

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 at 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





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

push-on passive tv/fm/data filters



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

push-on amplifier, active distribution



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

freja push-on, active distribution, multimedia



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.

DKT COMEGA










colour codes & freja/odin model overview

Colour codes

The DKTOMEGA 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	-

