



KRAMER ELECTRONICS, LTD

GROUP 2

Vertical Interval Video/Audio Switchers

VS-1201xl, VS-1001/801/601/401xlm

The Kramer series of switchers VS-1201xl, VS-1001xlm, VS-801xlm, VS-601xlm and VS-401xlm is a family of high performance vertical interval switchers for composite video and audio stereo signals. They route one of 10, 8, 6 or 4 sources to one output. However, the output has a DA function whereby it divides into three parallel video and audio outputs to simultaneously feed the same signal to three VCRs, monitors, etc. Since switching is performed during the vertical interval, transitions are glitch-free when sources share a common reference sync.

There are four ways to control the VS-1001xlm family: front panel buttons, RS-232, RS-485, and contact closure. They are also designed to be combined for easy expansion for larger switching systems. For example, two VS-1001xlm's can be linked to form a 10x1 switch for YC, three can be linked to switch YUV, four for RGBS, etc. The VS-1001xlm family is dependable, rugged, and each fits in one vertical space of a standard 19" rack. Video bandwidth of 400MHz ensures that they remain transparent even in the most critical production, presentation, or broadcast applications.



TECHNICAL SPECIFICATIONS

INPUTS:	12,10, 8, 6, 4 composite / single component video, 1Vpp / 75 Ω , on BNCs. 12,10, 8, 6, 4 audio stereo, +4dBm, 10k Ω , on RCA connectors. 1 external sync input (or composite video) 1Vpp / 75 Ω , on a BNC connector.
OUTPUTS:	1 x 3 composite / single component video, 1Vpp / 75 Ω on a BNC. (xlm). (1201xl output). 1 x 3 audio stereo up to +28Vpp / 50 Ω , (24dBm) on RCAs.(xlm). (1201xl output).
BANDWIDTH (VIDEO):	400 MHz. -3dB (typical), 1201xl=250 MHz.
BANDWIDTH (AUDIO):	55 kHz, -0.1dB.
NON LINEARITY:	< 0.1%.
AUDIO THD+NOISE:	0.02%.
DIFF. PHASE:	0.03 Deg.
2nd HARMONIC:	<0.003% (1kHz.).
DIFF. GAIN:	0.04%.
AUDIO CROSSTALK:	-79 dB.
VIDEO S/N:	> 77 dB.
AUDIO S/N RATIO:	> 90 dB, unweighted.
K-FACTOR:	<0.05%.
CONTROL:	12-4 illuminated front-panel touch switches, RS-232, RS-422, contact closure.
DIMENSIONS:	19 inch (W), 7 inch (D) 1U (H) rack mountable.
POWER SOURCE:	230 VAC, 50/60 Hz, (115VAC U.S.A.) 16 VA (VS-1201xl).
WEIGHT:	3.1 kg (6.88 lbs.) approx.
ACCESSORIES:	Power cord, Windows 95/98 control software, null modem adapter.

TYPICAL APPLICATIONS

Video production studios.

Live broadcast, for switching between cameras in real-time.