

VBS 2000

Features

- AM video
- Adjustment-free operation (Automatic Gain Control)
- Easy to install
- Compact standalone and rack-mount cards
- Video SNR >60 dBw for short link



Description

The VBS 2000 series offers a complete range of low-cost fiber optic video transmitters and receivers. Built-in Automatic Gain Control (AGC) allows plug-and-play installation and maintenance-free operation. VBS transmitters and receivers are available in stand-alone or rack-mount housings for both single-mode and multimode applications.

The very compact VBS 2020 TX and VBS 2050 TX transmitters are designed to operate over a broad temperature range and are, therefore, suitable for use close to cameras or even inside outdoor camera housings.

The rack-mount versions are designed to be slotted into an MC 10 or MC 11 power supply cabinets. Rack-mount models are also available as stand-alone units (/SA versions). The space-saving VBS 2020 TX-3 transmitters and RX-3 receivers can provide up to 33 video transmission links, using only a single MC 10 or MC 11 power supply cabinet at each location.

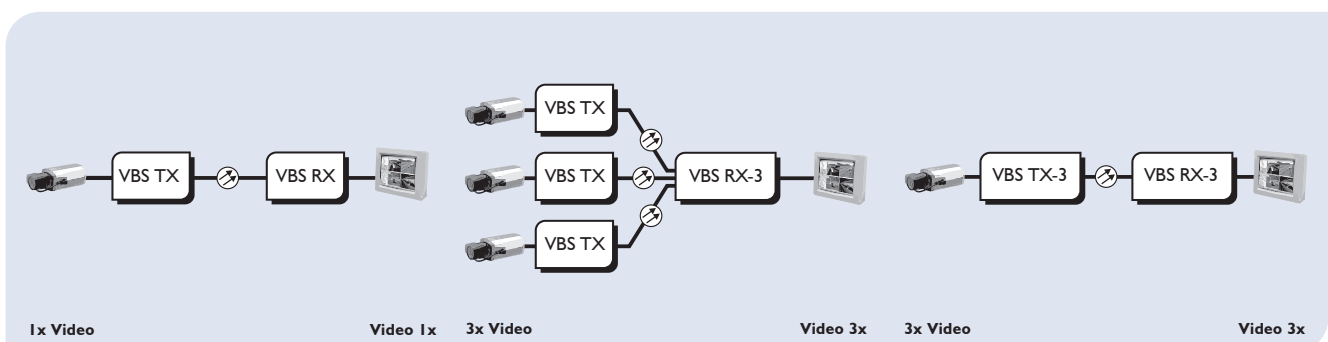
The compact VBS 2020 and 2050 stand-alone transmitters are powered by a PSA-12 DC power adapter or, for extreme environmental conditions, a PSR-12 DC power supply unit.

Ordering information

Model	Description	Fiber type	Wavelength(s)	Budget	Housing
VBS 2010 TX VBS 2010 RX	Video transmitter Video receiver	MM	850 nm	16 dB ¹	Rack-mount
VBS 2020 TX VBS 2020 TX-3 VBS 2020 RX-3	Matchbox video transmitter Triple video transmitter Triple video receiver	MM	850 nm	16 dB ¹	Stand-alone Rack-mount Rack-mount
VBS 2050 TX VBS 2050 TX-3 VBS 2050 RX-3	Matchbox video transmitter Triple video transmitter Triple video receiver	SM	1300 nm	12 dB	Stand-alone Rack-mount Rack-mount
VBS 20xx /SA	Stand-alone versions of rack-mount models				Stand-alone

¹ For 50/125 μm fiber, subtract 4 dB.

Applications



VBS 2000

Technical Specifications

Video

Video format	NTSC, PAL, SECAM
Input/output level	1 Vpp (± 3 dB)
Bandwidth (-3 dB)	10 MHz
Differential phase	<5°
Differential gain	<5%
SNR	
Short link	>60 dBw
Over opt. budget	>45 dBw
Connector type	BNC 75 Ω (gold-plated centepin)

Powering

Power consumption	
VBS 2010 TX	0.5W
VBS 2010 RX	1.7W
VBS 2020 TX	0.5W
VBS 2020 TX-3	1.3W
VBS 2020 RX-3	5.2W
VBS 2050 TX	0.75W
VBS 2050 TX-3	1.7W
VBS 2050 RX-3	6W
Rack-mount units	MC 10 and MC 11 power supply cabinets
Stand-alone units	
VBS 20xx /SA	11 to 16 VDC (PSA-12 DC, PSA-12 DC/25 or PSR-12 DC)
VBS 2020/2050 TX	8 to 25 VDC

Management

LED status indicators	
DC	Power-on indicator (green)
NV	No video signal on input or output (red)
Network management	SNM™ compatible
SNM™ variables	Voltages, module temperature, alarm status (VBS 2050 only)

Environmental

Operating temperature	-40° F to +165.2° F (-40° C to +74° C)
Storage temperature	-67° F to +185° F (-55° C to +85° C)
Relative humidity	<95% as long as there is no condensation.
MTBF	>100,000h
Safety and EMC	IEC/EN 60950, IEC/EN 60825, IEC/EN 61000, EN 50130-4, EN 50081-1, IEC/EN 55022, FCC part 15

Mechanical

Dimensions (h x w x d)	VBS 2020/2050 TX 1.3 x 2.36 x 3.54 in. (33 x 60 x 90 mm)	Others 1.38 x 5.04 x 7.48 in. (35 x 128 x 190 mm)
Weight (approximately)	4.93 oz. (140g)	15.87 oz. (450g)

Optical	VBS 2010 TX-RX	VBS 2020 TX-RX	VBS 2050 TX-RX
Fiber type	MM (62.5)	MM (62.5)	SM (09)
System Link budget	16 dB ¹	16 dB ¹	12 dB
Link length	5 km	5 km	24 km
Min. link loss	0 dB	0 dB	0 dB
Output power	>-18 dBm	>-18 dBm	>-28 dBm
Output wavelength	850 nm	850 nm	1300 nm
Input sensitivity	<-34 dBm	<-34 dBm	<-40 dBm
Connector type	ST	ST	ST

¹ For 50/125 μ m fiber, subtract 4 dB.