Distribution Amplifiers

Kramer Electronics has a full line of distribution amplifiers, ranging from full broadcast level to industrial, desk-top units, and to pocket size TOOLS.

Some are audio/video, some are Composite, Y/C or Component/RGB video and some are audio only. Some can be used in field operation, as they are fed from a 12V DC power supply (car or belt battery).

The group includes two categories:

❑ **19-inch rack-mount DAs.**

These distributors have full broadcast specifications. They feature large bandwidth (some have bandwidths of over 300 MHz) and extremely low differential gain and differential phase specifications. They are all housed in rack-mountable enclosures.

❑ **Desktop and smaller DAs.**

These have full industrial specifications, offering a simple and economic solution for every video/audio application. The video bandwidth is excellent - some reaching 480 MHz! There are appropriate rack-mount adapters for all models. In most cases, it is possible to install two units side-by-side in one 19" 1U rack space.

Some features:

❖ Low crosstalk between outputs.
❖ Wide bandwidth, low noise amplification.
❖ Designed for indefinite, unattended 24-hour operation.
❖ Most DAs have looping inputs to create large systems.
❖ All distributors may be used in groups for component distribution.
❖ Most DAs offer the choice of AC or DC video coupling for maximum flexibility.

Applications:

❖ Industrial, broadcast and duplication studios.
❖ Security, CCTV and surveillance applications.
❖ Graphics distribution in a workstation environment.
❖ In schools, where educational material is distributed to several classrooms.
❖ In showrooms, shops, point-of-sale, displaying one video source on several monitors.
❖ Long distance video line compensation and amplification.

TABLE 1.1: Distribution Amplifiers by Format

1.1.1: Distribution Amplifiers: Composite Video

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-2N	CV	1.23	Compact	S	1	2	400 MHz	Compact DA for analog and SDI (Serial Digital) signals.
VM-42	CV	1.34	Desktop	-	4 x 1	4 x 2 + 1	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
VM-9S	CV	1.24	Desktop	S	1	2	84 MHz	Looping CV Line amplifier.
PT-102V	CV	9.34	Pico-TOOL	-	1	2	430 MHz	
VM-3V	CV	1.26	Mini	-	1	3	60 MHz	12 VDC feed.
123V	CV	9.3	TOOL	-	1	3	55 MHz	Differential input Line Amplifier / DA.
103AV	CV	9.11	TOOL	S	1	3	320 MHz	Video Audio Stereo DA.
VM-42	CV	1.34	Desktop	-	2 x 1	2 x 4	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
104L	CV	9.8	TOOL		1	4	420 MHz	Gain and EQ. Adjustable.
VM-1015	CV	1.8	19" 1U	-	1	5	340 MHz	Looping CV/Component DA, AC or DC coupling / clamping.
VM-5ARII	CV	1.9	19" 1U	S	1	5	360 MHz	Looping CV/Component, AC or DC coupling.
VM-5YC	CV	1.21	19" 1U	S	1	5	90 MHz (Y)	Looping Y/C - CV - Audio Stereo DA + converter from Y/C to CV.
VM-50V	CV	1.28	Compact	-	1	5	480 MHz	Looping Compact Video DA, 12 VDC.
VM-5S	CV	1.32	Desktop	S	1	5	350 MHz	CV / SDI (Serial), with AC/DC coupling.
105V	CV	9.5	TOOL	-	1	5	280 MHz	Video DA on RCA connectors.
105VB	CV	9.6	TOOL	-	1	5	280 MHz	Video DA on BNC connectors.
VM-42	CV	1.34	Desktop	-	1	6	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
VM-42	CV	1.34	Desktop	-	1	8	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
VM-10ARII	CV	1.13	19" 1U	S	1	10	224 MHz	Looping CV / Component, with AC or DC coupling.
VM-10YC	CV	1.22	19" 1U	S	1	10	50 MHz (Y)	Looping Y/C - CV + converter from Y/C to CV.
VM-10AN	CV	1.37	Desktop	S	1	10	77 MHz	Looping, with AC or DC coupling.
VM-1021	CV	1.16	19" 1U	-	1	20	350 MHz	Looping CV/Component DA with AC or DC coupling and clamping.
VM-1010	CV	1.10	19" 1U	-	2	1 x 10, 2 x 5	225 MHz	Looping programmable DA, with AC or DC coupling.
VM-80V	CV	1.36	half 19"	-	2	1 x 8, 2 x 4	330 MHz	Looping 1:8 or 2 x 1:4 CV DA for Analog or SDI signals.
VM-1411	CV	1.14	19" 1U	S	2	1 x 10, 2 x 5	224 MHz	Looping CV / Component / Balanced Audio Stereo, with AC or DC coupling.
VM-54	CV	1.17	19" 2U	-	3	3 x 18	350 MHz	Looping Video / Component DA.
VM-20ARII	CV	1.15	19" 2U	S	4	4 x 5	430 MHz	Looping CV / Component programmable DA.
VM-42	CV	1.34	Desktop	-	4	4 x 2 + 1	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
VM-1042	CV	1.18	19" 1U	-	4	4 x 2	200 MHz	Looping Component / CV DA.
VM-1044	CV	1.19	19" 1U	-	4	4 x 4	320 MHz	Component / CV DA.
VM-1055	CV	1.20	19" 1U	-	5	5 x 5	300 MHz	Component / RGBHV / CV DA.

1.1.2: Distribution Amplifiers: Component Video

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-54	RGB	1.17	19" 2U	-	1	18	350 MHz	Looping Video / Component DA.
VM-1055	RGBHV	1.20	19" 1U	-	1	5	300 MHz	Component / RGBHV / CV DA.
VM-1042	RGBS	1.18	19" 1U	-	1	2	200 MHz	Looping Component / CV DA.
VM-1044	RGBS	1.19	19" 1U	-	1	4	320 MHz	Component / CV DA.
VM-20ARII	RGBS	1.15	19" 2U	S	1	5	430 MHz	Looping CV / Component programmable DA.
VM-42	RGBS	1.34	Desktop	-	1	2	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
SP-3001	YUV	3.5	19" 1U	-	1	3	62 MHz	Also a video processor with screen splitter.

1.1.3: Distribution Amplifiers: Digital Video

Model	Format	Page	Size	Audio	Inputs	Outputs	Remarks
SD-7108	SDI	6.3	19" 1U	-	1	8 x SDI, 1 x Parallel	A Multistandard 1:8 SDI DA, reclocking / equalization.
SD-7208	SDI	6.4	19" 1U	-	1 x Parallel	8 x SDI	A Multistandard Parallel to 1:8 SDI DA, reclocking.
SD-7308	SDI	6.6	19" 1U	-	1	4	A Multistandard 8x1 SDI Switcher and a 1:4 SDI DA, with reclocking and equalization.

1.1.4: Distribution Amplifiers: VGA

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VP-2xl	VGA	5.3	Compact	S	1	2	340 MHz	VGA / Audio Stereo DA with VGA and audio controls.
VP-22	VGA	5.8	19" 1U	-	1	2	350 MHz	Line amplifier with dual RGB and EQ. Controls.
VP-200	VGA	9.18	TOOL	-	1	2	345 MHz	
VP-222	VGA	9.23	TOOL	-	2	2	365 MHz	A 2x1 Switcher + 1:2 DA.
VP-3	VGA	5.4	Desktop	-	1	3	350 MHz	
VP-300	VGA	9.19	TOOL	-	1	3	345 MHz	
VP-32	VGA	5.11	half 19"	S	3	2 x 1	300 MHz	3 x 1:2 VGA / Audio-stereo Switcher and DA.
VP-4	VGA	5.5	half 19"	-	1	4	350 MHz	12 V DC feed.
VP-400	VGA	9.20	TOOL	-	1	4	345 MHz	
VP-6xl	VGA	5.6	19" 1U	-	1	6	400 MHz	
VP-12xL	VGA	5.7	19" 1U	-	1	12	300 MHz	

1.1.5: Distribution Amplifiers: s-Video (Y/C)

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-42	YC	1.34	Desktop	-	2	2 x 2	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
VM-9YC	YC	1.25	Desktop	-	1	2	320 MHz	Looping Y/C Line amplifier with front controls for Y and C.
PT-102S	YC	9.35	Pico-TOOL	-	1	2	150 MHz	
401C	YC	9.16	TOOL	-	1	2 + 2	160 MHz	Y/C 1:2 DA + Composite Coder 1:2 DA.
VM-3S	YC	1.27	Mini	-	1	3	60 MHz (Y)	Y/C Video DA, 12 VDC.
103YC	YC	9.12	TOOL	-	1	3	430 MHz	Line amplifier with 2 controls for "Y" and one for "C".
VM-42	YC	1.34	Desktop	-	1	4	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS

1.1.5: Distribution Amplifiers: s-Video (Y/C) (cont.)

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-5YC	YC	1.21	19" 1U	S	1	5	90 MHz (Y)	Looping Y/C - CV + converter from Y/C to CV.
VM-50YC	YC	1.30	Compact	-	1	5	280 MHz (Y)	Looping Y/C DA, 12 VDC
105S	YC	9.7	TOOL	-	1	5	330 MHz	Y/C DA on 4P connectors.
VM-10YC	YC	1.22	19" 1U	S	1	10	50 MHz (Y)	Looping Y/C - CV + converter from Y/C to CV.
VM-54	YC	1.17	19" 2U	-	1	18	350 MHz	Looping Video / Component DA.
VM-1055	YC	1.20	19" 1U	-	1	5	300 MHz	Component / RGBHV / CV
VM-1042	YC	1.18	19" 1U	-	1	2	200 MHz	Looping Component / CV
VM-1044	YC	1.19	19" 1U	-	1	4	320 MHz	Component / CV DA.
VM-20ARII	YC	1.15	19" 2U	S	1 or 2	1 x10, 2 x10	430 MHz	Looping CV / Component, programmable.

1.1.6: Distribution Amplifiers: Audio only

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
PT-102A	A	9.33	Pico-TOOL	S	1	2	100 kHz	
VM-50A	A	1.29	Compact	S	1	5	20 kHz	Looping, 12 VDC
VM-5AD	A	1.33	Desktop	M/S	1	5	20 kHz	Balanced/Unbalanced Amp + converter with level controls and Mic input.
105A	A	9.4	TOOL	S	1	5	20 kHz	On 3.5mm Mini plugs.
VM-1110	A	1.11	19" 1U	M/S	1 or 2	1x10 or 2x5	100 kHz	Looping programmable balanced Audio on XLRs.
VM-1610	A	1.12	19" 1U	S	1 or 2	1x10 or 2x5	100 kHz	Looping programmable balanced stereo on terminal blocks.
VM-80A	A	1.35	half 19"	S	1 or 2	1x8 or 2x4	20 kHz	Balanced Stereo-Audio Amplifier with front controls.
104M	A	9.9	TOOL	M	1 x Mic/Line	4 x Mic/Line	37 kHz	Mono, phantom power, adj. gain
VM-50H	A	1.31	Compact	S	1 x Stereo Phones	5 x Stereo Phones	20 kHz	Stereo Headphones DA, 12VDC.

1.1.7: Distribution Amplifiers: Line Amplifiers and Misc.

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-9YC	YC	1.25	Desktop	-	1	2	320 MHz	Looping Y/C Line amplifier with separate front controls for Y and C.
103YC	YC	9.12	TOOL	-	1	3	430 MHz	Line amplifier with 3 controls for "Y" and "C".
VM-9S	CV	1.24	Desktop	S	1	2	84 MHz	Looping CV/Audio Stereo Line amplifier, A/V controls.
123V	CV	9.3	TOOL	-	1	3	55 MHz	Differential input Line Amplifier / DA.
VP-22	VGA	5.8	19" 1U	-	1	2	350 MHz	Line amplifier with dual RGB and EQ. Controls.
104R	RF	9.10	TOOL	-	1	4	40-800 MHz	RF DA for MATV and CATV.
104L	CV	9.8	TOOL	-	1	4	420 MHz	Gain and EQ. Adjustable.
VP-14	RS-232	9.24	TOOL	-	1	3	NA	Bi-directional and programmable RS-232 port extender.
VP-43	RS-233	9.25	TOOL	-	1	1	NA	2 units extend RS-232 useful range up to 1.2 km.

TABLE 1.2: Distribution Amplifiers by Inputs & Outputs

1.2.1: Distribution Amplifiers: 1 : 2

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
PT-102A	A	9.33	Pico-TOOL	S	1	2	100 kHz	
VM-2N	CV	1.23	Compact	S	1	2	400 MHz	Analog and SDI (Serial Digital) signals.
VM-42	CV	1.34	Desktop	-	4	4 x 2	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
VM-9S	CV	1.24	Desktop	S	1	2	84 MHz	Looping CV, Line amplifier, A/V controls.
PT-102V	CV	9.34	Pico-TOOL	-	1	2	430 MHz	
VM-1042	RGBS	1.18	19" 1U	-	1	2	200 MHz	Looping Component / CV DA.
VM-42	RGBS	1.34	Desktop	-	1	2	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
VP-22	VGA	5.8	19" 1U	-	1	2	350 MHz	Line amplifier with dual RGB and EQ. Controls.
VP-2XL	VGA	5.3	Compact	S	1	2	340 MHz	VGA / Audio Stereo DA with VGA and audio controls.
VP-200	VGA	9.18	TOOL	-	1	2	345 MHz	
VP-222	VGA	9.23	TOOL	-	2	2	365 MHz	A 2x1 Switcher + 1:2 DA.
VM-9YC	YC	1.25	Desktop	-	1	2	320 MHz	Looping Y/C Line amplifier with front controls for Y/C.
PT-102S	YC	9.35	Pico-TOOL	-	1	2	150 MHz	
VM-42	YC	1.34	Desktop	-	2 x 1	2 x 2	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
401C	YC	9.16	TOOL	-	1	2	160 MHz	Y/C 1:2 DA + Composite Coder 1:2 DA.
VM-1042	YUV	1.18	19" 1U	-	1	2	200 MHz	Looping Component / CV DA.

1.2.2: Distribution Amplifiers: 1 : 3

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-3V	CV	1.26	Mini	-	1	3	60 MHz	12 VDC feed.
123V	CV	9.3	TOOL	-	1	3	55 MHz	Differential input Line Amplifier / DA.
103AV	CV	9.11	TOOL	S	1	3	320 MHz	Video Audio Stereo DA.
VP-3	VGA	5.4	Desktop	-	1	3	350 MHz	
VP-300	VGA	9.19	TOOL	-	1	3	345 MHz	
VM-3S	YC	1.27	Mini	-	1	3	60 MHz (Y)	12 VDC feed.
VP-14	RS-232	9.24	TOOL	-	1	3	NA	Bi-directional and programmable RS-232 port extender.
103YC	YC	9.12	TOOL	-	1	3	430 MHz	2 controls for "Y" and one for "C".
SP-3001	YUV	3.5	19" 1U	-	1	3	62 MHz	Component Video processor-DA with screen splitter.

1.2.3: Distribution Amplifiers: 1 : 4

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-42	CV	1.34	Desktop	-	2	2 x 4	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
104L	CV	9.8	TOOL	-	1	4	420 MHz	Gain and EQ. Adjustable.
104R	RF	9.10	TOOL	-	1	4	40-800 MHz	RF DA for MATV and CATV.
SD-7308	SDI	6.6	19" 1U	-	1	4	NA	A Multistandard 8x1 SDI Switcher and a 1:4 SDI DA, with reclocking and equalization.
VM-42	YC	1.34	Desktop	-	1	4	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS

1.2.3: Distribution Amplifiers: 1 : 4 (cont.)

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VP-4	VGA	5.5	half 19"	-	1	4	350 MHz	12 VDC feed.
VP-400	VGA	9.20	TOOL	-	1	4	345 MHz	
104M	A	9.9	TOOL	M	1 Mic/Line	4 Mic/Line	37 kHz	Mic Amp / DA , Mono, phantom power, adj. gain

1.2.4: Distribution Amplifiers: 1 : 5

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-50H	A	1.31	Compact	S	1xSt.Phones	5xSt.Phones	20 kHz	12 VDC feed.
VM-5YC	A	1.21	19" 1U	S	1	5	90 MHz (Y)	Looping Y/C - CV + converter from Y/C to CV.
VM-50A	A	1.29	Compact	S	1	5	20 kHz	Looping, 12 VDC feed.
VM-5AD	A	1.33	Desktop	M/S	1	5	20 kHz	Balanced/Unbalanced Amp + converter with level controls and Mic input.
105A	A	9.4	TOOL	S	1	5	20 kHz	On 3.5mm Mini plugs.
VM-1015	CV	1.8	19" 1U	-	1	5	340 MHz	Looping CV/Component DA, AC or DC coupling /clamping.
VM-5ARII	CV	1.9	19" 1U	S	1	5	360 MHz	Looping CV/Component/Audio Stereo, AC or DC coupling.
VM-5YC	CV	1.21	19" 1U	S	1	5	90 MHz (Y)	Looping Y/C - CV + converter from Y/C to CV.
VM-50V	CV	1.28	Compact	-	1	5	480 MHz	Looping, 12 VDC feed.
VM-5S	CV	1.32	half 19"	S	1	5	350 MHz	CV / SDI (Serial) with AC/DC coupling.
105V	CV	9.5	TOOL	-	1	5	280 MHz	On RCA connectors.
105VB	CV	9.6	TOOL	-	1	5	280 MHz	On BNC connectors.
VM-1055	RGBHV	1.20	19" 1U	-	1	5	300 MHz	Component / RGBHV / CV
VM-5YC	YC	1.21	19" 1U	S	1	5	90 MHz (Y)	Looping Y/C - CV + converter from Y/C to CV.
VM-50YC	YC	1.30	Compact	-	1	5	280 MHz (Y)	Looping, 12 VDC feed.
105S	YC	9.7	TOOL	-	1	5	330 MHz	On 4P connectors.

1.2.5: Distribution Amplifiers: 1 : 6 or more

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-42	CV	1.34	Desktop	-	1	6 or 8	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
VM-10ARII	CV	1.13	19" 1U	S	1	10	224 MHz	Looping CV / Component, with AC or DC coupling.
VM-10YC	CV	1.22	19" 1U	S	1	10	50 MHz (Y)	Looping Y/C - CV + converter from Y/C to CV.
VM-10AN	CV	1.37	Desktop	S	1	10	77 MHz	Looping, with AC or DC coupling.
VM-1021	CV	1.16	19" 1U	-	1	20	350 MHz	Looping CV/Component DA with AC or DC coupling and clamping.
VM-20ARII	CV	1.15	19" 2U	S	1	20	430 MHz	Looping CV / Component, programmable DA.
VM-54	CV	1.17	19" 2U	-	1	54	350 MHz	Looping Video / Component DA.
VM-54	YC	1.17	19" 2U	-	1	18	350 MHz	Looping Video / Component DA.
VM-54	RGB	1.17	19" 2U	-	1	18	350 MHz	Looping Video / Component DA.
SD-7108	SDI	6.3	19" 1U	-	1	8 x SDI	NA	A Multistandard 1:8 SDI DA, with reclocking and equalization.
SD-7208	SDI	6.4	19" 1U	-	1 x Parallel	8 x SDI	NA	A Multistandard Parallel to 1:8 SDI DA, with reclocking.
VP-6xl	VGA	5.6	19" 1U	-	1	6	400 MHz	
VP-12xL	VGA	5.7	19" 1U	-	1	12	300 MHz	
VM-10YC	YC	1.22	19" 1U	S	1	10	50 MHz (Y)	Looping Y/C - CV + converter from Y/C to CV.
VM-54	YUV	1.17	19" 2U	-	1	18	350 MHz	Looping Video / Component DA.

1.2.6: Distribution Amplifiers: 2 Inputs

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-1110	A	1.11	19" 1U	M/S	2	2 x 5	100 kHz	Looping programmable balanced Audio DA on XLRs.
VM-1610	A	1.12	19" 1U	S	2	2 x 5	100 kHz	Looping programmable balanced stereo on terminal blocks.
VM-80A	A	1.35	half 19"	S	2	2 x 4	20 kHz	Balanced Stereo-Audio Amplifier with front controls.
VM-1010	CV	1.10	19" 1U	-	2	2 x 5	225 MHz	Looping programmable DA, with AC or DC coupling.
VM-1411	CV	1.14	19" 1U	S	2	2 x 5	224 MHz	Looping CV / Component / Balanced Audio Stereo, with AC or DC coupling.
VM-80V	CV	1.36	half 19"	-	2	2 x 4	330 MHz	Looping 1:8 or 2 x 1:4 CV DA for Analog or SDI signals.
VM-20ARII	CV	1.15	19"2U	S	2	2 x 10	430 MHz	Looping programmable DA.

1.2.7: Distribution Amplifiers: 3 Inputs

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-54	CV	1.17	19" 2U	-	3	3 x 18	350 MHz	Looping Video / Component DA.
VM-20ARII	CV	1.15	19" 2U	S	3	3 x 5	430 MHz	Looping CV / Component programmable DA.
VP-32	VGA	5.11	half 19"	-	3	2 x 1	300 MHz	3 x 1:2 VGA / Audio-stereo Switcher and DA.

1.2.8: Distribution Amplifiers: 4 Inputs

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-1042	CV	1.18	19" 1U	-	4	4 x 2	200 MHz	Looping
VM-1044	CV	1.19	19" 1U	-	4	4 x 4	320 MHz	Video / Component DA.
VM-20ARII	CV	1.15	19" 2U	S	4	4 x 5	430 MHz	Looping CV / Component programmable DA.
VM-42	CV	1.34	Desktop	-	4	4 x 2 + 1	200 MHz	4x1 Switcher+versatile DA 4x1:2 CV, 1:4 Y/C, 1:2 RGBS
VM-20ARII	RGBS	1.15	19" 2U	S	1	5	430 MHz	Looping CV / Component programmable

1.2.9: Distribution Amplifiers: 5 Inputs

Model	Format	Page	Size	Audio	Inputs	Outputs	Bandwidth	Remarks
VM-1055	CV	1.20	19" 1U	-	5	5 x 5	300 MHz	Component / RGBHV / CV DA.

1:5 Video Distributor   VM-1015

The KRAMER **VM-1015** is a full broadcast, state-of-the-art *1:5 Video Distribution Amplifier* designed for studio and other demanding applications. The **VM-1015** splits a single input source into five identical outputs with no discernible signal degradation.

Output signals can either be AC or DC coupled, black level or sync tip clamped, allowing the machine to function in all video environments. The machine may be used to distribute analog or SDI (Serial Digital) video signals, composite or single component.

Video bandwidth of well over 340 MHz and superb specifications make the **VM-1015** the ultimate distributor for all video applications.
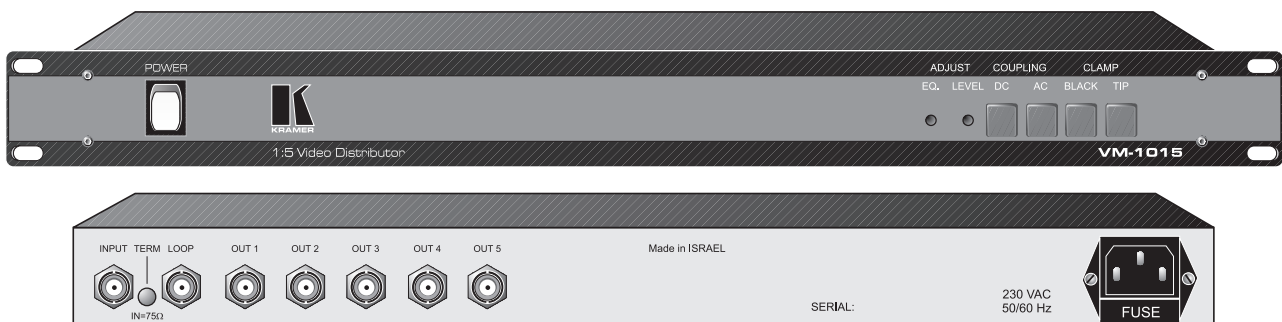
Technical Specifications:

INPUTS:	1 Video-Composite or single Component, looping, 1Vpp/75 Ω on BNCs with termination switch.
OUTPUTS:	5 Composite /Component Video, 1 Vpp/75 Ω on BNCs.
VIDEO BANDWIDTH:	340 MHz -3dB.
VIDEO S/N RATIO:	Better than 75 dB.
COUPLING:	AC, DC, and Clamped - user selectable with one of four front panel switches.
DC CLAMP:	0 VDC Black Level, or sync bottom TIP.
NON-LINEARITY:	<0.1%.
DIFF. GAIN:	0.08 %.
DIFF. PHASE:	0.12 Deg.
K-FACTOR:	<0.05%.
GAIN CONTROL:	-1.2dB to +2.8dB (through a trimmer on the front panel).
EQ. CONTROL:	0 to 2.7dB @ 4.4 MHz.
POWER SOURCE:	230VAC 50/60 Hz (115V U.S.A.), 4.6 VA.
DIMENSIONS:	19 inch (W), 7 inch (D) 1U (H) rack mountable.
WEIGHT:	2.5 Kg, (5.5 Lbs.) Approx.
ACCESSORIES:	Power cable.

Typical applications:

- ❖ *Broadcast video duplication studios, delivering undiminished quality video duplicates.*
- ❖ *Video Showrooms, delivering an identical picture to several monitors.*
- ❖ *Computer RGB / Component video distribution using several* **VM-1015** *units.*

1:5 Video Audio Distributor   VM-5ARII

The KRAMER **VM-5ARII** is an ultra-high bandwidth, *Video Audio Distribution Amplifier* designed for studio and other demanding applications. The **VM-5ARII** splits a single input source into five identical outputs with no discernible signal degradation.

The machine has looping inputs for system extension. The user can adjust video gain and EQ. control as well as audio L and R levels externally. The **VM-5ARII** allows AC/DC video input coupling selection and has a video termination switch simplifying looping. The machine operates in Audio-follow-Video mode, and has fully buffered, Broadcast level, audio stereo outputs.
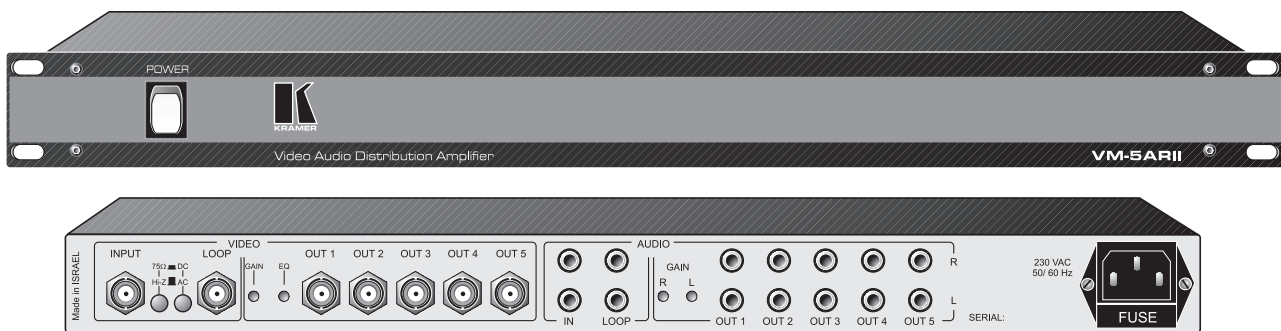
Technical Specifications:

INPUT:	1 Video, Composite or single component, looping, 1Vpp/75 Ω on BNCs with termination switch.
	1 Audio stereo looping, +4dBm /50kΩ on RCAs.
OUTPUTS:	5 Video, Composite or single component, 1 Vpp/75 Ω on BNCs.
	5 Audio Stereo, +4dBm /50 Ω, 27 Vpp max. on RCAs.
MAX. VIDEO OUTPUT:	2.2 Vpp.
COUPLING:	DC/AC selectable (video), AC (audio.)
VIDEO BANDWIDTH:	360 MHz -3dB.
DIFF. GAIN:	0.03 %.
DIFF. PHASE:	0.06 Deg.
VIDEO S/N RATIO:	> 76 dB.
K-FACTOR:	<0.05%.
AUDIO BANDWIDTH:	52 kHz -0.1dB.
AUDIO THD:	Less than 0.02%.
AUDIO S/N RATIO:	> 86 dB, Unweighted @ 1Vpp.
CONTROLS:	Video Gain: -1 to +1.8dB, EQ.: 0 to +2.5dB, Audio: 0.2 to +6dB.
POWER SOURCE:	230VAC, 50/60 Hz, (115V U.S.A.) 21 VA.
DIMENSIONS:	19-inch (W), 7-inch (D) 1U (H) rack mountable.
WEIGHT:	1.94 Kg (4.3 Lbs.) Approx.
ACCESSORIES:	Power cord.

Typical applications:

❖ *Video audio duplication and production studios, delivering undiminished quality duplicates.*
❖ *Video audio showrooms and points of sale, delivering an identical picture to several monitors.*
❖ *CCTV and other monitoring applications.*
❖ *Component video distribution using several machines.*

Dual Mode Video Distributor — VM-1010

The Kramer **VM-1010** is high performance distribution amplifier for composite video signals on BNC connectors. Using a simple front panel switch, it can be configured either as a single 1:10 DA, or as two separate 1:5's. In either mode its purpose is to provide identical outputs to drive multiple monitors, projectors or other receiving devices. The looping connectors located adjacent to each input may be used as an additional output in some cases, and can make it easy to create larger systems.

Rear panel switches allow the user to select DC or AC output coupling for maximum flexibility. The **VM-1010** is housed in a rugged, professional rack mountable enclosure with an internal power supply allowing the use of a standard, detachable power cord.
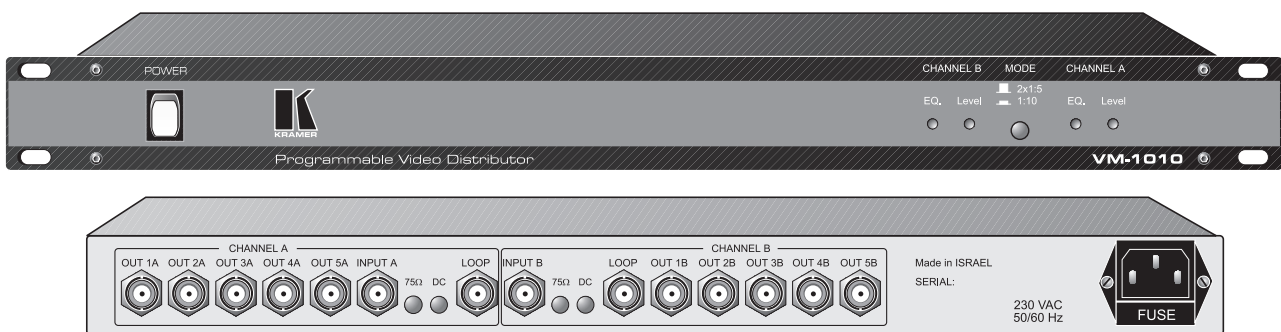
Technical Specifications:

INPUTS:	2 composite/component video, looping, 1Vpp/75 Ω on BNCs with termination switch.
OUTPUTS:	2x5 composite/component video, 1 Vpp/75 Ω on BNCs.
VIDEO BANDWIDTH:	225 MHz -3dB.
COUPLING:	DC or AC (user selectable).
DIFF. GAIN:	0.2 %.
DIFF. PHASE:	0.04 Deg.
NON LINEARITY:	0.2%.
MAX. VIDEO OUTPUT:	1.8 Vpp.
CONTROLS:	Level front trimmers: -1.4dB/+2.5dB, EQ. trimmers: 0/+2.5dB @ 4.4 MHz.
K-FACTOR:	<0.05%.
VIDEO S/N RATIO:	> 77 dB.
DIMENSIONS:	19-inch (W), 7-inch (D) 1U (H) rack mountable.
POWER SOURCE:	230VAC 50/60 Hz (115V U.S.A.), 10.3 VA.
WEIGHT:	1.98 Kg (4.4 Lbs. Approx.).
ACCESSORIES:	Power cord.

Typical Applications:

❖ *Broadcast, duplication, and production facilities.*
❖ *Retail stores, delivering an identical picture to several monitors.*
❖ *Computer RGB or video component distribution using several machines operating in parallel.*
❖ *CCTV and security applications.*

Balanced Audio Distributor　　　　　　VM-1110

The Kramer **VM**-**1110** is a high performance distribution amplifier for balanced audio signals using XLR connectors. Using a simple front panel switch, it can be configured as a 1:10 for mono signals, or as a 1:5 for stereo signals. In either mode, its purpose is to accept a single input and provide identical outputs for a wide variety of studio and live applications.

State-of-the-art Bi-Fet amplifying circuitry, and a high power discrete buffering system make the **VM**-**1110** an excellent performer. All circuitry is active with no transformers thus ensuring hum-free, full bandwidth operation. It is rugged, dependable, and is housed in a professional rack mountable enclosure requiring one vertical space in a standard 19" rack.
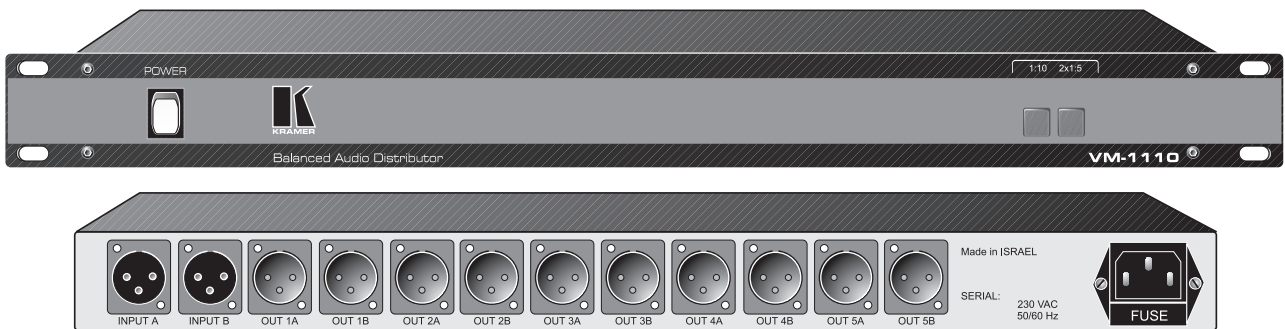
Technical Specifications:

|	
INPUTS:	2 balanced audio, +4dBm 50 kΩ on female XLR connectors.
OUTPUTS:	10 balanced audio (5 balanced stereo audio), +4dBm/50 Ω on male XLR connectors.
AUDIO BANDWIDTH:	100kHz -3dB.
THD:	Less than 0.1% at 1kHz.
COUPLING:	AC.
AUDIO S/N RATIO:	Better than 95 dB.
CHANNEL MATCHING:	60 dB.
MAX SIGNAL OUTPUT:	> 20Vpp.
POWER SOURCE:	230 VAC (115VAC U.S.A.), 3.2 VA.
DIMENSIONS:	19 inch (W), 7 inch (D), 1 U (H) rack mountable.
WEIGHT:	2.5 kg (5.5 Lbs.) Approx.
ACCESSORIES:	Power cord.

Typical Applications:

❖ *Any professional audio/video system requiring high quality audio distribution.*
❖ *Recording studios and live sound reinforcement systems.*
❖ *Rental and staging applications.*

Balanced Audio Distributor   VM-1610

The Kramer **VM**-**1610** is a high performance distribution amplifier for balanced stereo audio signals with two inputs, using detachable screw terminal connectors. Using a simple front panel switch, it can be configured as either a 1:10 DA, or as a 2 x 1:5 DA. In either mode, its purpose is to accept an input or two and provide identical outputs for a wide variety of studio and live applications.

State-of-the-art Bi-Fet amplifying circuitry, and a high power discrete buffering system make the **VM**-**1610** an excellent performer. All circuitry is active with no transformers thus ensuring hum-free, full bandwidth operation. It is rugged, dependable, and is housed in a professional rack mountable enclosure requiring one vertical space in a standard 19" rack.
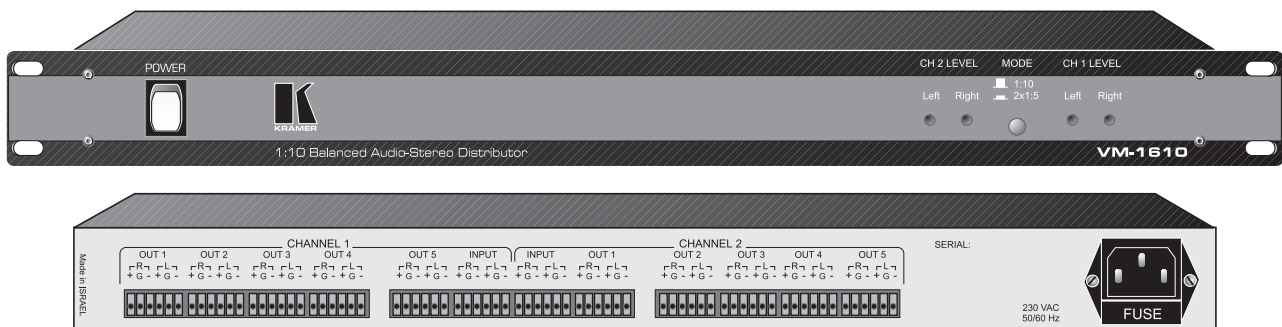
Technical Specifications:

INPUTS:	2 balanced stereo audio, up to +24dBm / 50 kΩ on detaching terminal blocks.
OUTPUTS:	10 (or 2x5) balanced stereo audio, up to +24dBm / 50 Ω on detaching terminal blocks.
AUDIO BANDWIDTH:	100kHz, -3dB.
THD:	Less than 0.011% at 1kHz (second harmonic = 0.003%).
COUPLING:	AC.
AUDIO S/N RATIO:	Better than 92 dB @ 1Vpp.
CHANNEL MATCHING:	60 dB.
CONTROLS:	Front selector switch for 1:10 or 2x1:5 operation, 4 front accessible gain trimmers.
GAIN RANGE:	0.5 dB to + 9.5dB (four trimmers - two for each input channel).
DIMENSIONS:	19 inch (W), 7 inch (D), 1U (H) rack mountable.
POWER SOURCE:	230 VAC (115VAC U.S.A.), 21 VA.
WEIGHT:	2.6 kg (5.7 Lbs.) Approx.
ACCESSORIES:	Power cord.

Typical Applications:

❖ *Any professional audio/video system requiring high quality audio distribution.*
❖ *Recording studios and live sound reinforcement systems.*
❖ *Rental and staging applications.*

Video Audio Distribution Amplifier   VM-10ARII

The KRAMER **VM-10ARII** is full broadcast, state-of-the-art *Video Audio Distribution Amplifier* designed for studio and other demanding applications. The **VM-10ARII** has looping video and audio stereo inputs, each splitting to 10 outputs. The user may choose unbalanced stereo or balanced mono audio via front-panel switches. The output audio and video levels, as well as video cable EQ. may be adjusted via trimmers accessible from the front panel. The video outputs are in two blocks of 5 outputs each, where each block may be individually trimmed for level and cable EQ., thereby achieving different compensations for different cable lengths.

Several **VM-10ARII** units may be chained through the looping inputs. Output video signals are DC or AC coupled (user selectable) for maximum flexibility.
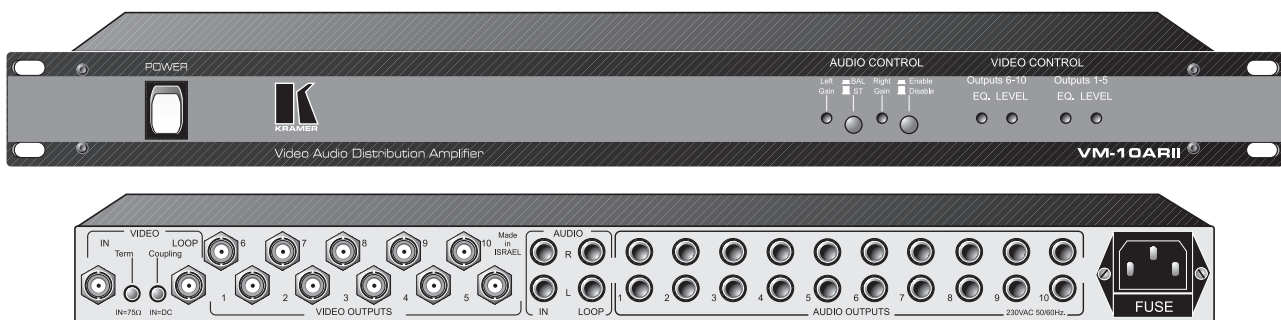
Technical Specifications:

INPUTS:	1 Composite/Component Video, looping, 1Vpp/75 Ω on BNCs with termination switch.
	2 Audio, stereo or balanced mono on RCA connectors, +4dBm, 50kΩ.
OUTPUTS:	2x5 Composite/Component Video, 1 Vpp/75 Ω on BNCs.
	10 Audio stereo or balanced mono, +4dBm / 50Ω, 25Vpp Max.
MAX. VIDEO OUTPUT:	1.8 Vpp.
COUPLING:	DC or AC (video); AC (audio.)
VIDEO BANDWIDTH:	224 MHz -1dB.
DIFF. GAIN:	0.1 %.
DIFF. PHASE:	0.22 Deg.
K-FACTOR:	<0.05%.
VIDEO S/N RATIO:	Better than 77 dB.
AUDIO BANDWIDTH:	60 kHz.
THD (2nd Harmonic):	0.06%.
CONTROLS:	Front accessible trimmers for Video gain (-1.2 to +1.6dB) and EQ. (0 to +2.5dB), audio left and right control trimmers (0 to +6dB), balanced/stereo selector switch and audio controls enable switch.
AUDIO S/N RATIO:	>81dB.
DIMENSIONS:	19-inch (W), 7-inch (D) 1U (H) rack mountable.
POWER SOURCE:	230VAC 50/60 Hz (115V U.S.A.), 19.5VA
WEIGHT:	2.1Kg (4.7 Lbs.) Approx.
ACCESSORIES:	Power cord.

Typical applications:

❖   *Broadcast video/audio duplication studios, delivering undiminished quality duplicates.*
❖   *Video Audio Showrooms, delivering an identical picture and sound to several monitors.*
❖   *Video component distribution using several **VM-10ARII** units.*
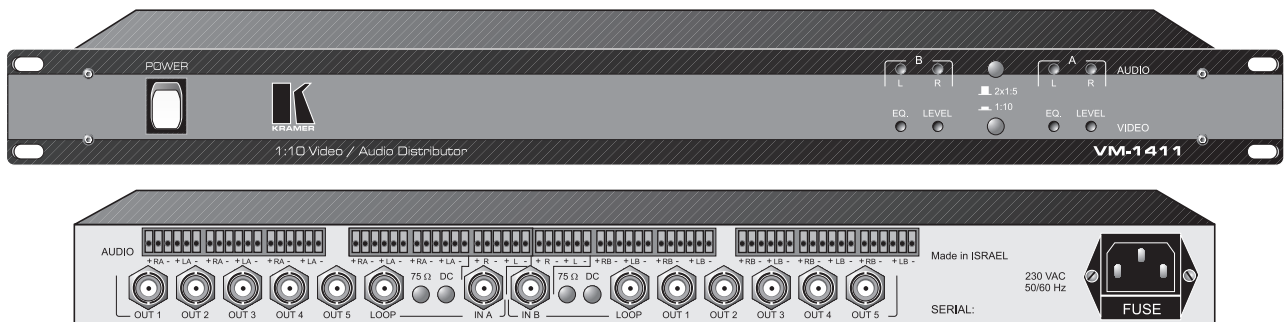❖   *CCTV and security applications.*

Dual Mode Video and Audio DA VM-1411

The Kramer **VM-1411** is an exceptionally high performance distribution amplifier for composite video and balanced audio signals. Using front panel controls, the video and audio sections can be independently configured as a single channel 1:10, or as a two channel 1:5. In either mode its purpose is to provide identical outputs to drive multiple monitors, projectors, audio power amps, mixers or other receiving devices. Looping connectors located adjacent to each input may be used as additional outputs in some cases, and can making it easy to create larger systems.

Rear panel switches are provided to set coupling and termination, and recessed front panel controls allow the user to set optimum video and audio output levels. The **VM-1411** is rugged, dependable, and is housed in a professional 19" rack mountable enclosure requiring one vertical space in a standard rack.

Technical Specifications:

INPUTS: 2 composite/component video, looping, 1Vpp/75 Ω on BNCs with termination switch.
1 balanced stereo audio up to +24dBm /50 kΩ, looping on detaching terminal blocks.

OUTPUTS: 2x5 composite/component video, 1 Vpp/75 Ω on BNCs.
2x5 balanced stereo audio up to +24dBm 50 Ω, on detaching terminal blocks.

VIDEO BANDWIDTH:	224 MHz -3dB.	**AUDIO BANDWIDTH:**	60 kHz -3dB.
COUPLING:	DC or AC (video); AC (audio).	**AUDIO THD:**	Less than 0.02%.
DIFF. GAIN:	0.2 %.	**AUDIO S/N RATIO:**	Better than 87 dB
DIFF. PHASE:	0.2 Deg.		@ 1 Vpp.
MAX. VIDEO OUTPUT:	1.8 Vpp.		
CONTROLS:	Front accessible trimmers for video gain and EQ and for audio L and R levels.		
K-FACTOR:	0.05%.		
VIDEO S/N RATIO:	Better than 77 dB.		
DIMENSIONS:	19 inch (W), 7 inch (D), 1U (H) rack mountable.		
POWER SOURCE:	230VAC 50/60 Hz(115V U.S.A.), 19.5 VA.		
WEIGHT:	2.9 Kg (6.4 Lbs.) Approx.		
ACCESSORIES:	Power cord.		

Typical Applications:

❖ *Any professional A/V system requiring high quality signal distribution.*
❖ *Broadcast, duplication, and production facilities.*
❖ *Retail stores and other point-of-sale systems.*
❖ *Computer RGB or video component distribution using multiple VM-1411's operating in parallel.*

1:20 A/V Distributor VM-20ARII

The Kramer **VM-20ARII** is a high performance 1:20 reconfigurable distribution amplifier for composite video and stereo audio signals. In its typical configuration, the **VM-20ARII** accepts one input, and distributes it to 20 identical outputs using BNC connectors for video, and RCA connectors for audio. In addition to its basic 1:20 mode, three multi-channel modes can be selected by front panel buttons namely, dual 1:10, quad 1:5, and one 1:10 plus two 1:5's. There are two discreet sets of controls allowing the audio and video sections to be configured differently.

For systems with varying cable lengths, separate video gain and equalization controls are provided for each set of five outputs. Looping video inputs make it easy to create larger distribution or switching systems. The multi-channel modes provide compatibility with component video formats such as Y/C, YUV, RGBS, etc., and a video bandwidth of 430MHz ensures that the **VM-20ARII** remains transparent even in the most critical production, broadcast, or presentation applications.
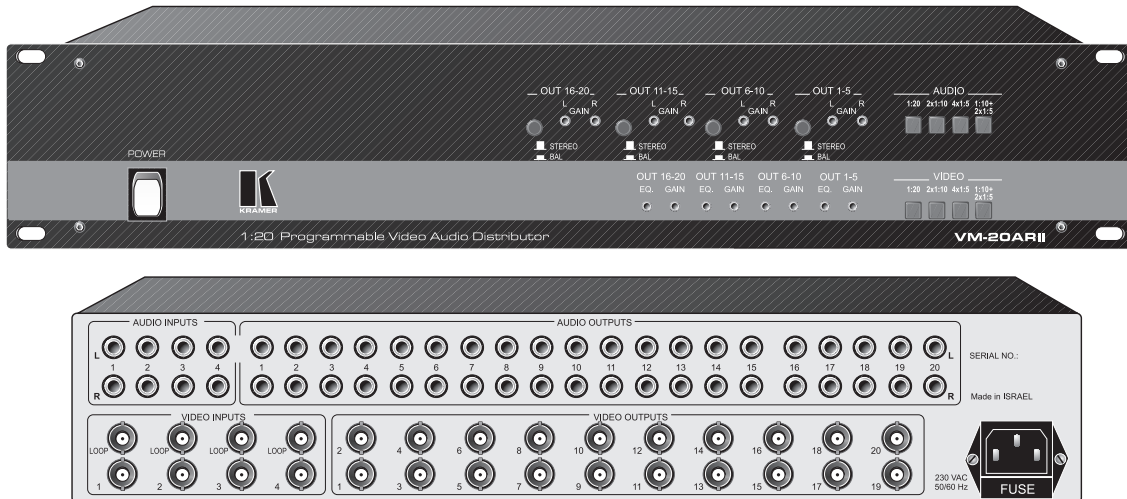
Technical Specifications:

INPUTS:	4 video looping, 1Vpp/75 Ω on BNCs with termination switches.
	4 stereo audio (or balanced mono) +4dBm / 50 kΩ, on RCAs.
OUTPUTS:	20 (1:20, 2x1:10, 4x1:5, 1:10+2x1:5) Video 1 Vpp/75 Ω on BNCs.
	20 (1:20, 2x1:10, 4x1:5, 1:10+2x1:5) Audio-stereo (or Balanced mono) +4dBm / 50 Ω,
	27 Vpp max. on RCAs.

VIDEO BANDWIDTH:	430 MHz -3dB.	**AUDIO BANDWIDTH:**	110 kHz -1dB.
DIFF. GAIN:	0.06 %.	**AUDIO THD+NOISE:**	< 0.02%.
DIFF. PHASE:	0.08 Deg.	**2nd HARMONIC:**	< 0.002%.
VIDEO S/N RATIO:	> 76 dB.	**AUDIO S/N RATIO:**	> 80 dB.
VIDEO COUPLING:	DC / AC user selectable.	**AUDIO COUPLING:**	AC.
VIDEO CONTROLS:	-1.2/+1.7 dB LEVEL, 0/+2.4 dB EQ.	**AUDIO CONTROLS:**	+0.3/+6.2dB.
POWER SOURCE:	230VAC 50/60 Hz (115V U.S.A.) 18.5 VA.		
DIMENSIONS:	19 inch (W), 7 inch (D) 2U (H) rack mountable.		
WEIGHT:	3.6 Kg. (8 Lbs.) Approx.		
ACCESSORIES:	Power cord.		

Typical applications:

❖ *Production and duplication facilities, retail store systems, medical and educational video and CCTV applications.*
❖ *Extended bandwidth allows use with high-resolution computer-video signals.*

1:20 Video Distributor   VM-1021

The Kramer **VM-1021** is a 1:20 distribution amplifier designed for especially critical applications. It accepts one input, and distributes it to 20 identical outputs using BNC connectors. For systems with varying cable lengths, the 20 outputs are grouped into sets of five, each with a separate set of video gain and equalization controls to optimize signal levels. For maximum flexibility, switches are provided to select the desired coupling and clamping settings.

Exceptionally high bandwidth of 350MHz allows the **VM-1021** to be used for high-resolution computer-video, medical imaging, SDI, and other specialized signals. It is housed in a rugged, professional, rack mountable enclosure requiring only one vertical space in a standard 19" rack.
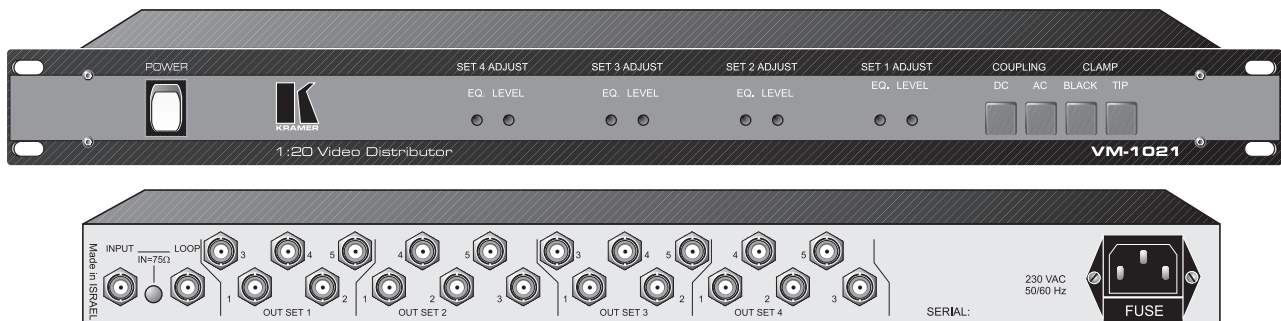
Technical Specifications:

INPUTS:	1 composite video or a single component, looping, 1Vpp/75 Ω on BNCs with termination switch.
OUTPUTS:	20 composite /component video, 1 Vpp/75 Ω on BNCs.
VIDEO BANDWIDTH:	350 MHz -3dB.
VIDEO S/N RATIO:	Better than 74 dB.
COUPLING:	AC, DC, and clamped - user selectable with front panel switches.
DC CLAMP:	0 VDC Black Level, or sync bottom TIP.
NON-LINEARITY:	0.1%.
DIFF. GAIN:	0.1 %.
DIFF. PHASE:	0.07 Deg.
K-FACTOR:	<0.05%.
LEVEL CONTROL:	-1.1dB to +2.7dB with 4 trimmers accessible through front panel.
EQ. CONTROL:	0 to 2.9dB @ 4.4 MHz, with 4 trimmers accessible through front panel.
POWER SOURCE:	230VAC 50/60 Hz (115V U.S.A.), 6.7 VA.
DIMENSIONS:	19 inch (W), 7 inch (D), 1U (H) rack mountable.
WEIGHT:	2.6 Kg (5.7 Lbs.) Approx.
ACCESSORIES:	Power cord.

Typical Applications:

❖ *Broadcast, production, and editing facilities.*
❖ *Any professional system requiring high quality signal distribution.*
❖ *Retail stores and other point-of-sale system.*
❖ *Computer RGB or component video distribution using multiple VM-1021s in parallel.*

1:54 Video /Component Distributor   VM-54

The Kramer **VM-54** is a high quality 1:54 composite video distribution amplifier using BNC connectors. It is comprised of three independent 1:18 channels with looping inputs, so the 1:54 configuration requires that the three channels be looped together using short cables. The three channel design allows it to serve as a 1:18 DA for component video or RGsB sources, or as three separate 1:18 DA's for composite video.

The **VM-54** offers exceptionally flexible controls. Each channel is subdivided into four groups of either three or five outputs, and each group has its own set of gain and cable EQ controls to optimize signals for different cable lengths. AC or DC output coupling is selectable by front panel buttons. Video bandwidth exceeding 350MHz ensures that the **VM-54** remains transparent even in critical broadcast or high-resolution applications. It is housed in a rugged, professional enclosure requiring two vertical spaces in a standard 19" rack.
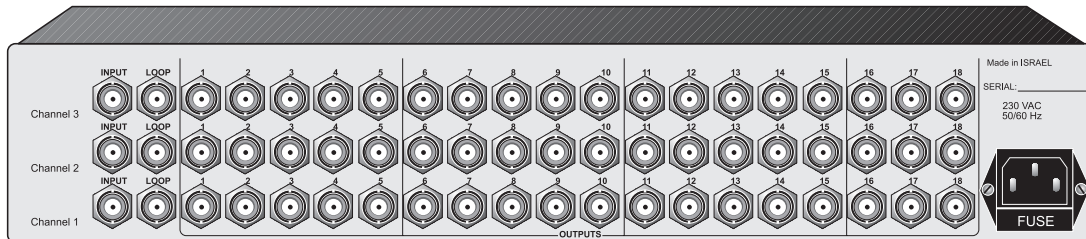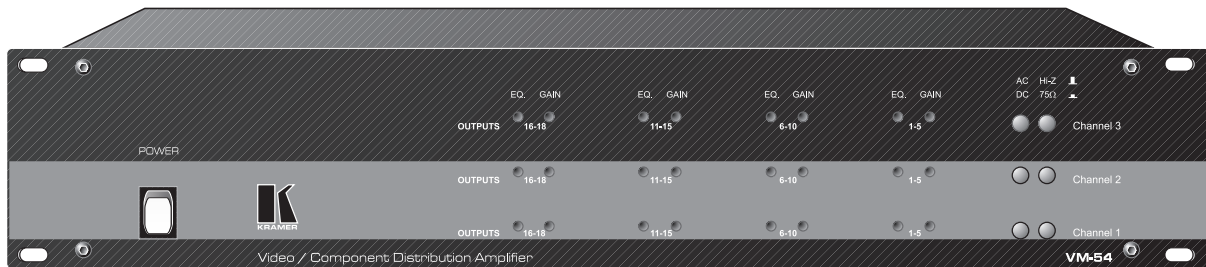
Technical Specifications:

INPUTS:	3 composite/component video looping, 1Vpp/75 Ω on BNCs with termination switches.
OUTPUTS:	3 x 18 composite/component video, 1 Vpp/75 Ω on BNCs.
VIDEO BANDWIDTH:	350 MHz -3dB.
VIDEO S/N RATIO:	Better than 70 dB.
COUPLING:	AC or DC for each channel, selectable from front panel.

DIFF. GAIN:	0.03%.	**GAIN RANGE:**	-0.8 to 1.9 dB.
DIFF. PHASE:	0.09 Deg.	**EQ. RANGE:**	0 to 2.3 dB @ 4.4 MHz.
MAX. VIDEO OUTPUT:	2 Vpp.	**NON LINEARITY:**	0.2%.

K-FACTOR:	<0.05%.
POWER SOURCE:	230VAC, 50/60 Hz, (115V U.S.A.) 10 VA.
DIMENSIONS:	19-inch (W), 7-inch (D) 2U (H) rack mountable.
WEIGHT:	4.4 Kg. (9.8 Lbs.) Approx.
ACCESSORIES:	Power cord.

Typical Applications:

❖ *Broadcast, production, or presentation systems requiring high quality signal distribution.*
❖ *Schools, retail, sports bars, other point-of-sale and CCTV applications.*
❖ *Computer RGB or component video distribution.*

RGBS/Component Video DA   VM-1042

The Kramer **VM**-**1042** is a high performance 1:2 distribution amplifier for component video signals using BNC connectors. The **VM**-**1042** has four separate channels, each of which is a high bandwidth 1:2 DA with a looping output adjacent to each input. In its typical application, it is designed to accept a component video source such as RGBS or Y, R-Y, B-Y, etc., and provide two buffered outputs plus the loop out. The looping input makes it easy to create larger systems, or may be used as a third output in some cases.

In addition to a typical RGBS application, the four channels can operate independently, allowing the unit to be used as four separate DA's for composite video or other formats. Bandwidth of over 200MHz ensures that the **VM**-**1042** remains transparent even in critical broadcast or high-resolution applications. It is housed in a rugged, professional, rack mountable enclosure requiring only one vertical space in a standard 19" rack.
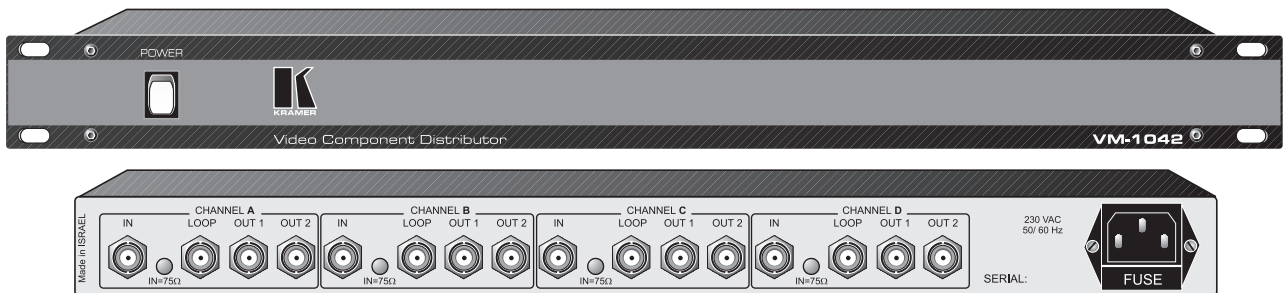
Technical Specifications:

INPUTS:	4-component or composite video, 1Vpp/75 Ω looping, on BNC type connectors with termination switches.
OUTPUTS:	2 times 4-component or composite video, 1 Vpp/75 Ω on BNC type connectors.
VIDEO BANDWIDTH:	200 MHz -3dB.

VIDEO S/N RATIO:	Better than 73 dB.	**NON-LINEARITY:**	0.1%.
COUPLING:	DC.	**DIFF. GAIN:**	0.05 %.
DIFF. PHASE:	0.05 Deg.	**K-FACTOR:**	<0.05%.

MAX. VIDEO OUTPUT:	2 Vpp.
CONTROLS:	Level: -2.2dB/+2dB, EQ.: 0/+1.3dB @ 4.4 MHz via bottom accessible trimmers.
POWER SOURCE:	230VAC 50/60 Hz (115V U.S.A.), 3.2 VA.
DIMENSIONS:	19 inch (W), 7 inch (D), 1U (H) rack mountable.
WEIGHT:	2.5 Kg. (5.5 Lbs.) Approx.
ACCESSORIES:	Power cord.

Typical Applications:

❖ *Computer and workstation RGBS distribution.*
❖ *Video duplication studios, delivering undiminished quality video duplicates.*
❖ *Broadcast component signal distribution.*

RGBS/Component Video DA   VM-1044

The Kramer **VM**-**1044** is a high performance 1:4 distribution amplifier for component video signals using BNC connectors. The **VM-1044** has four separate channels, each of which is a high bandwidth 1:4 DA. In its typical application, it is designed to accept a component video source such as RGBS or Y, R-Y, B-Y, etc., and provide four buffered outputs to drive monitors, projectors, or other receiving device.

In addition to a typical RGBS application, the four channels can operate independently, allowing the unit to be used as four separate 1:4 DA's for composite video or other formats. Bandwidth of over 320MHz ensures that the **VM-1044** remains transparent even in critical broadcast or high-resolution applications. It is housed in a rugged, professional, rack mountable enclosure requiring only one vertical space in a standard 19" rack.
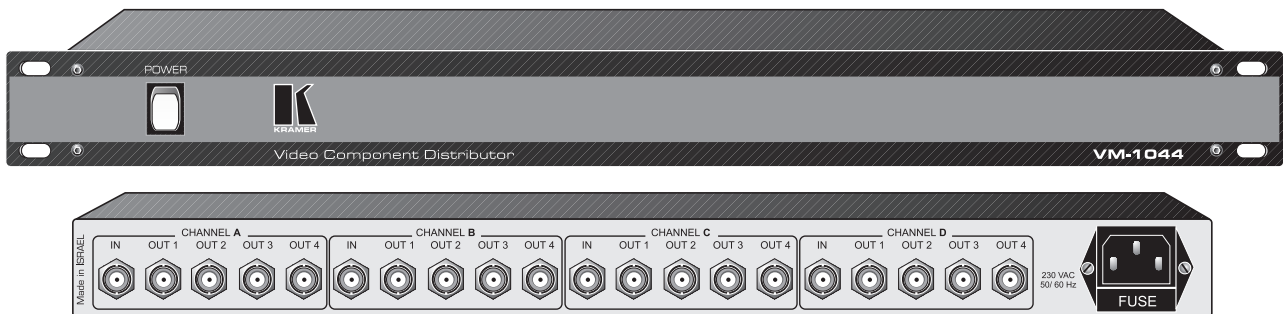
Technical Specifications:

INPUTS:	4-component/composite video, 1 Vpp/75 Ω on BNCs.
OUTPUTS:	4 times 4-component/composite, 1 Vpp/75 Ω on BNCs.
VIDEO BANDWIDTH:	320 MHz -3dB.
VIDEO S/N RATIO:	Better than 74 dB.
COUPLING:	DC.
NON-LINEARITY:	0.1%.
DIFF. GAIN:	0.05 %.
DIFF. PHASE:	0.05 Deg.
K-FACTOR:	0.1%.
MAX. VIDEO OUTPUT:	2 Vpp.
CONTROLS:	Gain: -1.1dB/+2.5dB, EQ.: 0 / +0.9 dB @ 4.4 MHz. Via bottom accessible trimmers.
POWER SOURCE:	230VAC 50/60 Hz (115V U.S.A.), 5.5 VA.
DIMENSIONS:	19 inch (W), 7 inch (D), 1U (H) rack mountable.
WEIGHT:	2.5 Kg. (5.5 Lbs.) Approx.
ACCESSORIES:	Power cord.

Typical Applications:

❖ *Computer and workstation RGBS distribution.*
❖ *Video duplication studios, delivering undiminished quality video duplicates.*
❖ *Broadcast component signal distribution.*

Video Component / RGBHV DA VM-1055

The Kramer **VM-1055** is a high performance 1:5 distribution amplifier for component video signals using BNC connectors. The **VM-1055** has five separate channels, each of which is a high bandwidth 1:5 DA. In its typical application, it is designed to accept a component video source such as RGBHV, RGBS or Y, R-Y, B-Y, etc., and provide five buffered outputs to drive monitors, projectors, or other receiving devices.

In addition to a typical RGBHV application, the five channels can operate independently, allowing the unit to be used as five separate 1:5 DA's for composite video or other formats. Bandwidth of over 300MHz ensures that the **VM-1055** remains transparent even in critical broadcast or high-resolution applications. It is housed in a rugged, professional, rack mountable enclosure requiring only one vertical space in a standard 19" rack.
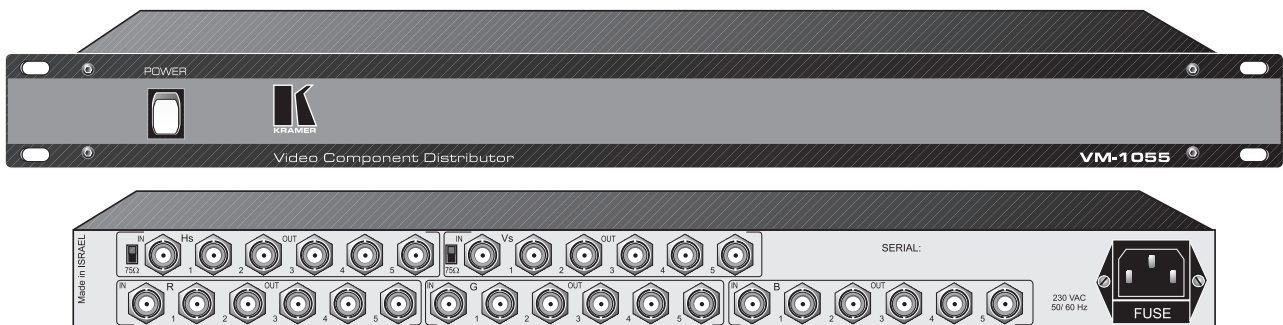
Technical Specifications:

INPUTS: 1 x 5-Component/RGBHV/Composite Video, 1 Vpp/75 Ω on BNCs, (2 of them can be either video or SYNC 1Vpp/75 Ω or TTL level / 510 Ω, rear switch selectable.)

OUTPUTS: 5 x 5-Component/RGBHV/Composite, 1 Vpp/75 Ω on BNCs (2 of them can be either video 1Vpp/75 Ω or Sync - Analog or TTL level.)

VIDEO BANDWIDTH: 300 MHz -3dB.
VIDEO S/N RATIO: Better than 74 dB.
NON-LINEARITY: 0.1%.
COUPLING: DC.
DIFF. GAIN: 0.1 %.
DIFF. PHASE: 0.1 Deg.
K-FACTOR: <0.05%.
MAX. VIDEO OUTPUT: 2 Vpp.
POWER SOURCE: 230VAC 50/60 Hz (115V U.S.A.), 5.3 VA.
DIMENSIONS: 19 inch (W), 7 inch (D), 1U (H) rack mountable.
WEIGHT: 2.6 Kg. (5.7 Lbs.) Approx.
ACCESSORIES: Power cord.

Typical Applications:

❖ *Computer and workstation RGBHV distribution.*
❖ *Video duplication studios, delivering undiminished quality video duplicates.*
❖ *Broadcast component video signal distribution.*

1:5 CV / s-Video Audio DA   VM-5YC

The Kramer **VM-5YC** is an exceptionally unique 1:5-distribution amplifier for s-Video (YC) or composite video, and stereo audio signals. It accepts a single input source and distributes the signal to five identical outputs designed to drive monitors, projectors, or other receiving devices.

The **VM-5YC** is a dual format DA offering BNC connectors for composite video, and 4pin connectors for s-Video. It has an additional unique feature – a rear panel switch engages an internal encoder allowing conversion of an s-Video source into five composite video outputs. Rear panel controls are also provided for selecting AC or DC coupling.

Looping inputs make it easy to expand to larger systems. Bandwidth exceeding 90MHz ensures transparent performance with typical video and audio sources. The **VM-5YC** is rugged, dependable, and is housed in a professional 19" rack mountable enclosure, which requires one vertical space.
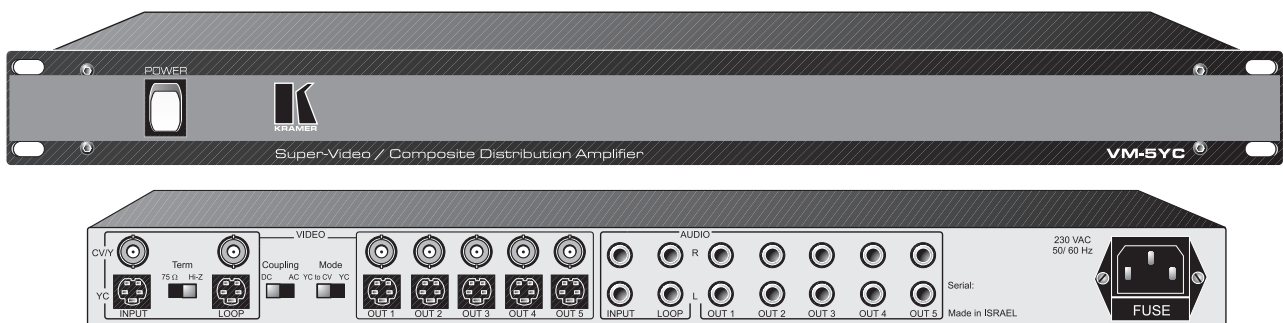
Technical Specifications:

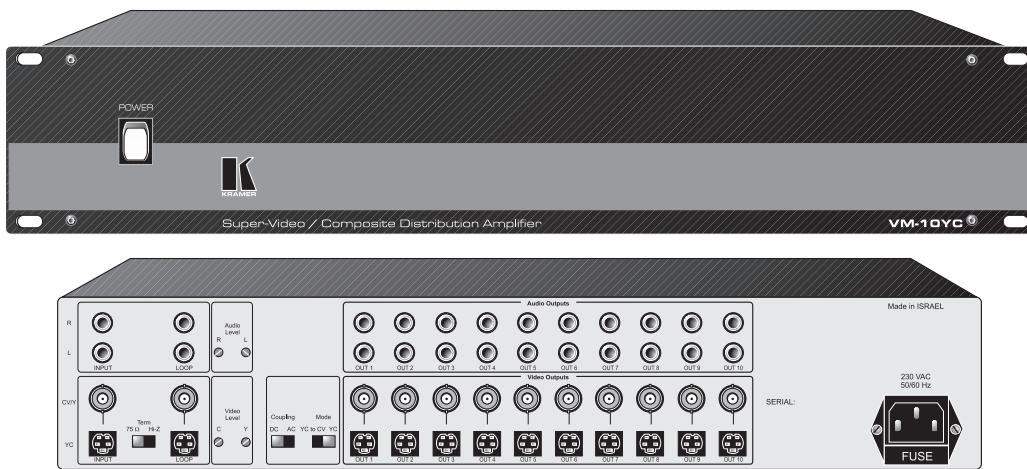|	
INPUTS:	1 composite video looping, 1Vpp/75 Ω on a BNC type connector.
	1 looping (Y), 1Vpp/75 Ω, (C) 0.3Vpp/75 Ω on 4P connector.
	1 stereo audio looping 1Vpp/ 50KΩ on RCAs.
OUTPUTS:	5 video 1 Vpp/75 Ω (Y), 5 x 0.3 Vpp/75Ω (C) on 4P connectors, 5 CV 1Vpp/75Ω on BNCs.
	5 Audio Stereo, 1Vpp /100 Ω on RCAs.
VIDEO BANDWIDTH:	90 MHz -3dB (Y).
AIDEO BANDWIDTH:	25 kHz -1dB.
AUDIO THD:	Less than 0.04%.
VIDEO S/N RATIO:	Better than 73 dB.
AUDIO S/N RATIO:	Better than 74 dB.
K-FACTOR:	<0.05%.
COUPLING:	DC/AC (video); AC (audio.)
DIFF. GAIN:	1.1 %.
DIFF. PHASE:	0.13 Deg.
MAX. VIDEO OUTPUT:	2 Vpp.
POWER SOURCE:	230VAC 50/60 Hz (115V U.S.A.), 10.3 VA.
DIMENSIONS:	19 inch (W), 7 inch (D), 1U (H) rack mountable.
WEIGHT:	2.4 Kg. (5.3 Lbs.) Approx.
ACCESSORIES:	Power cord.

Typical Applications:

- ❖ *Video duplication studios.*
- ❖ *Broadcast, production, or presentation systems requiring high quality signal distribution.*
- ❖ *Schools, retail, sports bars, other point-of-sale and CCTV applications.*

1:10 CV / s-Video and Audio DA   VM-10YC

The Kramer **VM-10YC** is an exceptionally unique 1:10 distribution amplifier for s-Video (YC) or composite video, and stereo audio signals. It accepts a single input source and distributes the signal to ten identical outputs designed to drive monitors, projectors, or other receiving devices. The **VM-10YC** is a dual format DA offering BNC connectors for composite video, and 4pin connectors for s-Video. It has an additional unique feature – a rear panel switch engages an internal encoder allowing conversion of an s-Video source into 10 composite video outputs. Rear panel controls are also provided for selecting AC or DC coupling, and for setting video and audio output levels.

Looping inputs make it easy to expand to larger systems. Bandwidth exceeding 50MHz ensures transparent performance with typical video and audio sources. The **VM-10YC** is rugged, dependable, and is housed in a professional 19" rack mountable enclosure, which requires two vertical spaces.

Technical Specifications:

INPUTS: 1 Composite Video looping, 1Vpp/75 Ω on BNCs, 1(Y), 1Vpp/75 Ω, (C) 0.3Vpp / 75Ω on 4P connectors looping with termination switch.
1 Audio Stereo looping 1Vpp/ 22kΩ on RCAs.

OUTPUTS: 10 Composite Video, 1 Vpp/75 Ω, on BNCs. 10 (Y) 1 Vpp/75 Ω, 10 (C) 0.3Vpp / 75Ω on 4P connectors. 10 Audio Stereo 1Vpp/100Ω on RCAs.

VIDEO BANDWIDTH:	50 MHz -3dB.	**AUDIO BANDWIDTH:**	20 kHz -1dB.
AUDIO THD:	Less than 0.03%.	**COUPLING:**	DC/AC (Y), AC audio.
VIDEO S/N RATIO:	Better than 74 dB.	**AUDIO S/N RATIO:**	Better than 78 dB.
DIFF. PHASE:	0.2 Deg.	**K-FACTOR:**	<0.05%.
DIFF. GAIN:	1.1 %.		
MAX. VIDEO OUTPUT:	2.5 Vpp.		
POWER SOURCE:	230VAC 50/60 Hz (115V U.S.A.), 14.5 VA.		
DIMENSIONS:	19 inch (W), 7 inch (D), 2U (H) rack mountable.		
WEIGHT:	3.3 Kg. (7.3 Lbs.) Approx.		
ACCESSORIES:	Power cord.		

Typical Applications:

❖ *Video duplication studios.*
❖ *Broadcast, production, or presentation systems requiring high quality signal distribution.*
❖ *Schools, retail, sports bars, other point-of-sale and CCTV applications.*

1:2 Video and Audio DA   VM-2N

The Kramer **VM-2N** is an exceptionally high performance distribution amplifier for composite video and stereo audio signals. It is designed to accept one set of inputs, provide correct buffering and isolation, and distribute the signal to two identical outputs. Bandwidth exceeding 400MHz ensures transparent performance, and allows the **VM-2N** to be used for specialized high-resolution analog signals, and even some digital signals.

Video output signals are DC coupled, and the dual-RCA audio section can easily be adapted for a balanced mono signal as the audio performance and levels are appropriate for use in the most demanding applications. The **VM-2N** is rugged, dependable, and is housed in a compact desktop sized enclosure but two **VM-2N's** can be mounted in two vertical spaces of a professional 19" rack using the **RK-50** kit.

Technical Specifications:

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INPUT:	1 Video DC coupled, 1Vpp / 75 Ω on a BNC connector.		
	1 Audio Stereo/ Balanced mono, +4dBm / 50k Ω on RCAs.		
OUTPUTS:	2 Video, 1 Vpp/75 Ω on BNC connectors.		
	2 Audio Stereo / Balanced mono, +4dBm / 50 Ω on RCAs.		
VIDEO BANDWIDTH:	Exceeding 400 MHz.	**AUDIO S/N:**	Better than 85dB.
SDI EFF. RANGE:	Up to 50 meters.	**AUDIO THD+N**	0.017%.
COUPLING:	DC (video), AC (audio).	**MAX. AUDIO LEVEL:**	>24 dBm.
DIFF. GAIN:	0.05 %.	**AUDIO BANDWIDTH:**	20 kHz −1dB.
DIFF. PHASE:	0.1 Deg.		
VIDEO S/N RATIO:	75 dB.	**K-FACTOR:**	<0.05%.
POWER SOURCE:	230VAC, 50/60 Hz, (115V U.S.A.), 4.6 VA.		
DIMENSIONS:	16.5cm X 12cm X 4.5cm (6.5" x 4.7" x 1.8", W, D, H.)		
WEIGHT:	0.62 Kg. (1.3 Lbs.) Approx.		
ACCESSORIES:	Power cord.		
OPTIONS:	Model RK-50R rack kit holds two units in two vertical rack spaces.		

Typical Applications:

❖ *Any professional A/V system requiring a compact, high quality DA.*
❖ *Retail stores and other point-of-sale display systems.*
❖ *Security and CCTV applications.*
❖ *Studio RGB/YUV distribution using several **VM-2N's** operating in parallel.*

1:2 Video / Audio Line Amplifier VM-9S

The Kramer **VM-9S** is a high quality 1:2-distribution amplifier, which provides controls to compensate for signal losses inherent in long cable runs. For local monitoring or for expanding to larger systems, looping connectors are provided which are not affected by the font panel level controls. Bandwidth exceeding 84MHz ensures transparent performance with typical video and audio signals. The **VM-9S** is rugged, dependable, and is housed in a convenient desktop sized enclosure which can also be rack mounted using the **RK-MED** kit which holds one unit in two vertical spaces.
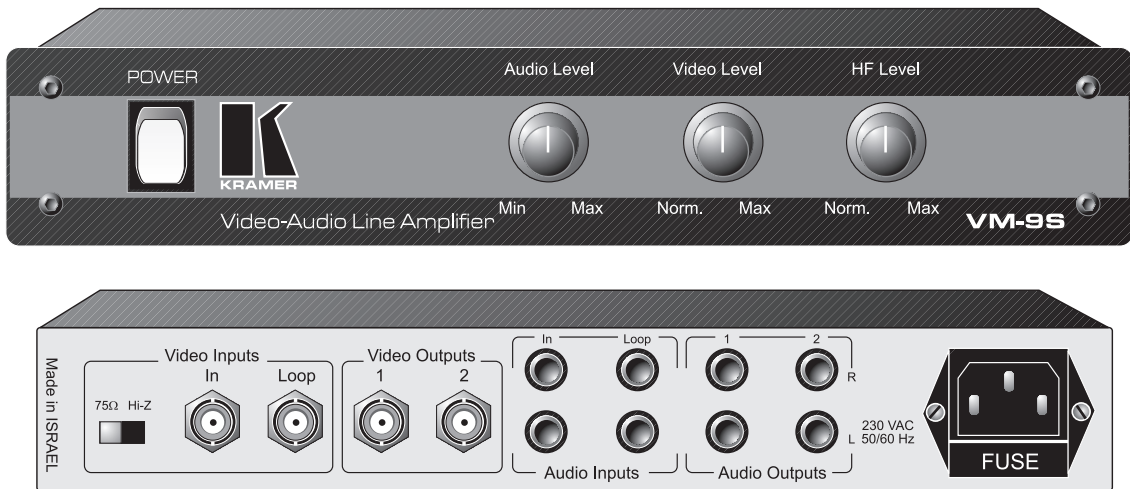
Technical Specifications:

INPUTS:	1 video, looping, 1Vpp / 75Ω, on BNCs with termination switch.
	1 stereo audio, 1Vpp / 25kΩ, on RCAs.
OUTPUTS:	2 video 1Vpp / 75 Ω on BNCs.
	2 stereo audio, 1Vpp / 100Ω on RCAs.
VIDEO BANDWIDTH:	84 MHz -3dB.
AUDIO BANDWIDTH:	25 kHz -1dB .
CONTROLS:	0 / +8dB (audio and video).
COUPLING:	DC (video), AC (audio).
THD (1kHz):	< 0.03%.

DIFF. GAIN:	0.2%.	**S/N RATIO:**	-74dB.
DIFF. PHASE:	0.5 Deg.	**K-FACTOR:**	<0.05%.

MAX. VIDEO OUTPUT:	2 Vpp.
POWER SOURCE:	230 VAC, 50/60 Hz (115VAC U.S.A.), 3.5 VA.
DIMENSIONS:	24.5cm X 18cm X 4.5cm (9.6" x 7" x 1.8", W, D, H.)
WEIGHT:	1.2 Kg. (2.6 Lbs.) Approx.
ACCESSORIES:	Power cord.
OPTIONS:	RK-MED rack kit holds one unit in two vertical rack spaces.

Typical Applications:

❖ *Any professional system requiring an A/V distribution amplifier for long cable runs with controls.*
❖ *Schools, hospitals.*
❖ *Retail stores, point-of-sale applications.*
❖ *CCTV and security systems.*

1:2 Y/C Line Amplifier   VM-9YC

The Kramer **VM-9YC** is a newly updated high performance 1:2 distribution amplifier for s-Video (Y/C) signals which also provides controls to compensate for signal losses and phase shift inherent in long cable runs. There are two buffered outputs carrying identical signals, however they each use different connectors. The first features the 4-pin connector, and the other uses the dual BNC format. For local monitoring or for expanding to larger systems, a looping 4-pin connector is provided which is not affected by the front panel controls. Front panel controls allow separate adjustment of gain for luminance and chrominance, along with phase shift for chrominance and high frequency EQ for the luminance channel.

Bandwidth exceeding 320MHz ensures transparent performance even with specialized high-resolution signals. The **VM-9YC** is rugged, dependable, and is housed in a convenient desktop sized enclosure which can also be rack mounted using the **RK-80** kit which holds two units in one vertical space.
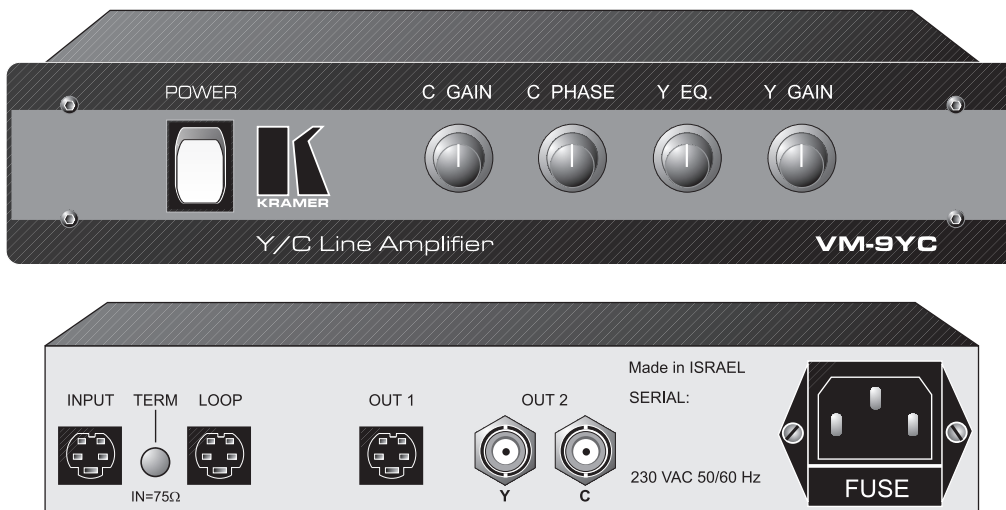
Technical Specifications:

INPUTS:	1 Y/C, Looping, 1Vpp / 75Ω, (Y), 0.3 Vpp/75Ω (C) on 4P connectors with termination switch.
OUTPUTS:	2 Y/C, 1Vpp / 75Ω, (Y), 0.3 Vpp/75Ω (C) on 4P connectors.
"Y" BANDWIDTH:	320 MHz -3dB.
CONTROLS:	-0.6dB / +4.1dB (Y and C levels), -25 to + 90 Degrees (C phase).

COUPLING:	DC (Y), AC (C).	**DIFF. GAIN:**	0.07%.
DIFF. PHASE:	0.05 Deg.	**K-FACTOR:**	<0.05% (normal).
MAX. VIDEO OUTPUT:	2 Vpp.	**S/N RATIO:**	-77dB.

DIMENSIONS:	22cm X 18cm X 4.5cm (8.6" x 7" x 1.8", W, D, H.)
POWER SOURCE:	230 VAC, 50/60 Hz (115VAC U.S.A.), 5.1 VA.
WEIGHT:	1.3 Kg. (2.9 Lbs.) Approx.
ACCESSORIES:	Power cord.
OPTIONS:	RK-80 rack kit holds two units in one vertical space.

Typical Applications:

❖ *Any professional system requiring a Y/C - Audio distribution amplifier for long cable runs with controls.*
❖ *Schools, hospitals, CCTV and security systems.*
❖ *Retail stores, point-of-sale applications.*

1:3 Video Distributor   VM-3V

The Kramer **VM-3V** is a high quality 1:3 distribution amplifier for composite video signals using BNC connectors. It accepts a video signal and provides three identical outputs to drive monitors, projectors, or other receiving devices. It is housed in a rugged, compact enclosure for convenient desktop use. Also, three **VM-3** series products can be mounted in two vertical rack spaces using the **RK-SM** adapter kit. A 12VDC power supply is provided for typical use but the optional **VA50P** can power up to six Kramer products requiring 12VDC.

Technical Specifications:

INPUT:	1 composite video, 1Vpp / 75Ω, on a BNC connector.
OUTPUTS:	3 composite video 1Vpp / 75 Ω on BNCs.
VIDEO BANDWIDTH:	60 MHz -3dB.
COUPLING:	AC.
DIFF. GAIN:	0.05%.
DIFF. PHASE:	0.13 Deg.
S/N RATIO:	-73dB.
K-FACTOR:	0.5%.
MAX. VIDEO OUTPUT:	2 Vpp.
POWER SOURCE:	12 VDC, 50mA.
DIMENSIONS:	11.7cm x 6cm x 3.2cm (4.6" x 2.4" x 1.3", W, D, H.).
WEIGHT:	0.28Kg. (0.6 Lbs.) Approx.
ACCESSORIES:	12VDC power supply.
OPTIONS:	RK-SM rack kit, model VA-50P six outlet power supply.

Typical Applications:

- ❖ *Video duplication studios, delivering high quality video duplicates.*
- ❖ *Retail stores and other point-of sale systems requiring an identical picture on several monitors.*
- ❖ *All field and CCTV video distribution needs.*

1:3 s-Video Distributor   VM-3S

The Kramer **VM-3S** is a high quality 1:3 distribution amplifier for s-Video (Y/C) signals using four-pin connectors. It accepts an s-Video signal and provides three identical outputs to drive monitors, projectors, or other receiving devices. It is housed in a rugged, compact enclosure for convenient desktop use. Also, three VM-3 series products can be mounted in two vertical rack spaces using the **RK-SM** adapter kit. A 12VDC power supply is provided for typical use but the optional **VA50P** can power up to six Kramer products requiring 12VDC.

Technical Specifications:

INPUT:	1 s-Video, 1Vpp / 75Ω (Y), 0.3Vpp / 75Ω (C), on a 4P connector.
OUTPUTS:	3 s-Video, 1Vpp / 75Ω (Y), 0.3Vpp / 75Ω (C), on 4P connectors.
VIDEO BANDWIDTH:	60 MHz -3dB (Y).
COUPLING:	AC.
DIFF. GAIN:	0.03%.
DIFF. PHASE:	0.03 Deg.
S/N RATIO:	-70dB.
K-FACTOR:	0.4%.
MAX. VIDEO OUTPUT:	2 Vpp (Y).
POWER SOURCE:	12 VDC, 70mA.
DIMENSIONS:	11.7cm X 6cm X 3.2cm (4.6" x 2.4" x 1.3", W, D, H.).
WEIGHT:	0.24 Kg. (0.5 Lbs.) Approx.
ACCESSORIES:	12VDC power supply.
OPTIONS:	RK-SM rack kit, model VA-50P six-outlet power supply.

Typical Applications:

❖ *Video duplication studios, delivering high quality s-Video duplicates.*
❖ *Retail stores and other point-of-sale systems requiring an identical picture on several monitors.*
❖ *All field and studio s-Video distribution needs.*

1:5 Video Distributor   VM-50V

The Kramer **VM-50V** is a high quality 1:5 distribution amplifier for video signals. It accepts one input and distributes the signal to five identical outputs using BNC connectors. The **VM-50V** is typically used for composite video sources such as VCR's, cameras, etc., but because of bandwidth exceeding 480MHz, it can also be used for high resolution video signals, SDI (serial digital) video, and other specialized signals. The looping connector can be used as an additional output in some applications, and can also be used to create larger systems. The **VM-50V** operates stand-alone, or is the perfect companion to other Kramer **"VM-50"** series products like the **VM-50A** audio DA, or the **VM-50YC** s-Video DA.

A 12VDC power supply is included for typical operation, but the optional **VA-50P** can power as many as six Kramer products requiring 12VDC. The **VM-50V** is rugged, dependable, and is housed in a convenient desktop sized enclosure which can also be rack mounted using the **RK-50R** kit which holds two pieces in two vertical spaces of a standard 19" rack.

Technical Specifications:

INPUT:	1 video, looping, 1Vpp / 75Ω on BNCs with a termination switch.
OUTPUTS:	5 video, 1Vpp / 75Ω on BNCs.
VIDEO BANDWIDTH:	480 MHz -3dB.
COUPLING:	AC.
DIFF. GAIN:	0.05% .
DIFF. PHASE:	0.12 Deg.
S/N RATIO:	73dB.
K-FACTOR:	<0.05%.
MAX. VIDEO OUTPUT:	2 Vpp.
POWER SOURCE:	12 VDC, 40mA.
DIMENSIONS:	16.5cm X 12cm X 4.5cm (6.5" x 4.7" x 2.8", W, D, H.)
WEIGHT:	0.62 Kg. (1.4 Lbs.) Approx.
ACCESSORIES:	12VDC power supply, brackets for stacking multiple units.
OPTIONS:	VA-50P six-outlet power supply, RK-50R rack mount kit.

Typical Applications:

❖ *Production and duplication facilities.*
❖ *Schools, boardrooms, any A/V system requiring high quality signal distribution.*
❖ *Retail stores, point-of-sale systems, CCTV and security applications*

1:5 Audio Distribution Amplifier   VM-50A

The Kramer **VM-50A** is a high quality 1:5 distribution amplifier for stereo audio signals. It accepts one stereo input and distributes the signal to five identical outputs using RCA connectors. The **VM-50A** is typically used for unbalanced stereo audio sources such as VCR's, portable cassette and CD players, computer sound cards, etc., but can also distribute a balanced mono signal using adapter cables made from parts available at most electronic component stores. The looping connectors can be used as an additional output in some applications, and can also be used to create larger systems. The **VM-50A** operates stand-alone, or is the perfect companion to other Kramer **"VM-50"** series products like the **VM-50V** video DA, or the **VM-50YC** s-Video DA. A 12VDC power supply is included for typical operation, but the optional **VA-50P** can power as many as six Kramer products requiring 12VDC. The **VM-50A** is rugged, dependable, and is housed in a convenient desktop sized enclosure which can also be rack mounted using the **RK-50R** kit which holds two pieces in two vertical spaces of a standard 19" rack.

Technical Specifications:

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INPUT:	1 stereo audio, looping, +4dBm / 50kΩ on RCAs.
OUTPUTS:	5 stereo audio, +4dBm / 100Ω on RCAs.
AUDIO BANDWIDTH:	25 kHz -3dB.
COUPLING:	AC.
S/N RATIO:	83 dB. Unweighted.
THD:	< 0.018%.
2nd HARMONIC:	0.003%.
MAX. OUTPUT:	25 Vpp.
POWER SOURCE:	12 VDC, 40mA..
DIMENSIONS:	16.5cm X 12cm X 4.5cm (6.5" x 4.7" x 2.8", W, D, H.)
WEIGHT:	0.62 Kg. (1.4 Lbs.) Approx.
ACCESSORIES:	12VDC power supply, bracket for stacking multiple units.
OPTIONS:	RK-50R rack kit, other Kramer *VM-50* and *VS-55* series DAs and switchers.

Typical Applications:

❖ *Production and duplication facilities.*
❖ *Schools, boardrooms, any A/V system requiring high quality signal distribution.*
❖ *Retail stores, point-of-sale systems, CCTV and security applications.*

1:5 s-Video Distribution Amplifier   VM-50YC

The Kramer **VM-50YC** is a high quality 1:5 distribution amplifier for s-Video (Y/C) signals. It accepts one input and distributes the signal to five identical outputs using 4pin connectors. The **VM-50YC** is typically used for composite video sources such as VCR's, cameras, etc., but by using adapters to break out to the dual BNC format, it can operate as a two channel composite video DA. The looping connector can be used as a sixth output in some applications, or can also be used to create larger systems. The **VM-50YC** operates stand-alone, or is the perfect companion to other Kramer **"VM-50"** series products like the **VM-50A** audio DA, or the **VM-50V** composite video DA.

A 12VDC power supply is included for typical operation, but the optional **VA-50P** can power as many as six Kramer products requiring 12VDC. The **VM-50YC** is rugged, dependable, and is housed in a convenient desktop sized enclosure which can also be rack mounted using the **RK-50R** kit which holds two pieces in two vertical spaces of a standard 19" rack.
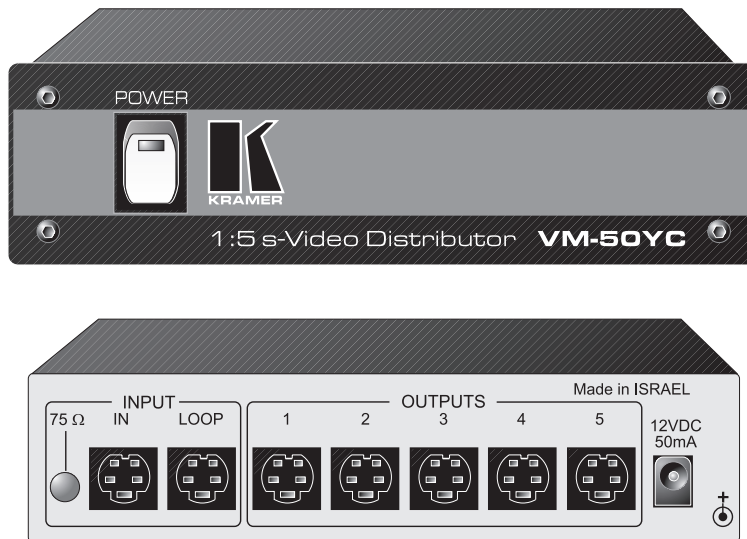
Technical Specifications:

INPUT:	1 s-Video, looping, 1Vpp / 75Ω (Y), 0.3Vpp / 75Ω (C), on *4P* connectors with a termination switch.
OUTPUTS:	5 s-Video, looping, 1Vpp / 75Ω (Y), 0.3Vpp / 75Ω (C), on *4P* connectors.
VIDEO BANDWIDTH:	280 MHz -3dB (Y).
COUPLING:	AC.
DIFF. GAIN:	0.05% .
DIFF. PHASE:	0.05 Deg.
S/N RATIO:	80.5dB.
K-FACTOR:	<0.1%.
MAX. VIDEO OUTPUT:	2 Vpp (Y).
POWER SOURCE:	12 VDC, 50mA.
DIMENSIONS:	16.5cm X 12cm X 4.5cm (6.5" x 4.7" x 2.8", W, D, H.)
WEIGHT:	0.58 Kg. (1.3 Lbs.) Approx.
ACCESSORIES:	12VDC power supply, bracket for stacking multiple units.
OPTIONS:	VA-50P six-outlet power supply, RK-50R rack kit.

Typical Applications:

❖ *Production and duplication facilities.*
❖ *Schools, boardrooms, any A/V system requiring high quality signal distribution.*
❖ *Retail stores, point-of-sale systems, CCTV and security applications.*

1:5 Headphone Distributor VM-50H

The Kramer **VM-50H** is a high quality 1:5 stereo headphone distribution amplifier using ¼" TRS connectors. It accepts one stereo headphone input source, and distributes it to five identical outputs, providing each output with an independent level control. Apart from its typical use, the **VM-50H** can drive low impedance headphones or five sets of small loudspeakers. It has a mono switch designed to ensure that a mono input signal is routed to both sides of the headsets, and can also deliver 10 identical mono outputs instead of 5 stereo outputs.

The **VM-50H** comes with an external 12VDC power supply for typical operation, but the optional **VA-50P** can power up to six Kramer products requiring 12VDC. It is housed in a rugged desktop enclosure but, using the **RK-50R** kit, two can be rack mounted in two vertical spaces of a standard 19" rack.

Technical Specifications:

INPUTS:	1 stereo audio, 1Vpp/50 kΩ on 6.5 mm stereo phones socket.
OUTPUTS:	5 stereo audio, 500mW /8 Ω on 6.5 mm stereo phones sockets.
AUDIO BANDWIDTH:	20 - 100,000 Hz. -3dB.
CONTROLS:	5 stereo output level controls (front), 1 Mono switch (rear).
GAIN RANGE:	70 dB (-60dB to +10dB).
T.H.D:	Less than 0.08% @ 100mW.
S/N RATIO:	Better than 78 dB.
POWER SOURCE:	12VDC 370mA nom, 1 Amp Max.
DIMENSIONS:	16.5cm x 12cm x 4.5cm (6.5" x 4.7" x 1.8", W, D, H.).
WEIGHT:	0.68 Kg. (1.5 Lbs.) Approx.
ACCESSORIES:	12VDC power supply.
OPTIONS:	RK-50R rack kit, VA-50P six outlet power supply.

Typical Applications:

- ❖ *Recording and project studios.*
- ❖ *Audio monitoring in distribution or duplication systems.*
- ❖ *Retail stores and other point-of-sale systems.*
- ❖ *Many other audio distribution applications.*

1:5 Video Audio Distributor VM-5S

The Kramer **VM-5S** is an exceptionally high performance 1:5 distribution amplifier for video and stereo audio signals. It accepts one input and distributes the signal to five identical outputs using BNC connectors for video and RCA connectors for audio. The **VM-5S** is typically used for composite video sources such as VCR's, cameras, etc., but video bandwidth exceeding 350MHz allows it to also be used for high-resolution video signals, SDI (serial digital) video, and other specialized signals. The looping option can be used to create larger systems. The dual RCA audio section can be easily adapted to handle balanced mono audio signals. The **VM-5S** is rugged, dependable, and is housed in a convenient half-rack sized enclosure for desktop use, but can also be rack mounted using the **RK-80** kit, which holds two units in one vertical space of a standard 19" rack.

Technical Specifications:

INPUT: 1 video AC/DC coupled (internal jumper selected), looping 1Vpp / 75 Ω on BNC connector with rear termination switch. 1 stereo audio / mono balanced, up to 21V / 50k Ω on RCAs.

OUTPUTS: 5 Video, 1 Vpp/75 Ω on BNC connectors.
5 Audio Stereo / Balanced mono, up to 21V / 220 Ω on RCAs.

VIDEO BANDWIDTH:	Exceeding 350 MHz.	**AUDIO BANDWIDTH:**	100 kHz.
VIDEO S/N RATIO:	75 dB.	**AUDIO THD:**	0.009%.
SDI EFFECTIVE RANGE:	Up to 70 meters.	**AUDIO S/N:**	> 82 dB @ 1V.
COUPLING:	DC/AC internally selectable.	**MAX. AUDIO LEVEL:**	+20 dBm.
K-FACTOR:	<0.05%.	**MAX. VIDEO OUTPUT**:	1.7 Vpp.
DIFF. GAIN:	0.05 %.	**DIFF. PHASE:**	0.1 Deg.
DIMENSIONS:	22cm X 18cm X 4.5cm (8.7" x 7" x 1.8", W, D, H., half 19").		
POWER SOURCE:	230VAC, 50/60 Hz, (115V U.S.A.) 3.5 VA.		
WEIGHT:	1.4 Kg. (3.3 Lbs.) Approx.		
ACCESSORIES:	Power cord.		
OPTIONS:	RK-80 rack kit holds two units in one vertical rack space.		

Typical Applications:

❖ *Any professional A/V system requiring high quality signal distribution.*
❖ *Duplication facilities.*
❖ *Schools, retail stores, CCTV and security applications.*
❖ *Studio RGB/YUV distribution using multiple VM-5S's in parallel.*

Balanced Audio Distributor   VM-5AD

The Kramer **VM**-**5AD** is a high quality 1:5 distribution amplifier for balanced mono, or unbalanced stereo audio signals. Using XLR connectors, it accepts one input and provides five identical outputs to send the signal to power amplifiers, mixers, or other receiving devices. Front panel buttons are provided to select balanced mono or unbalanced stereo operation, and separate L/R level controls are provided to optimize output levels. A front panel switch selects Mic or line level input, and the wide dynamic range allows a Mic input to be boosted to line level using the level controls.

All circuitry is active with no transformers, ensuring transparent, hum-free operation. The **VM-5AD** is rugged, dependable, and is housed in a convenient desktop sized enclosure but can be rack mounted using the **RK-MED** kit which holds one unit in two vertical spaces of a standard 19" rack.

Technical Specifications:

|	
INPUTS:	One balanced mono audio, or unbalanced stereo, up to 18Vpp/50kΩ on a female XLR.
	Mic state - one balanced mono Mic or unbalanced stereo Mic - 5mV/10kΩ.
OUTPUTS:	5 balanced mono audio or unbalanced stereo, up to 20Vpp/50 Ω on male XLRs.
AUDIO BANDWIDTH:	80 kHz -3dB.
S/N RATIO:	Better than 88 dB.
CHANNEL MATCH:	> 60dB.
THD:	0.011%.
LEVEL RANGE:	20dB.
POWER SOURCE:	230VAC, 50/60 Hz (115V U.S.A.), 3.4 VA.
DIMENSIONS:	24.5cm X 18cm X 4.5cm (9.6" x 7" x 1.8", W, D, H).
WEIGHT:	1.2 Kg. (2.7 Lbs.) Approx.
ACCESSORIES:	Power cord.
OPTIONS:	RK-MED rack kit holds one unit in two vertical spaces.

Typical Applications:

❖ *Any professional A/V system requiring audio distribution.*
❖ *Duplication facilities.*
❖ *Public address systems.*

Video Switcher-Distributor   VM-42

The Kramer **VM-42** is an exceptionally unique product, which combines the functions of a composite video switcher and distribution amplifier. It is a 4:1 vertical interval switcher, and each of the four inputs also operates as a 1:2-distribution amplifier. In addition to the four sets of 1:2, inputs may be linked in any combination making the **VM-42** a 1:8 DA, a dual 1:4 DA or any other combination. The VM-42 is rugged, dependable, and is housed in a convenient desktop sized enclosure, but can be mounted in a professional 19" rack using the **RK-MED** kit, which holds one unit in two vertical spaces of a standard rack.
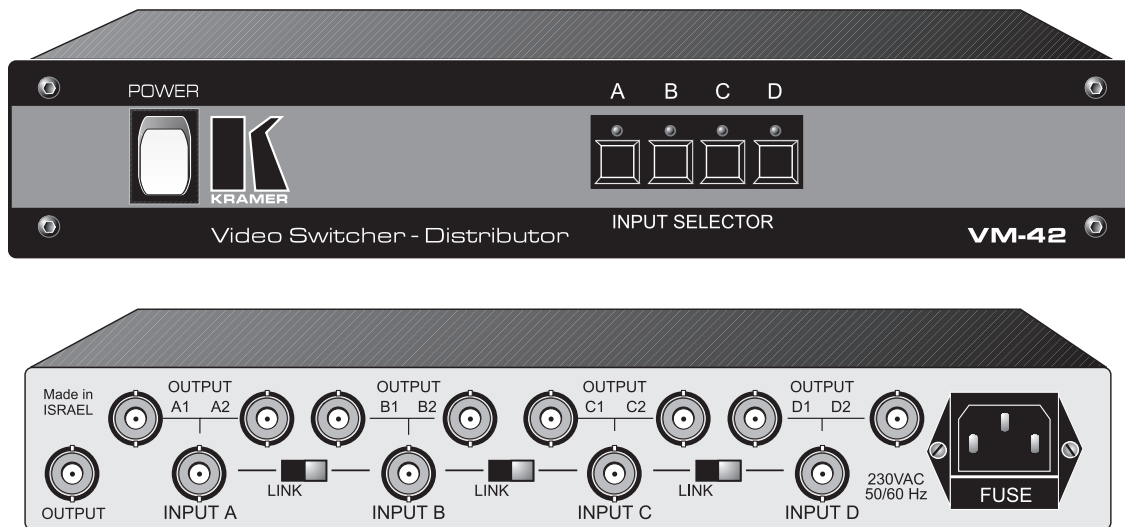
Technical Specifications:

INPUTS:	4 composite video, 1Vpp / 75Ω, on BNCs.
OUTPUTS:	4x2 composite, linkable to become 2x4, 1x6+1x2 1Vpp / 75 Ω on BNCs.
	1 switch selected composite video 1Vpp / 75Ω on a BNC.
VIDEO BANDWIDTH:	200 MHz -3dB.
CROSSTALK:	-40 dB @ 10MHz.
COUPLING:	DC / AC.
DIFF. GAIN:	0.12%.
DIFF. PHASE:	0.11 Deg.
S/N RATIO:	-73dB.
K-FACTOR:	<0.05%.
MAX. VIDEO OUTPUT:	2 Vpp.
POWER SOURCE:	230 VAC, 50/60 Hz (115VAC U.S.A.) 4.6 VA.
DIMENSIONS:	24.5cm X 18cm X 4.5cm (9.6" x 7" x 1.8", W, D, H.)
WEIGHT:	1.5 Kg. (3.3 Lbs.) Approx.
ACCESSORIES:	Power cord.
OPTIONS:	RK-MED rack mount kit holds one unit in two vertical spaces.

Typical Applications:

❖ *Small studio video distribution applications.*
❖ *Video switching and routing in studios, shops and showrooms.*
❖ *A preview and input multiplier for video switchers and mixers.*

1:8 Audio Distributor VM-80A

The Kramer **VM-80A** is a broadcast quality distribution amplifier designed for balanced audio signals on detachable screw terminal connectors. Using a simple front panel selector, it can be configured either as a single 1:8 DA, or as two separate 1:4's. In either mode its purpose is to provide identical outputs to drive audio amplifiers, mixers, or other receiving devices. The **VM-80V** is the companion unit for distributing video signals.

Two sets of recessed front panel controls are provided for fine-tuning of left and right output levels. The **VM-80A** is housed in a rugged, professional half-rack enclosure with an internal power supply allowing the use of a standard, detachable AC power cord. Two "**80**" series products can be mounted in one vertical rack space using the **RK-80** kit.
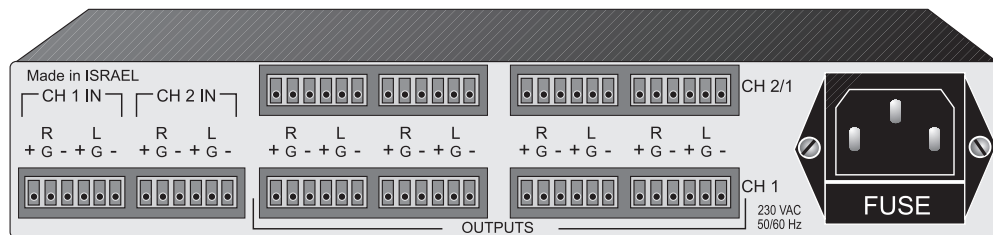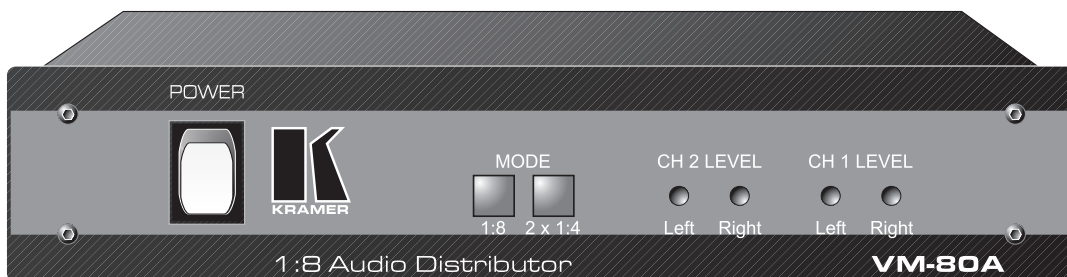
Technical Specifications:

INPUTS:	2 balanced stereo audio +4dBm, 100 kΩ on terminal block connectors.
OUTPUTS:	2 x 4 balanced stereo audio, +4dBm, 50 Ω on terminal block connectors.
AUDIO BANDWIDTH:	20 kHz. -1dB.
COUPLING:	AC.
THD+NOISE:	Less than 0.02%.
CROSSTALK:	-60dB.
S/N RATIO:	100dB /1V.
MAX. AUDIO OUTPUT:	20 Vpp.
POWER SOURCE:	230 VAC, 50/60 Hz (115VAC U.S.A.) 6.7 VA.
DIMENSIONS:	22cm X 18cm X 4.5cm (8.7" x 7" x 1.8", W, D, H., half 19").
WEIGHT:	1.2 Kg. (2.7 Lbs.) Approx.
ACCESSORIES:	Detachable AC power cord.
OPTIONS:	RK-80 rack kit, VM-80V companion video DA.

Typical Applications:

❖ *Any professional A/V system requiring high quality signal distribution.*
❖ *Audio duplication facilities.*
❖ *Recording studios.*
❖ *Broadcast studios for on-line signal distribution.*

1:8 Video Distribution Amp   VM-80V

The Kramer **VM-80V** is a broadcast quality distribution amplifier designed primarily for composite video signals on BNC connectors. Using a simple rear panel switch, it can be configured either as a single 1:8 DA, or as two separate 1:4s. In either mode its purpose is to provide identical outputs to drive multiple monitors, projectors or other receiving devices. Bandwidth exceeding 330MHz ensures transparent performance, even with high-resolution analog and SDI (serial digital) video signals. The inputs can be un-terminated to provide looping capability, making it easy to create larger systems. The **VM-80A** is the companion unit for distributing balanced audio signals.

Two sets of recessed front panel controls are provided for fine-tuning of gain and high frequency EQ. The **VM-80V** is housed in a rugged, professional half-rack enclosure with an internal power supply allowing the use of a standard, detachable AC power cord. Two "**80**" series products can be mounted in one vertical rack space using the **RK-80** kit.

Technical Specifications:

INPUTS:	2 video, looping, 1Vpp / 75Ω, on BNCs with termination switches.
OUTPUTS:	2 x 4 Video 1Vpp / 75 Ω on BNCs.
VIDEO BANDWIDTH:	330MHz. +/- 3dB.
COUPLING:	AC or DC (internal selection.)
NONLINEARITY:	Less than 0.1%.
DIFF. GAIN:	0.12% .
DIFF. PHASE:	0.5 Deg.
S/N RATIO:	-74dB
K-FACTOR:	<0.1%.
MAX. OUTPUT:	2 Vpp.
POWER SOURCE:	230 VAC, 50/60 Hz (115VAC, U.S.A.) 6.2 VA.
DIMENSIONS:	22cm X 18cm X 4.5cm (8.7" x 7" x 1.8", W, D, H., half 19").
WEIGHT:	1.3 Kg. (2.9 Lbs.) Approx.
ACCESSORIES:	Power cord.
OPTIONS:	RK-80 rack kit, VM-80A companion DA for balanced audio.

Typical Applications:

❖   *Any professional A/V system requiring high performance signal distribution.*
❖   *Video production studios for source mastering.*
❖   *Specialized high resolution video and SDI distribution.*
❖   *Distribution of component video, RGBS, and other multi-channel formats using multiple VM-80Vs operating in parallel.*

1:10 A/V Distributor   VM-10AN

The Kramer **VM**-**10AN** is a compact, high quality 1:10 distribution amplifier using BNC connectors for composite video, and RCA connectors for stereo audio signals. It accepts one set of inputs, provides correct buffering and isolation, and distributes it to up to ten identical outputs designed to drive monitors, projectors, and other receiving devices. Bandwidth exceeding 70MHz ensures transparent performance with typical video and audio sources. Looping inputs make it easy to expand to larger distribution systems.

The **VM**-**10AN** is rugged, dependable, and is housed in a convenient desktop sized enclosure. It can also be mounted in a standard 19" rack using the **RK**-**10** kit, which holds one unit in two vertical spaces.
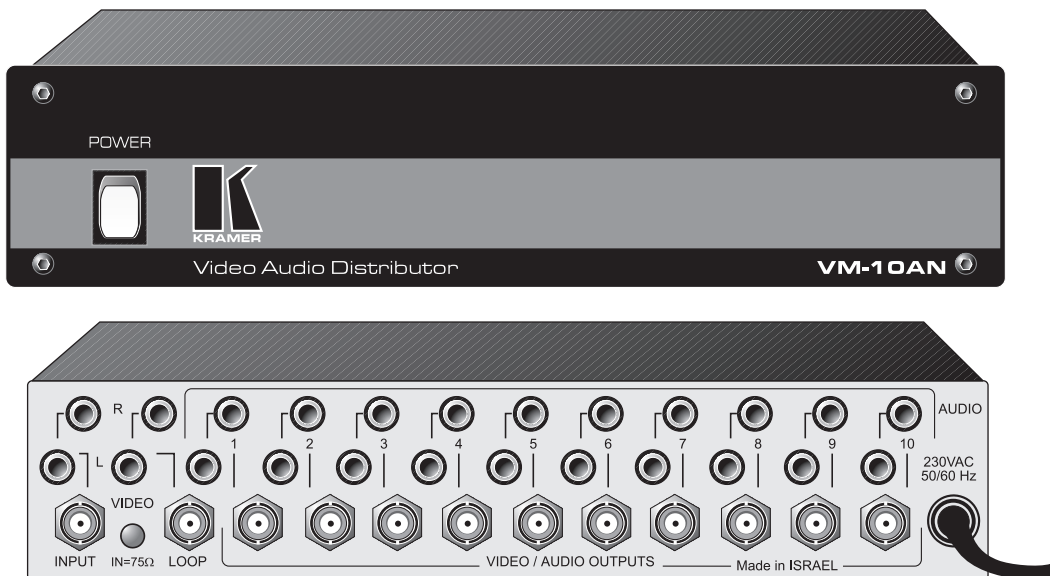
Technical Specifications:

INPUTS:	1 video looping, 1Vpp/75 Ω on BNCs with termination switch.
	1 stereo audio 50 kΩ, looping on RCAs.
OUTPUTS:	10 composite video 1 Vpp/75 Ω on BNCs.
	10 stereo audio 100 Ω, 1V nom. on RCAs.

VIDEO BANDWIDTH:	77 MHz -3dB.	**VIDEO S/N RATIO:**	Better than 74 dB.
AUDIO THD:	Less than 0.025%.	**AUDIO S/N RATIO:**	Better than 89 dB.
COUPLING:	DC/AC internally selectable (video).	**AUDIO BANDWIDTH:**	20 kHz -1dB.
DIFF. GAIN:	0.33 %.	**DIFF. PHASE:**	0.26 Deg.
MAX. VIDEO OUTPUT:	2.5 Vpp.	**K-FACTOR:**	<0.05%.
POWER SOURCE:	230VAC 50/60 Hz (115V U.S.A.) 10.5 VA.		
DIMENSIONS:	24.5cm X 16cm X 5cm (9.6" x 6.3" x 2", H, W, D.)		
WEIGHT:	1.8 Kg. (4 Lbs.) Approx.		

Typical Applications:

❖ *Duplication facilities.*
❖ *Broadcast, production, or presentation systems requiring high quality signal distribution.*
❖ *Schools, retail, sports bars, other point-of-sale and CCTV application.*