

Panasonic

AG-MX70
Digital A/V Mixer




DYNAMIC
ROUNDING

AG-MX70 Digital A/V Mixer

**4:2:2:4 Picture Quality, 3D Effects, SDI In/Out,
and Title Animation — Plus Easy Operation
and Outstanding Cost-Performance.**

With the AG-MX70 digital A/V mixer, Panasonic has integrated a 2-BUS, 8-input video switcher, multi-functional digital video effects unit with high-end performance, and an audio mixer into a single compact unit.

The AG-MX70 provides broadcast-grade 4:2:2:4 digital component picture quality.

It features more than 600 effect patterns and a 30-frame graphics buffer for roll, crawl, and logo animation using title files downloaded from a PC. A large LCD panel with a matrix menu helps assure quick, easy operation. Offering optional 3D video effects and SDI interface, this A/V mixer is ready for full-fledged digital post-production.

The versatile AG-MX70 is right at home when connected to DVCPRO VTRs in a digital editing system, or when used as a switcher either in the studio or at live events.



Creative, Intelligent, Versatile



Accordion



Flag



Page turn



Melt

4:2:2:4 Digital Processing, 16:9 Wipe Patterns

The AG-MX70 provides high quality 4:2:2:4 digital component signal processing, and wipe patterns accommodates both 16:9 and 4:3 image production needs.

Large LCD Screen, Matrix Menu

A large LCD panel permits easy monitoring of system status. A five-row matrix menu display with five rotary switches makes it easy to understand and set the AG-MX70's multitude of functions. The menu, which is linked to keys on the operating panel, automatically switches to show the necessary settings. This simplifies operation and reduces steps.

2D and 3D Video Effects

Equipped with over 600 2-dimensional effects -- including transition and key patterns, mosaic, paint, trail, and multi-image digital effects -- the versatile AG-MX70 has all it takes to create professional production results. The optional AG-VE70 3D Effects Board provides more than 1,600 3D digital effects, including page turn, ripple, and sphere. The 2D and 3D effects can be combined to create sophisticated image expressions that rival many high-end DVEs.

Roll, Crawl, and Logo Animation

MX-Navi makes it easy to download graphics files (TGA, BMP, JPEG) created with the other graphics applications, via a USB terminal. Downloads go to the internal graphics buffer* for use in creating roll or crawl titles, logo animation, and other effects.

*NTSC: 640 x 480 pixels x 30 frames, PAL: 768 x 576 pixels x 26 frames

Serial Digital In/Out

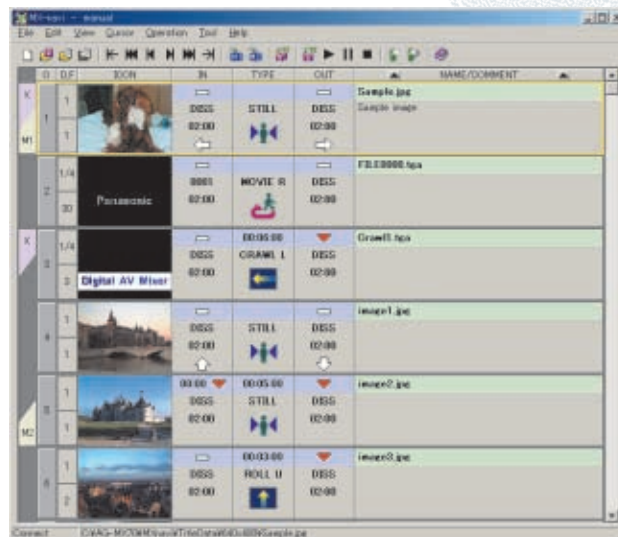
Adding the optional AG-YA70 SDI Board gives the AG-MX70 a 4-input/1-output serial digital component interface (SMPTE 259M-C). This is ideal for configuring an editing system with DVCPRO or other digital VTRs.

8 Video Inputs

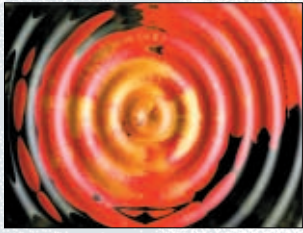
The AG-MX70 is ready for live multi-camera feeds, with a total of eight analog composite inputs, or four analog component Y/Pb/Pr or YC inputs and four SDI inputs.

Joy Stick Controller

The easy-to-handle joy stick lets you intuitively position or size your effects, and select or adjust colors.



MX-Navi application window



Ripple



Multi screen



Sphere



Trail

Audio Mixing

The AG-MX70 provides versatile audio mixing with four Stereo Inputs plus two Auxiliary Mono Inputs, one of which may be a mic input. Audio can be linked or unlinked to video transitions. The AG-MX70 is also equipped with a headphone jack. The level meters are displayed on the LCD.

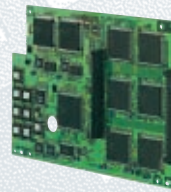
Tally Output

Tally outputs for up to eight cameras are provided, for using the AG-MX70 as a switcher at live events.

Other Functions

- Numeric keypad for setting pattern numbers and other values.
- A total of 13 patterns are preset; other patterns can be stored in memory.
- Digital chroma key, digital luminance key
- M/E(Mix Effects) preview, DSK(Down Stream Key) preview
- Editor terminal (9-pin) for either RS-422 or RS-232C connection

Optinal Boards



AG-VE70
3-Dimension Effects Board



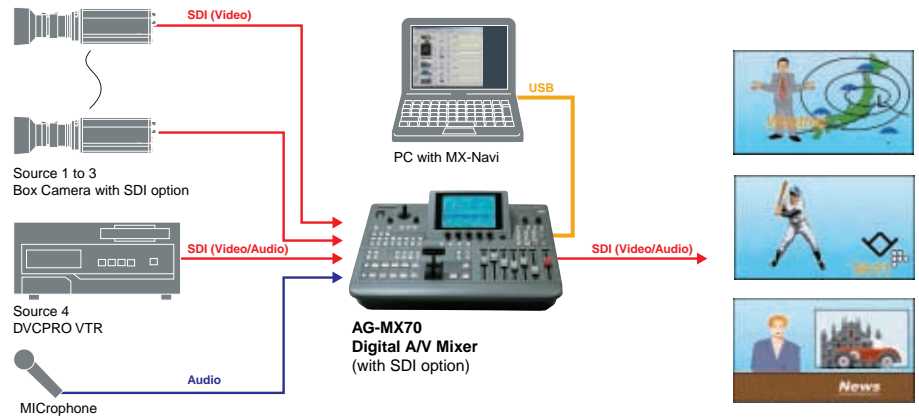
AG-YA70
Serial Digital Interface Board



System Applications

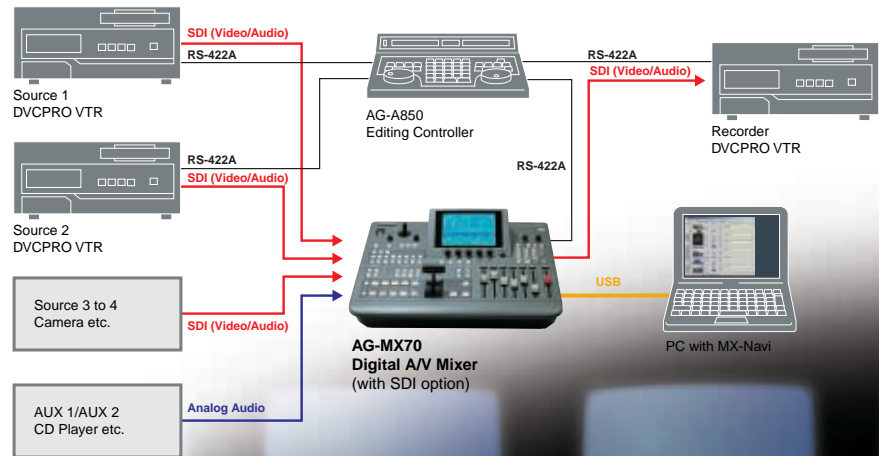
Live Application

Eight video inputs, each with tally output, and M/E and DSK preview prepare the AG-MX70 for use as a switcher with multi-camera feeds for live studio or event applications. Adding the optional SDI interface also enables high-quality digital input. Titles and graphics created on a PC can be downloading from MX-Navi application, and easily superimposed for use in live production programming.



Editing Application

Standard-equipped RS-422A and RS-232C remote terminals and a GPI terminal allow the AG-MX70 to team up with the AG-A850 or other-brand editing controller, for A/B roll editing. With the SDI interface option on-board, a high-quality, fully digital editing system can also be configured with a DVCPRO VTR. The MX-Navi title insertion program brings the quality of program production to a level approaching many high-end systems.



SPECIFICATIONS

GENERAL

Power Source:	120VAC, 50/60Hz (AG-MX70P), 220 — 240VAC, 50/60Hz (AG-MX70E)
Power Consumption:	52W (Standard), 70W (Full Option)
Operating Temperature:	5° to 40°C
Operating Humidity:	Less than 90% (non dew)
Dimensions:	16-3/4" (W) x 7-13/16" (H) x 15-3/4" (D) 424 (W) x 197 (H) x 400 (D) mm
Weight:	18.1 lbs (8.2 kg) in Standard 19.2 lbs (8.7 kg) with Full Option

MAIN VIDEO INPUT

Analog Composite:	BNC x 8 (SOURCE 1 — 8), 1.0Vp-p 75Ω
Analog Component :	BNC x 4 (SOURCE 1/2/3/4), Y: 1.0 Vp-p 75 Ω , Pb/Pr (AG-MX70P): 0.525/0.757 Vp-p switchable 75Ω, Pb/Pr (AG-MX70E): 0.7 Vp-p 75Ω
YC (S-Video):	Mini-DIN4 x 4 (SOURCE 1/2/3/4), Y: 1.0 Vp-p, 75Ω, C: 0.286Vp-p 75Ω (AG-MX70P), 0.3Vp-p 75Ω (AG-MX70E)
SDI (Option) :	BNC x 4 (IN 1/2/3/4), SMPTE 259M-C/EBU Tech.3267-E

OTHER VIDEO INPUT

External Fill:	BNC x 1 (Y/Pb/Pr), Analog Component, Y: 1.0 Vp-p 75Ω Pb/Pr (AG-MX70P): 0.757 Vp-p 75Ω Pb/Pr(AG-MX70E): 0.7 Vp-p 75Ω *Y signal will be clipped at lower than pedestal level.
External Key :	BNC x 1, 1.0Vp-p, 75Ω, Analog Composite or Y+Sync
Genlock:	BNC x 1 (with passive-loop-through), 1.0Vp-p 75Ω On/Off

VIDEO OUTPUT

Composite Video:	BNC x 2, 1.0Vp-p 75Ω
Component Video:	BNC x 2, Y: 1.0 Vp-p 75 Ω Pb/Pr (AG-MX70P): 0.525/0.757 Vp-p switchable 75Ω Pb/Pr (AG-MX70E): 0.7 Vp-p 75Ω
YC (S-Video):	Mini-DIN4 x 2, Y: 1.0 Vp-p, 75Ω, C: 0.286Vp-p 75Ω (AG-MX70P), 0.3Vp-p 75Ω (AG-MX70E)
SDI (Option):	BNC x 1, SMPTE 259M-C/EBU Tech.3267-E
Preview:	BNC x1, Composite, 1.0Vp-p 75Ω
Advanced Reference:	BNC x 1, Composite, 75Ω, Sync: 0.286(AG-MX70P)/0.3 Vp-p (AG-MX70E) Burst: 0.286(AG-MX70P)/0.3 Vp-p (AG-MX70E)

AUDIO INPUT

Audio:	XLR (L/R pair) x 4 (SOURCE 1 — 4), +4/0/-3 dBu switchable, 10KΩ
MIC:	M6 x 1, -60 dBu, 2KΩ, unbalanced
AUX:	RCA (L/R pair) x 2, -10 dBV, 10KΩ, unbalanced
SDI (Option):	BNC x 4, Embedded Audio (CH1/2)

AUDIO OUTPUT

Audio Out 1:	XLR (L/R pair) x 1, +4/0/-3 dBu switchable, 47Ω
Audio Out 2:	RCA (L/R pair) x1, -10 dBV, 47Ω
Headphone:	M6 x 1, 8Ω, unbalanced, ∞ dBu to -20 dBu
SDI (Option):	BNC x 1, Embedded Audio (CH1/2)

OTHER PORT

Editor Port:	D-sub 9-pin, RS-422A/232C switchable RS-422A Protocol: GVG/Sony switchable
Connectable Editor:	Panasonic: AG-A850, SONY: BVE-2000, BVE-910, BVE-700, PVE-500
Tally Out:	D-sub 9-pin, Open-Collector x 8ch Collector Current: Less than 50mA, Maximum Voltage: 35VDC
GPI:	BNC x 1, Make-contact
USB:	Type-B connector x 1, USB Ver.1.1 (cable length: max. 3m)

VIDEO SPECIFICATION

Video Format:	625/525 switchable
Sampling Frequency:	Y: 13.5 MHz, Pb/Pr: 6.75MHz, Key: 13.5MHz(4:2:2:4)
Quantization:	Main In: 9 bit, External In: 8 bit
Internal Process:	4:2:2:4 8 bit, Dynamic Rounding™
S/N Ratio:	Component Out: -54 dB (Y), -52 dB (Pb/Pr) Composite or YC Out: -50 dB
Band width (Main In):	Y: 0.5 MHz to 4.5 MHz (±1.0 dB), Pb/Pr: 0.2 MHz to 2.0 MHz (+0.5/-3.0 dB)
Band width (External In):	Y: 0.5 MHz to 4.5 MHz (±1.0 dB), Pb/Pr: 0.2 MHz to 2.0 MHz (±1.0 dB)
K Factor:	Less than 1%
Differential Gain:	Less than 4%
Differential Phase:	Less than 2°

AUDIO SPECIFICATION

Sampling Frequency:	48 kHz
Quantization:	20bit
Frequency Response:	20 Hz to 20 kHz (-3.5/+1.0 dB)
Dynamic Range:	More than 85dB
THD:	Less than 0.08% (1 kHz, alliment level)
Cross Talk:	Less than -70 dB (1 kHz, between any two channels)
Headroom:	20 dB/18 dB switchable

ACCESSORIES

Standarrd:	Power cable, MX-Navi CD-ROM
Option:	AG-VE70 3-Dimension Effect Board AG-YA70 Serial Digital Interface Board

Weight and dimensions shown are approximate.

Specifications are subject to change without notice.

These products may be subject to export regulations.

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Austria	Tel. 43-1-61080-773	Kuwait	Tel. 965-481-2123	Switzerland	Tel. 41-41-259-9632
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Brazil	Tel. 55-11-3889-4035	Mexico	Tel. 52-5-488-1000	Turkey	Tel. 90-216-416-0150
Canada	Tel. 1-905-624-5010	Netherlands	Tel. 31-73-640-2721	U.A.E.	Tel. 971-4-282201
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Egypt	Tel. 20-2-3938151	Peru	Tel. 51-145-29470		
Finland	Tel. 358-9-521-5253	Philippines	Tel. 63-2-633-6162		
France	Tel. 33-149464388	Poland	Tel. 48-3912-3173		
Germany	Tel. 49-611-18160	Portugal	Tel. 351-21-424-8630		
Greece	Tel. 30-1-969-2300	Puerto Rico	Tel. 1-787-750-4300		
Hungary	Tel. 36-1-382-6060	Russia	Tel. 7-095-258-4237		
Indonesia	Tel. 62-21-801-5666 62-21-385-9449	Saudi Arabia	Tel. 966-1-465-0709		
Iran	Tel. 98-21-2271463	Singapore	Tel. 65-643-7691		
Italy	Tel. 39-02-67881	Slovakia	Tel. 421-7-5292-1423		
		South Africa	Tel. 27-11-313-1400		

