Company Outline

Company Name
ASTRODESIGN Inc.

Establishment
February 15 1977

Paid-in capital
72 million yen

Representive

President	Shigeaki Suzuki

Officer

Senior Vice President	Minoru Hosaka
Vice President	Osamu Ozaki
Auditor	Motoaki Morishita
Exective Officer	Tsutomu Mihara
	Junji Maeda

Employees
155

Sales
3.55 billion yen (2007.3)

Contents of a business
High-speed digital signal processing technology is set on our core. The image and video apparatus, software, a HDTV studio apparatus, a measurement apparatus for the display,and a MPEG（Digital TV）apparatus are designed, manufactured, and sold by ourselves.

Main Customer
EIZO NANAO CORPORATION
Fuji Television Network, Inc.
FUJITSU LIMITED
Hitachi, Ltd.
IKEGAMI TSUSHINKI CO.,LTD.
Japan Business Television,Incorporated
Matsushita Electric Industrial Co., Ltd.
Mitsubishi Electric Corporation
NEC Corporation
NHK（Japan Broadcasting Corporation）
NIPPON TELEVISION NETWORK CORPORATION
SANYO Electric Co.,Ltd.
Sharp Corporation
Sony Corporation
TOKYO BROADCASTING SYSTEM, INCORPORATED
TOSHIBA CORPORATION
TV Asahi Corporation
Victor Company of Japan, Limited

History

1977	The company is founded in Denen-Chofu, Ota-ku, Tokyo to design and develop electronic products.
1979	World's first programmable video signal generator developed.
1985	The Japan Broadcasting Corporation（NHK）asks us to develop HDTV-related equipment.
1986	To cope with our expanding operations and business performance,we build the new company building that houses us now in Nakahara-ku in the city of Kawasaki.
1987	To support our users in western Japan, we open our Kansai office in the city of Osaka.
1990	We increase our capital to 72 million yen.
1991	We open the Matsuyama R&D Center in the city of Matsuyama in Ehime Prefecture.
1993	We open the Kawasaki Technology Center in the city of Kawasaki in Takatsu-ku.
1996	The company is accredited under the ISO9001 international standard.（Registration no.: JET-0056）
1998	We open the Tottori R&D Center in Tottori prefecture.
	Astrosystems, Inc. is established in Los Angeles as our U.S. marketing base.
1999	The company is accredited under the ISO14001 international standard.（Registration no.: E99-102）
2002	NPS, Inc. of an associated company is merged and the head office is relocated to Meguro-ku, Tokyo.
2005	In accordance with Expo Aichi 2005 holding, we developed a Super Hi-vision Processor with NHK.
2007	The head office is relocated to Ota-ku,Tokyo. Three offices in the metropolitan area are integrated to one building.

ASTRODESIGN,Inc.
URL http://www.astrodesign.co.jp
● For more information, please contact us :

Business Unit 1
TEL.+81-(0)3-5734-6301　FAX.+81-(0)3-5734-6102
1-5-2 Minami-yukigaya,Ota-ku,Tokyo,145-066 Japan

SOGO2007C&B-SO3206E-1500-2

ASTRO

PRODUCTS LINE UP
OF CINEMA AND BROADCASTING

Ver.2

PRODUCTS LINE UP OF CINEMA AND BROADCASTING 2007

PRODUCTS LINE UP

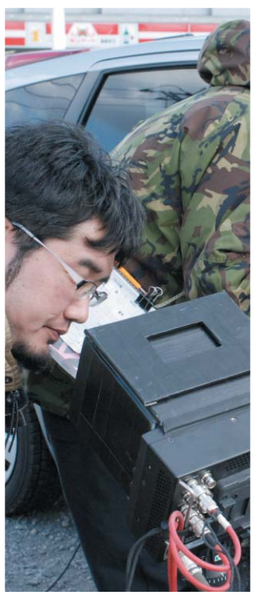
MAIN CUSTOMER

■Japan

Chukyo TV. Broadcasting Co., Ltd. (CTV)
Fuji Television Network, Incorporated (Fuji-TV)
Japan Broadcasting Corporation (NHK)
Kansai Telecasting Corporation (KTV)
Nagoya Broadcasting Network Co., Ltd. (NBN)
Nippon Television Network Corporation (NTV)
Tokyo Broadcasting System Television, Incorporated (TBS)
TV Asahi Corporation
TV TOKYO Corporation

■World

ARRI MEDIA(England)
CANAL+(France)
Korean Broadcasting System(Korea)
M6(France)
Munhwa Broadcasting Corp(Korea)
TF1(France)



Contents

WM Series Explanation of Modes

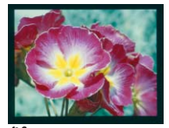
Picture Mode

●*Picture*

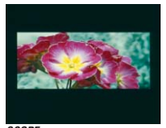
●*Picture color changed*

It's more than ably equipped with its monochrome, blue-only, color temperature selection, marker display function and other features to perform as a picture monitor.

WM-3208／3215only



4:3



SCOPE

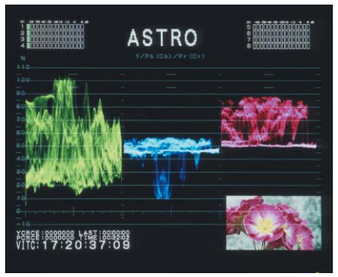
×4

×2

Display position can be moved in ×2 or ×4 mode

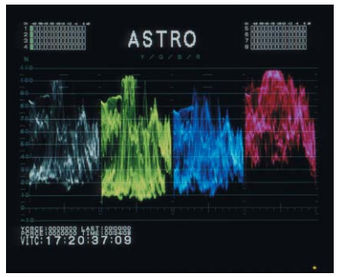
Waveforms Mode

●*Parade of 3waveforms*



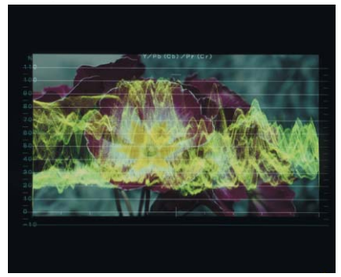
Color or white can be selected as the waveform display.

●*Parade of 4waveforms* WM-3208／3215only



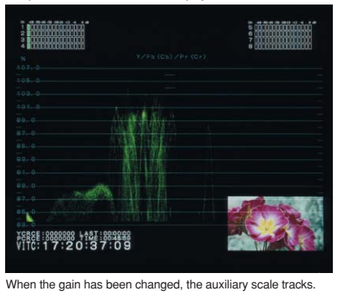
Y, G, B and R4 waveforms can be displayed simultaneously.

●*Overlay of waveforms onto picture*



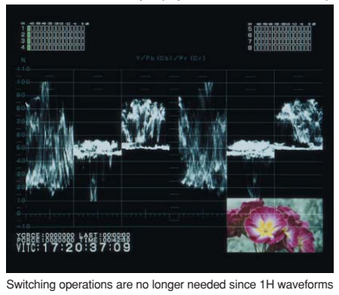
The correlation between the waveforms and picture can be monitored.

●*Expansion in vertical direction, displayed with one waveform*



When the gain has been changed, the auxiliary scale tracks.
WM-3208／3215only

●*1H and 1V simultaneously display function* WM-3208／3215only



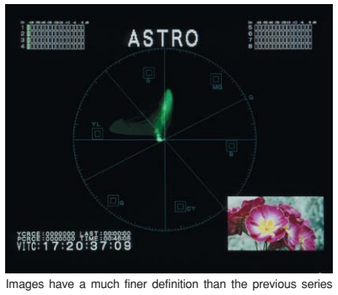
Switching operations are no longer needed since 1H waveforms and 1V waveforms can be measured simultaneously.

●*Pseudo-composite signal display* WM-3208／3215only

Coming Soon!

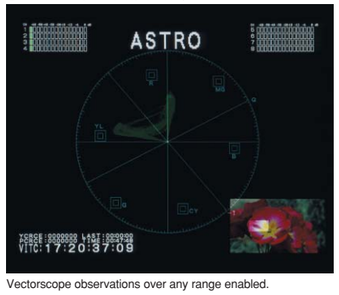
Vectorscope Mode

●*Vectorscope*



Images have a much finer definition than the previous series (WM-3004, 3007).

●*Area scanning* WM-3208／3215only



Vectorscope observations over any range enabled.

●*Option* WM-3208／3215only

Customer requirement optional for more than 20units order.

Status Mode

Signal levels in any range can be monitored using numerical values.

Ancillary Data Mode

WM-3208／3215only

Status of ancillary data can be monitored.

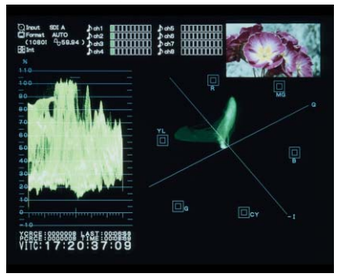
Phase Comparison Mode

WM-3208／3215only

Phase comparisons of 2 input signals and 2 sync signals can be monitored.

Multi Mode Multiple display modes can be monitored on a single screen.

●*Multi 1* WM-3014only

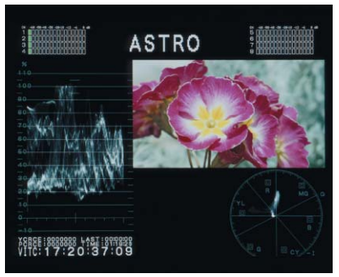


Waveforms, vectorscope, audio, pictures

●*Multi 2*

Waveforms, pictures

●*Multi 1* WM-3208／3215only

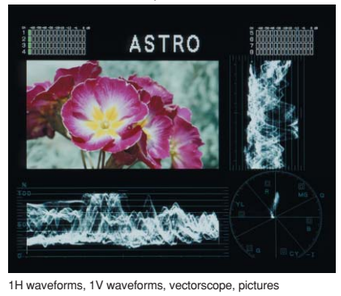


Waveforms, vectorscope, audio, pictures

●*Multi 3* WM-3208／3215only

Waveforms, vectorscope, pictures

●*Multi 4* WM-3208／3215only



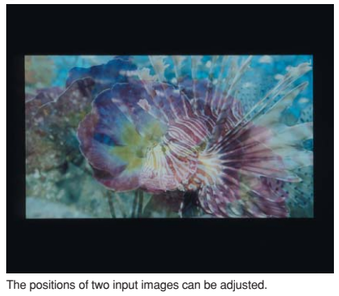
1H waveforms, 1V waveforms, vectorscope, pictures

●*Multi 5* WM-3208／3215only

Coming Soon!

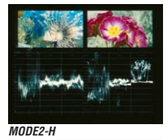
Comparison Mode

●*MODE 1* WM-3208／3215only

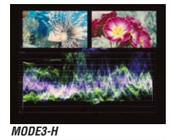


The positions of two input images can be adjusted.

WM-3208／3215only

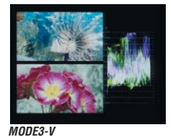


MODE2-H



MODE3-H

MODE2-V

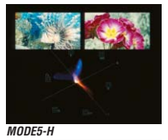


MODE3-V

The difference in the level between two images can be measured.

WM-3208／3215only

MODE4-H



MODE5-H

MODE4-V

MODE5-V

The color tones of two images can be compared.

LCD Waveform Monitor

These are compact, multifunctional waveform monitor in the LCD monitor series. A single unit combines various functions such as sourse monitoring, waveform monitoring, vector scoping provided and checking audio levels. The input signal supports full HD format and SDTV (525i, 625i). It can be used in any environment due to the ability to use camera batteries as a power source. It is perfect for monitoring video material in OB vans, at location sites and in the studio.

LINE UP

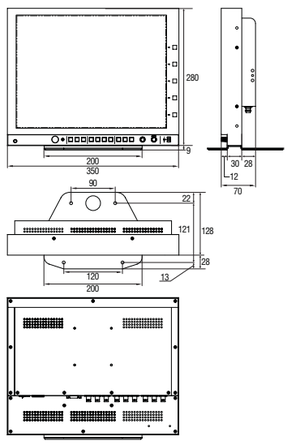
WM-3215/3215-L
HD/SD 15-inch LCD Waveform Monitor

15 inch

HD-SDI | D1-SDI | Composite | RGB 4:4:4 ※1 | DC Power Supply | Battery Supported※ | UMD ※2

※Optional
※1 It will be supported in autumn, 2007
※2 WM-3215-L Only

■Dimensional Drawing



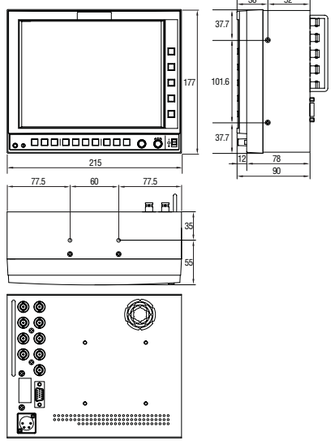
WM-3208/3208-L
HD/SD 8-inch LCD Waveform Monitor

8 inch

HD-SDI | D1-SDI | Composite | RGB 4:4:4 ※1 | DC Power Supply | Battery Supported※ | UMD ※2

※Optional
※1 It will be supported in autumn, 2007
※2 WM-3208-L Only

■Dimensional Drawing

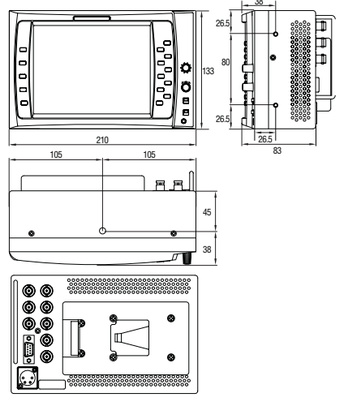


WM-3014
HD/SD 6-inch LCD Waveform Monitor

6 inch

HD-SDI | D1-SDI | YPbPr | Composite | DC Power Supply | Battery Supported

■Dimensional Drawing



Specification

		HD/SD LCD Waveform Monitor		
		WM-3215	**WM-3208**	**WM-3014**
Display Size	Inch	**15inch**	**8inch**	**6inch**
LCD Panel Specifications	LCD panel	15-inch TFT LCD	8.4-inch TFT LCD	6.3-inch TFT LCD
		1024×768 (960×540)	1024×768 (960×540)	1024×768 (960×540)
	Brightness	350cd/m2	350cd/m2	300cd/m2
	Viewing angle	170° above and below 170° left and right		45° above and 60° below 120° left and right
Input format	HDTV	SMPTE 274M,296M	SMPTE 274M,296M	SMPTE 240M,274M,296M
		SMPTE 292M,BTA S004B	SMPTE 292M,BTA S004B	SMPTE 292M,BTA S004B
	SDTV	SMPTE 259M	SMPTE 259M	SMPTE 259M
Input signal	SDI (YPbPr 4:2:2)	4ch	4ch	2ch
	SDI (YPbPr 4:4:4)	2ch (Dual use)	2ch (Dual use)	—
	SDI (RGB 4:4:4) ※	2ch (Dual use)	2ch (Dual use)	—
	Analog (YPbPr)	—	—	1
	Composite	1	1	1
Output signal	SDI loopthrough output	1	1	1
Other specifications	Accessories	Stand/ AC/DC adaptere	AC/DC adapter	AC/DC adapter
	Battery support	Option	Option	○
General specifications	Supply voltage	DC12V (10～18V)	DC12V (10～18V)	DC12V (10～18V)
	Power consumption	35W typ	24W typ	20W typ
	Operating temperature range (no condensation)	0～40℃	0～40℃	0～40℃
	Operating humidity range (no condensation)	30～80%RH	30～80%RH	30～80%RH
	Dimensions	W350×H280×D70 (mm)	W215×H177×D90 (mm)	W210×H133×D83 (mm)
		6.5U half	4U half	3U half
	Weight	Approx.5.0kg (11.0 lbs)	Approx.2.0kg (4.4 lbs)	Approx.1.5kg (3.3 lbs)

※It will be supported in autumn, 2007.

■Featurers

Auto-Tracing of Input Signals

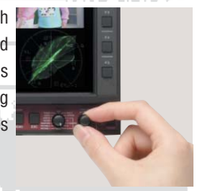
The input signal supports 23 kinds of HDTV and SDTV (D1-SDI) image formats. The monitor supports auto-tracing of all input signals and distinguishes frame rates of 1/1.000 and 1/1.001 automatically, eliminating troublesome settings.

Employs LCD with High Brightness and Wide Viewing Angle

A highly portable LCD with a wide viewing angle has been employed, allowing viewing from the side. It also offers the low power consumption and compact design expected of LCD monitors.

Multi-functionalfrom Waveform to Audio Checking

The monitor is equipped with numerous functions required for checking HDTV images from all aspects, functioning as multiple monitor devices in a single unit.



DM-3024 Native HD Resoluthion 24inch LCD Monitor

Ideal for use in Studios and OB Vans!!

The DM-3024 is an LCD picture monitor with native HD resolution LCD panel (1920 x 1080). It is ideally suited for use in a wide range of applications including the monitoring of the images taken during live broadcasts or in studios and non-linear editing, and its slim-line dimensions and light weight make it perfect for carrying around.
The monitor comes with a wide array of functions including brightness adjustments, contrast adjustments, chroma adjustments and marker displays, and its video input and output expansion capability has been further stepped up by incorporating a 4-system module slot design. It supports many different video standards including HD/D1-SDI, Dual Link HD-SDI, component, composite, analog RGB (PC) and DVI.

LCD Monitor

FEATURES

●4-system module selection method adopted

You can choose 4 kinds from 6 kinds of modules. (Support for component signals is pending.)

※Quad display Function.
When images are to be displayed on quad display,
SDI input modules must be selected for all quad display.

SDI input | Composite input | Analog RGB input | DVI input | SDI output

- 24inch native resolution LCD.
- Quad split function (4 HD/D1-SDI modules are necessary).
- Dual Link HD-SDI supported (2 HD/D1-SDI modules are necessary)
- A broad spectrum of display and adjustment functions (brightness, contrast, macro, filter, monochrome, gamma, same-magnification display functions, marker display function) is provided.
- Time code display function
- Audio level display function
- With a single touch of a front switch, whether or not to display the input channels, same-magnification display, monochrome-only and markers is determined.
- External control using an infrared-ray remote controller can be exercised.

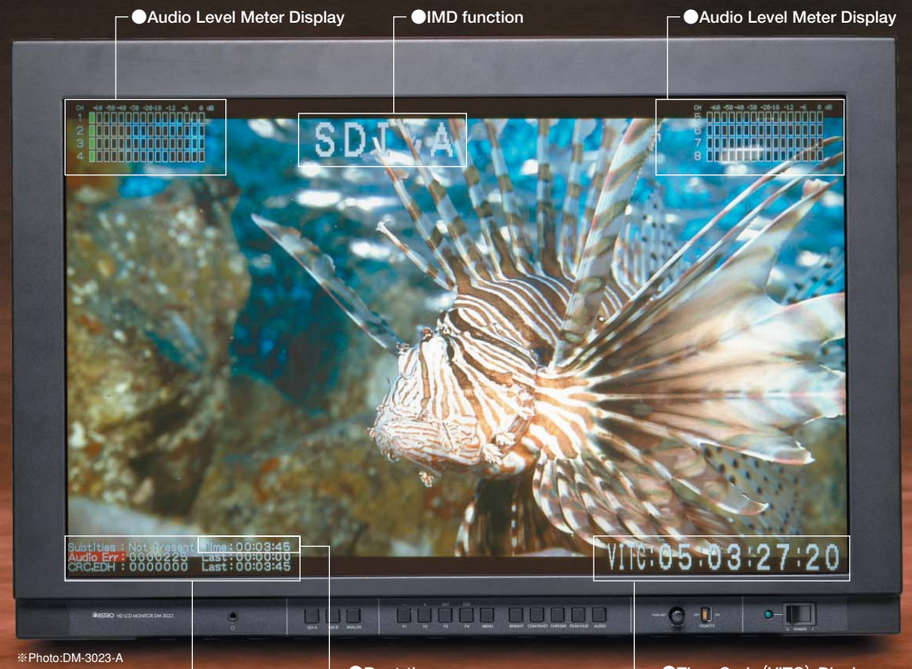
Specifications		
TV system		HDTV, SDTV and PC
Input signal		Input dependent upon 4 modules selected
	SDI Input Module	SDI x2ch Loopthrough x1ch Compliant toSMPTE 292M, 372M, 259M and BTA S-004B standard
	SDTV Composite Input Module	NTSC/PAL composite×1ch Compliant to SMPTE 170M, ITU-R624-4 standards×1
	HDTV Analog Input Module	HDTV analog YPbPr signal×1ch
	DVI Input Module	DVI-I×1ch (WUXGA, UXGA, SXGA, XGA, SVGA, VGA) ※Digital Signal Only.
Signal formats supported		1920×1080 60i/59.94i, 1920×1080 50i, 1920×1080 30p/29.97p/30sF/29.97sF, 1920×1080 25p/25sF,
		1920×1080 24p/23.98p/24sF/23.98sF
		1280×720 60p/59.94p, 1280×720 50p, 1280×720 30p/29.97p, 1280×720 25P, 1280×720 24p/23.98p
		720×525 59.94i, 720×625 50i ※Automatic scanning of input formats possible
General specifications	Supply voltage	AC100 to 240V (50/60Hz)
	Operating temperature range	-10 to 60℃ (no condensation)
	Operating humidity range	30 to 80%RH (no condensation)
	Dimensions	552(W)×390(H)×88(D)mm
	Weight	Approx.10Kg(22lbs)

The dimensions, specifications and other details. given here are subject to change without notice due to improvements.

16:9 wide-screen LCD monitors

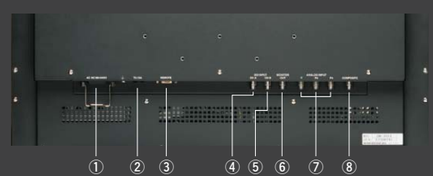
The 16:9 wide-screen LCD monitor series is a line-up of LCD monitors for broadcasting business applications. Its models incorporate liquid-crystal displays with a high brightness, high contrast and wide view angle in the 16:9 wide-screen format so that the HDTV images can fill the screen, and they can be used for monitoring images in studios, for instance. The extensive line-up ranges from the compact 9-inch model to the 32-inch type which is the largest available in the industry. The units support the HDTV and SDTV image formats which now play such an essential role in broadcasting business applications.
Brightness adjustment, contrast adjustment, chroma adjustment and marker displays are among the many functions which are provided to enable the image quality and display the images to be adjusted.

LCD Monitor



※Photo:DM-3023-A

■A name of each part (Rear oart)



※Photo:DM-3023-A (Other model)

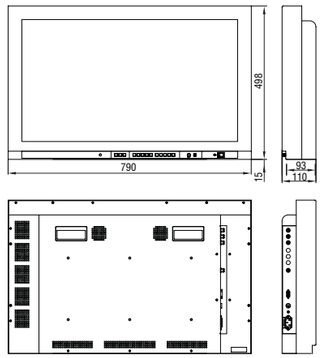
①AC power
②Fuse holder
③Remote Connector
④SDI input (A)
⑤SDI input (B)
⑥Monitor output (For monitoring of input signal)
Select SDI (A) input →Output SDI (A) video signal
Select SDI (B) input →Output SDI (B) video signal
⑦Analog input (YPbPr)
⑧Analog input (Composite)

LINE UP

DM-3032-A
HD/SD 32-inch Widescreen LCD Monitor

32 inch | WIDE 16:9 screen
HD-SDI | D1-SDI
YPbPr ※ | Composite
※Optional

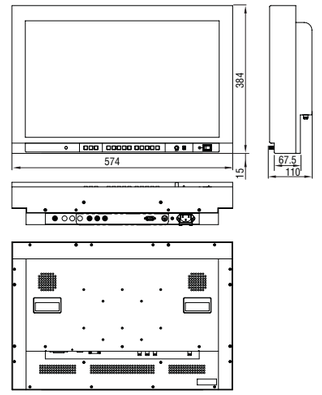
■Dimensional Drawing



DM-3023-A
HD/SD 23-inch Widescreen LCD Monitor

23 inch | WIDE 16:9 screen
HD-SDI | D1-SDI
YPbPr ※ | Composite
※Optional

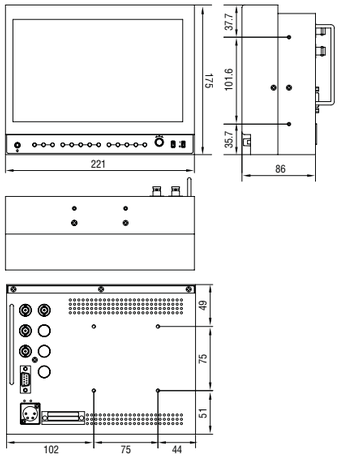
■Dimensional Drawing



DM-3011
HD/SD 9-inch Widescreen LCD Monitor

9 inch | WIDE 16:9 screen
HD-SDI | D1-SDI
YPbPr ※ | Composite
DC Power Supply | Battery Supported※
※Other model

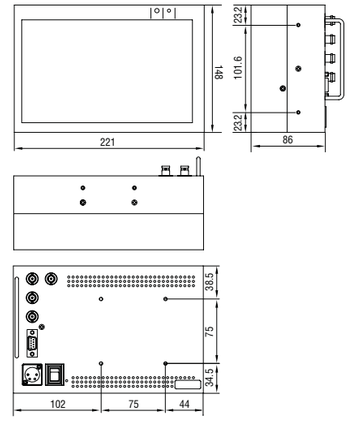
■Dimensional Drawing



DM-3109
HD/SD Space-Saving 9-inch Widescreen LCD Monitor

9 inch | WIDE 16:9 screen
HD-SDI | D1-SDI
Composite
DC Power Supply

■Dimensional Drawing



※No control buttons so RB-1666 is needed to adjust parameters such like brightness, chroma etc.

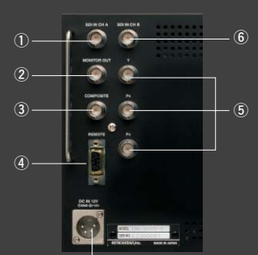
4:3 LCD monitors

The 4:3 LCD monitor series designed for broadcasting businesses can indicate time codes and statuses outside the image display area while the input images are displayed. The extensive line-up ranges from the ultra-portable 6-inch type to the 15-inch model. The units support the HDTV and SDTV image formats which now play such an essential role in broadcasting business applications. Brightness adjustment, contrast adjustment, chroma adjustment and marker displays are among the many functions which are provided to enable the image quality and display the images to be adjusted. The line-up includes models which can be powered by camera batteries and models which support ID displays so users can choose the exact model that dovetails with the intended applications.

LCD Monitor

※Photo:DM-3009

■A name of each part (Rear oart)



①SDI input（A）
②Monitor output（For monitoring of input signal）
Select SDI（A）input →Output SDI（A）video signal
Select SDI（B）input →Output SDI（B）video signal
③Analog input（Composite）
④Remote Connector
⑤SDI input（B）
⑥Analog input（YPbPr）
⑦DC Power Supply

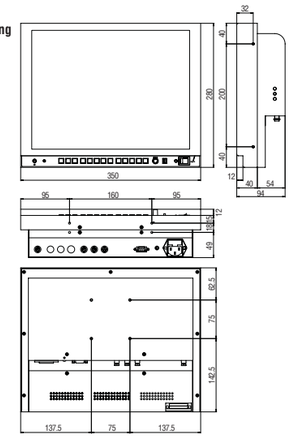
※Photo:DM-3009-L（Other Model）

LINE UP

DM-3016-L
HD/SD 15-inch LCD Monitor

15 inch | 4:3 screen
HD-SDI | D1-SDI
YPbPr ※ | Composite
※Other model

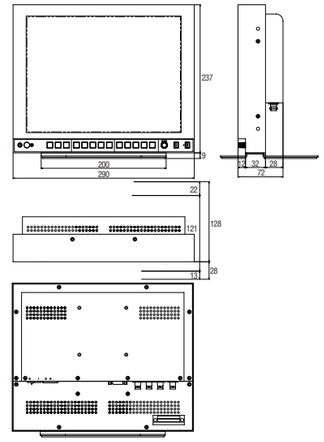
■Dimensional Drawing



DM-3112-L
HD/SD 12-inch LCD Monitor

12 inch | 4:3 screen
HD-SDI | D1-SDI
Composite
DC Power Supply | Battery Supported※
※Other model

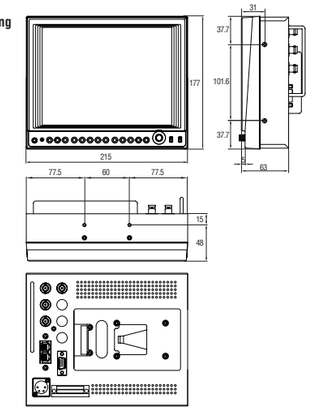
■Dimensional Drawing



DM-3009-L
HD/SD 8-inch LCD Monitor

8 inch | 4:3 screen
HD-SDI | D1-SDI
YPbPr ※ | Composite
DC Power Supply | Battery Supported※
※Other model

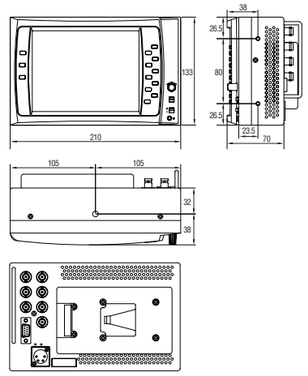
■Dimensional Drawing



DM-3106
HD/SD 6-inch LCD Monitor

6 inch | 4:3 screen
HD-SDI | D1-SDI
YPbPr | Composite
DC Power Supply | Battery Supported

■Dimensional Drawing



LCD Monitors with its ID Display Function DM/WM-L Series

In creating the DM/WM-L series with ID display function, ASTRODESIGN carried over the basic performance of the DM series/WM series which already has a proven track record of sales to many broadcast stations and production studios into its new series as a key building block, and it added an ID display fanction to the content monitor for Sub studio and OB Van.
The series supports multiple HD format, SD format (NTSC and PAL) and composite input signals so its units can be used to construct monitor walls which are highly compatible with conventional display systems.

FEATURES

●Space savings

Since even the ID display unit is contained inside the space which accommodates one LCD monitor, there is no more dead space behind the monitor wall and, in addition, the work space is significantly increased. Superimposition in monitor walls is also minimized.

●Cost savings and low power consumption

Since one unit is equipped with both ID display and monitor function, there is no need for users to purchase the monitor and ID display unit separately. Another advantage of this two-in-one feature is that less power is consumed.

→Operating ease

The SP-3300 software program (for Windows) specially designed for the DM-L series makes easy work of operations involving ID displays, ally displays and simple waveform displays.
IDs can be entered from the keyboard so the displays can be changed quickly.

SP-3300 (Optional)

LOCATION

▲Studio

▲OB van

Photograph:Fuji Television Network, Inc.

LCD MONITOR OPTION

※Changes may be made without notice to improve specifications and appearance.

Light Shielding Hood

*Only for Under 8inch models

IR Remote Control

for DM-3016-L, 3023-A, DM-3024, DM-3032-A, DM-3400

Carrying Case

*Only for Under 8inch models

Camera mount kit

DM Series Specification

		HD/SD 16 : 9 widescreen LCD monitor			
		DM-3032-A	DM-3023-A	DM-3011	DM-3109
Display size	Inch	32inch widescreen	23inch widescreen	9inch widescreen	9inch widescreen
LCD panel specifications	LCD panel	32-inch TFT LCD	23-inch TFT LCD	9-inch TFT LCD	9-inch TFT LCD
		1365×768 (1365×768)	1280×768 (1280×720)	800×480 (800×450)	800×480 (800×450)
	Brightness	450cd/m^2	450cd/m^2	350cd/m^2	350cd/m^2
	Viewing angle	170° above and below 170° left and right			
	Backlight adjustment	○	○	○	○
Input system		FIX	FIX	FIX	FIX
Input format	HDTV	SMPTE 240M,274M,296M	SMPTE 240M,274M,296M	SMPTE 240M,274M,296M	SMPTE 240M,274M,296M
		SMPTE 292M,BTA S004B	SMPTE 292M,BTA S004B	SMPTE 292M,BTA S004B	SMPTE 292M,BTA S004B
	SDTV	SMPTE 259M	SMPTE 259M	SMPTE 259M	SMPTE 259M
	Other	–	–	–	–
Input signal	SDI	2 (HD/D1 dual use)	2 (HD/D1 dual use)	2 (HD/D1 dual use)	2 (HD/D1 dual use)
	YPbPr	Option	Option	Option	–
	Composite	1	1	1	1
	Other	–	–	–	–
Output signal	SDI loopthrough output	1	1	1	1
Other specifications	Accessories	Stand/ AC cable	Stand/ AC cable	AC/DC adapter	AC/DC adapter
	Battery support	–	–	Option	–
General specifications	Supply voltage	AC100〜240V (50/60Hz)	AC100〜240V (50/60Hz)	DC12V (10〜18V)	DC12V (10〜18V)
	Power consumption	150W typ	100W typ	18W typ	20W typ
	Operating temperature range (no condensation)	0〜40℃	0〜40℃	0〜40℃	0〜40℃
	Operating humidity range (no condensation)	30〜80%RH	30〜80%RH	30〜80%RH	30〜80%RH
	Dimensions	W790×H498×D110 (mm)	W574×H384×D157 (mm)	W221×H175×D86 (mm)	W221×H148×D86 (mm)
		–	–	4U half	3.5U half
	Weight	Approx.17kg (37.5 lbs)	Approx.12kg (26.5 lbs)	Approx.1.6kg (3.5 lbs)	Approx.1.5kg (3.3 lbs)

		HD/SD 4 : 3 LCD monitor			
		DM-3016-L	DM-3112-L	DM-3009-L	DM-3106
Display size	Inch	15inch	12inch	8inch	6inch
LCD panel specifications	LCD panel	15-inch TFT LCD	12.1-inch TFT LCD	8.4-inch TFT LCD	6.3-inch TFT LCD
		1024×768 (1024×576)	1024×768 (1024×576)	1024×768 (1024×576)	1024×768 (960×540)
	Brightness	350cd/m^2	280cd/m^2	400cd/m^2	300cd/m^2
	Viewing angle	170° above and below 170° left and right	80° above and 70° below 170° left and right	170° above and below 170° left and right	45° above and 60° below 120° left and right
	Backlight adjustment	○	○	○	–
Input system		FIX	FIX	FIX	FIX
Input format	HDTV	SMPTE 240M,274M,296M	SMPTE 240M,274M,296M	SMPTE 240M,274M,296M	SMPTE 240M,274M,296M
		SMPTE 292M,BTA S004B	SMPTE 292M,BTA S004B	SMPTE 292M,BTA S004B	SMPTE 292M,BTA S004B
	SDTV	SMPTE 259M	SMPTE 259M	SMPTE 259M	SMPTE 259M
	Other	–	–	–	–
Input signal	SDI	2 (HD/D1 dual use)	2 (HD/D1 dual use)	2 (HD/D1 dual use)	2 (HD/D1 dual use)
	YPbPr	Other model	–	Other model	1
	Composite	1	1	1	1
	Other	–	–	–	–
Output signal	SDI loopthrough output	1	1	1	1
Other specifications	Accessories	Stand/ AC cable	Stand/ AC/DC adaptere	AC/DC adapter	AC/DC adapter
	Battery support	–	Option	1	○
General specifications	Supply voltage	AC100〜240V (50/60Hz)	DC12V (10〜18V)	DC12V (11.4〜12.6V)	DC12V (10〜18V)
	Power consumption	40W typ	17W typ	18W typ	16W typ
	Operating temperature range (no condensation)	0〜40℃	0〜40℃	0〜40℃	0〜40℃
	Operating humidity range (no condensation)	30〜80%RH	30〜80%RH	30〜80%RH	30〜80%RH
	Dimensions	W353×H290×D86 (mm)	W290×H237×D72 (mm)	W215×H177×D63 (mm)	W210×H133×D70 (mm)
		6.5U	5.5U half	4U half	3U half
	Weight	Approx.3.8kg (8.4 lbs)	Approx.2.8kg (6.2 lbs)	Approx.1.8kg (4.0 lbs)	Approx.1.3kg (2.9 lbs)

※1.WUXGA,UXGA,SXGA,WXGA,XGA ※2.Dual Link HD-SDI, DVI, Y/C

■Optional Support List

	DM-3032-A	DM-3023-A	DM-3011	DM-3109	DM-3016-L	DM-3112-L	DM-3009-L	DM-3106
IR remote control	○	○	—	○	○	○	—	—
EIA compliant single rack mount kit	—	—	○	○	○	○	○	○
EIA compliant double rack mount kit	—	—	○	○	—	—	○	○
Stand	Standard	Standard	○	○	Standard	Standard	○	—
Tilt stand	—	—	○	○	○	○	○	—
Light shielding hood	—	—	—	—	—	—	—	○
Camera mount kit	—	—	○	—	—	—	○	○

■HDTV&SDTV Format List

■(sF) denotes Segmented Frames.

		Format	Scanning Type	Frame Rate (Hz)	Sampling Freaquency (MHz)	Total Horizontal Pixel
SMPTE 240M	BTA S-001	1920×1035 60/2:1	Interlace	30	74.25	2200
SMPTE 260M	BTA S-002B	1920×1035 59.94/2:1	Interlace	30/1.001	74.18	2200
SMPTE 274M	BTA S-001	1920×1080 60/2:1	Interlace	30	74.25	2200
	BTA S-002B	1920×1080 59.94/2:1	Interlace	30/1.001	74.25/1.001	2200
		1920×1080 50/2:1 ※	Interlace	25	74.25	2640
		1920×1080 30/1:1	Progressive	30	74.25	2200
		1920×1080 29.97/1:1	Progressive	30/1.001	74.25/1.001	2200
		1920×1080 25/1:1 ※	Progressive	25	74.25	2640
		1920×1080 24/1:1 ※	Progressive	24	74.25	2750
		1920×1080 23.98/1:1 ※	Progressive	24/1.001	74.25/1.001	2750
		1920×1080 30 (sF)	Progressive (sF)	30	74.25	2200
		1920×1080 29.97 (sF)	Progressive (sF)	30/1.001	74.25/1.001	2200
		1920×1080 25 (sF) ※	Progressive (sF)	25	74.25	2640
		1920×1080 24 (sF)	Progressive (sF)	24	74.25	2750
		1920×1080 23.98 (sF)	Progressive (sF)	24/1.001	74.25/1.001	2750
SMPTE 296M		1280×720 60/1:1	Progressive	60	74.25	1650
		1280×720 59.94/1:1	Progressive	60/1.001	74.25/1.001	1650
		1280×720 50/1:1 ※	Progressive	50	74.25	1980
		1280×720 30/1:1	Progressive	30	74.25	3300
		1280×720 29.97/1:1	Progressive	30/1.001	74.25/1.001	3300
		1280×720 25/1:1 ※	Progressive	25	74.25	3960
		1280×720 24/1:1 ※	Progressive	24	74.25	4125
		1280×720 23.98/1:1 ※	Progressive	24/1.001	74.25/1.001	4125
SMPTE 259M		720×487 59.94/2:1	Interlace	30/1.001	13.5	780
		720×574 50/2:1	Interlace	25	13.5	892

■Features

Automatic Input Signal recognition

Cumbersome settings are not needed as all input formats are automatically recognized and frame rates of 1/1.000 and 1/1.001 are also automatically distinguished.

Easy-to-use Front Switches

Input channels, life-size display, monochrome, blue only and marker display can all be controlled in one touch of the front switches.

Liquid Crystal for High-Brightness and Wide Field Vision

Employing the new liquid crystal, the monitors provide high-brightness, high-contrast and a wide field of vision. The field of vision extends 170 degree horizontally and is ideal for a wide variety of applications.

LCD MONITOR

DM-3400 4K2K 56inch LCD Monitor

Supports 4K2K format and More real than real

DM-3400 is 56 inches 4K2K monitor that can process cinema 4K2K format or HD-SDI multi format. This monitor has 4 inputs of DVI-D and 4 inputs of HD-SDI (Dual Link). Brightness and color temperature, gamma can be adjusted by a wireless remote controller.

Features

- **Supports 4K2K (3840x2160) and 2K1K(1920x1080) format.**
- **Multi-rate support (60p, 60i, 24p/sF) and automatically detection of the field(frame) frequency.**
- **HD-SDI input is compliant to ITU-R BT.1769.**
- **HD-SDI input is x1ch or x4ch or x8ch. Supports YUV 4:2:2 and RGB 4:4:4(Dual Link).**
- **DVI-I(Digital signal only) x4ch input.**
- **Brightness, contrast, gamma and color temperature of picture quality can be adjusted by wireless remote controller.**

Specifications

Display	(Display resolution)	3840x2160 (1920x1080 x4ch)
	(Brightness)	500cd/m^2
	(Contrast)	1200:1
Input	HD-SDI	ITU-R BT.1769(3840x2160@60Hz)
		SDI:1/4/8ch(Dual Link supported)
	DVI	DVI-I 4ch (Digital input only)
Format	HD-SDI	1920x1080p23.98/24/59.94/60, 1920x1080i59.94/60
	DVI	1920x1080p59.94/60

Other

AES/EBU audio input	Input x1 / Output x1 (HD-SDI embedded audio output)

General specifications

Supply voltage	AC 100～220V
Power consumption	Approx. 500W
Operating temperature range	5～40℃
Operating humidity range	30～80%RH(non-condensing)
Dimensions	1,320(W) x 780(H) x 240(D) mm (including support parts for wall display)
Weight	Approx. 45.0 kg

STUDIO EQUIPMENTS

HR-7401 HDTV Uncompressed Hard Disk Recorder

The world first compact size uncompressed digital format (RGB 4:4:4) supported disk recorder.

The HR-7401 is a hard disk recorder that plays and records uncompressed HDTV signals. It uses a reliable fiber channel hard disk as a recording medium.
The HD-7401 achieves a maximum of 60min (YUV 4:2:2 Sampling) recording/playing operations per unit.
Its 19-inch compact half-rack size body and portability offer mobility and space-saving convenience for desk-top editing, as well as for CM and film shooting that require high-quality images.

- Portable uncompressed recorder which can be held in one hand
- Changing disk packs allows long-time recording
- Combination of operability and fast response like a VTR

Features

- **The recording time is up to 30 minutes in Dual Link (RGB 4:4:4)**
- **Disk Pack can be exchanged easily**
- **Embedded audio can be recorded (up to 16ch) / played (2channels are selected among 1 to 8ch)**

Specifications

Input/Output signal		HD-SDI/Dual Link HD-SDI
Input/Output signal and Recording mode	1920x1080(50i, 59.94i, 60i)	Single Link(YPbPr 4:2:2) / 60min.
		Dual Link(RGB 4:4:4) / 30min.
	1920x1080(23.98p/sF, 24p/sF, 25p/sF, 29.97p/sF, 30p/sF)	Single Link(YPbPr 4:2:2) / 60min.
		Dual Link(RGB 4:4:4) / 30min.
	1920x1080(59.94p,60p)	Dual Link(RGB 4:4:4) / 20min.
	1280x720(23.98p, 24p,25p, 29.97p, 30p)	Single Link(YPbPr 4:2:2) / 60min.
External Reference		HD Analog tri-level, BBS

Others

HDD extended terminal	2G Fiber Channel SFP x2
AES/EBU audio input/output	Input x1, Output x1 (BNC)

General specifications

		Voltage	Main Unit : DC12V or 24V / Exclusive Power Unit : AC100 - 240V (50/60Hz)
		Power consumption	180W MAX
	Main Unit	Dimensions	210(W)×132(H)×400(D)mm (8.3"x5.2" 15.7" : 3U half size)
		Weight	Approx. 10.2kg (22.5lbs)
	Exclusive Power Unit	Dimensions	210(W)×176(H)×400(D)mm (8.3"x6.9" 15.7" : 4U half size)
		Weight	Approx. 12.0kg (26.5lbs)

SCAN CONVERTER

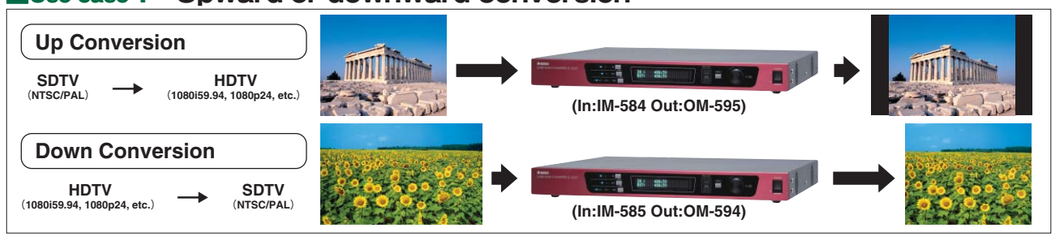
SC-2055A Super Scan Converter

Let us put you in command of all of your visual materials.

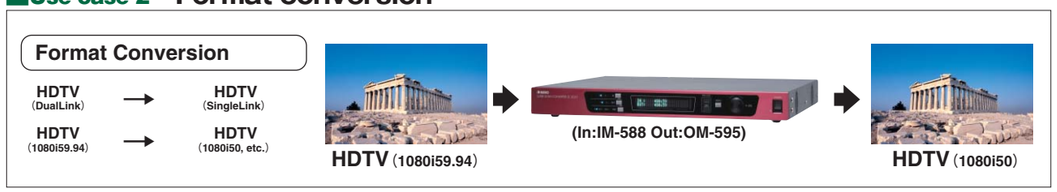
The SC-2055A super scan converter is compatible with many kinds of visual standards,including HD/D1-SDI, NTSC/PAL, DVI and analogue RGB.ASTRODESIGN incorporated its original astrosnap and TERA high-quality imaging technologies to offer converted images of dramatically high quality. System design consisting of program production to projectors and other large image systems tends to be complex, but the SC-2055A, compatible with numerous interfaces with high quality, makes it simple and is suitable for a wide range of applications.

The following are examples of usage made possible through combinations of input/output modules.

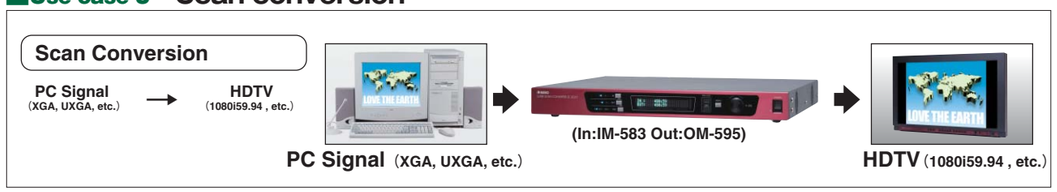
Use case 1 Upward or downward conversion



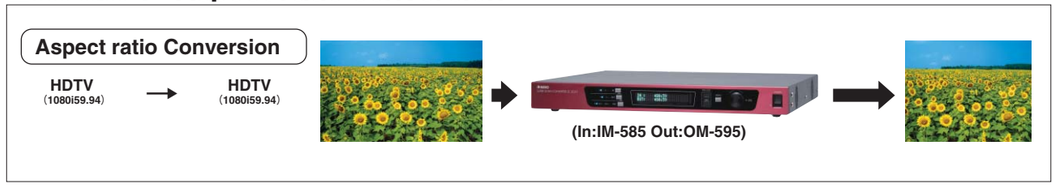
Use case 2 Format conversion



Use case 3 Scan conversion



Use case 4 Aspect ratio conversion



Features

●Slot-in architecture of 2 channels for input and output respectively

Each of these modules:
HD-SDI, D1-SDI, DVI, analogue RGB,
Dual Link HD-SDI, and NTSC/PAL (input only)
can be configured according to use.

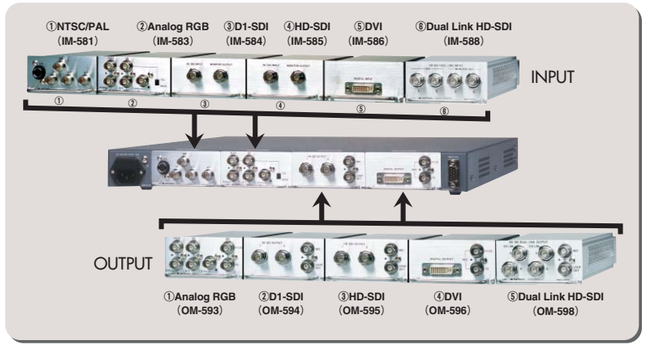
●High-quality scan conversion at the highest level of the industry

ASTRODESIGN's original high-quality imaging technologies (astrosnap high-definition contour correction technology and TERA high-definition scaling conversion technology) are integrated.

●Complete control over multi-format conversion

①HDTV(720p) ⇔ HDTV(1080i)
②HDTV(1080i50) ⇔ HDTV(1080i59.94)
③SDTV ⇔ HDTV Compatible with numerous other conversions

●10-bit processing realized for internal processing



Specifications

Input/Output Signal System (differs depending on I/O module)		
	Scan mode	Progressive / Interlace
	AD sampling clock frequency/resolution	Max 165MHz/Max 2560x1580 *Interlace input : Max 74.25MHz/Max 1920x1080
	Horizontal frequency / Vertical frequency	15～150KHz/24～150Hz
	Gradation	RGB / Component; 10 bits each
Input/Output Interface (module name)		
NTSC/PAL	**Input signals**	NTSC-M, PAL-B, D, G, H or I
	Input: IM-581	VBS, Y/C, Y/R-Y/B-Yx 1 each
RGB/YPbPr/YCbCr	**Input signals**	Dot clock frequency: 13.5 to 165 MHz
	Input: IM-583	R/Pr/Cr, G/Y, B/Pb/Cb,HS/CS, VS x 1ch(BNC)
	Output: OM-593	R/Pr/Cr, G/Y, B/Pb/Cb,HS/CS, VS x 1ch(BNC) External sync signal input x 1ch (HS/VS, CS supported)
D1-SDI	**Input signals**	SMPTE 259M standard /SMPTE 125M standard complied with
	Input: IM-584	D1-SDI x 1ch with loop-out (BNC)
	Output: OM-594	D1-SDI x 2ch (BNC) External sync signal input x 1ch with loop-out (HD bi-level, tri-level, BBS supported)
HD-SDI	**Input signals**	SMPTE 240M, 274M, 296M standards complied with
	Input: IM-585	HD-SDI x 1ch with loop-out (BNC)
	Output: OM-595	HD-SDI x 2ch (BNC) External sync signal input x 1ch with loop-out (HD bi-level, tri-level, BBS supported)
DVI	**Input signals**	Dot clock frequency: 25 to 165 MHz
	Input: IM-586	DVI-I x 1ch (digital signals only; Single Link, DDC and hot plug supported; HDCP not supported)
	Output: OM-596	DVI-I x 1ch (digital signals only; Single Link, DDC and hot plug supported; HDCP not supported) External sync signal input x 1ch (HS/VS, CS supported)
Dual Link HD-SDI	**Input signals**	SMPTE 292M, 372M standards/SMPTE 240M, 274M, 296M standards complied with
	Input: IM-588	Dual Link HD-SDI x 1ch with loop-out (BNC)
	Output: OM-598	Dual Link HD-SDI x 2ch (BNC) External sync signal input x 1ch with loop-out (HD bi-level, tri-level, BBS supported)
AM-1500 audio processor (※option)		BTA F-1002, S-005B, S-006B standards/SMPTE 299M, 272M standards complied with Only SDI embedded audio signal supported
Control System		
		RS-232C (D-Sub 9 pin)/ RS-422 (D-Sub 9 pin:option at shipping)
General Specifications		
	Power voltage	AC100～240V (50/60Hz)
	Power consumption	76W MAX
	Operating temperature range	5～40℃
	Operating humidity range	30～80%RH(non-condensing)
	Outside dimensions	430 (W) x 44 (H) x 430 (D) mm (17.0"x1.7"x17.0 : 1U)
	Weight	Approx. 6.5Kg (14.3lbs)(with all 4 slots mounted)

STUDIO EQUIPMENTS

HS-7042
16-Channel Splitter

HD

It proposes an advanced production style.

Features
- Display size selectable between 1/16,9/16,1/4,/1/1 and mixed each
- HD-SDI input signal
- Underscan available
- Input signal format auto detection
- Overlay display of input signal status,error, audio level and arbitray character available
- Utility software for setting/manual operation attached
- Color of frame can be changed to previously setting color by external tally signal.
- Redundant power supply

Specifications

Input/Output signal	HD-SDI signal	Compliant to SMPTE 292M 269M、BTA S-001B 004B
	Reference	HD 3 level sync signal (compliant to ARIB BTA S-001B)
	Input	BB (compliant to RS-170)
Display frame		Squeeze ratio 100% to 80% and frame display are available.
		Squeeze ratio per channel form 100% to 80% and
		frame display are available
	Display Mode	Selectable between 1/16、9/16、1/4、1/1
Display frame and character per each channel	Frame	256 color , color selectable by external tally signal.
	Character	10 Characters, 256 color, edge and background color setting available
	External interface	RS-422、10Base-T/100Base-TX Ethernet
General specification	Power Voltage	AC100 - 240V (redundant power supply standard equipped)
	Power consumption	145W MAX
	Dimensions	430(W)×44(H)×350(D)/mm(1U)
	Weight	Approx. 5.0kg

SD-1659
SDI Multi-rate Matrix Switcher

HD SD DVB-ASI

16x16 matrix at 1U size and flexibility of In/Out channels

Features
- The number of the input output channels constitutes it at a unit of 4 channel unit, and a combination is possible freely (Ex; 4x4, 4x16, 8x8, 16x16, etc.)
- HD-SDI, D1-SDI and DVB-ASI signal available
- A stable switching is possible by seamless switching by blanking change (*It can not switch by blanking change in the case of DVB-ASI signal input.)
- It is equipped with convenient pre-set memory (16 kinds at the maximum)
- Small and lightweight (1U size, 5kg)

Specifications

Input/Output signal	Signal format	SMPTE 259M
		SMPTE 292M
		DVB-ASI
	NRZ signal	NRZ signal 75Ω 16 channels (BNC)
	Signal amplitude	0.8Vp-p ±10%
	External sync imput	HDTV tri-level sync signal of SMPTE240M (1035i), 274M (1080i), 196M (720P)
		Or BBS of SMPTE 170M (NTSC)
External control		RS-422A（Dsub-9pin female）
General specification	Power Voltage	AC100～AC240V (50/60Hz)
	Power consumption	Max. 30W
	Dimensions	430（W）×44（H）×320（D）mm（16.9"x1.7"x5.2"x12.6" :1U ）
	Weight	Approx. 5.0kg (11.0 lbs)

HC-7039B
HD-SDI Multiprocessor

HD

Image and Audio Compensation Equipment

Features
- 10 settings can be saved in memory.
- You can expand up to 4 units by adding input.
- Allows compensation for various images such as gain, setup, clip, and gamma.
- Adjustment to delay images (three frames maximum) and to audio delay (maximum 300msec.).
- Supports AES/EBU audio input with an optional audio board.
- Gain adjustment and phase inversion of audio 1ch, 2ch and 5.1ch are supported.
- Allows down-mixing 5.1ch to 2ch stereo.
- 2ch stereo can be converted to monaural mixing.

Specifications

Television system		HDTV
Input signal		HD-SDI compliant to SMPTE292M,BTA-004B,SMPTE299M, 1ch and loopthrough output with 1unit
Output signal		HD-SDI compliant to SMPTE292M,BTA-004B,SMPTE299M, 3ch with in 1unit
Number of Input/Output		Max, 4 input/output board can be equipped.
Supported signal format		1920×1080 (59.94i)
General specification	Voltage	AC100 to 240V (50/60Hz)
	Power consumption	Approx. 50W(1UNIT), 100W(4UNIT)
	Dimensions	430(W)×88(H)×400(D)mm (2U)
	Weight	Approx. 12.0kg

SD-1645
HD-SDI Repeater

HD

Super compact repeater ideal for extending HD-SDI in units of 100 meters at remote broadcasting site, location site or in a studio

Features
- SMPTE 292M, BTA S-004B standards compliant (1.485Gbps SDI signals).
- SMPTE 274M, SMPTE 296M and BTA S-001B standards compliant.
- Supporting HDTV video full format -- 1080i, 1035i, 720p, 24p, 24sF, etc.
- Automatic switching to field frequency rates of 60Hz or 60/1.001Hz.
- Lightweight and compact in size.

Specifications

General specification		DC12V/300mA (cannon connector/XLR 4pin)
		Max. 3.6W
		85(W) × 25(H) × 45(D)mm (3.3" ×1.0" ×1.8")
		Approx. 180g (0.3 lbs)

STUDIO EQUIPMENTS

SG-7810

HDTV & SDTV Sync Generator

HD SD

Both Sync(HDTV&SDTV) and HD patterns can be generated

Features

- Frame synchronization
- Genlocking
- Internal synchronization
- Phase adjusting function
- Pattern generating function on HD-SDI output
- Embedded audio generating functin

Specifications

Output signal	Analog sync output	HD analog trilevel sync or SDTV BB sync×3ch (For each 2 distribution)
		HD sync:Complian to SMPTE274M, SMPTE296M and BTA S-001B
		BB sync:NTSC/PAL/S-PAL BBS
	HD-SDI output	HD-SDI signal×1ch (For 4 distribution) Compliant to SMPTE292M (Internal generated pattern)
	Embedded audio output	48KHz The amplitude is adjustable.
		Compliant to SMPTE299M
Reference sync input		1ch (HD analog trilevel sync or NTSC BB sync)
General specification	Power Voltage	DC12V (10 to 18V)
	Power consumption	Max 20W
	Dimension	210(W)×44(H)×310(D)mm (1U half size)
	Weight	Approx. 2.0kg

SG-7802A

HD-SDI Test Generator

HD

Compact and Easy to Operate

Features

- SMPTE 292M, BTA S-004 standard conformity.
- Various test pattern displays.
- User data management by with a memory card.
- Ultimate lightweight and portable.
- Frame lock to external reference signal.
- Memory function eliminates settings at POWER-ON.
- 13kinds of test pattern.

Specifications

Video output signal		HD-SDI signal compliant to SMPTE 292M, BTA S-004B×4ch
		HD-Analog YPbPr signal : Y (0.7Vp-p), PbPr (±0.35Vp-p), Sync : tri-level (±0.3Vp-p) (75Ω terminated)×1ch
Audio output signal		HD-SDI embedded audio compliant to SMPTE 299M ×4ch
		L/R analog monitoring audio×1ch
External sync signal		SMPTE 240M / 274M/296M and PAL / NTSC
Control		RS-232C (D-Sub 9pin 1ch), USB (USB 1.1)
General specification	Power voltage	AC 100 to 240V (50/60Hz)
	Power consumption	Max. 30W
	Dimensions	210(W) × 44(H) × 370(D) mm (8.3" ×1.7" × 14.6" : 1U half size)
	Weight	Approx. 2.0kg (4.4 lbs)

DIGITAL BROADCASTING

CX-5528

Multiplex and TS over IP Interface unit

Features

- **TS multiplexer of 1U half rack size**
- **DVB-ASI 4 input, DVB-ASI 2 distribution output**（Throughput 100Mbps）
- It is possible as TS over IP Gateway
  （Only as for the single course, it is throughput 20Mbps at a time）
- Other than normal MUX, it is possible as ground digital broadcasting, broadcast satellite digital broadcasting, REMUX of plural cable TV(TS)
- A multiplex of section, a section filters of PID, and a PID change is possible（It can change setting in real time）

Specifications

Input	TS	DVB-ASI×4 (Bit rate: 10kbps～100Mbps/MAX 100Mbps) BNC connector
	External CLK Input	1ch(10MHz)
	Frame sync	1ch (Frame sync of ground digital broadcasting)
Output	TS	DVB-ASI×1 (For each 2 distribution, Bit rate: 10kbps～100Mbps/MAX 100Mbps) BNC connector
Ethernet		10BASE-T/100BASE-TX ×1 (TS over IP input/output)
ALARM		1ch (The point of contact, OPEN/CLOSE) D-sub 15pin
General specification	Voltage	AC100 to 240V (50/60Hz)
	Power consumption	Max30W
	Dimension	210(W)×44(H)×280(D)mm (excluding projected parts)
	Weight	Approx.1.7kg

CM-5606

OFDM Modulator

Simple & Compact, and high efficiency

Features

- Real time OFDM modulation from Broadcasting TS or MPEG-TS (Compliant to ARIB STD-B31, Japanese ISDB-T format).
- RF output is VHF～12ch, UHF13～62ch(90～770MHz).
- Monitoring of an input signal situation is possible by the alarm output.
- It is modulated by modulation parameter which accepted TMCC information.
- IFFT clock output (4.063492/8.126894MHz)
- Reference clock input (8.126894/10MHz)
- Compact design (1U half size)

Specifications

RF output	Freqency	VHF: 1ch～UHF: 62ch（90～770MHz）
	Frequency deviation	Less than ±2.5ppm
	Level	0±5dBm
	Variable range	＋10dBm～－5dBm / 0.1dBm step
	Connector	F
	Channel	1ch
Input signal	TS	ISDB-T format（Compliant to ARIB STD-B31） DVB-ASI（BNC x1, D-sub 25pin female x1）
General specification	Voltage	DC 12V（50/60Hz）
	Power consumption	Max.40W
	Dimension	210（W）×44（H）×350（D）mm（excluding projected parts）
	Weight	Approx. 3.0kg

TS ANALYZER

TS-7815 TS Portable Analyzer

Simple, Clear.

Imagine anyone being able to easily check what they want without needing specialized TS-related knowledge. Real-Time Information Gathering, Measurement Functions for Immediate Understanding of Fundamental TS Parameters.

The TS-7815 is a portable TS (Transport Stream) analyzer that performs TS analysis based on the MPEG2 standard (ISO/IEC 13818).And, not only DVB standard but ATSC (option) standard is supported. Featuring operations that don't require detailed TS-related knowledge. Designed with user-friendliness in mind to be easily usable by anyone.

Measurement features include TS bit rate measurement, PID summary display, section summary display, program tree display, PCR jitter measurement, PTS/DTS analysis, and more, enabling you to perform real-time analysis of fundamental TS parameters.

Features

- ●DVB standard and ATSC standard (optional) is supported.
- ●Analysis results display on LCD monitor (6.3-inch XGA) (external output is supported)
- ●Support for automatic (ETSI TR 101 290) and manually-triggered TS data recording, log output, and alarm output
- ●Support for offline analysis of recorded TS data (PID map display etc.) Real-time eye pattern display
- ●Saving display screen to bitmap file on CompactFlash
- ●Network (FTP and SNMP) support
- ●Lightweight (2.6kg), compact design (3U half-rack size)
- ●Rackmounting support

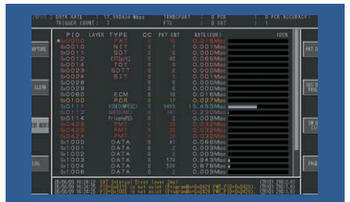
Specifications

TS input	DVB-ASI (2 systems : only ch1 with throgh out)
Bit rate	70 Mbps (max.)
TS output	DVB-ASI (through output for one input only)
Input/output TS packets	188,204 and 208 bytes
Items analyzed	Bit rate monitoring in PID units
	Real-time PCR jitter measurement
	PSI structural analysis
	PTS analysis

General Specifications

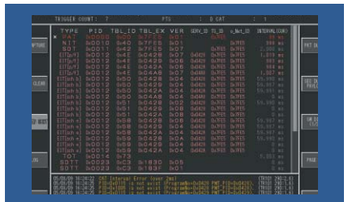
Supply voltage	DC 12V (10 to 18V supported), 4-pin male Cannon connector
Power consumption	20W
Operating temperature range	5 to 40℃
Oparating humidity range	40 to 80% RH(no condensation)
Dimensions	210(W) × 133(H) × 210(D) mm (8.3" × 5.2"x 8.3" : 3U half size)
Weight	Approx. 2 kg (4.4lbs)

View Modes



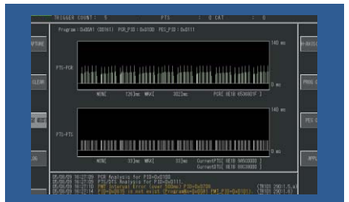
Per-PID Information Display (Bit Rate Display)
While displaying LAYER (only on Japanese digital terrestrial broadcasting TS input) and TYPE for each PID, the bit rate is displayed as a numeric value or bar graph based on the received packet count.

*Display Content
Bar graph display of bit rate per second, packets per second, input PID, TMCC layer, PSI/SI table, CC error count



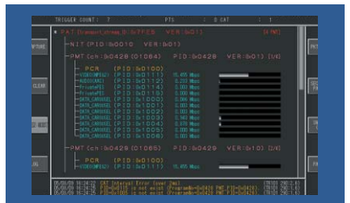
Section Summary Display
A summary is displayed for each type of Section.
Items displayed vary with Section.

*Display Content
PSI/SI table, input PID, table ID, table ID extension fields, version number, service ID, TS ID, original network ID, PSI/SI period



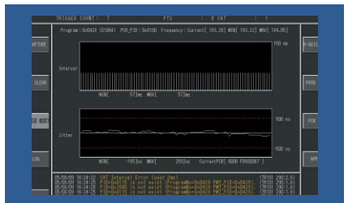
PTS/DTS Display
By displaying the difference in PTS/DTS max and min values and PCR value, the PTS/DTS delay etc. can be verified.The PCR PID for each program and the PES PID included in that program will be selected and displayed.

*Display Content
PTS and PCR difference bar graph display, PTS value difference bar graph display, PMT program number, graph display of PCR PID, and PES PID included in PTS/DTS



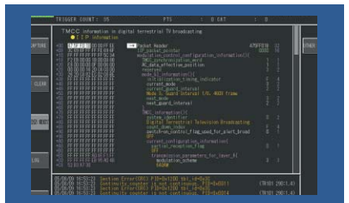
Per-Program Stream Analysis Display
A summary view of the elementary streams (ES) composing a program is displayed.The bit rate for each ES can also be displayed.

*Display Content
PMT tree information, ES information taken from PMT information, PAT tree information, NIT PID and version, bit rate for each ES



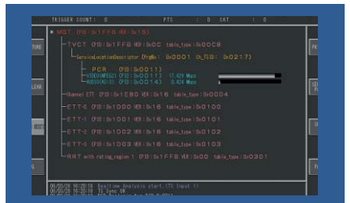
PCR Analysis / Interval and Jitter Measurement Display
PCR interval and jitter is displayed for specified PID.
Max and min values are displayed for interval and jitter.

*Display Content
PCR interval period bar graph display, PCR jitter line graph display, PCR value and offset frequency, PMT program number, graph display of PCR PID



Digital Broadcast Analysis Display (ISDB)
ISDB(TMCC) analysis is performed on TS reception (204 byte) of digital terrestrial broadcasting and digital BS broadcasting

*Display Content
Input TS and FSYNC IN frame period, TS packet count for each layer, ISDB(TMCC) information layer map, IIP packet binary dump and packet structure, IIP packet structure details

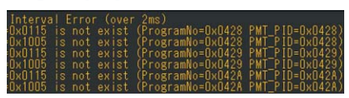


MGT/VCT Analysis Display
A tree view of the content of MGT and VCT is displayed.

*Display Content
Table information of MGT,Channel information of VCT.
ES information for each channel,but rate for each ES.

Always-Visible Display

Log Display



QUALITY MANAGEMENT

Quality Control

01 QUALITY CONTROL ACTIVITIES ISO9001

In March 1997 we obtained an ISO9001 certification.
In March 2003, the company's certification was upgraded to comply with ISO9001: 2000.

Application range

Design, development, assembly, and adjustment of video processing and video processing products.

Products

Video signal generators, scan converters,
HDTV studio equipment, MPEG2 encoders and decoders

Registration NO. JET-0056

ISO9001
JET-0056

02 ENVIRONMENT MANAGERMENT ACTIVITIES ISO14001

In December 1999 we obtained an ISO14001 certification.
In December 2006, the company's certification was upgraded to comply with ISO14001:2004.

Registration range

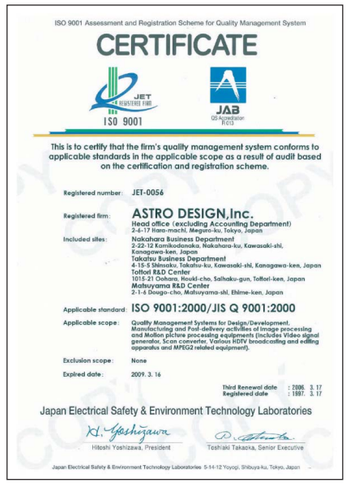
Head Office, NAKAHARA business department,
TAKATSU business department.

Registration NO. E99-102

ISO14001
E99-102

Basic vision

To pursue our vision of "becoming a division that delights society by creating new value," we use our home page and other communication tools to spell out our social and environmental policies. By publicizing our corporate mission - to bring human society into closer harmony with the earths environment through the introduction of products and services with a reduced environmental load-- we hope to garner the approval and support of the public.



ISO 9001 Assessment and Registration Scheme for Quality Management System

CERTIFICATE

ISO 9001

This is to certify that the firm's quality management system conforms to applicable standards in the applicable scope as a result of audit based on the certification and registration scheme.

Registered number: JET-0056

Registered firm: ASTRO DESIGN,Inc.
Head office (excluding Accounting Department)
2-6-17 Itoma-machi, Meguro-ku, Tokyo, Japan
Included sites: Nakahara Business Department
2-22-12 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa-ken, Japan
Takatsu Business Department
4-15-6 Shimoiku, Takatsu-ku, Kawasaki-shi, Kanagawa-ken, Japan
Tottori R&D Center
1015-21 Ouhata, Nouki-cho, Saihoku-gun, Tottori-ken, Japan
Matsuyama R&D Center
2-1-4 Bouga-cho, Matsuyama-shi, Ehime-ken, Japan

Applicable standard: ISO 9001:2000/JIS Q 9001:2000

Applicable scope: Quality Management Systems for Design/Development, Manufacturing and Marketing of Image processing and Motion picture processing equipments (includes Video signal generator, Scan converter, Various HDTV broadcasting and editing apparatus and MPEG2 related equipment).

Exclusion scope: None

Expired date: 2009. 3. 16

Third Renewal date : 2006. 3. 17
Registered date : 1997. 3. 17

Japan Electrical Safety & Environment Technology Laboratories

Hitoshi Yoshizawa, President — Toshiaki Takaoka, Senior Executive

Japan Electrical Safety & Environment Technology Laboratories 5-14-12 Yoyogi, Shibuya-ku, Tokyo, Japan

ISO 14001 Assessment and Registration Scheme for Environmental Management System

CERTIFICATE

ISO 14001

This is to certify that the firm's environment management system conforms to applicable standards in the applicable scope.

Registered number : E99-102

Registered firm : ASTRODESIGN, Inc.
2-6-17, Haramachi, Meguro-ku, Tokyo, Japan

Reference standard : ISO 14001:2004(JIS Q 14001:2004)

Registration scope : ASTRODESIGN, Inc.
Head Office
2-6-17, Haramachi, Meguro-ku, Tokyo, Japan
NAKAHARA Business Department
2-22-12, Kamikodanaka, Nakahara-ku, Kawasaki, Kanagawa, Japan
TAKATSU Business Department
4-15-6, Shimoiku, Takatsu-ku, Kawasaki, Kanagawa, Japan
Design, Manufacture and Marketing of Broadcast-related Image-related Equipment and Test Measurement Instruments using Electronic (Computer) Technology.

Date of expiry : 2005.12.27~2008.12.26

Date of renewal(2) : 2005.12.27
Date of issue : 2005.11.25
Date of the first registration : 1999.12.27

Japan Electrical Safety & Environment Technology Laboratories

Hitoshi Yoshizawa, President — Toshiaki Takaoka, Senior Executive

Japan Electrical Safety & Environment Technology Laboratories 5-14-12 Yoyogi, Shibuya-ku, Tokyo, Japan

03 QUALITY CONTROL ACTIVITIES STATUS

Reliance and Safety

To ensure that customers can easily use our products, we carry out reliability tests during the development phase of every new prototype. Every series of tests conducted features evaluation of specifications and design, a design review, environmental trials, and reliability tests. To assure product safety we carry out various tests using in-house rules based on IEC standards and specific laws and regulations that pertain to different countries.

CE marking

Products are designed and manufactured according to EC Safety Directives (low-voltage directives and EMC directives for EU countries), and all products that are confirmed to comply with EC directives bear the CE logo.

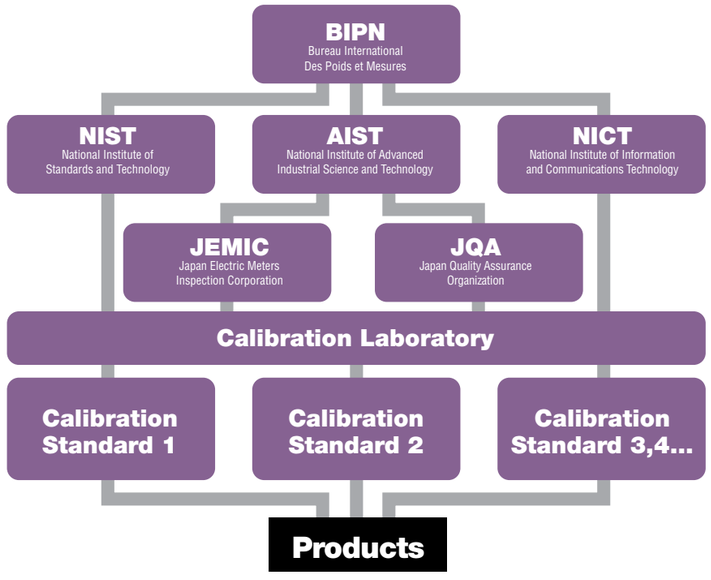
Inspection and Calibration

To ensure that customers can easily use our products, we carry out reliability tests during the development phase of every new prototype. Every series of tests conducted features evaluation of specifications and design, a design review, environmental trials, and reliability tests. To assure product safety we carry out various tests using in-house rules based on IEC standards and specific laws and regulations that pertain to different countries.

Repair

(a) We will repair any product that fails during the guarantee period (1year) at our own expense, provided that failure is not due to carelessness nor incorrect handling of the product. After expiration of the guarantee period we will make repairs at the customers' expense.
(b) Send the product to us and we will repair it.
(c) When replacement or repair parts are not available, when the product reliability cannot be maintained even after repairs, or when repairs will require great expense or time, we will consult with you before beginning the repairs.

General overview of a traceability system



Create Next!

Frontier technology

VP-8400
Super HD dedicated image processor

DM-3400
4K2K 56-inch LCD monitor

Digital broadcasting technology

VG-870
Programmable Video Signal Generator

VA-1809A
HDMI Protocol Analyzer

WM-3014
HD/SD 6-inch LCD Waveform Monitor

CX-569
PCI bus-compatible TS multiplexer board

HR-7401
HDTV Uncompressed Digital Disc Recorder

SC-2055A
Super Scan Converter

MC-2070
Multimedia Scan Converter

Measurement and analyzing solution technology

High-speed, multi-gray-scale image depiction technology

As images have come to adopt digital technology more and more, so has the demand arisen for greater powers of expressing those images by introducing multiple gray scales in the digital data so that the images will at least compare favorably to, if not excel, the quality of analog images. Astrodesign has come up with high-speed, multi-gray-scale image depiction technology which ably takes in its stride the increasingly voluminous amounts of data accompanying multiple gray scales.

Standard system signal generation and analysis technology

Standard system signals span a broad spectrum that ranges from conventional standard TV and high-definition TV signals to the signals of the latest consumer-use digital AV interface called "HDMI," and all of these system standards are now being strictly observed. Astrodesign's engineers harness the company's technology so as to generate, measure and analyze these standard system signals to even greater levels of precision.

Data compression and multiplexing technology

The amounts of data inherent to moving images are quite huge, and compressing and multiplexing this data are absolutely essential processes for ensuring the transmission of data by digital broadcasting or over the Internet. In compressing and multiplexing digital data, Astrodesign is constantly acquiring patents and working hard in many other different ways to deepen the pool of its technological resources.

High quality conversion technology

High-resolution video signal processing technology

Resolution conversion entails increasing or decreasing the video data. With a view to creating very natural-looking images which resemble the original images most closely, Astrodesign's high-resolution conversion processing technology provides interpolation when the data is to be increased and compensation when it is to be decreased regardless of the resolution of the images concerned.

Scanning line conversion technology

Whether we see them on regular TV receivers, high-definition TV sets or personal computers, the images that greet our eyes every day are transmitted and displayed by means of scanning line systems. What Astrodesign's technology does is convert the scanning lines of images in different ways by, for instance, increasing or reducing the number of these lines to convert regular TV images into high-definition TV images.

High-speed digital signal processing technology