



DynaGuard™ 300 Series

Video Surveillance Solution

**An Introduction to a Multiple Channel Digital Video Recorder
for Advanced Video Surveillance Applications**



Agenda

- **Product Overview**
- **Key Features**
- **Benefits**
- **Key Market**

Front Panel

Channel Keys

DVD+RW

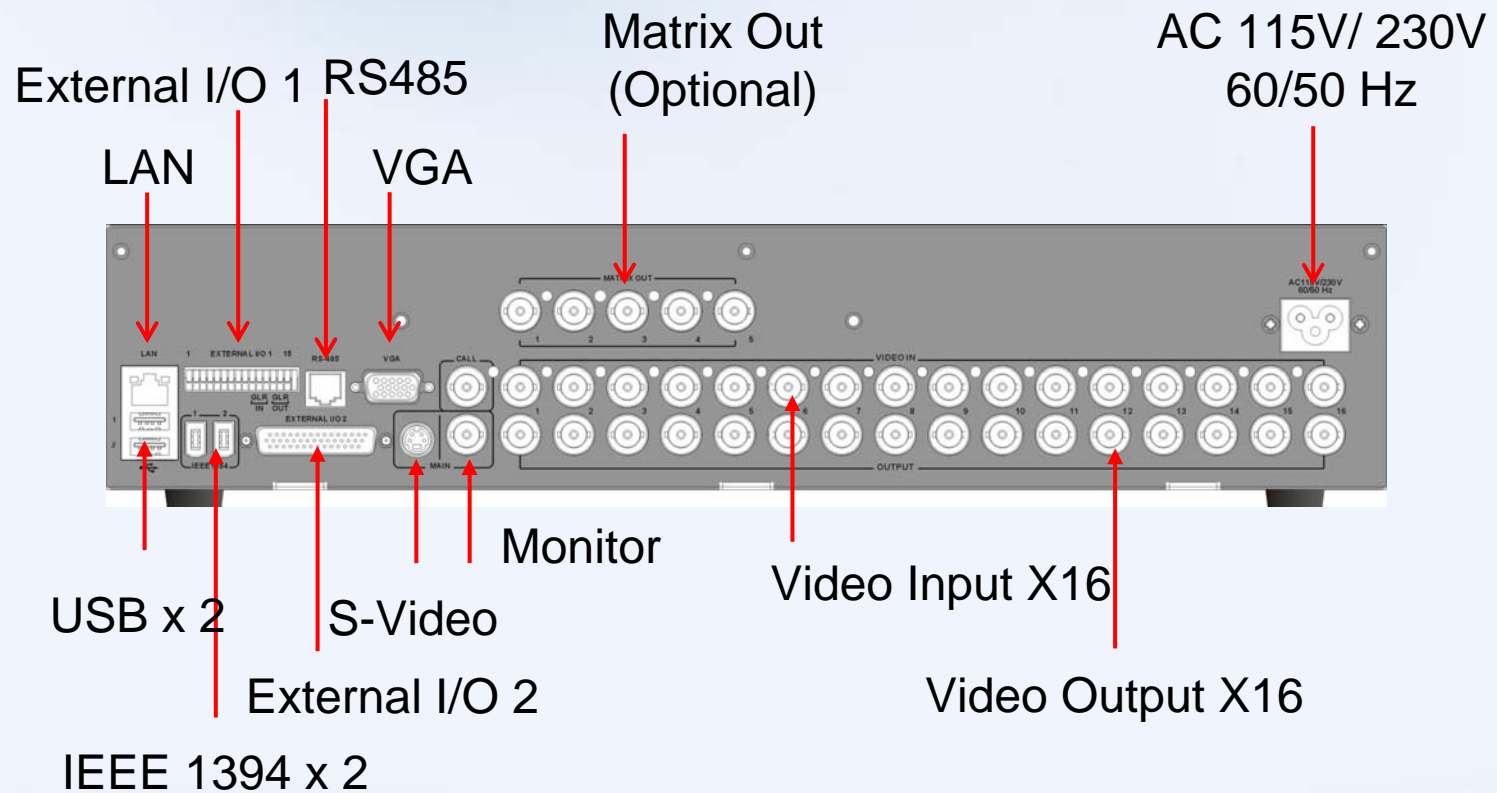
Power Switch

Mobile Rack



USB

Rear Panel





Key Feature 1

General Features:

- **Powerful Wavelet Compression**
- **Embedded Linux Operating System**
- **Triplex+ operation :**
 - ✓ simultaneous viewing live, playback, remote access and record
- **Synchronized 2 channels Stereo audio**
- **Support VGA main output**
- **Multiple language on-screen menus**
- **RS485 / RS422 / RS232 port available**
- **IR Remote Control**



Key Feature 2

Recording & Playback Features:

- Weekly programmable schedule (up to 4 time frames per day)
- Dynamically self-adjusting or programmable recording priority by motion detection & alarm inputs for each camera
- Normal and Event recording frame rate & picture quality configurable
- Pre-Alarm recording (max. 30 sec @ 60pps)
- Various video playback Speed; up to 32X
- Enhanced Digital Zoom 4X4
- Fixed or self-adjusting live refresh rate for each camera

Scheduling

- **Choice of [day, night, weekend] and [weekly] offers the ability to automatically:**
 - ✓ Switch up to 7 days (Sun.,Mon.,Tue.,Wen.,Thu.,Fri.,Sat)
 - ✓ Switch up to 4 time frames (T1,T2,T3 and T4)
 - ✓ Switch Normal recording on/off (time frame: enable/disable)
 - ✓ Alert the record rate (PPS)/ quality for time frame recording
 - ✓ Alert the record rate (PPS) for Event recording
 - ✓ Alert the quality for Event recording

Monday		
1	Time_1 PPS	60
2	Time_1 Quality	High
3	Time_2 PPS	60
4	Time_2 Quality	High

Daily Time Setup		
1	Time_1	Enable
2	Start	08:00
3	End	20:00
4	Time_2	Enable
5	Start	20:00
6	End	08:00

REC Priority Per Camera

- Cameras connected to the DG300 can be recorded at a configurable priority for day, night and weekend schedules
- This allows cameras in sensitive areas to be recorded more frequently than cameras located in less sensitive areas

Configuration Table 1																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Install	V	V	V	V	.	.	.	.	.	.	.	.	.	.	.	.
2	Covert	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	REC Priority	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
4	Alm REC Pri	8	8	8	8	0	0	0	0	0	0	0	0	0	0	0	0
5	Call Seq	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

$$\text{Ch1 PPS} = 30 * \frac{4}{4+1+1+1} = 17.1 \text{ PPS}$$

$$\text{Ch2 PPS} = 30 * \frac{1}{4+1+1+1} = 4.28 \text{ PPS}$$

$$\text{Ch2 PPS} = 30 * \frac{8}{4+8+1+1} = 17.1 \text{ PPS}$$

Video Compression & Quality

More Compression



More Quality



	Base	Normal	High	Super	Ultra
N	12	15	20	25	37.5
P	14	18	24	30	42

Average File Size : KB



Key Feature 3

Storage and Export Features:

- IEEE 1394 port for storage extension
 - ✓ support Disk Array via IEEE 1394
- Multiple USB port for more applications
 - ✓ External Hard Drive
 - ✓ External CD-RW or DVD RW
 - ✓ USB ThumbDrive®
- Export:
 - ✓ Wavelet video,
 - ✓ AVI + AVI Player for Windows
 - ✓ Still image with digital signature (BMP)

Storage Time

- Playback and record to hard disk simultaneously

The table below shows the disk size required for normal, high and super image qualities, at the equivalent of 24 hour record speeds –16PPS , and audio disabled.

	IMAGE QUALITY*		
	Normal	High	Super
	15K	20K	25K
DISK SIZE	RECORD DURATION (Days)		
250 GB	12	9	7.23
500 GB	24.1	18.1	14.46
600 GB	28.9	21.7	17.36
800 GB	38.6	28.9	23.14

* Please refer to our recording time calculator on the DynaColor website for other possible calculations. <http://www.dynacolor.com.tw> -> Support->Tools

Export Menu

- **Devices: CD-RW,DVD+RW**
- **Channels**
- **Archive video**
 - ✓ **Begin Time**
 - ✓ **End Time**
- **Event Index**
 - ✓ **Event List**
- **Calculate Required Size**
- **Erase CD/DVD Before Export**

Export																																			
1	Export To	ASUS CRW-5232AS -																																	
2	Channel	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td> </tr> <tr> <td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td><td>.</td> </tr> </table>		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16																				
.																				
3	Begin Time	2005/07/12	14:15:55																																
4	End Time	2005/11/21	18:25:45																																
5	Event Index	16																																	
6	Calculate Required Size																																		
7	Erase CD/DVD Before Export	No																																	
8	Start Export																																		

Ch3

--- Event Data List ---

43	2005/03/17	21:41:49	01	MOTION
44	2005/03/17	22:19:31	01	MOTION
45	2005/03/19	08:02:24	01	MOTION
46	2005/03/21	21:48:22	01	MOTION
47	2005/03/22	07:59:58	01	MOTION
48	2005/03/22	22:34:30	01	MOTION
49	2005/03/23	08:03:04	01	MOTION
50	2005/03/23	09:34:50	01	MOTION
51	2005/03/23	09:35:08	01	MOTION
52	2005/03/23	12:31:06	01	MOTION
53	2005/03/23	13:26:29	01	MOTION
54	2005/03/23	14:34:10	01	MOTION
55	2005/03/23	15:43:17	01	MOTION
56	2005/03/24	16:40:09	01	LOSS
57	2005/03/25	08:06:33	01	ALARM
58	2005/03/25	08:49:30	01	MOTION

--- Continue ---

2005 3 25 10:55:03

Export Type

- **BMP**
 - ✓ How to export: Play Mode->Full Display->Pause->Press "GOTO"
- **Wavelet AVI (one file for one channel)**
 - ✓ How to export: Export->Select Output Device/Channel/Time
 - ✓ Limitation: max. size 600Mb per file; divide into two files if the size is bigger than 600Mb
- **DVR file (one file for sixteen channels)**

****Export Material: AVI file + Wavelet Player**





Key Feature 4

System Integration and Management

- **Easy software upgrade:**
 - ✓ Via Network, USB ThumbDrive, CD-RW, or DVD+RW
- **System integration**
 - ✓ networking together, controlled by RS485 remote keyboard or IR remote control
 - ✓ Integrated with Speed Dome Control
 - ✓ Support Text Interface for POS/ ATM/ Access
 - ✓ Provide On-Screen Display (OSD) overlay on recording image (for POS/ ATM/ Access)
- **Covert Camera operation**
 - ✓ provides enhanced security and administrator control

Covert Camera

- Option to view all or selected cameras, without affecting cameras recording
- Increase security on specific areas to reduce internal fraud
- Allows Administrator to turn on/off covert camera in playback
- Covert cameras may be viewed via the network(browser)



For Example:

The covert camera appears as a blank camera...

No one knows that this camera is actually being recorded.

Main Monitor (2 x 2 Mode)



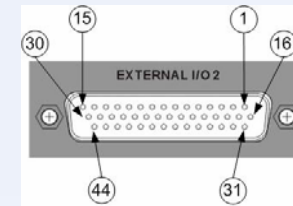
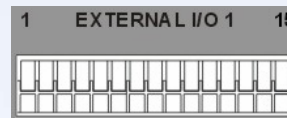
Key Feature 5

Special Features

- **Powerful Alarm Processor**
 - ✓ Flexible alarm trigger and response, including alarm, motion and camera failure
 - ✓ Camera auto-detection (plug&play)
 - ✓ 8 adjustable sensitivity
 - ✓ 128 adjustable trigger level
- **Smart matrix system with 16 inputs and 5 outputs (Optional)**
- **Each camera configuration settings:**
- **Fixed or self-adjusting live refresh rate for each camera**
- **Wide Dynamic Range**

Alarm (alarm in, relay out)

- Normally open/closed alarm inputs available via External I/O 2 (D-Sub connector)
- Internal Alarm/Relay Connections:
 - ✓ Alarms: **16 internal programmable alarm inputs** (External I/O 2)
 - ✓ Relays: **3 relay outputs** (External I/O 1)



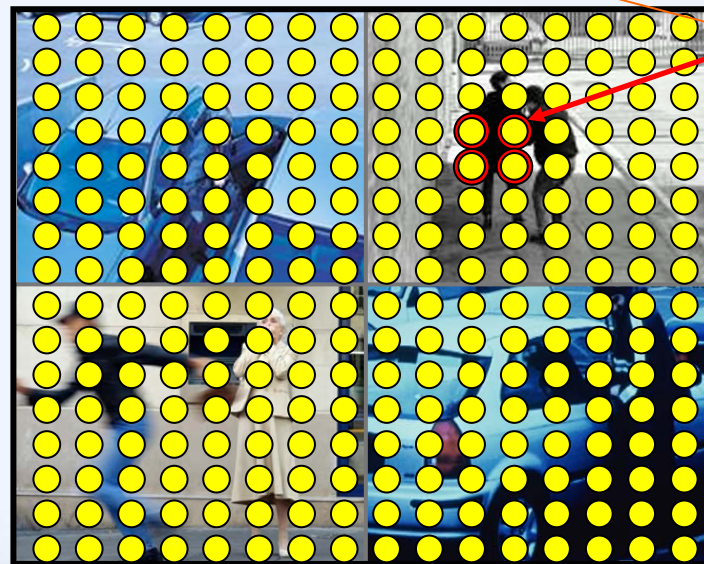
Configuration Table 2

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Alm In Type	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2	T1:Alm in	V	V	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	T1:Motion	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
4	T1:Sensitivty	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
5	T2:.....	Sensitivity Level: 1 ~ 8															

Note: Alarm: 44 pin TTL; Relay: 1A/24V

Motion Detection

- Programmable 16x16 detection grid for each camera view
- 8 level of sensitivity (Motion Detection Cell)
- Threshold for Motion Detection (the amount of cell)
- Buzzer activated on alarm



Main Monitor (2 x 2 Mode)

Masking grid

Motion Detection

Threshold

50 %



觸發感應點數/ 已設定感應點數 : 2/ 4

Wide Dynamic Range

- Most of us know what happens when we do this: A black shadowy silhouette in front of a bright light, unable to distinguish any physical features....such as the sun in the background.

Before



After





Key Feature 6

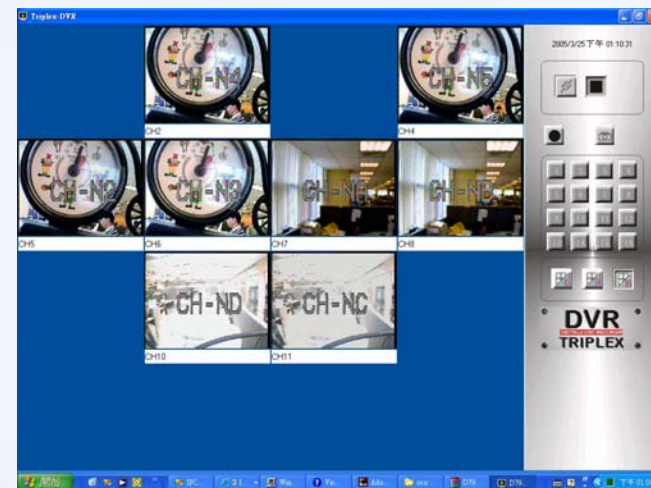
Powerful Network

- Alarm E-mail Notification
- Windows AP for HDD data management
- HDD database format compatible with Windows (Based on Windows AP)
- Network software supports static IP, DHCP, PPPoE and DDNS
- Network hardware supports 10/100M or USB Modem (Dial-in, Dial-out)

Network Capabilities

A standard Ethernet connection provides live and recorded viewing on a networked PC using DynaColor software or via web pages using a standard Internet browser (IE).

- Easy-to-use drag and drop web-browser interface
- Remote viewing of live video
- Remote downloading and viewing of recorded video and audio
- Remote set up of: motion detection, camera recording schedule, cameras, PPS, resolution, etc.
- Remote dome control
- Remote search (Playback)



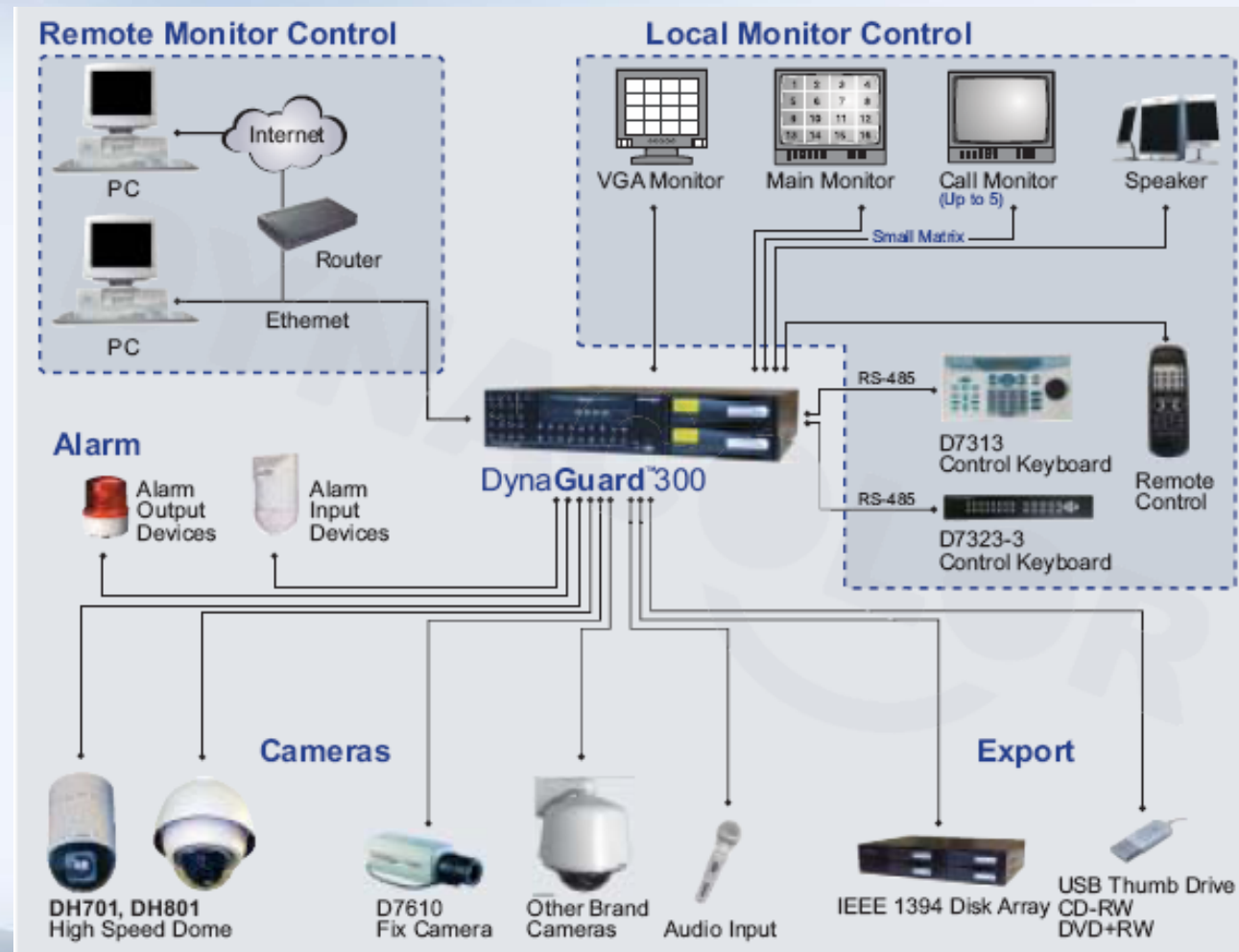
E-mail Notification

- **Notifies the following events on a camera by camera basis:**
 - ✓ **Motion Detection**
 - ✓ **Video Loss**
 - ✓ **Alarm**
- **E-mail contains – JPEG picture of camera image on first alarm, unit IP, MAC address, camera number, event type, alarm time and link to network viewer**

IR Remote Control



System Diagram





Differentiation

- ***Backup Solution***
- ***Motion Detection***
- ***Scheduling***
- ***Wide Dynamic Processing:***
- ***Easy software upgrade via Network***
- ***Intelligent recording priority***
- ***Support Text Interface for POS/ ATM/ Access***
- ***Stereo audio recording/ 2 channels***
- ***Support VGA main output***
- ***Enhanced Digital Zoom 4X4***
- ***Pre-Alarm recording (max. 30 sec @ 60pps)***
- ***E-mail or Telephone Call alarm notification***
- ***Smart matrix system with 16 inputs and 5 outputs (Optional)***



Benefits

- Fast access to **1 month of Super quality digital recordings** *
- Simultaneous record, playback, background image archiving, multiple user network viewing and playback with no loss of performance
- **Low-cost deployment (VGA output)**
- Network remote support allows remote system adjustments negating the need for site visits
- File export of digitally signed images over the network
- Built-in alarms and relays
- Alarm notification via **e-mail / Tel (voice mail)**
- **Quick and easy copy to external DVD+RW (DVD writer)**
- IR remote control offers front panel control
- Audio recording
- Variable record priority per camera to enable a higher record rate for cameras focused on sensitive areas

* Applies to 800GB models recording at factory default setting of 6 PPS with 25KB file size



Key Markets

- Convenience Stores
- Specialty Stores
- Commercial/Industrial Businesses
- Fast-food Restaurants
- Service Stations
- Auto Dealerships
- Hotels & motels
- Hospitals, Clinics, Medical Supply
- Pharmacies
- Residential Communities
- Education



Thank You

Copyright © 2004 DynaColor Inc. All rights reserved. DynaColor is a trademark of DynaColor Inc. Certain product names or brand names mentioned herein may be trademarks or registered trademarks of their respective owners.

Pricing, specifications and availability subject to change without notice.

This presentation is for informational purposes. Please refer to product datasheets for product specifications.

For more information, please visit www.dynacolor.com.tw.

DG300 Product Presentation
Rev: 2005-02-28



www.dynacolor.com.tw