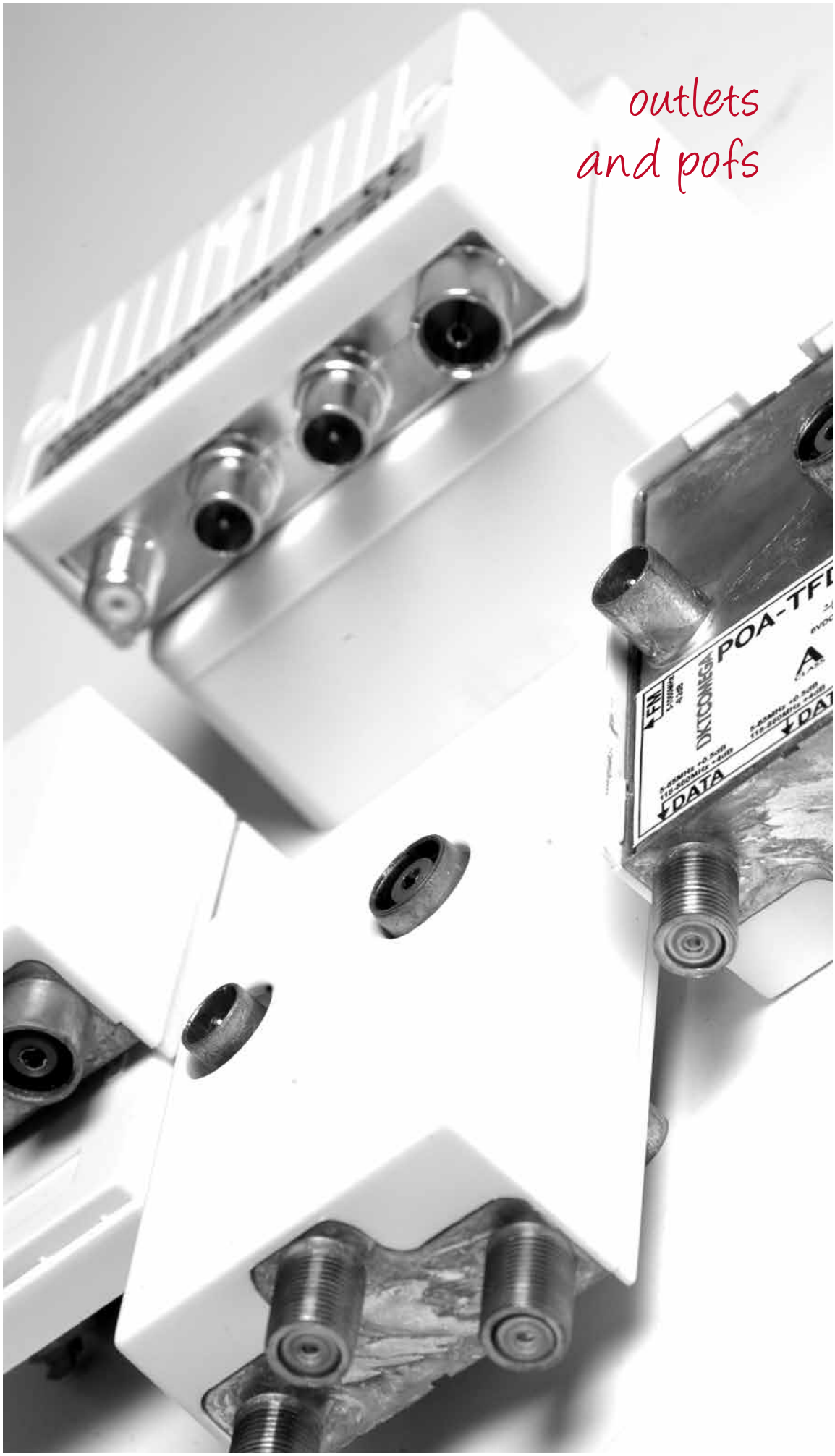
DKTCOMEGA

outlets and pofs



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about dktcomega

DKTCOMEGA develops optical and coaxial products for professional broadband operators and solution providers.

The company was founded in 1977. Its headquarters are in Denmark and it has subsidiaries in Sweden, Finland and China. As a dynamic and innovative company, its ambition is to deliver the best and broadest selection of quality products and advice when it comes to optical, coaxial and HFC broadband networks.

With more than thirty years of experience in coaxial broadband networks, DKTCOMEGA offers a comprehensive product portfolio, making it a strong partner for broadband operators. The solid experience gained by DKTCOMEGA is reflected in its products, these being characterized by high quality, top performance and easy installation.

The broad product range covers everything required for access and home networks, thereby satisfying all needs when building and maintaining today's modern broadband networks. As a result, customers turn to DKTCOMEGA for products and advice when it comes to optical, coaxial and HFC broadband networks.

DKTCOMEGA's mission

DKTCOMEGA's mission is to be a strong partner in network products for European broadband operators and solution providers. Based on know-how and natural enthusiasm, good ideas are developed into successful products. This is done with the customer, who furthermore appreciates the broad product range, the attractive quality/price level and the unique customized products. DKTCOMEGA's flexibility and proactive attitude assists in optimizing broadband networks.

For further information please contact DKTCOMEGA at sales@dktcomega.com

DKTCOMEGA

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Specifications are subject to change without notice. DKTCOMEGA is not liable for any misprints or errors.

product introduction

Introduction

Bidirectional CATV networks and services are increasing the demands to the home installation. DKTCOMEGA offers a comprehensive line of high quality outlets and Push-On-Filters (POF's). This enables designer's, installation contractors and operators to design, build and operate home installations optimized to quality, performance, cost and maintenance.

Overview

A Line of Outlets with a bandwidth of 5Mhz to 1 GHz complying with Cenelec standards. Designed with focus on screening efficiency and easy, flexible and stable cable installation. Full range of TV/FM outlets supporting star and cascading networks. TV/FM/DATA outlets optimized to multimedia installations.

A series of galvanic isolated TV/FM/DATA outlets that effectively separate electrical potential differences between a network and the home installation.

Freja/Odin has been designed to meet the high quality standard of DKTCOMEGA outlets and a the same time focus on a modern and discrete design.

A series of outlets designed specifically for multimedia installations. A build-in amplifier eliminates the loss in filtering and taps.

The Push-on-Filters is a line of product specially designed to overcome issues when subscribers are upgraded to installations with data and/or Set-top box and more TV-set's without changing the existing home installation. The POF is mounted by the subscriber on an existing outlet and provides one or more additional data outputs. The POF is also available in a version with a build in amplifier.

Benefits

Optimal specifications

- Low insertion loss and low through loss maintain signal strength
- High return loss, isolation and screening efficiency ensure interference-free signals
- Stable performance across TV, FM and DATA frequency ranges

Ideal for subscribers

- Mix-and-match to meet subscriber's network
- Easily upgrade existing subscriber networks with minimal intervention and cost
- Protected investment by ensuring future upgradeability
- Reliable signal delivery requiring minimal service and expense

Ideal for installers and service providers

- Quick and easy installation with minimal service overhead
- Designed and approved according to industry standards

CE approved

A CLASS

RoHS

WEEE

DKTCOMEGA

Benefits

- Low through loss
- Easy visual identification of outlet type (colour code)
- Robust housing – discrete mounting, only 24 mm depth
- Support installation with mini-cable (0,41 mm Ø centre conductor)

passive tv/fm outlets

A CLASS

Product information

These TV/FM outlets comply with industry standards and have focus on screening efficiency and easy, flexible and stable cable installation. Full program with terminated or loop-through, each with specific attenuation, to match all type of networks.

C

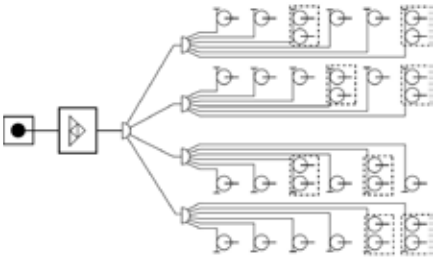
FP

Each outlet is available with a front plate and surface mounting frame (C), with a front plate only (FP) or without any enclosure.

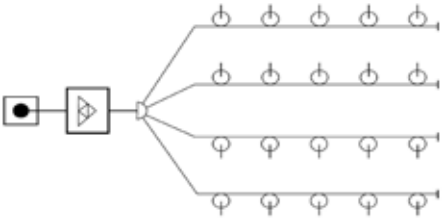
All outlets are assigned colour codes on the IEC constructions, in order to identify the type of outlet on the front (See page 23 for more information regarding these codes).

Explanation to “version”: Std. = Standard (no diplex), Dip = Diplex filter, TM = Terminated, LT = Loop-through

Terminated outlets in star networks



Loop-through outlets in cascading networks



Type *	
Item no.	52500
Version	Std, TM
TV	
Frequency range	5-68 / 118-1000
Insertion loss IN-TV (dB)	1,0
Return loss** EN50083-4	Cat. C
Isolation to FM (dB)	> 15
Connector	IEC-Male
FM	
Frequency range (MHz)	87,5-108
Insertion loss IN-FM (dB)	1,3
Connector	IEC-Female

Type *	T4BX-C	T7BX-C	T10BX-C	T13BX-C
Item no.	52505	52510	52515	52520
Version	Std, LT	Std, LT	Std, LT	Std, LT
TV				
Frequency range (MHz)	5-68 / 118-1000	5-68 / 118-1000	5-68 / 118-1000	5-68 / 118-1000
Insertion loss IN-TV (dB)	4,0	7,0	10	13
Return loss** EN50083-4	Cat. C	Cat. C	Cat. C	Cat. C
Isolation to OUT (dB)	> 20	> 20	> 30	> 30
Connector	IEC-Male	IEC-Male	IEC-Male	IEC-Male
FM				
Frequency range (MHz)	87,5-108	87,5-108	87,5-108	87,5-108
Insertion loss IN-FM (dB)	4,5	7,5	10	13
Connector	IEC-Female	IEC-Female	IEC-Female	IEC-Female
IN & OUT				
Frequency range (MHz)	5-1000	5-1000	5-1000	5-1000
Insertion loss IN-OUT (dB)	3,8	2,8	1,8	0,9
Return loss** EN50083-4	Cat. C	Cat. C	Cat. B	Cat. B

Dimension (H 82 x W 82 x D 30 mm)
Back box only. Faceplate adds 8 mm to depth to overall 38 mm.

* Type suffix defines product package:

C - complete housing (front and back), example T0BX-C.
FP - front plate only, example T0BX-FP.
No suffix - no front or back, example T0BX.
Each available in minimum order quantity of 10 units.

** According to CENELEC 50083:

A: 5-40 MHz ≥ 22 dB, min. 14 dB @ 40-1750 MHz ÷ 1,5/oct.
B: 5-40 MHz ≥ 18 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
C: 5-40 MHz ≥ 14 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
D: 5-1750 MHz ≥ 10 dB

DKTCOMEGA

Benefits

- Designed for optimal performance in multimedia installations
- High isolation between outputs
- Low through loss
- High return loss
- Easy visual identification of outlet type (colour code)
- Robust housing – discrete mounting, only 24 mm depth
- Support installation with mini-cable (0,41 mm Ø centre conductor)

passive tv/fm/data outlets

A CLASS

Product information

These multimedia outlets are designed to meet the requirements of a multimedia installation, with a mix of FM, TV, modem and Set Top box, where high isolation between ports is critical for optimal performance.

The outlets are available in terminated and loop-through designs, and for each of these as standard and diplex versions.

The choice between a standard or a diplex data outlet means that network performance can be optimized according to return path attenuation. Diplex is used in low tolerance networks.

Each outlet is available with a front plate and surface mounting frame (C), with a front plate only (FP) or without any enclosure.

Galvanic isolated multimedia outlets are also available. These provide optimal isolation of potential differences between the network and the subscriber's equipment. These too are available in terminated and loop-thorugh designs (see page 9).

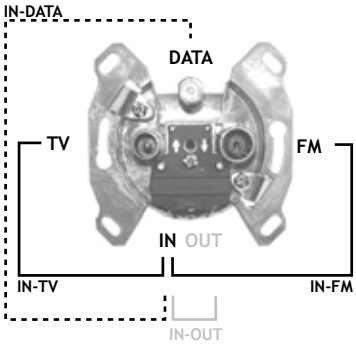
All outlets are assigned colour codes on the IEC constructions, in order to identify the type of outlet on the front (See page 23 for more information regarding these codes).

Explanation to "version": Std = Standard (no diplex), Dip = Diplex filter, TM = Terminated, LT = Loop-through

C

FP

Insertion loss



Insertion loss

A signal is applied to the IN connector and the output is measured on the OUT, TV, FM and DATA connectors.

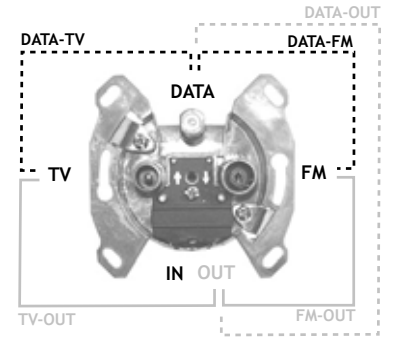
Isolation

A signal is applied to a connector, for example TV, and the output is measured on other connectors, for example FM, DATA and OUT.

Return loss

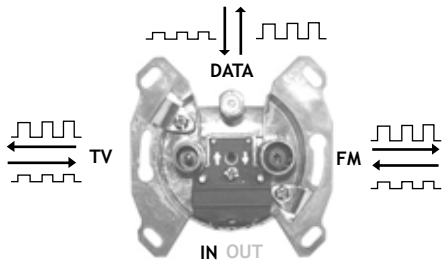
The fraction of the incoming signal that is reflected from this port on the outlet.

Isolation



Only on multimedia outlets
Only on unterminated loop-through outlet:

Return loss



Through signal
Reflected signal

Type *	MM4-DABX-C	MM4-65X-C	MM7-65X-C	MM4-65DX-C	MM10-65DX-C
Item no.	52600	52605	52615	52610	52625
Version	Std, TM	Std, TM	Std, TM	Dip, TM	Dip, TM
DATA					
Frequency range (MHz)	5-1000	5-1000	5-1000	5-65 / 188-1000	5-65 / 188-1000
Insertion loss reverse (dB)	3,5	3,5	7,0	0,8	0,8
Insertion loss forward (dB)	3,5	3,5	7,0	4,5	10,0
Return loss** EN50083-4	Cat. B	Cat. B	Cat. B	Cat. B	Cat. B
Isolation to TV (dB) 5-65 MHz	> 55 (5-30 MHz)	> 50	> 50	> 45	> 45
Isolation to TV (dB) 118-1000 MHz	> 22 (47-862 MHz)	> 22	> 22	> 22	> 22
Connector	F-Female	F-Female	F-Female	F-Female	F-Female
TV					
Frequency range (MHz)	47-1000	118-1000	118-1000	118-1000	118-1000
Insertion loss IN-TV (dB)	4,5	4,5	2,5	4,5	2,0
Return loss** EN50083-4	Cat. C	Cat. C	Cat. C	Cat. C	Cat. C
Connector	IEC-Male	IEC-Male	IEC-Male	IEC-Male	IEC-Male
FM					
Frequency range (MHz)	87,5-108	87,5-108	87,5-108	87,5-108	87,5-108
Insertion loss IN-FM (dB)	5,0	5,0	4,0	4,5	2,5
Connector	IEC-Female	IEC-Female	IEC-Female	IEC-Female	IEC-Female

Type	MM10-65X-C	MM13-65X-C	MM16-65X-C	MM10-65-DPTX-C
Item no.	52620	52645	52650	52635
Version	Std, LT	Std, LT	Std, LT	Dip, LT
DATA				
Frequency range (MHz)	5-1000	5-1000	5-1000	5-65 / 188-1000
Insertion loss reverse (dB)	10	13	16	5
Insertion loss forward (dB)	10	13	16	10
Return loss** EN50083-4	Cat. B	Cat. B	Cat. B	Cat. B
Isolation to OUT (dB)	25	25	25	25
Isolation to TV (dB) 5-65 MHz	> 55	> 50	> 50	> 45
Isolation to TV (dB) 118-1000 MHz	> 22	> 22	> 22	> 22
Connector	F-Female	F-Female	F-Female	F-Female
TV				
Frequency range (MHz)	118-1000	118-1000	118-1000	118-1000
Insertion loss IN-TV (dB)	10	13	16	9,5
Return loss** EN50083-4	Cat. C	Cat. C	Cat. C	Cat. C
Isolation to OUT (dB)	25	25	25	25
Connector	IEC-Male	IEC-Male	IEC-Male	IEC-Male
FM				
Frequency range (MHz)	87,5-108	87,5-108	87,5-108	87,5-108
Insertion loss IN-FM (dB)	10	13	16	10,5
Connector	IEC-Female	IEC-Female	IEC-Female	IEC-Female
IN & OUT				
Frequency range (MHz)	5-1000	5-1000	5-1000	5-1000
Insertion loss IN-OUT (dB)	2,5	2,0	1,7	4,5 (±1)
Return loss** EN50083-4	Cat. B	Cat. B	Cat. B	Cat. B

Dimension (H 82 x W 82 x D 30 mm)
Back box only. Faceplate adds 8 mm to depth to overall 38 mm.

* Type suffix defines product package:

C - complete housing (front and back), for example MM10-65X-C.
FP - front plate only, for example MM10-65X-FP.
No suffix - no front or back, for example MM10-65X.
Each available in minimum order quantity of 10 units.

\+ The data connection in the MM4-DABX-C outlet can be used to receive DAB signals.

** According to CENELEC:

A: 5-40 MHz ≥ 22 dB, min. 14 dB @ 40-1750 MHz ÷ 1,5/oct.
B: 5-40 MHz ≥ 18 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
C: 5-40 MHz ≥ 14 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
D: 5-1750 MHz ≥ 10 dB

passive galvanic isolated tv/fm/data outlets

A CLASS

Product information

These TV/FM/DATA outlets effectively separate electric potential differences between a network and a subscriber's installation. Each product consist of two parts - a faceplate with an F-connector for the network and a push-on filter that connects to the subscriber's installation.

The outlet's galvanic isolation is tested at 2,2 kV for a minimum period of one minute where leakage current must not exceed 0,7 mA. Such effective isolation is a prerequisite in many countries. (Ref. CENELEC 50083-1 paragraph 9)

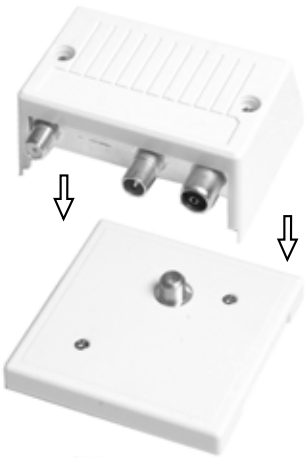
Explanation to "version": Std = Standard (no diplex), Dip = Diplex filter, TM = Terminated, LT = Loop-through

Type:	Gi-4
Item no.	52690
Version	Std, TM
DATA	
Frequency range (MHz)	5-1000
Insertion loss forward (dB)	4
Insertion loss reverse (dB)	4
Isolation DATA/TV (dB) 5-65 MHz	> 55
Isolation DATA/TV (dB) 118-1000 MHz	> 20
Return loss* EN50083-4	Cat. B
Connector	F-Female
TV	
Frequency range (MHz)	118-1000
Insertion loss (dB)	4
Isolation TV/IN (dB) 5-65 MHz	> 50
Connector	IEC-Male
FM	
Frequency range (MHz)	87,5-1000
Insertion loss (dB)	5
Connector	IEC-Female

Combined unit

Push-on unit

Mounting procedure



These isolated outlets comply with EN 50083-2 Class A, EMC screening effectiveness of minimum 85 dB for 5-470 MHz and minimum 75 dB for 470-860 MHz.

Type:	Gi-8	Gi-10	Gi-13	Gi-16
Item no.	52691	52693	52695	52697
Version	Std, LT	Std, LT	Std, LT	Std, LT
DATA				
Frequency range (MHz)	5-1000	5-1000	5-1000	5-1000
Insertion loss forward (dB)	8	10	13	16
Insertion loss reverse (dB)	8	10	13	16
Isolation DATA/TV (dB) 5-65 MHz	> 55	> 55	> 55	> 55
Isolation DATA/TV (dB) 118-1000 MHz	> 20	> 20	> 20	> 20
Return loss* EN50083-4	Cat. B	Cat. B	Cat. B	Cat. B
Connector	F-Female	F-Female	F-Female	F-Female
TV				
Frequency range (MHz)	118-1000	118-1000	118-1000	118-1000
Insertion loss (dB)	8	10	13	16
Isolation TV/IN (dB) 5-65 MHz	> 50	> 55	> 55	> 60
Isolation TV/OUT (dB) 118-470 MHz	> 30	> 30	> 30	> 30
Isolation TV/OUT (dB) 470-1000 MHz	> 25	> 25	> 25	> 25
Connector	IEC-Male	IEC-Male	IEC-Male	IEC-Male
FM				
Frequency range (MHz)	87,5-108	87,5-108	87,5-108	87,5-108
Insertion loss (dB)	9	11	14	17
Connector	IEC-Female	IEC-Female	IEC-Female	IEC-Female
IN & OUT				
Frequency range (MHz)	5-1000	5-1000	5-1000	5-1000
Insertion loss (dB)	3,5	2,8	2,3	1,5
Return loss* EN50083-4	Cat. B	Cat. B	Cat. B	Cat. B

Dimension (H 82 x W 82 x D 70 incl. Push-on unit mm)

* According to CENELEC:

A: 5-40 MHz ≥ 22 dB, min. 14 dB @ 40-1750 MHz ÷ 1,5/oct.
B: 5-40 MHz ≥ 18 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
C: 5-40 MHz ≥ 14 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
D: 5-1750 MHz ≥ 10 dB

DKTCOMEGA

Advantages

- Designed for optimal performance in multimedia installations (FM/TV/Data)
- Low through loss
- High return loss (FM/TV/Data)
- Easy visual identification of outlet type (colour code)
- Design meets requirement for discrete and small installation
- Support installation with mini-cable (0,41 mm Ø centre conductor)

freja outlets

A CLASS

Product information

The Freja series has been designed to meet the visual requirements to a modern installation. The Freja can be used with a bricking case or a surface mounting frame. In combination with the surface mounting frame a very stylish, discrete and universal installation is archived. The series comes in TV/FM and multimedia versions and is characterised by having a low insertion loss, and a high isolation between outputs.

The outlets all meet the demands of CENELEC Class A screening efficiency. This is especially necessary in order to supply an optimal CATV signal, when the outlet is connected to a data modem.

All outlets are assigned colour codes on the IEC constructions, in order to identify the type of outlet on the front (See page 23 for more information regarding these codes). For a complete overview of the various models please see page 23.

Explanation to "version": Std = Standard (no diplex), Dip = Diplex filter, TM = Terminated, LT = Loop-through

Type	Freja T0B-H	Freja T4C-H	Freja T10dB-H	Freja T13dB-H	Freja T16dB-H
Item no.	52260	52263	52266	52269	52272
Version	Std, TM	Std, LT	Std, LT	Std, LT	Std, LT
TV					
Frequency range (MHz)	5-68 / 118-1000	5-68 / 118-1000	5-68 / 118-1000	5-68 / 118-1000	5-68 / 118-1000
Insertion loss IN-TV (dB)	0,8	4,0	10,0	13,0	16,0
Return loss EN50083-4*	Cat. C	Cat. C	Cat. C	Cat. C	Cat. C
Connector	IEC-Male	IEC-Male	IEC-Male	IEC-Male	IEC-Male
FM					
Frequency range (MHz)	87,5-108	87,5-108	87,5-108	87,5-108	87,5-108
Insertion loss IN-FM (dB)	1,0	4,5	10,0	13,0	16,0
Connector	IEC-Female	IEC-Female	IEC-Female	IEC-Female	IEC-Female
IN & OUT					
Frequency range (MHz)	5-862	5-1000	5-1000	5-1000	5-1000
Insertion loss IN-OUT (dB)	-	3,8	1,8	0,9	0,9
Return loss EN50083-4*	Cat. B	Cat. B	Cat. B	Cat. B	Cat. B

Type	Freja MM4-65D-H	Freja MM10-65D-H	Freja MM13-65-H	Freja MM16-65-H	Freja ZT301A-H
Item no.	52275	52281	52292	52294	52393
Version	Dip, TM	Dip, LT	Std, LT*1	Std, LT*2	Std, TM
DATA					**SAT**
Frequency range (MHz)	5-1000	5-1000	5-1000	5-1000	950-2150
Insertion loss reverse (dB)	0,8	0,8	12	14	SAT
Insertion loss forward (dB)	4,5	10	12	14	2,5
Return loss EN50083-4*	Cat. B	Cat. B	Cat. B	Cat. B	Cat. B
Isolation to OUT (dB)	-	-	> 25	> 25	-
Isolation to TV (dB) 5-65 MHz	> 50	> 50	> 55	> 60	-
Isolation to TV (dB) 118-1000 MHz	> 22	> 22	> 25	> 25	-
Connector	F-Female	F-Female	F-Female	F-Female	F-Female
TV					
Frequency range (MHz)	118-1000	118-1000	118-1000	118-1000	47-68 / 118-1000
Insertion loss IN-TV (dB)	4,5	2,0	13	16	2,0
Return loss EN50083-4*	Cat. C	Cat. C	Cat. C	Cat. C	Cat. C
Isolation to OUT (dB)	-	-	> 25	> 25	-
Connector	IEC-Male	IEC-Male	IEC-Male	IEC-Male	IEC-Male
FM					
Frequency range (MHz)	87,5-108	87,5-108	87,5-108	87,5-108	87,5-108
Insertion loss IN-FM (dB)	4,5	2,5	14	17	2,0
Connector	IEC-Female	IEC-Female	IEC-Female	IEC-Female	IEC-Female

Dimension (H 77 x W 50 x D 27 mm)
Screening Class A = VHF 85dB, UHF 75dB

IN & OUT			
	Frequency range (MHz)	*1 5-1000	*2 5-1000
	Insertion loss IN-OUT (dB)	*1 2,0	*2 1,7
	Return loss EN50083-4*	*1 Cat. B	*2 Cat. B

* According to CENELEC:

A: 5-40 MHz ≥ 22 dB, min. 14 dB @ 40-1750 MHz ÷ 1,5/oct.
B: 5-40 MHz ≥ 18 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
C: 5-40 MHz ≥ 14 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
D: 5-1750 MHz ≥ 10 dB

DKTCOMEGA

Advantages

- Designed for optimal performance in multimedia installations (FM/TV/Data)
- Low through loss
- High return loss (FM/TV/Data)
- Easy visual identification of outlet type (colour code)
- Design meets requirement for discrete and compact installation
- Support installation with mini-cable (0,41 mm Ø centre conductor)

odin outlets

A CLASS

Product information

The Odin series has been designed to meet the visual requirements to a modern compact installation for the Danish market. The series comes both as a TV/FM and as a multimedia outlet and is characterised having low insertion loss, and high isolation between the outputs.

The Odin outlets all meet the demands for the CENELEC Class A screening efficiency. This is especially necessary in order to supply an optimal CATV signal, when the outlet is connected to a data modem. A modem emits up to 120 dBµV and the CENELEC demand to screening efficiency is therefore min. 81 dBµV.

A high screening efficiency is also necessary to elude the many airborne signals in the TV frequency area. This is also a demand the Odin outlets live up to.

All outlets are assigned colour codes on the IEC constructions, in order to identify the type of outlet on the front (See page 23 for more information regarding these codes). For a complete overview of the various models please see page 23.

Explanation to "version": Std = Standard (no diplex), Dip = Diplex filter, TM = Terminated, LT = Loop-through

Type *	Odin T0B-H	Odin T4C-H	Odin T13dB-H	Odin MM4-65D-H	Odin MM10-65D-H
Item no.	52230	52235	52240	52244	52247
Version	Std, TM	Std, LT	Std, LT	Dip, TM	Dip, TM
DATA					
Frequency range (MHz)	-	-	-	5-1000	5-1000
Insertion loss reverse (dB)	-	-	-	0,8	0,8
Insertion loss forward (dB)	-	-	-	4,5	10
Return loss EN50083-4*	-	-	-	Cat. B	Cat. B
Isolation to TV (dB) 5-65 MHz	-	-	-	> 50	> 50
Isolation to TV (dB) 118-1000 MHz	-	-	-	> 22	> 22
Connector	-	-	-	F-Female	F-Female
TV					
Frequency range (MHz)	5-68 / 118-1000	5-68 / 118-1000	5-68 / 118-1000	118-1000	118-1000
Insertion loss IN-TV (dB)	0,8	4,0	13	4,5	2,5
Return loss EN50083-4*	Cat. C	Cat. C	Cat. C	Cat. C	Cat. C
Connector	IEC-Male	IEC-Male	IEC-Male	IEC-Male	IEC-Male
FM					
Frequency range (MHz)	87,5-108	87,5-108	87,5-108	87,5-108	87,5-108
Insertion loss IN-FM (dB)	1,0	4,5	13	4,5	2,5
Connector	IEC-Female	IEC-Female	IEC-Female	IEC-Female	IEC-Female
IN & OUT					
Frequency range (MHz)	5-1000	5-1000	5-1000	5-1000	5-1000
Insertion loss IN-OUT (dB)	-	3,8	0,9	-	-
Return loss EN50083-4*	Cat. B	Cat. B	Cat. B	Cat. B	Cat. B

Dimension (H 66 x W 66 x D 36 mm)

Screening Class A = VHF 85dB, UHF 75dB

*According to CENELEC:

A: 5-40 MHz ≥ 22 dB, min. 14 dB @ 40-1750 MHz ÷ 1,5/oct.
B: 5-40 MHz ≥ 18 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
C: 5-40 MHz ≥ 14 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
D: 5-1750 MHz ≥ 10 dB

DKTCOMEGA

Benefits

- Complete easy-to-use package saves time and costs
- Suited as a line extender for TV/FM applications
- Discrete space-saving design
- Amplifier and outlet in a single comprehensive unit

active wall outlet, multimedia

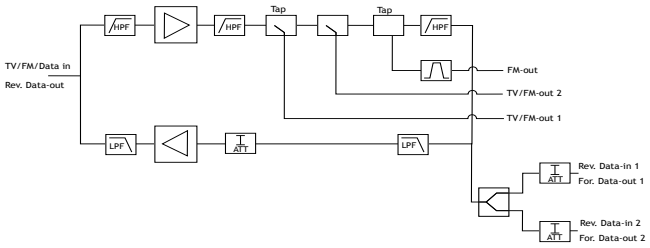
A CLASS

Product information

The concept of an active wall outlet for cable TV applications is truly innovative and opens new alternatives in CATV design. This outlet is ideal for new and upgraded networks. It ultimately reduces costs and eases network design.

The active wall outlet will eliminate problems associated with increased attenuation in those installations upgraded for return path services. In this situation, and whenever more TV/FM connections are needed by the subscriber, the active outlet will be the correct choice.

Two versions available in this line - one with two extra TV/FM connections and the possibility of connecting a modem and STB, and one with three extra TV/FM connections and one normal modem connection.



Type:	AOD2	AO14
Item no.:	52060	52061
DATA		
Frequency forward	87 - 860 MHz	87 - 860 MHz
Frequency reverse	5 - 65 MHz	5 - 65 MHz
Gain forward DATA 1 - (Output level*)	0,0 dB - (89 dBuV)	1,0 dB - (89 dBuV)
Gain reverse DATA 1 - (Output level)	0,0 dB - (119 dBuV)	-0,6 dB - (119 dBuV)
Gain forward DATA 2 - (Output level*)	0,0 dB - (89 dBuV)	-
Gain reverse DATA 2 - (Output level)	0,0 dB - (119 dBuV)	-
Isolation DATA 1,2 / TV-FM 1,2,3,FM (5-65MHz)	50 dB	50 dB
Isolation DATA 1,2 / TV-FM 1,2,3,FM (87-860MHz)	34 dB	32 dB
Connector	F-female	F-female
TV/FM Outputs		
Frequency	87 - 860 MHz	87 - 860 MHz
Gain TV/FM OUT 1 - (Output level*)	1,0 dB - (90 dBuV)	2,0 dB - (84 dBuV)
Connector	F-female	IEC-male
Gain TV/FM OUT 2 - (Output level*)	0,0 dB - (89 dBuV)	0,0 dB - (82 dBuV)
Connector	IEC-male	F-female
Gain TV/FM OUT 3 - (Output level*)	-	14 dB - (96 dBuV)
Isolation TV-FM 1,2,3 / TV-FM 1,2,3	36 dB	36 dB
Connector	-	F-female
FM Output		
Frequency	87,5-108 MHz	87,5-108 MHz
Gain FM OUT - (Output level*)	-1.0 dB - (88 dBuV)	1.0 dB - (83 dBuV)
Connector	IEC-female	IEC-female
Other		
Noise Figure	4 dB	4 dB
Power	6 VDC / 140 mA	6 VDC / 70 mA
Return loss on all ports**	EN50083-4 Cat. B	EN50083-4 Cat. B

Dimension (H 80 x W 85 x D 25 mm)
Radiation: < 20 dBpW / 0,03 - 1 GHz, compliant according to EN50083-2
* CTB/CSO > 60 dB with 42-channel CENELEC
** According to CENELEC:
5-40 MHz ≥ 18 dB, 40-862 MHz min. 18 dB ÷ 1.5/oct.

Separate brochure is available.

Benefits

- Maximum flexibility
- Standard and diplex models for all types of networks
- Simple Do-It-Yourself quick and easy product concept
- Low capital expenditure, installation and maintenance
- Ideal for return path services and higher average revenue per user

DKTCOMEGA

push-on passive tv/fm/data filters

A CLASS

Product information

The “push-on” passive multimedia filters are available in various configurations. These satisfy the demands made for passive filtering of TV, FM and DATA signals in modern CATV home networks.

Push-on filters

These multimedia push-on passive filters are available in standard and diplex versions. Standard versions have a higher attenuation in the return path and are suited to home applications where extra loss in the data signal is tolerable. Diplex versions are designed with extremely low return path attenuation and for separation of TV, FM and satellite intermediate frequency bands.

Type	POF 4-4	POF 7-7	POF 1-4	POF 1-10
Item no.	42102	42103	42100	42101
Version	Standard	Standard	Diplex	Diplex
DATA				
Frequency forward (MHz)	118-1000	118-1000	118-1000	118-1000
Frequency reverse (MHz)	5-65	5-65	5-65	5-65
Insertion loss forward (dB)	4,0 (±0,5)	7,0 (±1,0)	4,0 (±0,5)	10,0 (±1,0)
Insertion loss reverse (dB)	7,0	3,5	0,6 (±0,5)	0,6 (±0,5)
Return loss* EN50083-4	Cat. B	Cat. B	Cat. B	Cat. B
Isolation to TV/DATA (dB) 5-65 MHz	50	50	50	50
Isolation to TV/DATA (dB) 118-470 MHz	30	20	25	27
Isolation to TV/DATA (dB) 470-1000 MHz	20	17	23	24
Connector	F-Female	F-Female	F-Female	F-Female
TV				
Frequency range (MHz)	87-1000	87-1000	118-1000	118-1000
Insertion loss (dB)	4,0 (±0,5)	2,0 (±0,5)	4,0 (±0,5)	1,6 (±0,5)
Isolation TV OUT / TV IN (dB) 5-65 MHz	35	35 (5-65)	50	50
Connector	IEC-Male	IEC-Male	IEC-Male	IEC-Male
FM				
Frequency range (MHz)	87,5-108	87,5-108	87,5-108	87,5-108
Insertion loss (dB)	0,6 (±0,5)	0,6 (±0,5)	0,6 (±0,5)	0,6 (±0,5)
Isolation FM OUT / FM IN (dB) 5-65 MHz	30	30	30	30
Connector	IEC-Female	IEC-Female	IEC-Female	IEC-Female

Dimension (H 62 x W 84 x D 25 mm)

Freja Push-on filters

The Freja push-on passive filter satisfies the demands made by modern CATV household installations where passive filtering of TV, FM and DATA signals is required.

Type	Freja POF 1-4
Item no.	42108
Version	Diplex
DATA	
Frequency forward (MHz)	118-1000
Frequency reverse (MHz)	5-65
Insertion loss forward (dB)	4,0 (±0,5)
Insertion loss reverse (dB)	0,5 (±0,5)
Return loss* EN50083-4	Cat. B
Isolation to TV/DATA (dB) 5-65 MHz	45
Isolation to TV/DATA (dB) 118-470 MHz	25
Isolation to TV/DATA (dB) 470-1000 MHz	23
Connector	F-Female
TV	
Frequency range (MHz)	118-1000
Insertion loss IN-TV (dB)	4,0 (±0,5)
Isolation TV OUT / TV IN (dB) 5-65 MHz	35
Connector	IEC-Male
FM	
Frequency range (MHz)	87,5-108
Insertion loss IN-FM (dB)	0,6 (±0,5)
Connector	IEC-Female

Dimension (H 68 x W 50 x D 24 mm)

* According to CENELEC:

A: 5-40 MHz ≥ 22 dB, min. 14 dB @ 40-1750 MHz ÷ 1,5/oct.
B: 5-40 MHz ≥ 18 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
C: 5-40 MHz ≥ 14 dB, min. 10 dB @ 40-1750 MHz ÷ 1,5/oct.
D: 5-1750 MHz ≥ 10 dB

Reduced performance can be expected in the 862-1000 MHz range.

Benefits

- Low cost Do-It-Yourself installation and low maintenance
- Increased installer efficiency
- Ideal for return path services
- Extra TV and/or VCR capability

DKTCOMEGA

push-on amplifier, active distribution

A CLASS

Product information

The extra loss arising from data filtering cannot be tolerated in many existing CATV networks. This can cause problems with the signal level.

These problems can be resolved with the active version of the DKTCOMEGA push-on filter. With a built-in forward amplifier designed with a high output level, it is possible to compensate for the extra loss from filtering/taps in the forward path. The return path in the active version is designed with diplexers, resulting in very low loss on return path transmissions (no return path in PA2TA).

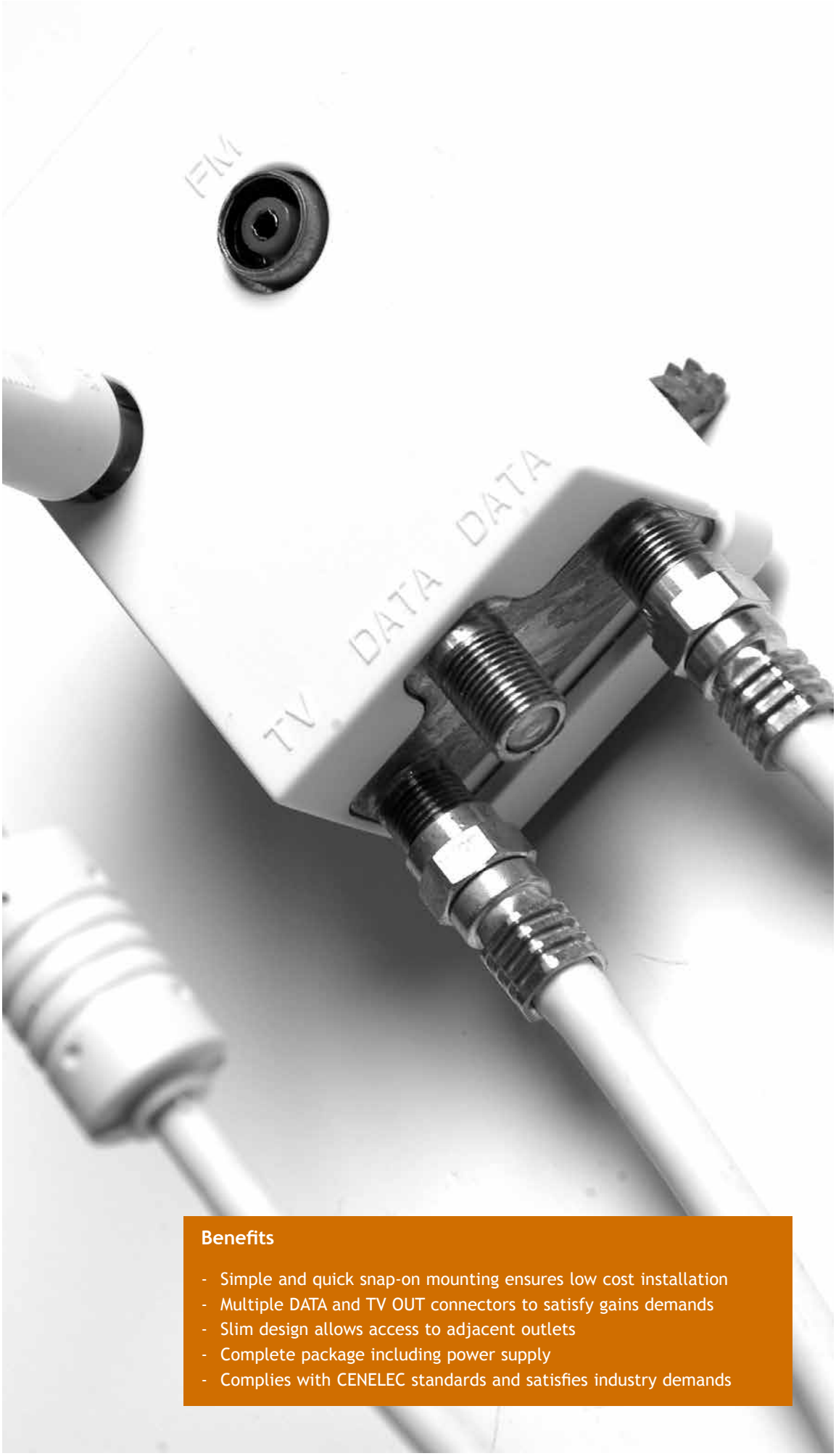
Type	POF - PA 1	POF - PA 6	POF - PA2TA
Item no.	42110	42113	42112
Data			
Frequency forward (MHz)	118 - 862	118 - 862	-
Frequency - reverse (MHz)	5 - 65	5 - 65	-
Gain Forward (dB)	2,0	8,0	-
Output level* (dBµV)	90	90	-
Insertion loss reverse	-0,6 dB (±0,5 dB)	-0,6 dB (±0,5 dB)	-
Isolation DATA/TV OUT 1,2,3 (5-65 MHz)	50 dB	50 dB	-
Isolation DATA/TV OUT 1,2,3 (118-470 MHz)	30 dB	30 dB	-
Isolation DATA/TV OUT 1,2,3 (470-860 MHz)	27 dB	27 dB	-
Connector	F-female	F-female	-
TV Output			
Frequency (MHz)	118 - 862	118 - 862	47 - 862
Gain TV 1 (dB)	1,0	6,5	2,5
Output level* TV 1 (dBµV)	89	89	85
Gain TV 2 (dB)	0,0	5,5	2,0
Output level* TV 2 (dBµV)	88	88	84
Gain TV 3 (dB)	-	-	14,0
Output level* TV 3 (dBµV)	-	-	97 dBµV
Isolation TV OUT 2/ TV OUT 1 (118-860 MHz)	30 dB	30 dB	-
Isolation TV/FM OUT 3 > TV/FM OUT 1.2/FM Out	-	-	> 30 dB
Isolation TV/FM/OUT 1 - TV/FM/OUT 2 - FM/Out	-	-	VHF > 42 dB UHF > 36 dB
Rejection TV Out 2 / TV In (5-65 MHz)	45 dB	45 dB	-
Connector	IEC-male	IEC-male	F-female
FM Output			
Frequency (MHz)	87,5 - 108	87,5 - 108	87,5 - 108 MHz
Gain (dB)	-	-	0,5
Output level* (dBµV)	-	-	84
Insertion loss (dB)	-0,6 (±0,5)	-0,6 (±0,5)	-
Isolation FM OUT/ FM IN (5-65 MHz)	30 dB	30 dB	-
Connector	IEC-female	IEC-female	F-female
Other			
Attenuator (dB)	-	-	0 / 3 / 6
Equalizer (dB)	-	-	0 / 3 / 6
Noise Figure (dB)	4	4	4
Power	230 VAC / 6 VDC / 70 mA	230 VAC / 6 VDC / 70 mA	230 VAC / 6 VDC / 70 mA
Return loss on all ports**	EN50083-4 Cat. B	EN50083-4 Cat. B	EN50083-4 Cat.B

Radiation: < 20 dBpW/0,03 - 1 GHz, compliant according to EN50083-2

* CTB/CSO > 60 dB with 42-channel CENELEC

** According to CENELEC:
5-40 MHz ≥ 18 dB, 40-862 MHz min. 18 dB ÷ 1.5/oct.

Separate brochure is available.



Benefits

- Simple and quick snap-on mounting ensures low cost installation
- Multiple DATA and TV OUT connectors to satisfy gains demands
- Slim design allows access to adjacent outlets
- Complete package including power supply
- Complies with CENELEC standards and satisfies industry demands

DKTCOMEGA

freja push-on, active distribution, multimedia

A CLASS

Product information

These multimedia push-on active amplifiers can be mounted on any outlet to ensure appropriate signal strength and quality in an extended network.

Using a simple snap-on design, it is a true Do-It-Yourself installation. The adapter fits snugly onto all outlets. This narrow form factor ensures that adjacent outlets are not obstructed and can still be easily accessed.

Each unit has two DATA outputs, two TV outputs and a single FM output. The unit includes a compact power supply, which is characterized by low power consumption (less than 1,2 W). A complete installation package with minimal operating and maintenance costs.

Type	POA-TFD
Item no.	42116
Data	
Frequency forward (MHz)	118-1000
Gain Forward DATA 1, 2 (dB)	0,0
Output level* DATA 1, 2 (dBµV)	89
Frequency - reverse (MHz)	5-65
Gain Reverse DATA 1, 2 (dB)	0,5
Maximum input return path (dBµV)	119
Isolation DATA 1, 2 / TV 1, 2 (dB) 5-65 MHz	> 50
Isolation DATA 1, 2 / TV 1, 2 (dB) 118-1000 MHz	> 22
Isolation DATA 1, 2 (dB) 5-65 MHz	> 40
Isolation DATA 1, 2 (dB) 118-700 MHz	> 23
Isolation DATA 1, 2 (dB) 700-862 MHz	> 20
Connector	F-female
TV Output	
Frequency (MHz)	118 - 1000
Gain TV 1 (dB)	1,0
Output level* TV 1 (dBµV)	90
Connector	IEC-male
Gain TV 2(dB)	3,5
Output level* TV 2 (dBµV)	89
Isolation TV 1, 2 (dB) 118-1000 MHz	> 25
Connector	F-female
FM Output	
Frequency (MHz)	87,5 - 108
FM out (dB)	-0,2
Connector	IEC-female
Other	
Noise Figure (dB)	4
Power	6 VDC 200 mA
Power consumption (W)	< 1,2
Return loss on all ports**	EN50083-4 Cat. B

Radiation: < 20 dBpW/0,03 - 1 GHz, compliant according to EN50083-2
* CTB/CSO > 60 dB with 42-channel CENELEC
** According to CENELEC:
5-40 MHz ≥ 18 dB, 40-862 MHz min. 18 dB ÷ 1.5/oct.

Separate brochure is available.

DKTCOMEGA

colour codes & freja/odin model overview

Colour codes

The DKTCOMEGA outlets have all been constructed with a easily identifyable colour code inside the IEC connector. Both Radio and TV connectors wear the same colour.

IE. a Freja MM4-65D-H outlet, is identified with a blue colour, cause its a 4 dB type outlet. Where as the Freja MM10-65D-H is wearing a green colour instead, cause its a 10 dB version.

Colour	Attenuation	Colour
Yellow	0 dB	
Blue	4 dB	
Grey	8 dB	
Green	10 dB	
White	13 dB	
Red	16 dB	
Black	SAT	

Complete Freja/Odin models overview

Type	Item no.		Type	
	White	Grey		
Freja T0B	52260	52261	TV/FM	Terminated
Freja T4C	52263	52264	TV/FM	Loop-through
Freja T10dB	52266	52267	TV/FM	Loop-through
Freja T13dB	52269	52270	TV/FM	Loop-through
Freja T16dB	52272	52273	TV/FM	Loop-through
Freja MM4-65D	52275	52276	TV/FM/DATA	Terminated, Diplex
Freja MM8-65D	52284	52285	TV/FM/DATA	Loop-through, Diplex
Freja MM10-65D	52281	52282	TV/FM/DATA	Terminated, Diplex
Freja MM10-65	52290	52291	TV/FM/DATA	Loop-through
Freja MM13-65	52292	52293	TV/FM/DATA	Loop-through
Freja MM16-65	52294	52295	TV/FM/DATA	Loop-through
Freja MM4-DAB	52278	52279	TV/FM/DAB (5-30 MHz)	Terminated, Diplex
Freja MM8-DAB	52287	52288	TV/FM/DAB (5-30 MHz)	Loop-through, Diplex
Freja ZT301A	52393	52394	TV/FM/SAT	Terminated
Freja-UN	52850	52851	Surface mounting frame	-
Freja 2xRJ45	52266	52267	Frame for 2xRJ45	-
FREJA APF	52220	52221	Delivery point	-
Odin T0B	52230	52231	TV/FM	Terminated
Odin T4C	52235	52236	TV/FM	Loop-through
Odin T13dB	52240	52241	TV/FM	Loop-through
Odin MM4-65D	52244	52245	TV/FM/DATA	Terminated, Diplex
Odin MM10-65D	52247	52248	TV/FM/DATA	Terminated, Diplex
Odin 2xRJ45	14570	14571	Frame for 2xRJ45	-