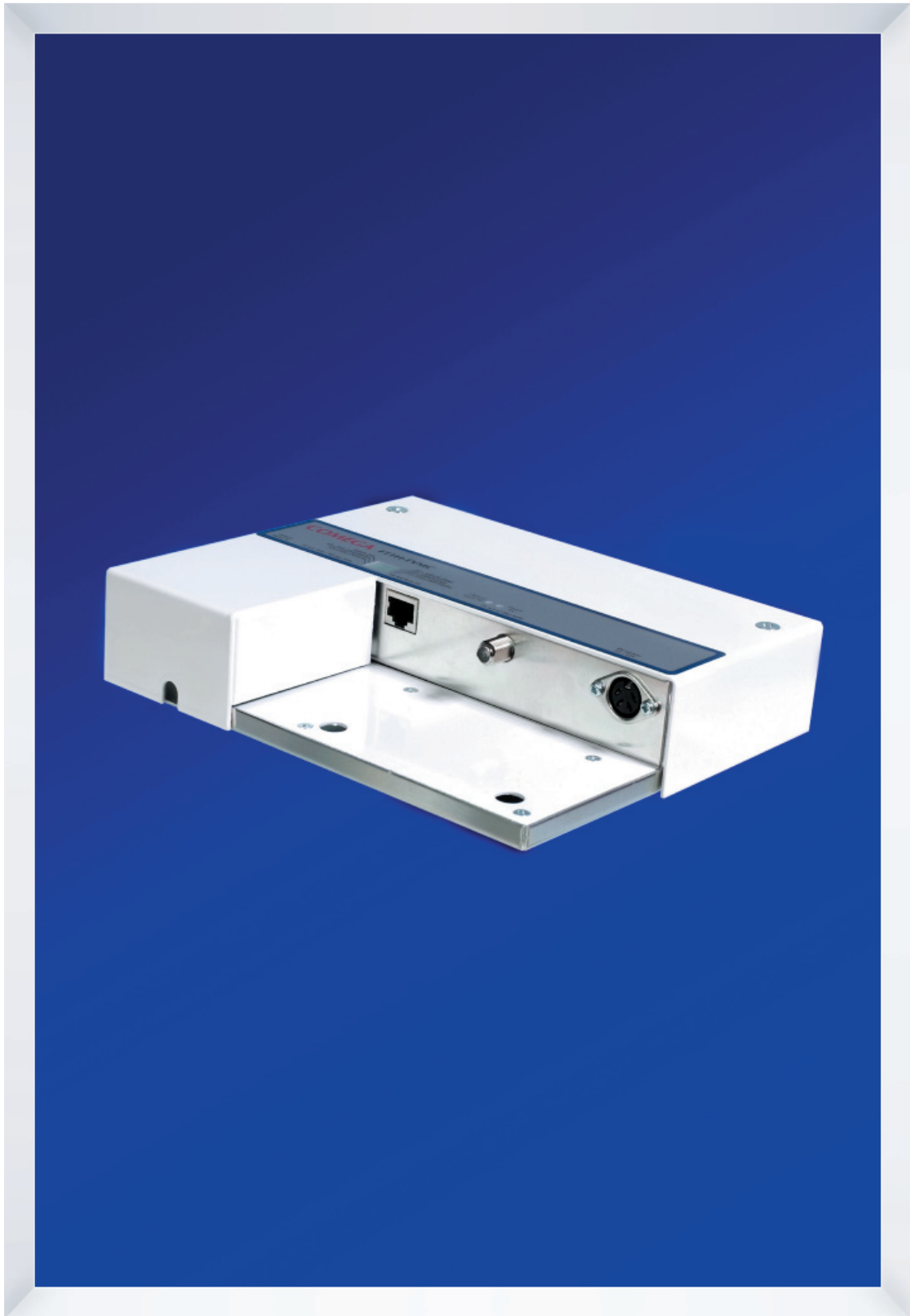


COMEGA[®] FTTH Node



Version 2

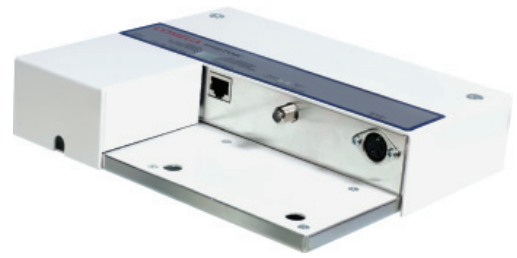
DKT

COMEGA FTTH Node

The Advantages

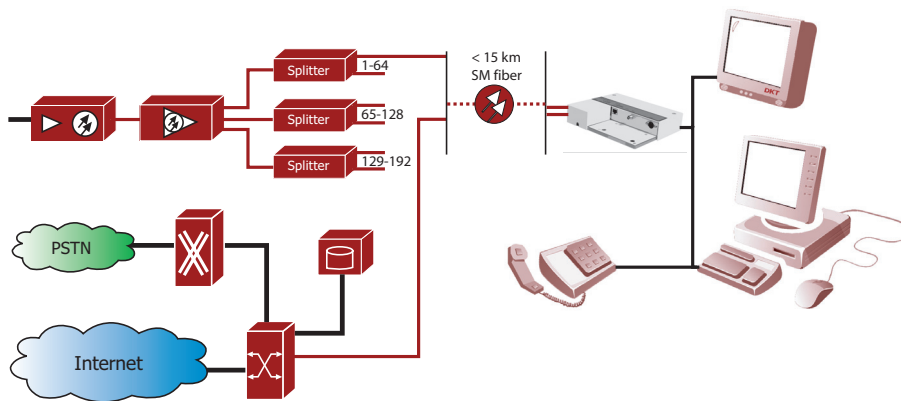
The advantages are many by investing in FTTH:

- Low cost for "Triple play" & low operation cost
- Long term investment, low depreciation
- TV/FM, Data & IP-telephony over the same cable, large capacity
- High technical performance & low disturbance
- Low maintenance & Minimum number of error sources
- Minimized risk (good backup, simple structure etc)



The Concept

The concept of fiber to the home is to simplify the network and yet reach a large number of subscribers with "Triple Play"; a complete range of services including TV/FM, data and telephony on a standardized platform. By using fiber it is possible to make a passive network with low risk and maintenance & to get a capacity in the network which is well prepared for a future development of services. All this at a cost which is attractive compared to conventional alternatives.



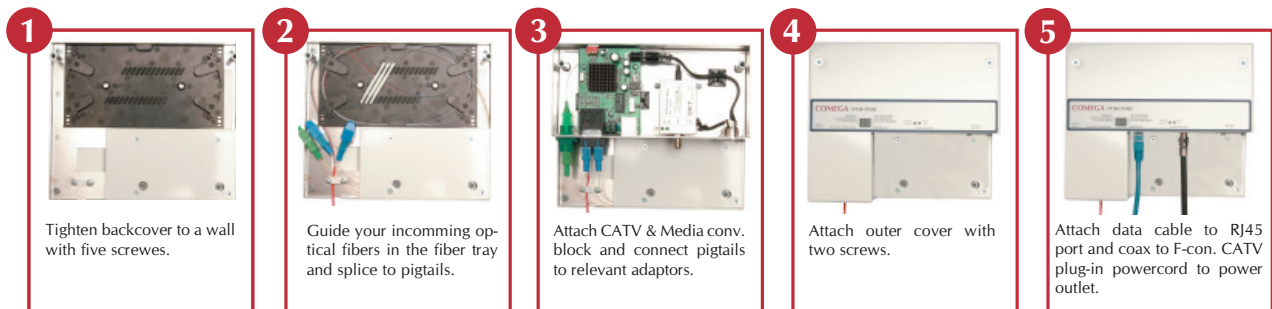
A Description

The idea is to use a standard analogue/digital TV/FM headend & a standard switch and convert it to optical signals. Once the signals are optical a passive optical network (PON) can be used to distribute them to the customers. In each home the signal is converted back into an electrical format that the standard household products can receive (see fig below). The philosophy of the concept is to make it simple via standards and thus meet customer requirements for capacity and simplicity at the same time.

Installation:

The construction of the box for COMEGA® FTTH-TVMC secures an optimum installation of the node and a well arranged control panel for connected services.

- Prepared for wall mounting
- Visible LED's for status and control functions for connected services
- The box is sealed and the vital parts not accessible for the customer



COMEGA[®] Technical specifications

Optical CATV receiver

Optical data	COMEGA FTTH-TXxx	
Fiber type	SMF28, single-mode - 1-fiber	
Wavelength	1300-1600	nm
Optical input power	-8...-3 - note ¹⁾	dBm
Optical connector	SC/APC	
Electrical data		
Frequency range	47-862	MHz
Output level	70-80	dB μ V
Equivalent input noise current	4	pA \sqrt /Hz
Intermodulation ratio note ²⁾		
CSO	> 60	dB
CTB	> 60	dB
Nominal voltage	12	VDC
Power consumption	1	W

note¹⁾ - -3 dBm optical input power equals 80 dB μ V output level

note²⁾ - 42 channels CENELEC - EN 50083-3

Media converter

Optical data	COMEGA FTTH-xxMC	
Fiber type	Single-mode 9/125 ; 1-fiber - note ¹⁾	
Interface	100BaseFx	
Wavelength		
Transmitter (Rx)	1310 - note ⁴⁾	nm
Receiver (Tx)	1550 - note ⁴⁾	nm
Optical connector	SC/PC	
Max. optical link distance	20 - note ³⁾	km
Electrical data		
Connector type	RJ45 - note ⁶⁾	
Interface	100BaseT	
Speed	10/100 - auto-negotiation	Mbps
Package size	64...1536	
Maksimal link distance	100	m
Nominal voltage	5	Vdc
Effekt forbrug	3,5	W

note³⁾ Single-mode 9/125 μ m: 1 or 2 fiber solutions or multimode 62,5/125 μ m: 2 fiber solution

note⁴⁾ Available in other wavelengths

note⁵⁾ Standard SM 20km or Standard MM 2km; Optional output power.

note⁶⁾ Optional 1 or 2 RJ45 ports

FTTH node power supply

Electrical data	COMEGA FTTH-xxxx-xxxx-E-x	
Type	External power supply	
Input voltage	100...240	Vac
Outout voltage	5 / 12	Vdc
Max. output current	1.20 / 0.15	A

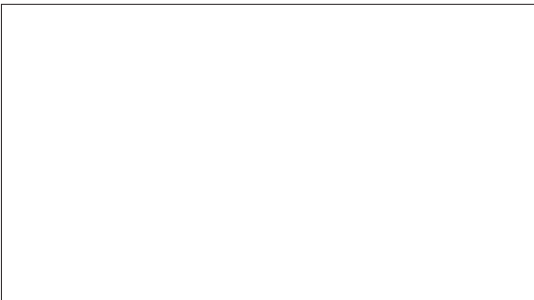
Electrical data	COMEGA FTTH-xxxx-xxxx-M-x	
Type	Internal power supply	
Input voltage	100...240	Vac
Outout voltage	5 / 12	Vdc
Max. output current	-	A

Electrical data	COMEGA FTTH-xxxx-xxxx-L-x	
Type	Main supply with internal security transformer	
Input voltage	100...240	Vac
Outout voltage	5 / 12	Vdc
Max. output current	-	A



DKT A/S was founded in 1977 and is an independent family company. It is today a "state-of-the-art" supplier of coaxial and optical products to professional CATV operators and installers. As a manufacturer of high quality network equipment for multimedia on HFC networks (Hybrid Fiber Coax), DKT A/S has developed into an international prominent designer of modern CATV equipment. With the **COMEGA**[®] line of products, DKT A/S has taken the challenge and made a unique product range whose electrical performance all comply with CENELEC's highest standards.

COMEGA[®]



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