

Panasonic

ideas for life

2006
DVD Recorder



DVD
VIDEO
RAM

DIGITAL
NETWORKING

Go Smart, Go DVD-Recorder

Meet simpler operation and even higher picture quality with the latest Panasonic DVD Recorders. Boasting the specifications to deliver images at a high definition resolution (DMR-EH65), these new models offer anyone various easy ways to even more entertainment. What's more, they feature a full range of Panasonic's unique networking functions. The other good news is that a DVD-Recorder lets you store and edit family videos and photographs digitally in all their original beauty and detail.



DVB Integrated Digital Tuner

Digital Television offers a higher picture and sound quality experience!

DVB (Digital Video Broadcasting) delivers Digital Television entertainment to the home. A huge variety of programs, information and services are available in brilliant digital quality. Panasonic now introduces DVD-Recorders with integrated DVB Digital Tuners to its range, allowing you to fully take advantage of Digital Television broadcasts. Watching and enjoying Digital Television transmissions is easier than ever with Panasonic integrated DVB Digital Tuner DVD-Recorders.

DVB

High
Picture
Quality

Abundant
Programs

High
Sound
Quality

r

Easy to Use | 06

Anyone Can Record and Play Images Comfortably and Easily.



Capture all the Beauty | 10

Anyone Can Automatically Record and Play Images of Beauty.



Record and Store your Memories | 14

Anyone Can Easily Record Memorable Scenes.



DVD-Recorder Product Line-Up

DMR-EX85 DVD Recorder with 250GB Hard Disk Drive, DVB Digital Tuner, SD Slot & HDMI

»EASY OPERATION

- Viera Link
- HDMI Simple Connection
- Super Multi-format Recording & Playback
- 1 Sec. Quick Start for Recording*1
- Universal Design GUI (Graphic User Interface)

»HIGH PICTURE QUALITY

- DVB Digital Tuner (SD) Built-in
- High Definition (1080i/720p) Up-Conversion with HDMI
- 2x LP Horizontal Resolution (500 Lines)
- VCR Refresh Copying with TBC & DNR
- 443 Recording Hours onto the Hard Disk Drive (EP [8H] Mode)

»ARCHIVE

- Photo Storage & Quick View with SD Slot
- MPEG2 Movie Transfer with SD Slot*2
- DV Auto Recording & Playlist Creation



DMR-EX75 DVD Recorder with 160GB Hard Disk Drive, DVB Digital Tuner, SD Slot & HDMI

»EASY OPERATION

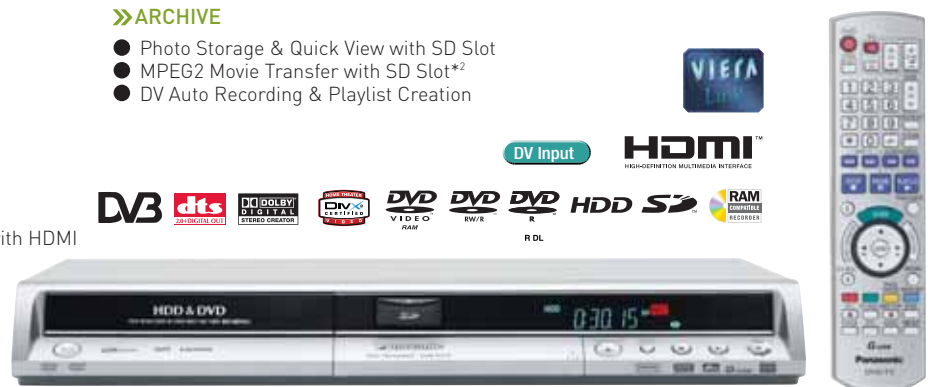
- Viera Link
- HDMI Simple Connection
- Super Multi-format Recording & Playback
- 1 Sec. Quick Start for Recording*1
- Universal Design GUI (Graphic User Interface)

»HIGH PICTURE QUALITY

- DVB Digital Tuner (SD) Built-in
- High Definition (1080i/720p) Up-Conversion with HDMI
- 2x LP Horizontal Resolution (500 Lines)
- VCR Refresh Copying with TBC & DNR
- 248 Recording Hours onto the Hard Disk Drive (EP [8H] Mode)

»ARCHIVE

- Photo Storage & Quick View with SD Slot
- MPEG2 Movie Transfer with SD Slot*2
- DV Auto Recording & Playlist Creation



DMR-EH65 DVD Recorder with 250GB Hard Disk Drive, SD Slot & HDMI

»EASY OPERATION

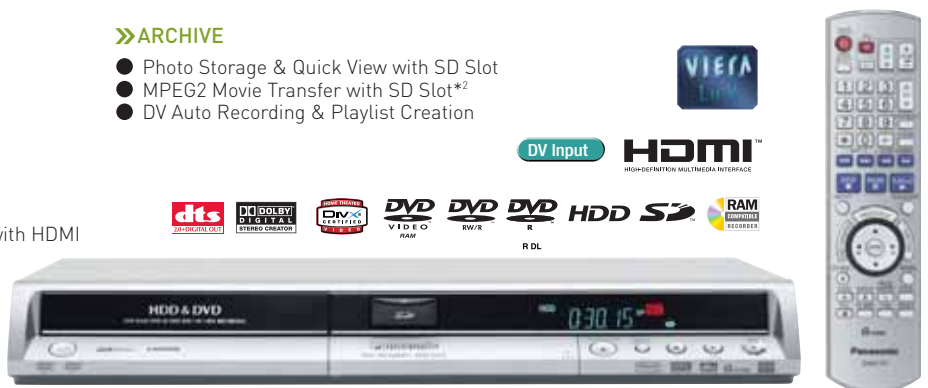
- Viera Link
- HDMI Simple Connection
- Super Multi-format Recording & Playback
- 1 Sec. Quick Start for Recording*1
- Universal Design GUI (Graphic User Interface)

»HIGH PICTURE QUALITY

- High Definition (1080i/720p) Up-Conversion with HDMI
- 2x LP Horizontal Resolution (500 Lines)
- VCR Refresh Copying with TBC & DNR
- 443 Recording Hours onto the Hard Disk Drive (EP [8H] Mode)

»ARCHIVE

- Photo Storage & Quick View with SD Slot
- MPEG2 Movie Transfer with SD Slot*2
- DV Auto Recording & Playlist Creation



Products Comparison	DMR-EX85	DMR-EX75	DMR-EH65	DMR-EH55	DMR-ES35V	DMR-ES15
HDD	250GB / 443hours (EP [8H] Mode)	160GB / 284hours (EP [8H] Mode)	250GB / 443hours (EP [8H] Mode)	160GB / 284hours (EP [8H] Mode)	—	—
DVB-T Tuner	○	○	—	—	—	—
VHS	—	—	—	—	○	—
SD Slot	○	○	○	○	—	—
HDMI	○	○	○	—	—	—
DV Input	○	○	○	○	○	○

DMR-EH55 DVD Recorder with 160GB Hard Disk Drive & SD Slot

»EASY OPERATION

- Super Multi-format Recording & Playback
- 1 Sec. Quick Start for Recording*4
- Universal Design GUI (Graphic User Interface)

»HIGH PICTURE QUALITY

- 2x LP Horizontal Resolution (500 Lines)
- VCR Refresh Copying with TBC & DNR
- 284 Recording Hours onto the Hard Disk Drive (EP [8H] Mode)

»ARCHIVE

- Photo Storage & Quick View with SD Slot
- MPEG2 Transfer with SD Slot*2
- DV Auto Recording & Playlist Creation



DV Input



DMR-ES35V DVD Recorder with VHS VCR

»EASY OPERATION

- Super Multi-format Recording & Playback
- One-touch 2-way Copying
- 1 Sec. Quick Start for Recording on DVD-RAM*5
- Universal Design GUI (Graphic User Interface)

»HIGH PICTURE QUALITY

- 2x LP Horizontal Resolution (500 Lines)
- VCR Refresh Copying with TBC & DNR

»ARCHIVE

- DV Auto Recording & Playlist Creation



DV Input



DMR-ES15 DVD Recorder

»EASY OPERATION

- Super Multi-format Recording & Playback
- 1 Sec. Quick Start for Recording on DVD-RAM*5
- Universal Design GUI (Graphic User Interface)

»HIGH PICTURE QUALITY

- 2x LP Horizontal Resolution (500 Lines)
- VCR Refresh Copying with TBC & DNR

»ARCHIVE

- DV Auto Recording & Playlist Creation



DV Input



*1 From the power on, recording starts in about 1 second after REC button is pressed.

*2 To enjoy viewing movies recorded on an SD Memory Card, copy the MPEG2 Movie data to the hard disk drive or DVD-RAM and then play back.

*3 Dolby and the double-D symbol are registered trademarks of Dolby Laboratories.

*4 From the power on, recording starts in about 1 second after REC button is pressed.

*5 From the power off state, recording on DVD-RAM starts about 1 second after first pressing the Power button and then sequentially pressing the REC button (Quick Start Mode).



Easy to Use

Viera Link

Now you can enjoy the beautiful sounds and pictures of high-quality AV equipment without all the messy, unsightly cables. With HDMI, a single cable* carries the video, audio and control signals between two digital components. By using Panasonic Viera Link compatible components, e.g. Panasonic Viera Plasma and Panasonic Receiver, you can turn on the power for your entire home theatre with a single remote control button, and begin playback immediately.**



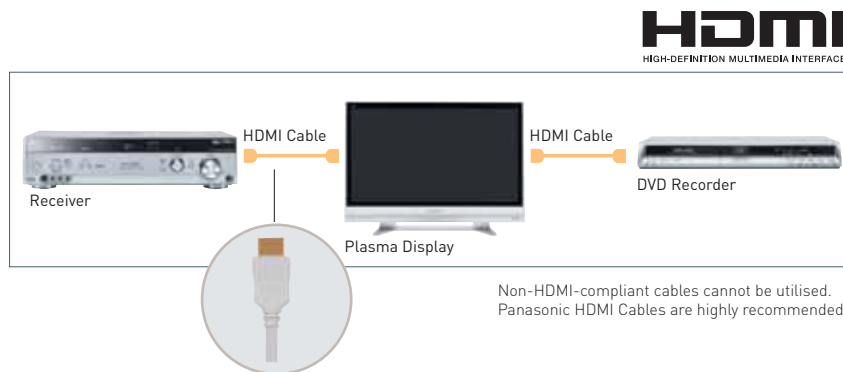
Operating your DVD recorder is easier and smarter too. You can use the same remote controller you use with your home theatre. When you select Play on the DVD recorder, VIERA's video input automatically switches itself for DVD playback.

* Non-HDMI-compliant cables cannot be utilised. Panasonic HDMI Cables are highly recommended.
**Except LCD models

Connect with Only One Cable

HDMI (High Definition MultiMedia Interface)

HDMI is a standard developed for use in connecting different types of digital video and audio components. Equipment with HDMI terminals can be connected to each other with a single cable, letting you enjoy superior digital picture and sound quality without the need for separate Audio and Visual cables.



Non-HDMI-compliant cables cannot be utilised. Panasonic HDMI Cables are highly recommended.

HDMI vs Other Outputs

	Video Signal Type	Audio Signal	Copyright Protection	Signal Compression
HDMI	Digital	●	●	No compression
IEEE 1394	Digital	●	●	Compression
DVI + HDCP	Digital	—	●	No compression
DVI	Digital	—	—	No compression

Easy Operation

Anyone Can Record and Play images Comfortably and Easily.

A New Operation Concept Viera Link

Automatic Input Switching for DIGA Playback

When playback starts, the Viera's input automatically switches to DVD-Recorder. There is no need to switch "INPUT SELECT" before displaying the DVD-Recorders playback. If the Viera is switched off at that time, the power is also automatically switched on.



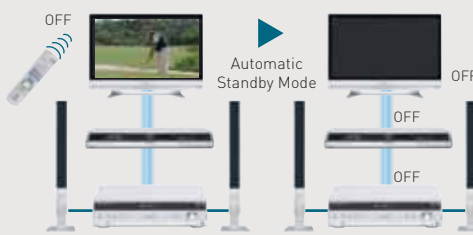
Automatic Input Switching for DIGA Operation Menu

When pressing one of the DVD-Recorders remote control buttons such as "FUNCTIONS" whilst watching a TV program, Viera displays automatically the DVD-Recorders operation menu. If the Viera is switched off at that time, the power is also automatically switched on.



Automatic Standby Mode

When the POWER is switched off with Viera's remote controller, the POWER of any AV products connected via HDMI is also automatically switched off.



Non-HDMI-compliant cables cannot be utilised. Panasonic HDMI Cables are highly recommended.

HDMI Cable
RP-CDHG15

The Ultimate Versatility of DVD-RAM and Multi-format Flexibility in Recording & Playback

Super Multi-format Recording & Playback

All Panasonic DVD-Recorders offer the ease and convenience of Super Multi-Format Recording and Playback, which lets users play all of their DVDs, regardless of the recording format. DIGA models can record and play back DVD-RAM, DVD-R, DVD-R DL*, DVD-RW*, +R*, +R DL*, +RW discs. So you don't have to worry about whether your DVD-Recorder can play back everything in your current video library.

»» All format you can enjoy ««

Super Multi-Format Recording & Playback

	DVD-RAM	DVD-R	DVD-RW	+R	+RW
Record	✓	✓ *2 *3	✓ *2	✓ *2	✓
Playback	✓	✓	✓	✓	✓

VR format recording is possible only with DVD-RAM. Playback is not possible for DVD-R discs that were recorded in VR format by a different recorder. Playback is also not possible with DVD-R, DVD-R DL (single-side, dual-layer), DVD-RW (DVD-Video format), +R, and +RW discs that were recorded without being finalized by a different recorder.

*1 You can record onto the second layer of dual- or double-layer discs after closing the first layer.
*2 Recording is possible only with DVD-Video format. *3 Including CPRM-compatible DVD-R.

Difficult Operations Made Simple with Navigation Universal Design GUI

Now you can complete all the operations you want without getting confused. Operation procedures and menu items have been carefully designed to enable easy operation of the wide range of functions available. What's more, the functions themselves are designed to further assure simple, error-free operation.

Complete copying in 3 easy steps.



Other Smart Operating Functions

Auto Drive Select:

Simply load the medium and the drive is automatically confirmed before playback starts.



Easy SD playback:

Load an SD Memory Card, press a button and playback begins.



Auto DVD Disc Finalising:

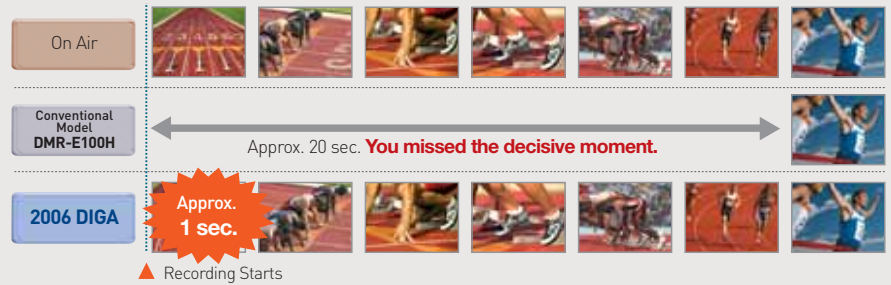
When ejecting a DVD disc* you've recorded on, a window is displayed to remind you not to forget to finalise the disc.



*DVD-R / +R / -R DL / +R DL / -RW only.

Don't Miss Recording the Decisive Moment 1 Sec. Quick Start for Recording

Thanks to high-speed quick start, both the hard disk drive and the DVD-RAM are ready to record just one second after switching on the power. Being able to record almost immediately means you'll never miss the scenes you want to catch.



A 1-hour Program Can be Recorded in About 42 Seconds! Max. 86x High-speed Copying from Hard Disk Drive*

You can perform high-speed recording from the hard disk drive to a DVD-RAM (5x speed compatible) or DVD-R (16x speed compatible) at the touch of a button. For example, you can record a one-hour program (originally recorded in the EP [8H] mode) from the hard disk drive to a DVD-RAM disc in just 1.5 minutes, or to a DVD-R disc in only 42 seconds. What's more, you can also record from DVD-RAM to the hard disk drive.

* Recording from the hard disk drive to a DVD-R disc is not possible with images for which only single-generation recording is allowed. When recording these images to a DVD-RAM disc, the original image on the hard disk drive is erased.

Independent Operation

You can record, play or make timer-recording settings while recording at high speed from the hard disk drive to a DVD disc.

Editable

Recorded programs can be recorded at high speed after editing them to delete unwanted scenes and rearrange their sequence.

High Speed
DVD-RAM
40x
(EP [8H] Mode)
DVD-R
Max. 86x
(EP [8H] Mode)



Recording Time from Hard Disk Drive to DVD in Maximum Speed

(Approximate)

On Hard Disk Drive	Recorded Program	5x speed disc		16x speed disc		4x speed disc		4x speed disc		8x speed disc		2.4x speed disc		4x speed disc	
		Recording Time	Recording Speed	Recording Time	Recording Speed	Recording Time	Recording Speed	Recording Time	Recording Speed	Recording Time	Recording Speed	Recording Time	Recording Speed	Recording Time	Recording Speed
XP	1 hour	12 min.	5x	6 min.	10x	15 min.	4x	15 min.	4x	8 min 35sec.	7x	25 min.	2.4x	15 min.	4x
SP	1 hour	6 min.	10x	2 min 25 sec.	25x	7 min 30 sec.	8x	7 min 30 sec.	8x	4 min 10sec.	14x	12 min 30sec.	4.8x	7 min 30sec.	8x
LP	1 hour	3 min.	20x	1 min 15 sec.	48x	3 min 45 sec.	16x	3 min 45 sec.	16x	2 min 25sec.	25x	6 min 15sec.	7.2x	3 min 45sec.	16x
EP (6H)	1 hour	2 min.	30x	52 sec.	69x	2 min 30 sec.	24x	2 min 30 sec.	24x						
EP (8H)	1 hour	1 min 30 sec.	40x	42 sec.	Max. 86x			1 min 53sec.	32x						

Easy, at-a-glance Confirmation of Recorded Contents! Direct Navigator for Quick, Easy Search

Find desired programs fast. Just press the Direct Navigator button to display thumbnails of all the programs on the hard disk drive or a DVD-RAM disc, then, select the one you want and press Enter. It's that easy. And with "List Display" you can sort programs by date or title.

Moving-Picture Thumbnails



You can check the selected program with moving pictures and sound.

List Display



This is convenient when you have recorded many programs onto a hard disk drive.



One-touch VHS Digitisation One-touch 2-way Copying

You can save high-resolution VHS images with even greater beauty onto a DVD disc. Simply press a button, and lets you transfer material from a VHS tape to a DVD-RAM/DVD-R disc or vice versa. This means you can easily record your entire video library to DVD for a collection that takes up much less space. During tape-to-DVD-RAM transfer, there's also a handy function that reads recording start (VISS) signals on a tape, and automatically creates a program list on the DVD-RAM disc.





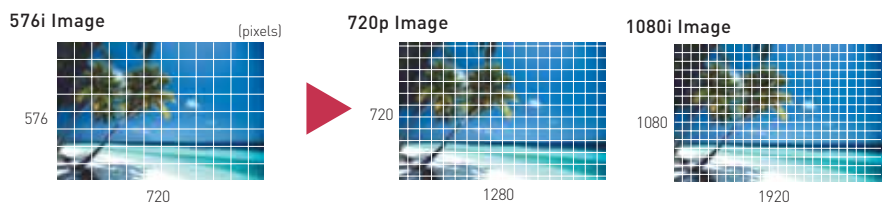
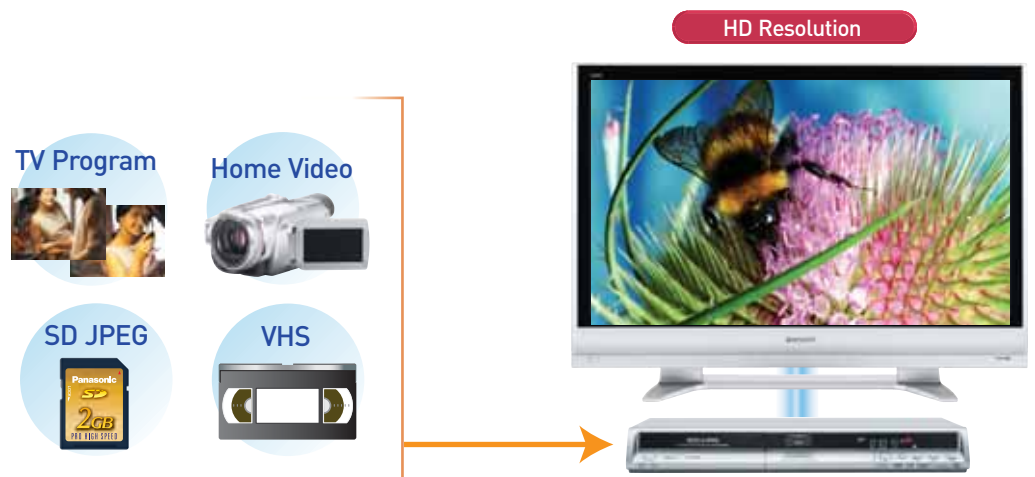
Capture all the Beauty

High Definition (1080i/720p) Up-Conversion with HDMI

Connect an HDMI cable to your TV and you can enjoy a beautiful, high quality picture with High Definition resolution when playing DVDs and DVD software (DMR-EX85/EX75/EH65). You can also convert other non-HD signals to the same HD resolution for playback with improved picture quality. The DMR-EX85/EX75/EH65 feature HDMI output for picture up-conversion with DVD playback.

HDMITM
HIGH-DEFINITION MULTIMEDIA INTERFACE

Convert Any Contents up to HD Resolution.



High Picture Quality

Anyone Can Automatically Record and Play Beautiful Images.

SP Mode Horizontal Resolution in the LP Mode

2x LP Horizontal Resolution (500 Lines)

Virtual Multi Encode System

The Virtual Multi Encode System enables LP mode recording with the same 500 lines (D1) of horizontal resolution as that in the SP and XP modes. Which is double the horizontal resolution compared to the 250 lines (1/2 D1) of conventional LP mode recording. Thanks to this, you can enjoy viewing extended recordings (4 hours [single-sided DVD-RAM/R] /8 hours [double-sided DVD-RAM]) with exceptionally detailed images and twice the picture quality. The Virtual Multi Encode System achieves this by virtually encoding multiple aspects of a scene, such as detail and movement, while selecting the encoding system that assures optimum picture quality.

Conventional Recording in LP Mode



2 x
Horizontal
resolution

New System Recording in LP Mode



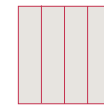
*Pictures simulated.

What's a D1 format and 1/2D1 Format?



D1

500 lines of horizontal resolution provided by conventional systems when recording in the SP and XP modes.



1/2 D1

250 lines of horizontal resolution provided by conventional systems when recording in the LP mode.

Store VHS Images as Beautiful Digital Recordings

VCR Refresh Copying to DVD

Time Base Corrector (TBC) + 3D Digital Noise Reduction (DNR)

When connecting a VCR and DIGA to record VHS videotape images onto a DVD disc, the Time Base Corrector helps reduce jitter and performs signal conversion to create a stable signal. At the same time, 3D DNR detects and virtually eliminates randomly generated noise and color irregularities to help minimise flicker. Thanks to these two technologies, the tape input signal is automatically detected and optimum processing is performed to provide an easy way to even more beautiful digital recordings.

Image sent from the VCR

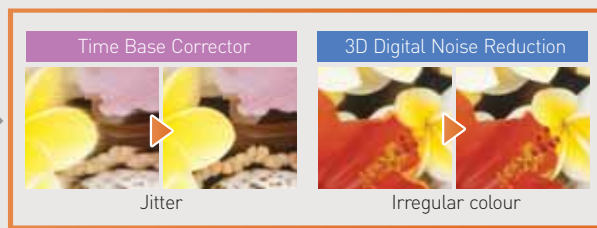
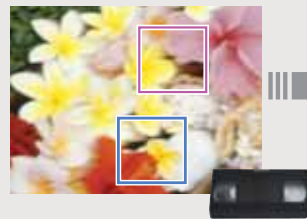


Image recorded onto the DVD



Recording with Smooth, Beautifully Detailed Images

4x Natural Gradation

12-bit Analogue-to-Digital Converter

Using the 12-bit Analogue-to-Digital converter provides an extremely dense 4,096 steps of gradation. Compared to the 1,024 steps possible with a regular 10-bit Analogue-to-Digital converter, this enables recording with four times as many smooth steps. The result is faithful reproduction of the details in both the bright and dark parts of scenes, so that for the first time you can see everything there is to see.

10bit Analogue-to-Digital Converter



1,024
Gradation

12bit Analogue-to-Digital Converter



4,096
Gradation

4x

*Pictures simulated.

High Picture Quality Technology for More Efficient Memory Use Long Time Recording with High Picture Quality

The DIGA ENGINE assures long time recording with even better picture quality. With the DMR-EX85/H65 featuring a built-in 250GB* hard disk drive, you can record for up to roughly 443 hours. You can also record up to 8 hours of material on a single-sided disc (or up to 16 hours on a double-sided 9.4GB* DVD-RAM disc).



Five Recording Modes To Meet Your Needs	DMR-ES35V/ES15			DMR-EX85/EX75/EH65/EH55	
	DVD-RAM		DVD-R, +R, DVD-RW	Hard Disk Drive	
	4.7GB [#]	9.4GB [#] (Double Sided)	4.7GB [#]	EX85/EH65 250GB [#]	EX75/EH55 160GB [#]
XP High picture quality recording mode	1 hour	2 hours	1 hour	55 hours	36 hours
SP Standard recording mode	2 hours	4 hours	2 hours	111 hours	70 hours
LP Long recording mode	4 hours	8 hours	4 hours	222 hours	138 hours
EP Extra long recording mode (6H)	6 hours*	12 hours*	6 hours*	333 hours*	212 hours*
EP Extra long recording mode (8H)	8 hours*	16 hours*	8 hours*	443 hours*	284 hours*

Flexible Recording - recording the best quality pictures in a set time

FR Flexible recording mode	1 to 8 hour. [4.7GB [#]]				
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* In the EP mode you can select either 6 hours or 8 hours of recording. The sound quality in 6-hour EP mode is higher quality than in the 8-hour EP mode.

1GB = one billion bytes. Useable capacity will be less.

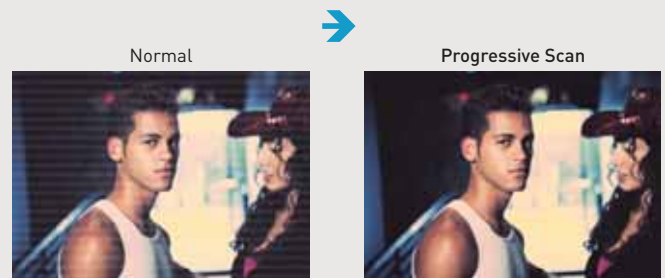
True DVD high-Resolution Reproduction Progressive Scan (PAL/NTSC)

PAL Progressive Scan for Plasma Display/LCD/LCD Projector*¹

Panasonic DVD Recorders are equipped with a high-precision progressive video processor that handles 25-frame (NTSC: 30-frame) progressive scan images*². This lets you enjoy high-resolution progressive playback of original DVD images.

*¹ With compatible inputs.

*² To enjoy a progressive scan picture, a TV with progressive scan capabilities must be used.



*Pictures simulated.

Other Technologies for High Picture Quality Recording, Playback and Copying

● DVB Integrated Digital Tuner (DMR-EX85/75)

Panasonic DVD-Recorders now feature integrated DVB Digital Tuners for viewing enjoyment. The integrated tuner allows for Digital broadcasting reception without the use of a set-top box. High quality digital television enjoyment has never been easier with a Panasonic DVD-Recorder.



● Advanced Playback Noise Reduction

During recording, the degree of movement in sports, news and other scenes is detected, and noise information related to it is recorded. During playback, Noise Reduction is controlled to match this recorded information. For scenes featuring a large degree of movement, the noise elimination level is raised, while it is lowered during scenes in which there is little movement to provide an exceptionally detailed picture.

● Real-Time Variable Bit Rate Control

Panasonic DVD Recorders feature original quality rate control to achieve the bit rate that most effectively improves picture quality. By varying the compression rate to match image data volume and scene complexity, this helps assure both high picture quality and efficient recording.

● New 108-Mhz/12-bit DAC

This 108-Mhz/12-bit DAC (digital-analogue converter) gives DIGA models even better playback quality.



● Visibility Modulation Technology

This discerns the range of attention of the human eye with respect to changes in picture brightness, saturation, color, and contours and other points in 16 x 16 pixel blocks. By lowering the compression rate for areas of the picture that command a high degree of attention, this reduces distortion. What's more, this advanced technology analyses the characteristics of detailed images, and searches for areas in the images that can improve picture quality to a high degree. It then reduces compression for these areas to further reduce distortion. The result is clear, sharp reproduction of the parts in images that contrast strongly with the background.



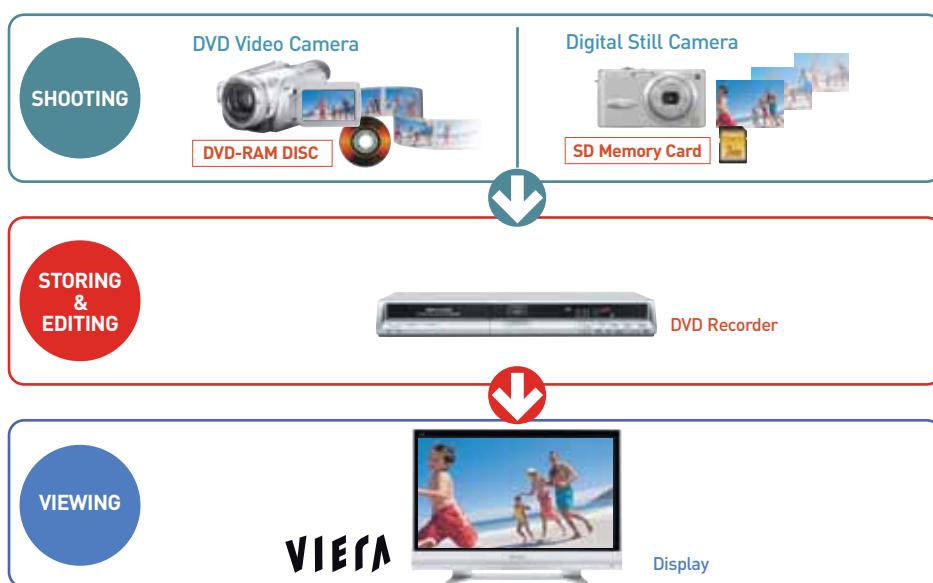
Record and Store your Memories

ARCHIVE a Treasure Chest of Memories

Panasonic DVD-Recorders can be a treasure chest of important family memories. Photos of your child's birthday, videos of trips together.... You can store images of these and many other wonderful events. And because the images are digital, there is no loss in quality and editing is easy.

High Compatibility

Create and archive album files of both video and stills on a single disc.



With a Panasonic DVD-Recorder anyone can easily record photos and video clips.

» ARCHIVE

Anyone Can Easily Record Memorable Scenes.



A Fast Way to Big Screen Viewing and Storage of Digital Camera Images Photo*1 Storage & Quick Viewer with SD Slot*2

Use the memory card slots to transfer images from an SD Memory Card to a DVD-RAM disc or the built-in hard disk drive. View the images in a slide show on your TV, or use DPOF*3 settings for automatic printing to your printer.

*1 The DMR-EX85/EX75/EH65/EH55 are compatible with DCF [Design rule for Camera File system] based still picture (JPEG) files and TIFF (uncompressed RGB chunky) files recorded using a digital camera.

*2 The DMR-EX85/EX75/EH65/EH55 are compatible with the MultiMediaCard.

*3 DPOF settings can be made only for data on SD Memory Cards. When DPOF settings are made with the DMR-EX85/EX75/EH65/EH55, they will cancel all settings (except for the number of prints) that were made by any other equipment.



View Digital Camera Photos with a Panasonic DVD-Recorder

Loading an SD Memory Card into the DVD-Recorder's SD slot lets you easily view shots taken with a digital camera. With a Panasonic LUMIX (DMC-LX1) digital camera, you can take high-resolution photos sized to fit a TV screen with a 16:9 aspect ratio.

LUMIX
DMC-LX1



Expanding Enjoyment of SD Video

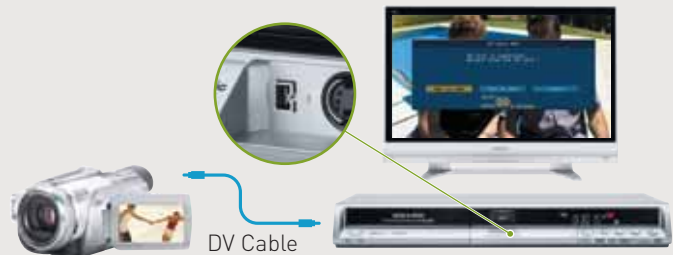
MPEG2 Movie Recording & Playback with SD Slot

To enjoy viewing movies recorded on an SD Memory Card, simply copy the MPEG2 Movie data to the hard disk drive or DVD-RAM and then play back.

Easy Storage of Digital Video Camera Images

DV Auto Recording (HDD & DVD-RAM only)

Simply connect a digital video camera to the DV input terminal, and you're ready to record images from the video camera onto the hard disk drive or a DVD-RAM disc.



Storage with a Playlist for Easier Editing

Automatic Playlist Creation (HDD & DVD-RAM only)

DV Auto Recording also makes it easy to find the beginning of a specific scene, for viewing or editing, by automatically creating a playlist of the scenes that were recorded with the digital video camera and recorded onto the hard disk drive or DVD-RAM disc. You can even edit videos without a PC.



Fit the Widest Range of Applications and Stands Up to Repeated Recording and Editing

DVD-RAM Advantage

You can store both digital snapshots and digital video footage as well as PC data files on the same DVD-RAM disc.



Other Convenient Functions

Other Handy Functions for Even More Recording Possibilities.

Energy-Saving Design

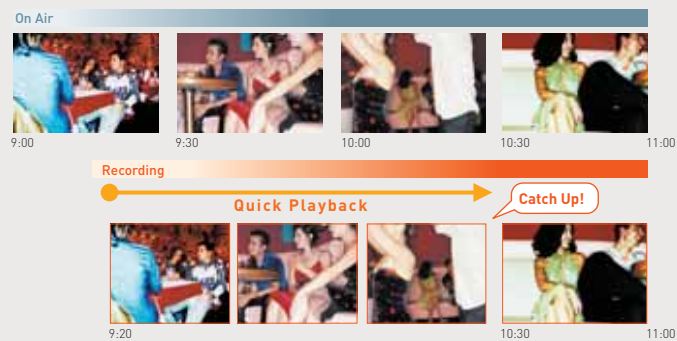
Panasonic combined advanced nanotechnology with its extensive system technology capabilities to develop a new system LSI. The result is higher speed and lower electricity consumption. The key to this energy-saving design lies in low energy consumption during standby, which is 50% of that in conventional models, a feature that is also environment-friendly.



Quick View (x1.3) [HDD & DVD-RAM only]

You can play back at 1.3 times the normal speed*1, complete with sound, so you can quickly check the contents of a recorded program when you don't have time to watch it at normal speed. This feature can even be used during Chasing Playback*2.

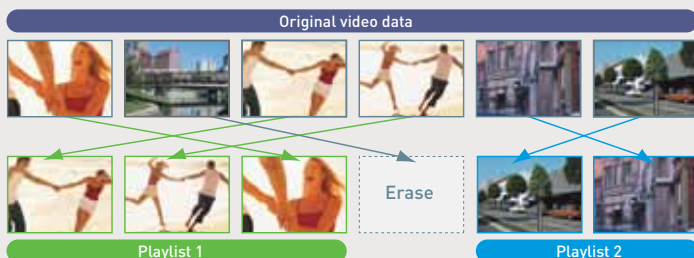
*1 Can be used with programs recorded with Dolby Digital on HDD or DVD-RAM.
*2 Cannot be used while recording in XP or FR mode.



Playlist Playback* (HDD & DVD-Ram only)

You can select from among the scenes recorded on a disc and arrange them in any order you want, to create your own original scenario, then save it as a playlist. You can also enjoy seamless transitions between edited scenes.

* Up to 99 playlists can be created, and up to 999 scenes can be registered.



Time Slip Functions [HDD & DVD-RAM only]

Chasing Playback

You set the DVD Recorder to start recording at 6:00 PM, when your favorite show begins. The problem is that you get home at 7:00 PM, while the program is still in progress. With the handy Chasing Playback function, you don't have to wait till recording is finished to watch the show. You can play it from the beginning while it continues to record to the end.



Simultaneous Recording & Playback

While you're recording this week's episode of your favourite show, you may want to watch last week's episode. The Simultaneous Recording & Playback function makes it possible. It lets you record one program while you watch another one that has already been recorded onto the same disc.



Time Slip Button

The Time Slip function lets you playback desired scenes. With one touch of the Time Slip Button on remote control, you can select the time in a dialogue box and return to the desired scene.



One-touch Recording & Playback

The One-touch Recording feature seeks out empty space on the hard disk drive or a DVD-RAM disc before it begins recording, eliminating the possibility of accidentally recording over a previously recorded program. With the One-touch Playback feature, blank portions of the disc are automatically skipped, saving you the need to manually search for the desired program.

Recording Mode Conversion

When recording at normal speed from the hard disk drive to a DVD-RAM or DVD-R disc, you can convert from one recording mode to another*.

* It is not possible to convert to a higher-version mode.

Playlist Recording from Hard Disk

Because there is no re-encoding (decoding the MPEG2 compression, and then encoding it into MPEG2 again) done when recording a TV program or edited playlist from the hard disk onto DVD discs, the image quality remains extremely high.

High-Quality Linear PCM Audio*

In addition to Dolby Digital audio recording, Panasonic DVD Recorder can record sound using linear PCM (pulse code modulation) without compressing the audio signal. The resulting sound quality is superb.

* XP mode only.

CPRM Recording Capability

The Panasonic DVD Recorder is ready for future "CPRM* required programs" that permit the recording of only first generation copies.

* CPRM: Content Protection for Recordable Media.



		DMR-EX85	DMR-EX75	DMR-EH65	DMR-EH55	DMR-ES35V	DMR-ES15
Go Easy Easy Operation	HDAVI Control	○	○	○	—	—	—
	HDMI Simple Connection	○	○	○	—	—	—
	Super Multi-format Recording & Playback	○	○	○	○	○	○
	Universal Design GUI	○	○	○	○	○	○
	1 Sec. Quick Start for Recording	○	○	○	○	○	○
	Max. 86x High-speed Copying from Hard Disk Drive	○	○	○	○	—	—
	Direct Navigator for Quick, Easy Search	○	○	○	○	○	○
Go Beauty High Picture Quality	One-touch 2-way Copying	—	—	—	—	○	—
	DVB Digital Tuner (SD) Built-in	○	○	—	—	—	—
	High Definition (1080i / 720p) Up-Conversion with HDMI	○	○	○	—	—	—
	2x LP Horizontal Resolution (500 Lines)	○	○	○	○	○	○
	VCR Refresh Copying to DVD	○	○	○	○	○	○
	4x Natural Gradation	○	○	○	○	○	○
Go Timeless Archive	Long Time Recording with High Picture Quality	○	○	○	○	○	○
	Progressive Scan	○	○	○	○	○	○
	Photo Storage & Quick Viewer with SD Slot	○	○	○	○	—	—
	MPEG2 Movie Recording & Playback with SD Slot	○	○	○	○	—	—
	DV Auto Recording (HDD & DVD-RAM only)	○	○	○	○	○	○
Other Convenient Functions	Automatic Playlist Creation (HDD & DVD-RAM only)	○	○	○	○	○	○
	Energy-Saving Design	○	○	○	○	○	○
	Time Slip Functions [HDD & DVD-RAM only]	○	○	○	○	○	○
	Quick View (x1.3) [HDD & DVD-RAM only]	○	○	○	○	○	○
	One-touch Recording & Playback	○	○	○	○	○	○
	Recording Mode Conversion	○	○	○	○	—	—
	Playlist Playback	○	○	○	○	○	○
Playlist Recording from Hard Disk Drive	○	○	○	○	—	—	

Network Products

Network Connection for Even More DIGA Entertainment

Flat Panel Display

【Plasma TV】

PV60 Series

■ TH-50PV60A



PV60 Series

■ TH-42PV60A



PA60 Series

■ TH-42PA60A



Viera Black Box Technology for Ultimate Picture Quality

- 1080p Digital Processing Chip-Set
- 1080p Digital Re-mastering Processor
- 3,072 Equivalent Steps of Gradation
- 10,000 : 1 Contrast Ratio
- Contrast Management System
- Advanced 3D Colour Management
- Motion Pattern Noise Reduction
- Sub-Pixel Controller

Other Features

- Viera Link*
 - Slim & Compact Design
 - 2-Way 2-Speaker System
 - 2 x HDMI Input/1 x PC Input
- *This feature available when connected to Panasonic Viera Link Compatible products.

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Home Theatre

【DVD-Audio Ready Slim Home Theatre Speaker System】

■ SB-TP100

- 5.1-Channel Tower Speaker System Designed to Match Panasonic Plasma TV
- Slim, Powerful Active Subwoofer with Built-in 100W Power Amplifier
- Pure Sound, Pure Emotion, Pure Excitement True-to-Life Acoustic Imaging and Sound Field



【Home Theatre Receiver】

■ SA-XR57

- Super High-Quality Sound with Full-Digital Amplifier & Advanced Dual Amplifier
- HDMI for High-Quality Digital Audio and Video with a Single Cable Connection
- Viera Link Gives You Streamlined Control of Your Audio System, Panasonic Plasma TV and DVD Recorder



Video Camera

[SD Video Camera] *SD e.cam*

SDR-S100



[DVD Video Camera] *DVD e.cam*

VDR-D300



VDR-D250



VDR-D150



[Digital Video Camera] *e.cam*

NV-GS500



NV-GS300



NV-GS180



NV-GS27



Digital Camera

LUMIX DMC-FZ7



DMC-TZ1



DMC-FX01



DMC-LZ3



DMC-LS2



Media Lineup

[DVD-RAM Disc] *DVD RAM*



LM-AF120LE 4.7GB#
3x Speed, Single Sided
120min



LM-AB120LE 4.7GB#
3x Speed, Single Sided
Cartridge Type



LM-AD240LE 9.4GB#
3x Speed, Double Sided
Cartridge Type



LM-AE120LE 4.8GB#
3x Speed, Pro Hard
Coat, Single Sided



LM-AE240LE 9.4GB#
3x Speed, Pro Hard
Coat, Double Sided



LM-AF60E 2.8GB#
Double Sided (8cm)
Pro Hard Coat
LM-AF30E 1.4GB#
Single Sided (8cm)
Pro Hard Coat

[DVD-R Disc] *DVD R*

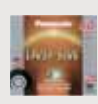


LM-RF120ME
4.7GB#
Single Sided
8x Speed
Compatible



LM-RF30E
1.4GB# Single
Sided (8cm)
LM-RF60E
2.8GB# Double
Sided (8cm)

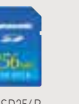
[DVD-RW] *DVD RW*



LM-RW60E 2.8GB#
Double Sided (8cm)
LM-RW30E 1.4GB#
Single Sided (8cm)

LM-RW120E10 4.7GB#
2 x Speed, Single Sided
(12cm) 10 Pack

[SD Memory Card*] *SD*



RP-SDK02G RP-SDK01G RP-SDK512 RP-SDH01G RP-SDH256 RP-SDQ02G RP-SDQ01G RP-SDS12B RP-SD256B
* Usable capacity will be less.

1GB = one billion bytes. Usable capacity will be less.

Specifications		DMR-EX85	DMR-EX75	DMR-EH65
Playable Discs*1				
DVD-RAM / -R / -R (DL) / -RW		●	●	●
+R / +R (DL) / +RW		●	●	●
DVD-Video, DVD-Audio		●	●	●
CD-Audio (CD-DA)		●	●	●
SVCD*2		●	●	●
Video CD		●	●	●
MP3 / CD-DA / Video-CD / SVCD / JPEG on CD, CD-R/RW*3		●	●	●
DivX*4 on CD, CD-R / RW, DVD-R		●	●	●
Recordable Discs*5				
DVD-RAM	Ver.2.0	●	●	●
	Ver.2.1	● 3x Speed DVD-RAM Revision1.0	● 3x Speed DVD-RAM Revision1.0	● 3x Speed DVD-RAM Revision1.0
	Ver.2.2	● 5x Speed DVD-RAM Revision2.0	● 5x Speed DVD-RAM Revision2.0	● 5x Speed DVD-RAM Revision2.0
DVD-R	for General Ver.2.0	●	●	●
	for General Ver.2.0	● 4x Speed DVD-R Revision1.0	● 4x Speed DVD-R Revision1.0	● 4x Speed DVD-R Revision1.0
	for General Ver.2.x	● 8x Speed DVD-R Revision 3.0	● 8x Speed DVD-R Revision 3.0	● 8x Speed DVD-R Revision 3.0
	for General Ver.2.x	● 16x Speed DVD-R Revision 6.0	● 16x Speed DVD-R Revision 6.0	● 16x Speed DVD-R Revision 6.0
	for DL Ver.3.0	●	●	●
	for DL Ver.3.x	● 4x Speed DVD-R for DL Revision 1.0	● 4x Speed DVD-R for DL Revision 1.0	● 4x Speed DVD-R for DL Revision 1.0
DVD-RW	Ver.1.1	●	●	●
	Ver.1.x	● 2x Speed DVD-RW Revision 1.0	● 2x Speed DVD-RW Revision 1.0	● 2x Speed DVD-RW Revision 1.0
	Ver.1.x	● 4x Speed DVD-RW Revision 2.0	● 4x Speed DVD-RW Revision 2.0	● 4x Speed DVD-RW Revision 2.0
	Ver.1.x	● 6x Speed DVD-RW Revision 3.0	● 6x Speed DVD-RW Revision 3.0	● 6x Speed DVD-RW Revision 3.0
+R	Ver.1.0	●	●	●
	Ver.1.1	●	●	●
	Ver.1.2	●	●	●
	Ver.1.3	●	●	●
	for DL Ver.1.0	●	●	●
+RW	Ver.1.1	●	●	●
	Ver.1.2	● 4x Speed	● 4x Speed	● 4x Speed
Recording Format				
DVD-RAM		DVD Video Recording Format	DVD Video Recording Format	DVD Video Recording Format
DVD-R, DVD-R (DL), DVD-RW		DVD-Video Format	DVD-Video Format	DVD-Video Format
Built-in Hard Disk Capacity		250GB#	160GB#	250GB#
Recording Time (Approximate)				
Hard Disk Drive	XP mode	55 hours	36 hours	55 hours
	SP mode	111 hours	70 hours	111 hours
	LP mode	222 hours	138 hours	222 hours
	EP mode*6	333 / 443 hours	212 / 284 hours	333 / 443 hours
4.7GB# Disc	XP mode	1 hour	1 hour	1 hour
	SP mode	2 hours	2 hours	2 hours
	LP mode	4 hours	4 hours	4 hours
	EP mode*6	6 / 8 hours	6 / 8 hours	6 / 8 hours
8.5GB#	XP mode	1 hour 45 minutes	1 hour 45 minutes	1 hour 45 minutes
DVD-R DL /	SP mode	3 hours 35 minutes	3 hours 35 minutes	3 hours 35 minutes
+R DL Disc	LP mode	7 hours 10 minutes	7 hours 10 minutes	7 hours 10 minutes
	EP mode*6 [DVD-R DL only]	10 hours 45 minutes / 14 hours 20 minutes	10 hours 45 minutes / 14 hours 20 minutes	10 hours 45 minutes / 14 hours 20 minutes
VIDEO				
Video System		PAL colour signal, 625 lines, 50 fields / NTSC colour signal, 525 lines, 60 fields		PAL colour
Recording System		MPEG2 (Hybrid VBR)	MPEG2 (Hybrid VBR)	MPEG2 (Hybrid VBR)
Input	Video In	AV1 / AV2 [21 pin], AV3 / AV4 [pin jack]	AV1 / AV2 [21 pin], AV3 / AV4 [pin jack]	AV1 / AV2 [21 pin], AV3 / AV4 [pin jack]
	S-Video In	AV2 [21 pin], AV3 / AV4 [S terminal]	AV2 [21 pin], AV3 / AV4 [S terminal]	AV2 [21 pin], AV3 / AV4 [S terminal]
	RGB In	AV2 [21 pin] [PAL]	AV2 [21 pin] [PAL]	AV2 [21 pin] [PAL]
Output	Video Out	AV1 / AV2 [21 pin], Video Out [pin jack]	AV1 / AV2 [21 pin], Video Out [pin jack]	AV1 / AV2 [21 pin], Video Out [pin jack]
	S-Video Out	AV1 [21 pin], S-Video Out [S terminal]	AV1 [21 pin], S-Video Out [S terminal]	AV1 [21 pin], S-Video Out [S terminal]
	RGB Out	AV1 [21 pin] [PAL]	AV1 [21 pin] [PAL]	AV1 [21 pin] [PAL]
Component Video Output (Y, PB, PR)		●	●	●
AUDIO				
Recording System		Dolby Digital 2ch, Linear PCM (XP mode 2ch)	Dolby Digital 2ch, Linear PCM (XP mode 2ch)	Dolby Digital 2ch, Linear PCM (XP mode 2ch)
Input	Audio In	AV1 / AV2 [21 pin], AV3 / AV4 [pin jack]	AV1 / AV2 [21 pin], AV3 / AV4 [pin jack]	AV1 / AV2 [21 pin], AV3 / AV4 [pin jack]
Output	Audio Out 2ch	AV1 / AV2 [21 pin], Audio Out [pin jack]	AV1 / AV2 [21 pin], Audio Out [pin jack]	AV1 / AV2 [21 pin], Audio Out [pin jack]
	Digital Audio Out	Optical terminal (PCM, Dolby Digital, DTS, MPEG)	Optical terminal (PCM, Dolby Digital, DTS, MPEG)	Optical terminal (PCM, Dolby Digital, DTS, MPEG)
TUNER				
Tuner System		PAL-B, DVB-T (Australia)	PAL-B, DVB-T (Australia)	PAL-B (Australia), PAL-BG (NZ)
Channel Coverage		[PAL-B] VHF: CH 0-12, UHF: CH 27-69, CATV: 45MHz-470MHz (DVB-T), VHF: CH6-12 UHF CH 27-69	[PAL-B] VHF: CH 0-12, UHF: CH 27-69, CATV: 45MHz-470MHz (DVB-T), VHF: CH6-12 UHF CH 27-69	[Australia] VHF: CH 0-12, UHF: CH 28-69, CATV: (NZ), VHF: CH1-11 UHF CH 21-69, CATV: A
DV Input		●	●	●
HDMI Output		●	●	●
VHS				
Playable Format		-	-	-
Operations		-	-	-
Rec. System	Rec. Mode	-	-	-
	Copying Way	-	-	-
SD Card Slot				
SD Memory Card Slot		●	●	●
Image File	Compatible Media*7	SD Memory Card*, MultiMediaCard * includes miniSD™ Cards (A miniSD™ Adaptor needs to be inserted)	SD Memory Card*, MultiMediaCard * includes miniSD™ Cards (A miniSD™ Adaptor needs to be inserted)	SD Memory Card*, MultiMediaCard * includes miniSD™ Cards (A miniSD™ Adaptor needs to be inserted)
	Format	FAT12, FAT16	FAT12, FAT16	FAT12, FAT16
	Image File Format	JPEG conforming DCF (Design rule for Camera File system), TIFF (Uncompressed RGB chunky) / DPOF Compatible	JPEG conforming DCF (Design rule for Camera File system), TIFF (Uncompressed RGB chunky) / DPOF Compatible	JPEG conforming DCF (Design rule for Camera File system), TIFF (Uncompressed RGB chunky) / DPOF Co
	Number of Pixels	34 x 34 to 6,144 x 4,096 [Sub sampling; 4:2:2 or 4:2:0]	34 x 34 to 6,144 x 4,096 [Sub sampling; 4:2:2 or 4:2:0]	34 x 34 to 6,144 x 4,096 [Sub sampling; 4:2:2
SD Video [MPEG2]	Compatible Media	SD Memory Card*, MultiMediaCard * includes miniSD™ Cards (A miniSD™ Adaptor needs to be inserted)	SD Memory Card*, MultiMediaCard * includes miniSD™ Cards (A miniSD™ Adaptor needs to be inserted)	SD Memory Card*, MultiMediaCard * includes miniSD™ Cards (A miniSD™ Adaptor needs to be inserted)
	Codec	MPEG2 (SD-Video Entertainment Video Profile)	MPEG2 (SD-Video Entertainment Video Profile)	MPEG2 (SD-Video Entertainment Video F
	File Format	SD-Video format conforming Video Recording conversion and transfer is possible from card to HDD or DVD-RAM disc. After Video Recording conversion and transfer to HDD or DVD-RAM disc, the playback is possible.	SD-Video format conforming Video Recording conversion and transfer is possible from card to HDD or DVD-RAM disc. After Video Recording conversion and transfer to HDD or DVD-RAM disc, the playback is possible.	SD-Video format conforming Video Recording conversion and transfer is possible from card to HDD or DVD-RAM disc. After Video Recording conversion and transfer to HDD or DVD-RAM disc, the playback is possible.
Power Supply		AC 220-240V, 50Hz	AC 220-240V, 50Hz	AC 220-240V, 50Hz
Power Consumption (Approximate)	Normal Use	Approx. 35 W	Approx. 34 W	Approx. 34 W
	Standby mode	Approx. 2 W	Approx. 2 W	Approx. 2 W
Dimensions (W x D x H)		Approx. 430 x 329 x 58 mm	Approx. 430 x 329 x 58 mm	Approx. 430 x 329 x 58 mm
Weight (Approximate)		Approx. 4.3 kg	Approx. 4.2 kg	Approx. 4.2 kg
Operating Temperature		5 - 40 °C	5 - 40 °C	5 - 40 °C
Operating Humidity Range		10-80 %RH (no condensation)	10-80 %RH (no condensation)	10-80 %RH (no condensation)

*1: Discs recorded and finalised on DVD video recorders/ cameras. *2: Disc that cannot be played: "Chaopi VCD" available on the market including CVD, DVCD and SVCD that do not conform to IEC62107. *3: It may not be able to play some CD-R or CD-RW (MP3, etc.) and associated logos are trademarks of DivXNetworks, Inc. and are used under license. About DivX: DivX is a popular media technology created by DivX, Inc. DivX media files contain highly compressed video with high visual quality that maintains a relatively small file size. DivX 6-hour EP mode is higher quality than in 8-hour EP mode. *7: DMR-EH65/EH55 are compatible with SD Memory Card / miniSD™ Cards (A miniSD™ adaptor needs to be inserted). These units are compatible with DCF based, still picture (JPEG) files recorded using the units. It is recommended that you copy them to the SD Memory Card or DVD-RAM also. # 1GB = one billion bytes. Useable capacity will be less. Specifications are subject to change without notice. Weight and dimensions are approximate.



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Panasonic
ideas for life

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or location of your
nearest Panasonic
stockist please
telephone Panasonic's
Customer Care Centre
on 132 600

Visit our website at: www.panasonic.com.au or email our Customer Care Centre on pacc@panasonic.com.au

Specifications are subject to change without notice. While every effort has been made to represent product colours accurately, slight variation may occur due to the printing process. TV pictures are simulated in an effort to explain product features.