connected multiswitches
- Multiswitches with higher loss at user outputs are placed closer to the amplifier
- Multiswitches with lower loss at user outputs are placed farther from the amplifier



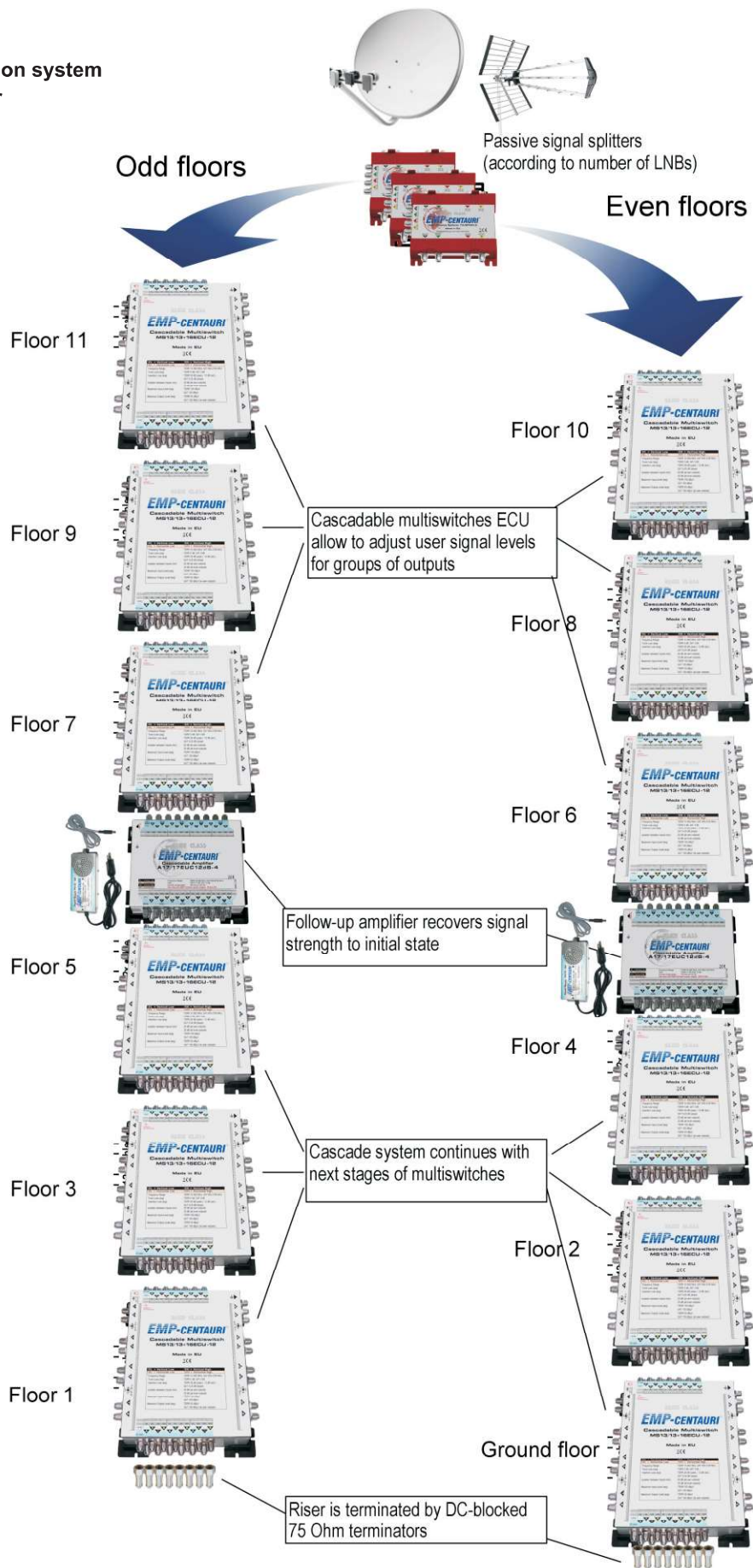
System with LNB power pass:

4 stages, 32 user outputs



Example:

Cascade distribution system for 12 floors tower



EXTENSION MODULES FOR CASCADES

Original cascade systems EMP-Centauri were based on modular approach. From the very same basic blocks you can build a system for 2, 3, 4 or even more satellites. Just fasten several multiswitches (amplifiers, termination blocks) together by plastic clips and compact multiswitch (amplifier,...) for 2 and more satellites is ready. On the other hand, cascade taps allow connecting of several complete cascade systems to the common antenna.



S2/1PCTpos-1

Features of plug-in DiSEqC modules:

- fully functional DiSEqC switches
- terrestrial path from one of inputs to the output
- slim metal case
- connection via quick F-adaptors

S8/1PCT-10



Features of cascade taps:

- offered as SAT-only devices or incl. terrestrial section
- slight gain with slope is provided to compensate for cable losses
- especially designed as tie-point of several cascade systems

Overview of PROFI CLASS products - specifications

6 YEARS WARRANTY

Part number	Number of inputs	Number of outputs	Frequency range Sat. inputs (MHz)	Frequency range LNB+Terr.input 2 (MHz)	Frequency range LNB+Terr.input 2,3,4 (MHz)	Frequency range LNB+Terr.input 2...8 (MHz)	Frequency range Output (MHz)	Insertion loss Sat. (dB avg)	Insertion loss Terr. (dB avg)	Sat. inputs isolation (dB min)	Power consumption From receiver (mA-12 V)	Dimensions (w.d.h)	Temperature range
S2/1PCT-1	2	1	5-2300	5-862, 950-2300	-	-	5-2300	4	3	25	35	5,2 x 6,0 x 1,7cm	-30 ~ +70 °C
S4/1PCT-11	4	1	5-862, 950-2300	-	950-2300	-	5-2300	5	3	25	60	24,5 x 6,9 x 1,8cm	-30 ~ +70 °C
S8/1PCT-10	8	1	5-862, 950-2300	-	-	950-2300	5-2300	5	3	25	60	12,0 x 6,3 x 1,8cm	-30 ~ +70 °C
S2/1PCTpos-1	2	1	5-2300	5-862, 950-2300	-	-	5-2300	4	3	25	35	5,2 x 6,0 x 1,7cm	-30 ~ +70 °C

Useful information (General)

- ▶ Taps T4/8PUN-3, T5/10PUA-3 are used for feeding multiple cascade systems by RF signals and optionally also with DC power
- ▶ If required, splitters can boost terrestrial signals inputting to cascades
- ▶ Total number of user outputs in-crases to more than 300
- ▶ For splitting signals to several standalone multiswitches use passive or active splitters

ETHERNET OVER COAX

Although twisted-pairs (UTP) cables prevailed in local computer networks (LAN), there exist practical options of utilizing existing coaxial TV distribution system for high speed data connection. Using EMP-Centauri own innovative solution, a 100 Mbit/s full duplex data link can be created on single coaxial segment with length up to 100 m.

Data transmission occupies lower frequency bands, while leaving UHF and satellite bands free for TV reception. The coax is used also for common powering all connected devices.



MS 17/10NEU-4



NS 01-S1

Features of NET CLASS products:

- standard distribution of UHF and SAT channels
- 100 Mbit/s full duplex data link over coaxial cable, 1 Gbit/s port at multiswitch
- support of standards 10BASE-T/100BASE-TX
- comply with applicable sections of IEEE 802.3, IEEE 802.3u, IEEE 802.3x
- compatible with any common data transmission

4 YEARS WARRANTY

ES 05-15



Overview of NET CLASS products - specifications

Part number	Number of Coaxial Inputs (including terrestrial)	Number of data connectors (RJ45)	Number of coaxial outputs	Description	Frequency range SAT inputs (MHz)	Frequency range Terr. Inputs (MHz)	Frequency range Outputs (MHz)	Control DISeqC 1.0 (2.0) commands	Data RJ45 port (Mbit/s)	Data coaxial output (Mbit/s)	Insertion loss Sat. (dB avg)	Insertion loss Terr. active (dB avg)	Insertion loss Terr. passive (dB avg)
EOC STANDALONE MULTISWITCHES													
MS5/6NEU-4	5	1	6	1 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS5/10NEU-4	5	1	10	1 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS5/16NEU-12	5	1	16	1 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS5/20NEU-12	5	1	20	1 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS9/6NEU-4	9	1	6	2 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS9/10NEU-4	9	1	10	2 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS9/16NEU-12	9	1	16	2 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS9/20NEU-12	9	1	20	2 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS13/6NEU-4	13	1	6	3 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS13/10NEU-4	13	1	10	3 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS13/16NEU-12	13	1	16	3 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS13/20NEU-12	13	1	20	3 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS17/6NEU-4	17	1	6	4 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS17/10NEU-4	17	1	10	4 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS17/16NEU-12	17	1	16	4 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
MS17/20NEU-12	17	1	20	4 SAT	950-2150	470-862	470-2150	• 1000	100	10	2	20	
EOC WALL SOCKETS													
NS 01-S1	1	2	2	EoC SAT+TV+data wall socket 2x RJ45 10BASE-T (10 Mbit/s), 100BASE-TX (100 Mbit/s)	950-2300	470-862	-	-	-	-	3	-	3
UTP/COAXIAL ETHERNET SWITCHES													
ES 41-15	1	1	4	UHF + data mini EoC headend, 100 Mbit/s	-	470-862	-	100	100	-	-	-	13
ES 05-15	1	3	2	UTP/coaxial ethernet switch, 100 Mbit/s	-	470-862	-	100	100	-	-	-	1

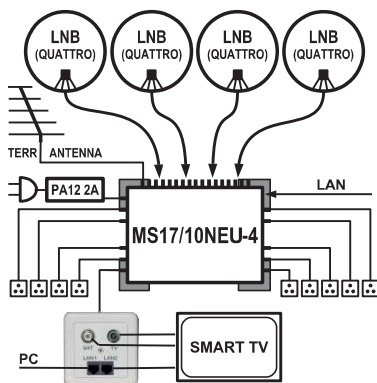
Detailed specifications

Part number	Sat. inputs isolation (dB min) Between V/H polarisations	Sat. inputs isolation (dB min) Between low/high bands	Sat. inputs isolation (dB min) Between sat. systems	Maximum input level* Sat. (dB μ V avg)	Maximum input level* Terr. (dB μ V avg)	Maximum output level* Sat. (dB μ V avg)	Maximum output level* Terr. (dB μ V avg)	Power consumption From each receiver (mA-18 V)	Power consumption From external power supply (W max.)	Dimensions (w,d,h)	Temperature range
EOC STANDALONE MULTISWITCHES											
MS5/6,10NEU-4	20	25	25	105	90	95	88	150	20	18,6 x 14,6 x5,1cm	-25 ~ +60 °C
MS5/16,20NEU-12	20	25	25	105	90	95	88	150	30	18,6 x 24,5 x5,1cm	-25 ~ +60 °C
MS9/6,10NEU-4	20	25	25	105	90	95	88	150	20	18,6 x 14,6 x5,1cm	-25 ~ +60 °C
MS9/16,20NEU-12	20	25	25	105	90	95	88	150	30	18,6 x 24,5 x5,1cm	-25 ~ +60 °C
MS13/6,10NEU-4	20	25	25	105	90	95	88	150	20	18,6 x 14,6 x5,1cm	-25 ~ +60 °C
MS13/16,20NEU-12	20	25	25	105	90	95	88	150	30	18,6 x 24,5 x5,1cm	-25 ~ +60 °C
MS17/6,10NEU-4	20	25	25	105	90	95	88	150	20	18,6 x 14,6 x5,1cm	-25 ~ +60 °C
MS17/16,20NEU-12	20	25	25	105	90	95	88	150	30	18,6 x 24,5 x5,1cm	-25 ~ +60 °C
EOC WALL SOCKETS											
NS 01-S1								50	-	7,6 x 7,6 x4,0cm	-25 ~ +60 °C
UTP/COAXIAL ETHERNET SWITCHES											
ES 41-15				90	-	77	-	-	6	14,8 x 8,9 x5,4cm	-25 ~ +60 °C
ES 05-15				90	-	89	-	-	5	14,8 x 8,9 x5,4cm	-25 ~ +60 °C

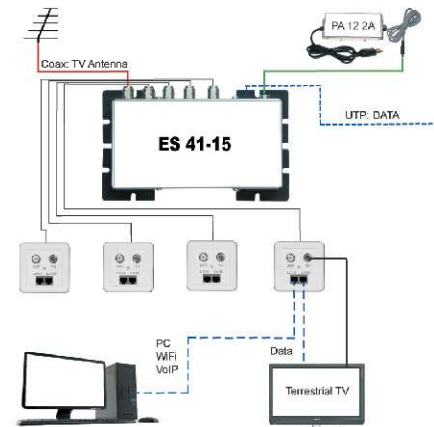
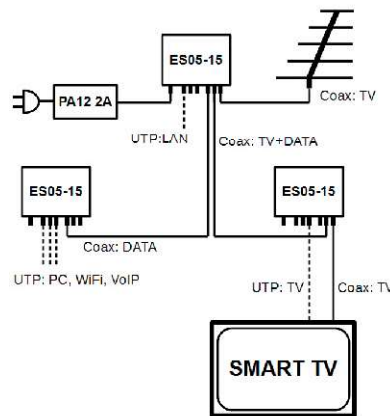
Notes: * TERR: EN 50083-3/60dB IMA3[dBuV]; SAT: EN 50083-3/35dB IMA3[dBuV]

Example of utilization

A / Data network over coaxial distribution system for 4 satellites and terrestrial band



B / Data transmission over coaxial cable with TV reception



Useful information (General)

EOC STANDALONE MULTISWITCHES

- ▶ Connect outputs of Quattro LNB to appropriate inputs of multiswitch: VL - A, HL - B, VH - C, HH - D
- ▶ Any standard wall socket may be connected to the multiswitch, however for data transmission is necessary EMP-Centauri NET CLASS wall socket
- ▶ EMP-Centauri NET CLASS products are not compatible with similar products from other parties

EOC WALL SOCKETS

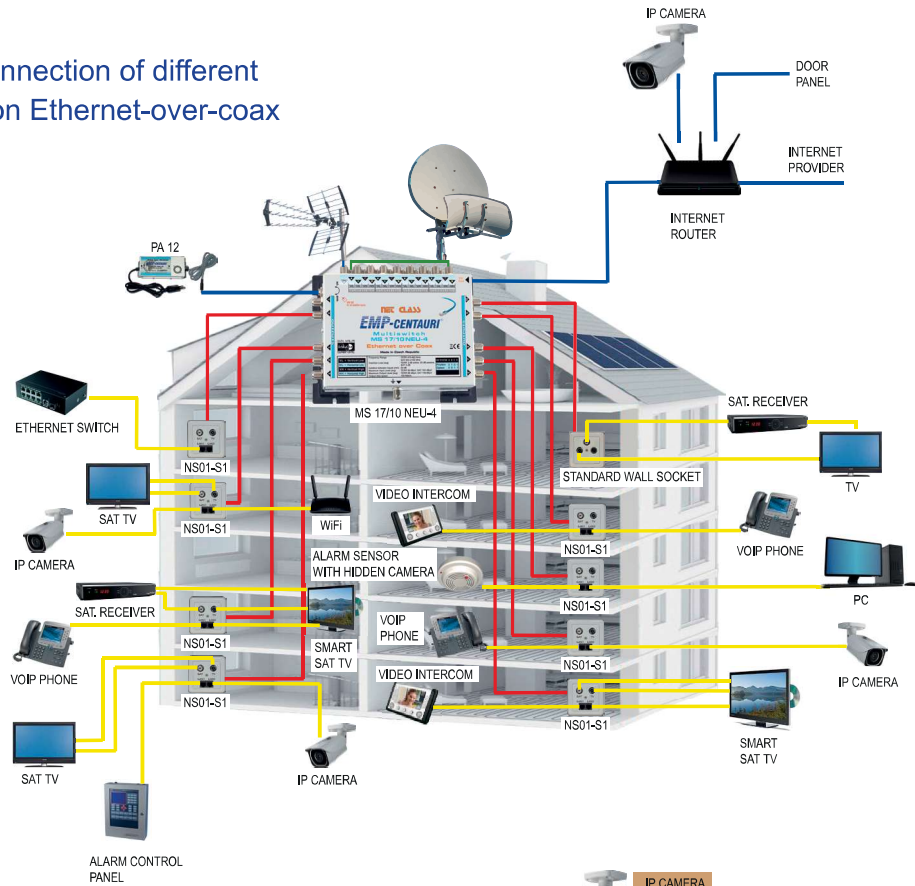
- ▶ Use only with EMP-Centauri NET CLASS multiswitches
- ▶ EMP-Centauri NET CLASS products are not compatible with similar products from other parties

UTP/COAXIAL ETHERNET SWITCHES

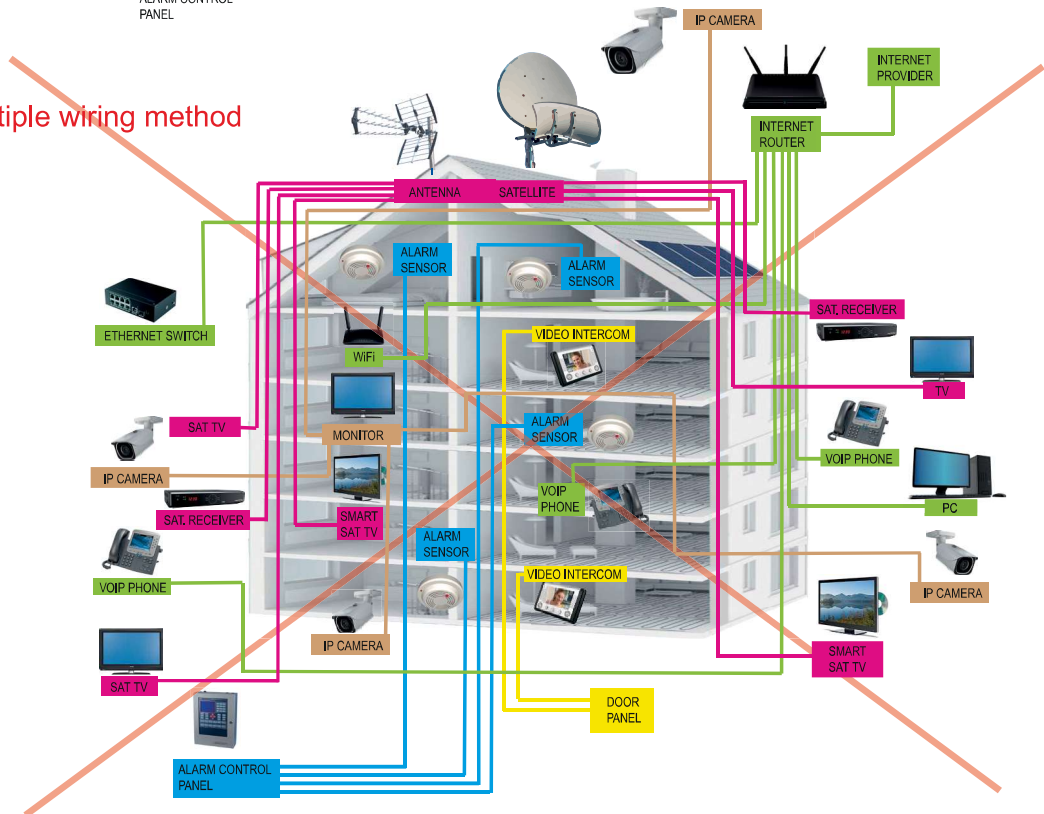
- ▶ UTP / coaxial switches should be used in pairs - one switch at each end of coaxial segment
- ▶ alternatively, NET CLASS wall socket can be used as remote switch
- ▶ devices connected with coaxial cable can be powered from common supply

ETHERNET OVER COAX

Common interconnection of different systems based on Ethernet-over-coax



Old-style multiple wiring method



RF MODULATORS

Premium range of digital and analog modulators which are designed for distribution of video and audio content from variety multimedia sources in the coaxial cable networks.

MOD1/1CEWD



DIGITAL RF MODULATORS

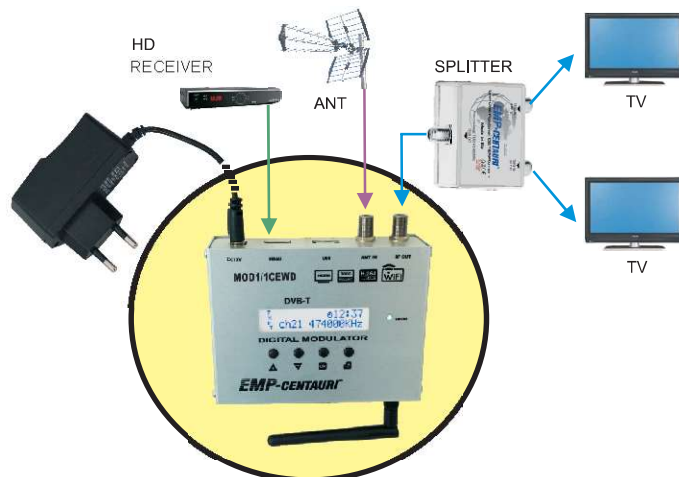
Designed to send HDMI audio video signal from any sources (satellite receivers, cameras, video players, etc.) to a DVB-T multiplex for viewing on a digital TV. Modulators can distribute HD content in the coaxial cable networks or used in antenna systems.



MOD2/1DEL-15

Features of Modulators products:

- HDMI input
- low latency HD encoder with perfect picture and sound quality
- Wi-Fi connection and embedded Web server
- Adjustable output gain
- Easy to configure with user-friendly "Quick setup" feature



Overview of MODULATORS products - specifications

Part number	Type	Encoder type	Number of inputs	Input type	Number of outputs	Number of transmitted channels	Output power (dBuV)	Additional info
MOD1/1CEWD	digital	MPEG-4, AVC/H264	1	HDMI	1	1	69-95 adj.	Wi-Fi, loop through input
MOD2/1DEL-15	digital	MPEG-2, H264(XD)	2	HDMI, USB	1	1	70	
MOD2/1DEH-15	digital	MPEG-2, H264(XD)	2	HDMI, USB	1	1	100	
BS28/1D3U	digital	MPEG-4, AVC/H264	Up to 28	HDMI	1	Up to 28	85	Wi-Fi, rackmount
MOD3/1AER-18	analog	-	1	RCA	1	1	85	