LTC 8900 Series Allegiant Matrix/Control Systems - Modular

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Invented for life

- ▶ 4096 Camera by 512 monitor switching
- ▶ Modular construction
- ▶ Powerful alarm handling capabilities
- ▶ SalvoSwitching and SatelliteSwitch capability
- ▶ Includes Windows-based configuration software

The LTC 8900 Series Allegiant Video Switcher/Control Systems are powerful full matrix switchers, capable of displaying video from any camera on any monitor, either manually or via independent automatic switching sequences. By using the LTC 8901 Series CPU and the LTC 8943 series PC, the standard system can be enhanced to include dual/redundant CPU/ Power supply with automatic hot-switchover capabilities.

Functions

General Construction
The LTC 8900 Series provides versatile modular construction accommodating up to 4096 camera inputs, 512 monitor outputs, 120 keyboards, 1024 alarm points, and a computer interface port. The robust design utilizes a separate CPU bay with its own power supply.

Dual/Redundant System
For situations where complete system failure cannot be tolerated, we offer the dual redundant LTC 8901 CPU. This CPU unit incorporates a secondary CPU/ power supply. In the event of a primary CPU or power

supply failure, the system switches over automatically to the backup CPU or power supply. The system uses an independent PC that continuously monitors the CPUs for failure and performs a hot-switchover if needed. You can also manually change CPUs using the preloaded software or via a front panel slide switch.

Sequencing Capabilities
These systems can be programmed with up to 256 sequences, which can be run independently of each other in either a forward or reverse direction. Any of the sequences can utilize the SalvoSwitching capability, where any number of system monitors may be selected to switch as a group. Using the supplied software, sequences can automatically activate and deactivate based upon the day or the time of day.

Camera Control
The LTC 8900 Series support variable speed operation and full programming access for AutoDome and AutoDome Easy II Series cameras. In addition, on-site receiver/drivers are available to provide operator control of pan, tilt, zoom, pre-positions, auxiliaries,

Long Time Waveform Distortion[1]	0.8% maximum		
Video Bandwidth (-3 dB)	17 MHz		
Frequency Response	± 0.5 dB to 11 MHz		
Signal-to-Noise-Ratio[1]	70 dB at 3.58 MHz unified unweighted minimum		
Crosstalk (at 3.58 MHz)	Typical: −65 dB, Adjacent channel: −45 dB (typical)		
Hum	60 dB below the composite 1 Vp-p video signal from 60 Hz to 6 MHz		
Differential Gain[1]	**Min.**	**Nom.**	**Max.**
		0.6%	2%
Differential Phase[1]	**Min.**	**Nom.**	**Max.**
		0.6°	1.3°
Chrominance Luminance Gain	**Min.**	**Nom.**	**Max.**
	94%	100%	109%
Chrominance Luminance Delay[1]	**Min.**	**Nom.**	**Max.**
	−33 ns	+3 ns	+33 ns
Luminance Nonlinearity[1]	**Min.**	**Nom.**	**Max.**
		0.3%	4%
Switching	Crosspoint matrix		
DC Output	0 V		
Transient Protection (VIM Cards)	350 W Peak Pulse Power (tp = 8/20 µs		

1 Meets EIA/TIA - 250C Medium Haul Standard for 1024 cameras x 64 monitors.

Environmental

Temperature	
Operating	4°C to 50°C (40°F to 122°F)
Storage	−40°C to 60°C (−40°F to 140°F)
Altitude	4500 m (15,000 ft)
Humidity	0 to 95 % relative, non-condensing
Vibration	3 g swept sine wave, 15 Hz to 2000 Hz
Shock	50 g, 11 m/s, ½ sine wave

LTC 8904 CPU Equipment Bay

The LTC 8904/60 and LTC 8904/50 include the equipment rack, LTC 8910/01 microprocessor module, LTC 8905/90 power supply, and LTC 8917/00 relay module.

Electrical

Model No.	Rated Voltage	Voltage Range	Nominal Power[2]
LTC 8904/60	120 VAC, 50/60 Hz	100 to 140	30 W
LTC 8904/50	220−240 VAC, 50/60 Hz	198 to 264	30 W

2 Power at rated voltage fully loaded.

Connectors

Controller Port	9-pin D-type RS-232 port for an external PC or computing device (default = 115,200 baud)
Console	9-pin D-type RS-232 port for an external computer or a computing device (default = 19,200 baud)
Alarm	9-pin D-type RS-232 port for an Allegiant alarm accessory unit (default = 19,200 baud)
Bi-Phase	9-pin D-type TTL level, high-speed control data output (BiPhase) for interface to an Allegiant series signal distribution units (data clock rate = 31.25 kHz)
COM Ports	Two 9-pin D-type RS-485 ports for an external Allegiant accessory use
Keyboards	Eight (8), 6-pin RS-485 ports for an Allegiant keyboard use (default = 9600 baud)
LAN	RJ-45 high-speed LAN port for interface to LTC 8902 Series and LTC 8903 Series bays via LTC 8946 Series LAN switches

Components

Equipment Rack

Dimensions (W x D x H)	EIA 48 cm (19 in.) rack, 440 x 394 x 86 mm (17.3 x 15.5 x 3.4 in.)
Weight	7.2 kg (15.85 lb)
Construction	Metal case with plastic panel
Finish	Charcoal

Microprocessor Module (LTC 8910/01)

Dimensions (D x H)	300 x 250 mm (11.8 x 9.8 in.)
Weight	0.5 kg (1.1 lb)

Power Supply (One-LTC 8905/90)

Relay Module (LTC 8917/00)

Dimensions (D x H)	300 x 250 mm (11.8 x 9.8 in.)
Front Panel Indicators	Power, CPU activity

LTC 8901 Series CPU Equipment Bay

The LTC 8901/60 and LTC 8901/50 include the equipment rack, dual LTC 8910/01 microprocessor modules, dual LTC 8905/90 power supplies, and one LTC 8917/00 relay module.

Electrical

Model No.	Rated Voltage	Voltage Range	Nominal Power[3]
LTC 8901/60	120 VAC, 50/60 Hz	100 to 140	30 W
LTC 8901/50	220–240 VAC, 50/60 Hz	198 to 264	30 W

3 Power at rated voltage fully loaded.

Connectors

Controller Ports	Two (2), RS-232 ports for an LTC 8943 PC controller interface (default = 115,200 baud)
Console	RS-232 port for an external computer or a computing device (default = 19,200 baud)
Alarm	RS-232 port for an Allegiant alarm accessory unit (default = 19,200 baud)
Switch Ctrl	Digital interface port for the LTC 8943 PC controller
Bi-Phase	TTL level, hi-speed control data output (Bi-Phase) for interface to an Allegiant series signal distribution units (data clock rate = 31.25 kHz)
COM Ports	Two (2), RS-485 port for an external Allegiant accessory use
Keyboards	Eight (8), 6-pin RS-485 ports for an Allegiant keyboard use (default = 9600 baud)
LAN	Two RJ-45 high-speed LAN ports for interface to LTC 8902 Series and LTC 8903 Series bays via LTC 8944 Series and LTC 8945 Series LAN Switches

Components

Equipment Rack

Dimensions (W x D x H)	EIA 48 cm (19 in.) rack, 440 x 394 x 86 mm (17.3 x 15.5 x 3.4 in.)
Weight	8 kg (17.6 lb)
Construction	Metal case with plastic panel
Finish	Charcoal

Microprocessor Modules (Two–LTC 8910/01)

Dimensions (D x H)	300 x 250 mm (11.8 x 9.8 in.)
Weight	0.5 kg (1.1 lb)

Power Supplies (Two–LTC 8905/90)

Relay Module (LTC 8917/00)

Dimensions (D x H)	300 x 250 mm (11.8 x 9.8 in.)

Front Panel Indicators

LTC 8901
Primary power
Primary fault
Back-up power
Back-up fault
Primary CPU in-use
Controller activity
Back-up CPU in-use
Auto-select mode
Primary CPU activity
Fault buzzer
Back-up CPU activity
LTC 8904
Power
CPU Activity

Rear Panel Indicators

Relay outputs[4]
Primary CPU fault
Back-up power supply failure
Back-up CPU fault
Any failure
Primary power supply failure

4 Relay Contacts: 24 VAC, 40 V peak, 1 A.

LTC 8902 Series Monitor Output Bays

The LTC 8902/60 and LTC 8902/50 include the equipment rack, LTC 8916/01 data receiver module, and LTC 8906 Series power supply.

Electrical

Model No.	Rated Voltage	Voltage Range	Nominal Power[5]
LTC 8902/60	120 VAC, 50/60 Hz	100 to 140	160 W
LTC 8902/50	220–240 VAC, 50/60 Hz	198 to 264	160 W

5 Power at rated voltage fully loaded.

Connectors

Video Outputs	Four (4), 34-pin ribbon connectors used in conjunction with the LTC 8808/00 video interconnect panel
Video Bus Connections	Sixteen (16), 34-pin ribbon connectors interconnect with LTC 8903 Series Camera Input bays using LTC 8809/00 ribbon cables
Console	Port reserved for future use
COM 1	Port reserved for future use
COM 2	Port reserved for future use

Dimensions (D x H)	300 x 250 mm (11.8 x 9.8 in.)
Weight	0.41 kg (0.9 lb)

LTC 8941/91 System Controller

(Redundant System Configurations Only)

Includes LTC 8943/94 PC, LTC 8944/93 Primary LAN Switch and LTC 8945/93 Backup LAN Switch

LTC 8943/94 PC	Rack-mount industrial-grade Pentium PC, 512 MB RAM (minimum), 8 GB solid state hard drive (minimum), CD-/DVD burner, floppy drive, keyboard, mouse, keyboard/mouse rack-mount shelf, and Windows XP Professional; 120/230 VAC, 50/60 Hz
LTC 8059/00	Allegiant Master Control software (installed on PC)
Monitor (UML-191-90)	48.3 cm (19 in.) LCD panel 120/230 VAC, 50/60 Hz
Monitor Rack (UMM-LCDUB-RM)	Racked Height: 37.4 cm (14.7 in.) Racked Width: 48.3 cm (19.0 in.)
LTC 8944/93 Primary LAN Switch	24-port 10/100Base-T Ethernet Switch with SNMP Module, programmed with primary IP Address; 120/220 VAC, 50/60 Hz
LTC 8945/93 Back-Up LAN Switch	24-port 10/100Base-T Ethernet Switch with SNMP Module, programmed with back-up IP Address; 120/220 VAC, 50/60 Hz

LTC 8946/93 Expansion LAN Switch

24-port 10/100BaseT Ethernet Switch, no SNMP module; 120/220 VAC, 50/60 Hz

LTC 8808/00 Video Interconnect Panel

The LTC 8808/00 assembly contains an interconnect panel which is used to convert 32 BNC connectors into two 16-channel ribbon cable connectors. The two (2) coaxial ribbon cables (LTC 8809/00), designed especially for use with video signals, and are then used to interconnect the video between the panel and the LTC 8900 system. Use of the LTC 8808/00 assemblies are required for all external video input and output connections. In addition to being used for video inputs and monitor outputs, the LTC 8808/00 assembly is also used to provide looping capability. One (1) LTC 8808/00 (includes panel and two ribbon cables) is required for each group of 32 system cameras or 32 monitors.

Dimensions (W x D x H)	EIA 48 cm (19 in.) rack, 483 x 42 x 44 mm (19 x 1.65 x 1.75 in.)
Weight	
• Panel	0.54 kg (1.2 lb)
• Ribbon Cables	Two (2), 0.3 kg (0.7 lb)
Construction	Metal
Finish	Charcoal

Allegiant Accessories

The LTC 8900 Series accessory products provide many optional features to the base Allegiant switching systems. Accessory products include keyboard extension kits, Allegiant Bilinx Data Interface unit, receiver/driver units, switcher/followers, code merger units, video ribbon cables, and keyboard expansion units. All accessory products are designed to be installer-friendly and compatible throughout the Allegiant series systems. See the Allegiant Accessories datasheet.

Ordering information

LTC 8901/50 Allegiant Dual CPU Bay
Dual CPU bay, 230 VAC
Order number **LTC 8901/50**

LTC 8901/60 Allegiant Dual CPU Bay
Dual CPU bay, 120 VAC
Order number **LTC 8901/60**

LTC 8902/50 Allegiant Monitor Bay
Monitor bay, 230 VAC
Order number **LTC 8902/50**

LTC 8902/60 Allegiant Monitor Bay
Monitor bay, 120 VAC
Order number **LTC 8902/60**

LTC 8903/50 Allegiant Camera Bay
Camera bay, 230 VAC
Order number **LTC 8903/50**

LTC 8903/60 Allegiant Camera Bay
Camera bay, 120 VAC
Order number **LTC 8903/60**

LTC 8904/50 Allegiant CPU Bay
CPU bay, 230 VAC
Order number **LTC 8904/50**

LTC 8904/60 Allegiant CPU Bay
CPU bay, 120 VAC
Order number **LTC 8904/60**

LTC 8905/90 Power Supply
for LTC 8901 and LTC 8904 Series, 120/240 VAC
Order number **LTC 8905/90**

LTC 8906/50 Power Supply
for LTC 8902/50, 230 VAC
Order number **LTC 8906/50**

LTC 8906/60 Power Supply
for LTC 8902/60, 120 VAC
Order number **LTC 8906/60**

LTC 8910/01 CPU Module
CPU module for LTC 8901 and LTC 8904 Series
Order number **LTC 8910/01**

LTC 8916/01 Data Receiving Module
for LTC 8902 Series
Order number **LTC 8916/01**