



## Product Description

The KBC ASFOM range allows you to effectively design your own product to meet your own specification. Using our Configurator software, you choose the mix of signal types as well as the exact number of channels per signal type.

ASFOM products support: analog video, data, analog audio, contact closure, telephone and Ethernet in various permutations to meet your exact requirements. All signals are digitized providing excellent quality and guaranteed performance throughout the system. Video is offered with either 8 bit digital resolution without compression, providing real-time video images across the link.

ASFOM products can be configured for multimode or singlemode operation and are available in either two or single fiber formats. Based on the channel requirements and signal mix, the ASFOM will utilise single wavelength, WDM or CWDM technology. The CWDM optics enable up to 128 real-time video signals in a single fiber or various mixtures of signal type in large quantities.

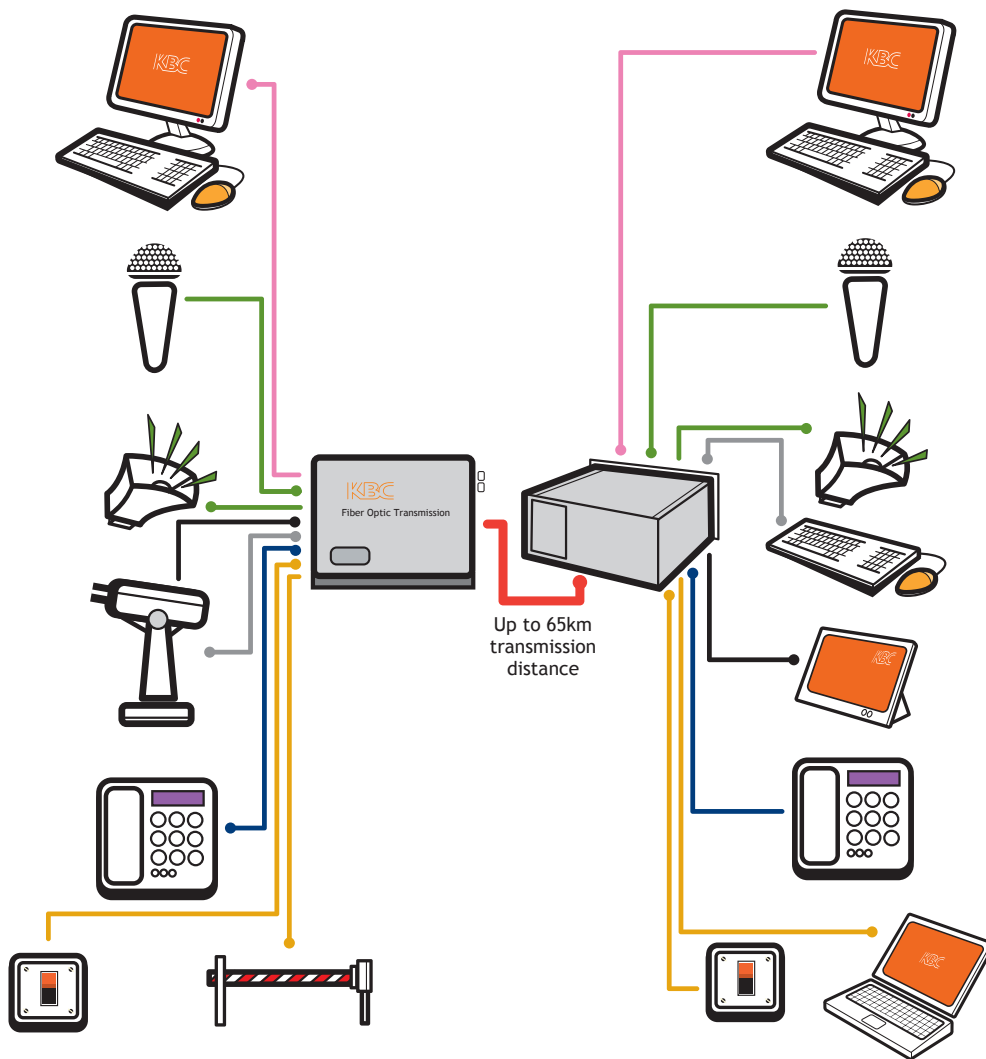
Depending on system requirements, units are available in wall-mount, 1U or 2U 19" rack or 4U chassis card for integration within the FR4 chassis.



## Product Features

- Video, audio, data, telephone, contact closure Ethernet, USB, DVI & SDI interfaces
- Application specific product configuration
- All digital non-compressed
- 8-bit video encoding
- Multimode and singlemode
- Wall-mount, rack or chassis configurations
- Unique **Configurator** software package
- No fixed configuration

## Typical System Configuration



## Specifying your ASFOM Product

The easiest way to specify your ASFOM products is via our Configurator software which is available on-line at [www.kbcnetworks.com](http://www.kbcnetworks.com). Using the Configurator, simply enter the number of channels for each signal type you require, and it will work out the product and the part number for you. Alternatively, please contact your local agent or KBC direct, who will configure your product.

# Specifications

## Video

Format	PAL / NTSC / SECAM
Input/Output	1.0V pk-pk typical, 75Ω
Bandwidth	5 Hz - 6.5 MHz
Digital Encoding (non compressed)	8 bit
Differential Gain (10-90% APL)	<2%
Differential Phase (10-90% APL)	<2°
Signal to Noise Ratio (SNR) weighted	>60dB

## SDI

Interface Standard	SMPTE 259M, 292M, 424M
Input/Output	800mV pk-pk ±15%

## DVI

Interface Standard	DVI 1.0
Video Display Resolution DVI	Up to 1920 x 1200 @ 60 Hz
HDTV	Up 1080p
Color Depth	24 bit
Pixel Clock	165 MHz max.
Video Bandwidth	3.96 Gbps
DDC Standard	DDC2/EDID 1.0/2.0

## Data<sup>(1)</sup>

Data Formats	RS232, RS422, RS485 (2W & 4W)
Number of Two-way Channels	1
RS-232 Data Rate	DC - 115.2 kbps
RS-422/485 Data Rate	DC - 250 kbps
Bit Error Rate	<1 x 10 <sup>-12</sup>
Encoding Schemes	Manchester, Bi-Phase, NRZ, NRZI

## Audio

Bandwidth	10 Hz - 20 kHz
Audio Input/Output Levels	+/-9dBm, typical 0dBm
Input Impedance	600Ω unbalanced or balanced
Output Impedance	20kΩ unbalanced or balanced
Digital Encoding	24 bits (AES-3)
Sampling Rate	192 kHz
Signal to Noise Ratio	≥80dB
Total Harmonic Distortion	≤0.01%

## Contact Closure

Response Time	500μs
Input	Dry Contact Closure, TTL
Output	SPST Relay, Normally Open
Switch Rating	1A @ 30 Vdc max, 0.5A @ 125 Vac max

## Ethernet

Standard	IEEE 802.3 Compliant
Data Rate	10 / 100 Mbps auto sensing

## Telephone

Voice Encoding	8 bits PCM encoded
Operating	Mode Telco, PBX/telephone

## USB

Interface Standard	USB2.0 / USB1.1
Data Rate Low Speed	1.5Mbps
Full Speed	12Mbps
High Speed	480Mbps
Port Power	500mA max

## Optical

Wavelength	Single & WDM	1310nm, 1550nm
	CWDM	1310 - 1610nm
Fiber		Multimode, Singlemode
Number of Fibers		1 or 2

## Power

Power Input Wall-mount	+12 Vdc
Power Supply for Wall-mount <sup>(2)</sup>	Input: 100 - 240 Vac; Output: +12 Vdc
Rack Module <sup>(2)</sup>	Input: 100 - 240 Vac @ 2A
Chassis Card	Supplied from FR4 PSU

## Environmental

Operating Temperature	-40° - +74°C / -40° - +165°F
Storage Temperature	-40° - +74°C / -40° - +165°F
Operating Humidity	0 to 95% non-condensing
Mean Time Between Failure (MTBF)	>100,000 Hours

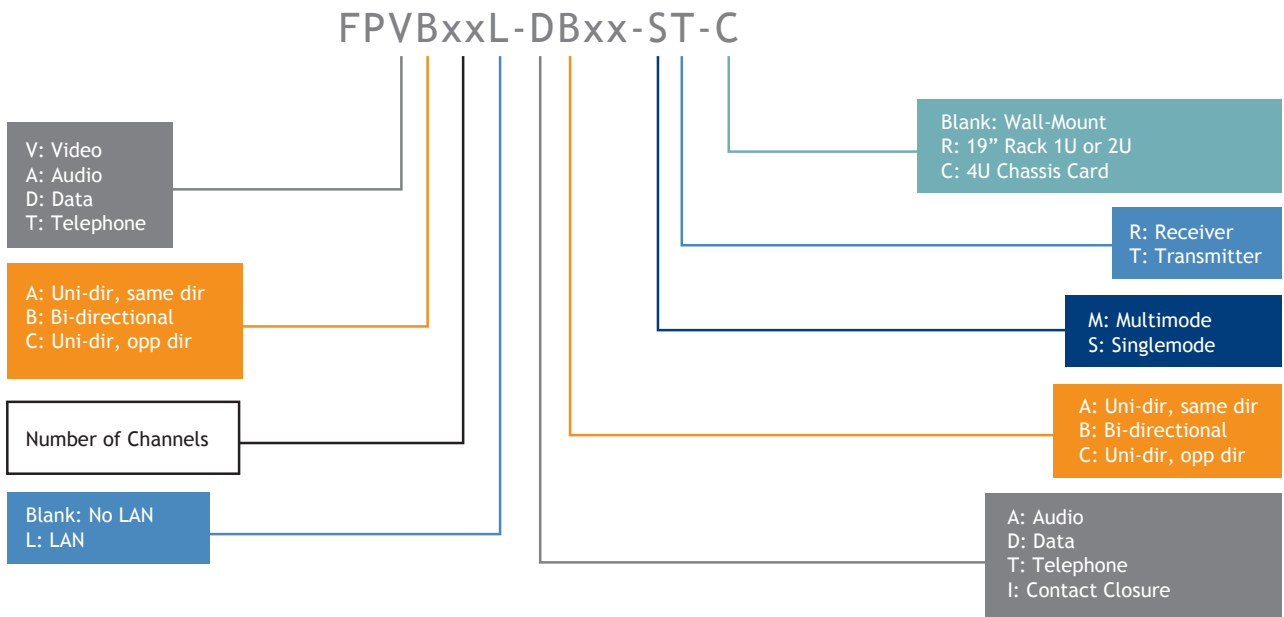
## Mechanical

Dimensions	(Wall-mount L x W x H)	221mm x 155mm x 36mm (8.7" x 6.1" x 1.42")
Dimensions (Rack)	1U	19" 1U
	2U	19" 2U
Number of 4U Chassis Card Slots <sup>(3)</sup>		Depends on product configuration

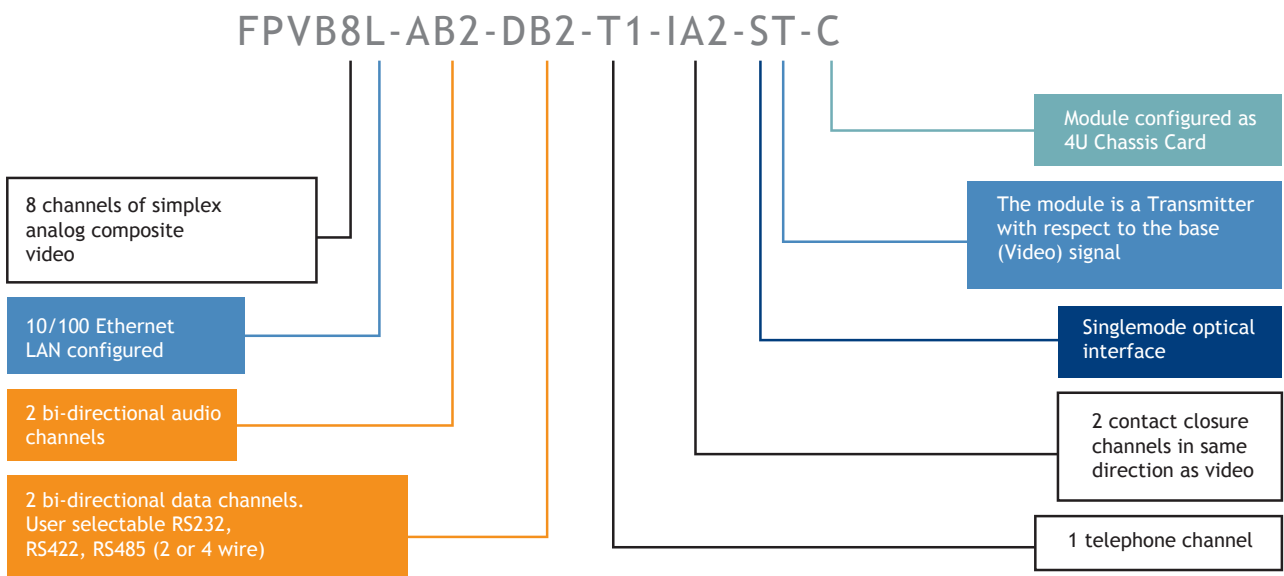
## Connectors

Video	BNC 75Ω	
SDI	BNC 75Ω	
DVI	DVI-I Female	
Data	Screw Block Terminal	
Audio	Screw Block Terminal	
Contact Closure	8 Way Screw Block Terminal	
Telephone	RJ11	
Ethernet	RJ45	
USB Transmitter	1 x Type B	
Receiver	4 x Type A	
Fiber	ST or FC (ST fitted as standard)	
Power <sup>(4)</sup>	Wall-mount Rack	Screw Block Terminal IEC

## Part Number Configurator



## Part Number Example



## Optical Budget

Part Code	Fiber Type	No	Optical Budget			Wavelength nm	Approximate Transmission Distance <sup>(5)</sup>
			50µm	62,5µm	9µm		
FPVH1-M*	Multimode	2	9dB	13dB		1310	0-4km
FPVG1-M*	Multimode	1	9dB	13dB		1310/1550	0-4km
FPVC1-M*	Multimode	2	9dB	13dB		1310	0-4km
FPVB1-M*	Multimode	1	9dB	13dB		1310/1550	0-4km
FPVH1-S*	Singlemode	2			15dB	1310	0-30km
FPVG1-S*	Singlemode	1			15dB	1310/1550	0-30km
FPVC1-S*	Singlemode	2			20dB	1310	0-45km
FPVB1-S*	Singlemode	1			20dB	1310/1550	0-45km