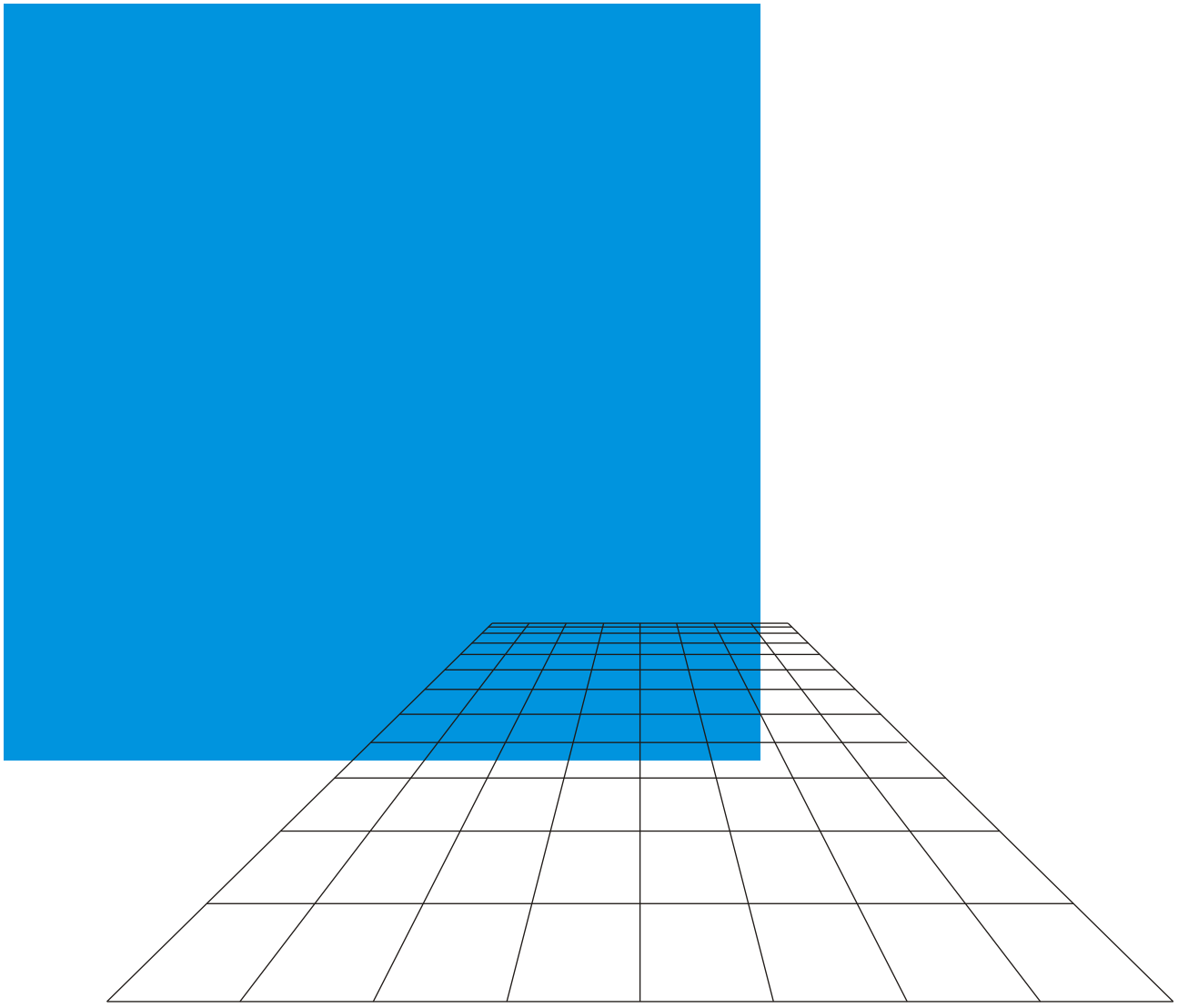
SIEMENS

Videomatrix
SIMATRIX 648



Principle of operation

The SIMATRIX 648 can be used to connect the video signals applied to the inputs in any combination to the outputs (monitors, picture storage units, video printers etc.).

Automatic control by messages from external contacts or the TELEMAT video sensor, or by an external computer, is also possible.

An important feature is the processing of incoming messages.

The SIMATRIX 648 connects the associated camera to the alarm monitor in the event of an alarm. The predefined video recorder or picture storage unit is activated. A predefined position is automatically selected in the case of positionable cameras.

The following features can be parameterized by the user:

- Assignment of alarm lines to cameras
- Assignment of alarm picture selection to alarm monitors
- Definition of group and individual switching

The alarms can be applied to the SIMATRIX 648 as a contact or a message via one of the V.24 (RS232) interfaces.

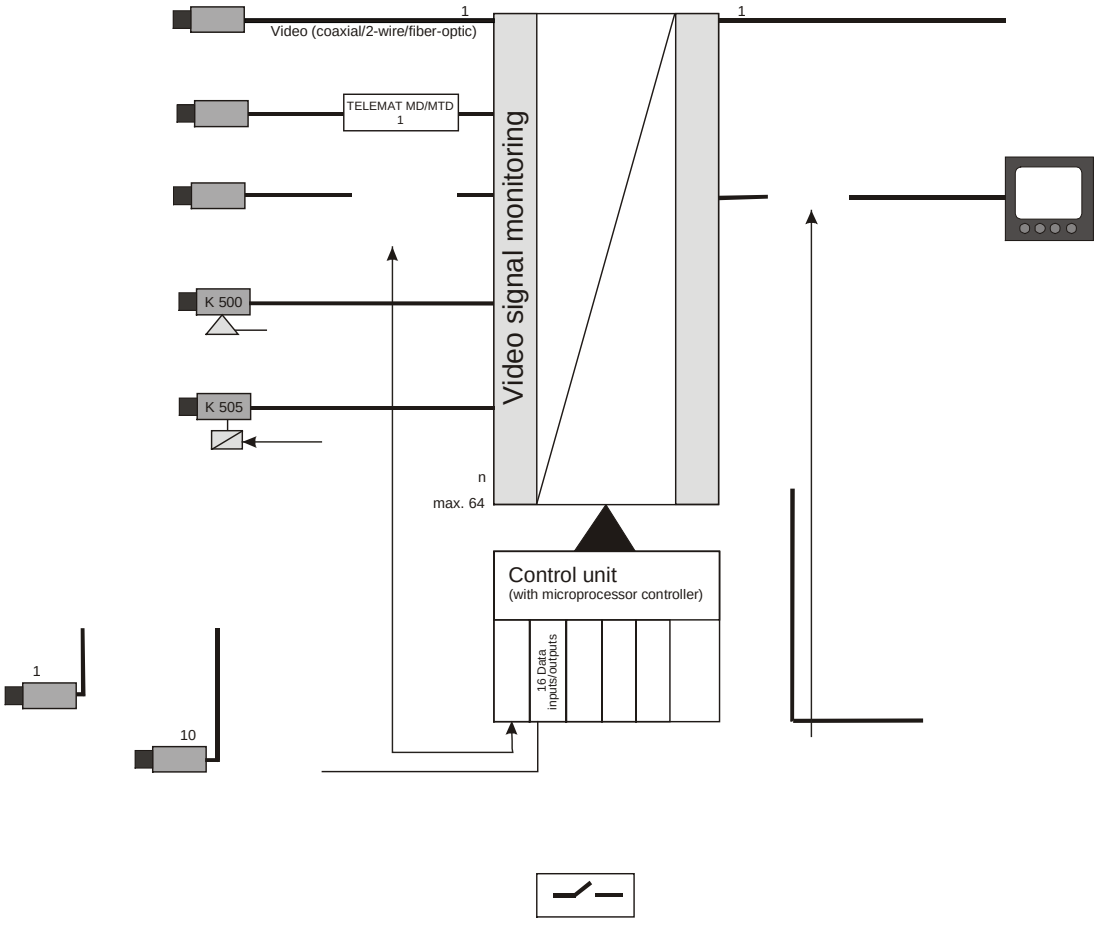
In addition to the switching of pictures, it is also possible to remote-control cameras with a pan-and-tilt drive and lens control including position control.

When remote-controlling cameras, priorities can be assigned to the individual terminals.

The facilities for free parameterization mean that the SIMATRIX 648 can be optimally adapted to the respective system configuration.

On-screen displays are possible for the time and date as well as texts for identifying cameras/alarms and definition of camera sequences.

Operational parameter settings are already available using the basic program and 6 further alarm programs supplied on diskette. It is frequently sufficient to make small modifications to individual parameters to satisfy customer-specific requirements.



Technical data

Matrix unit

Video inputs	BNC sockets U_{pp} = 1 V video, 75 Ω
Video outputs	BNC sockets U_{pp} = 1 V video, 75 Ω
Detection of video signal failure	Checking of vertical sync pulses, with activated picture cycle at one video output
On-screen text display	Full IBM character set Internal synchronization Character representation: white with black border Field size: 12 text lines with 24 characters each Character height: 18 screen lines
Crosstalk attenuation	≥ 56 dB at 5 MHz ≥ 52 dB at 10 MHz
Differential gain	≤ 1%
Differential phase	≤ 1.5°
Frequency response flatness	-1 dB at 10 MHz -3 dB at 20 MHz
Matrix point switching time	Typ. 80 ms,, max. 200 ms (following command input on video matrix)

System controller

Computer	8-bit microprocessor system

Interfaces for:

Parameterization PC (ext. controller), IVM NT, TELEMAT, TELSCAN, SISTORE NT, SIPORT, LMS modular	3 x V.24 (RS232) interface Baud rate: Connection:	 1200 bit/s to 19200 bit/s 3 x 9-pin Sub-D plug
Terminals	2 x TTY interface (20 mA) with power supply for external terminal Cable length up to 2 km with wire diameter 0.8 mm Baud rate: Connection:	 1200 bit/s to 9600 bit/s 2 x 9-contact Sub-D socket
Control and power supply units (SCU)	8 x TTY interface (20 mA) Cable length up to 2 km with wire diameter 0.8 mm Baud rate:	 1200 bit/s to 9600 bit/s
Alarm lines	16 x alarm input for alarm lines Cable length up to 10 m Connection:	 1 x 37-contact Sub-D socket
Video recorder, picture storage unit	8 x control output (open-collector); max. 30 V, max. 50 mA Relay with 2 floating changeover contacts for common alarm output; max. 48 V, 250 mA Connection:	 1 x 25-contact Sub-D socket
Power supply	220 V - 240 V, 50 Hz, 125 mA switchable to 110 V - 120 V, 60 Hz, 160 mA using plug-in jumper	
Temperature of use	5 °C to 45 °C	
Relative humidity	30% to 85%	
Design	Desk-top housing (19-inch installation possible) 427 mm x 133 mm x 210 mm (W x H x D), 3 HU	

Ordering data

Item	Order No.	Approx. weight in kg
SIMATRIX 648 video matrix 16 video inputs, 4 video outputs; PAL version [1] 8 TTY interfaces for SCUs, 16 alarm inputs for alarm lines, 2 TTY interfaces for terminals, with basic program and 6 alarm programs on 3 ½-inch diskette for Windows 3.11/95/98/NT [1] **Note:** NTSC version on request	**2GF2208-8AA**	4.3
SIMATRIX 648 video matrix 16 video inputs, 8 video outputs; PAL version 8 TTY interfaces for SCUs, 16 alarm inputs for alarm lines, 2 TTY interfaces for terminals, with basic program and 6 alarm programs on 3 ½-inch diskette for Windows 3.11/95/98/NT	**2GF2208-8CA**	4.33
SIMATRIX 648 video matrix 32 video inputs, 8 video outputs; PAL version 16 TTY interfaces for SCUs, 32 alarm inputs for alarm lines, 2 TTY interfaces for terminals, with basic program and 6 alarm programs on 3 ½-inch diskette for Windows 3.11/95/98/NT	**2GF2208-8CB**	4.63
Options for expansion		
Input module (matrix card 16/8) to expand the video matrix in steps of 16 video inputs (max. 64 video inputs)	**2GF2208-8AB**	0.24
Output module to expand the video matrix to 8 video outputs	**2GF2208-8AC**	0.03
Interface card for control units [2] for connection of two further control units (max. four) [2] **Note:** The additional VMT 32 control units must be powered by an external plug-type power supply unit DC 12 V, 100 mA	**2GF2208-8AD**	0.04
Interface card (alarm/SCU) for expansion by 8 TTY control outputs for camera control and power supply units (max. 32) and 16 alarm inputs for alarm lines (max. 64)	**2GF2208-8AE**	0.06
Expansion of basic version Installation of all selected options into basic version	**2GF2208-8AF**	
Software module "TELSCAN interface" to connect a SIMATRIX 648 video matrix to TELSCAN	**2GF2208-8AN**	
Software module "SIPORT interface" to connect a SIMATRIX 648 video matrix to SIPORT	**2GF2208-8AM**	
Software module "GMA manager" to connect a SIMATRIX 648 video matrix to GMA Manager V6.2 Requirements Parameterization software for SIMATRIX 648 version 1.26 or later SIMATRIX 648 with EPROM version vm8_9706.x26 or later Checksum: $3B7D	**2GF2208-8AK**	

Ordering data (contd.)

Accessories, not included in delivery		
VMT 32 terminal with 32 keys, for selection of video matrix and for remote-control of cameras with pan-and-tilt drive and lens control, with optical and audible alarm outputs	**2GF2207-8AC**	0.5
SUT 48 terminal in desktop housing with 41 keys and joystick for selection of video matrix, as well as direct control facility for cameras with SCU 301/302, S-K502 and DCU 600 module	**2GF2400-8DA**	1.2
Plug-type power supply unit for power supply to terminals, 230 V, 50 Hz/DC 12 V, 640 mA, for indoor use, with 2 m DC cable	**2GF1800-8BE**	0.53
Cable for connection of terminal to video matrix, with plug connectors - 3 m long - 7 m long - 10 m long	 **2GF2207-8AE** **2GF2207-8AF** **2GF2207-8AG**	
Cable for connection of an external computer with 9-pin AT connection, 2 m long, for parameterization of the video matrix and for loading an alarm program	**2GF2208-8AG**	
SCU 301 control and power supply unit to control a camera with pan-and-tilt drive and lens control	**2GF2207-8BC**	2.1
SCU 301 control and power supply unit as 2GF2207-8BC, but with control and parameterization connection for the SICOLOR DIG K500, K505 color camera	**2GF2207-8BD**	2.1
SCU 302 control and power supply unit as 2GF2207-8BD, but with position control for cameras with positionable pan-and-tilt drive and positionable lens	**2GF2207-8BE**	2.5

Dimensional drawings/details

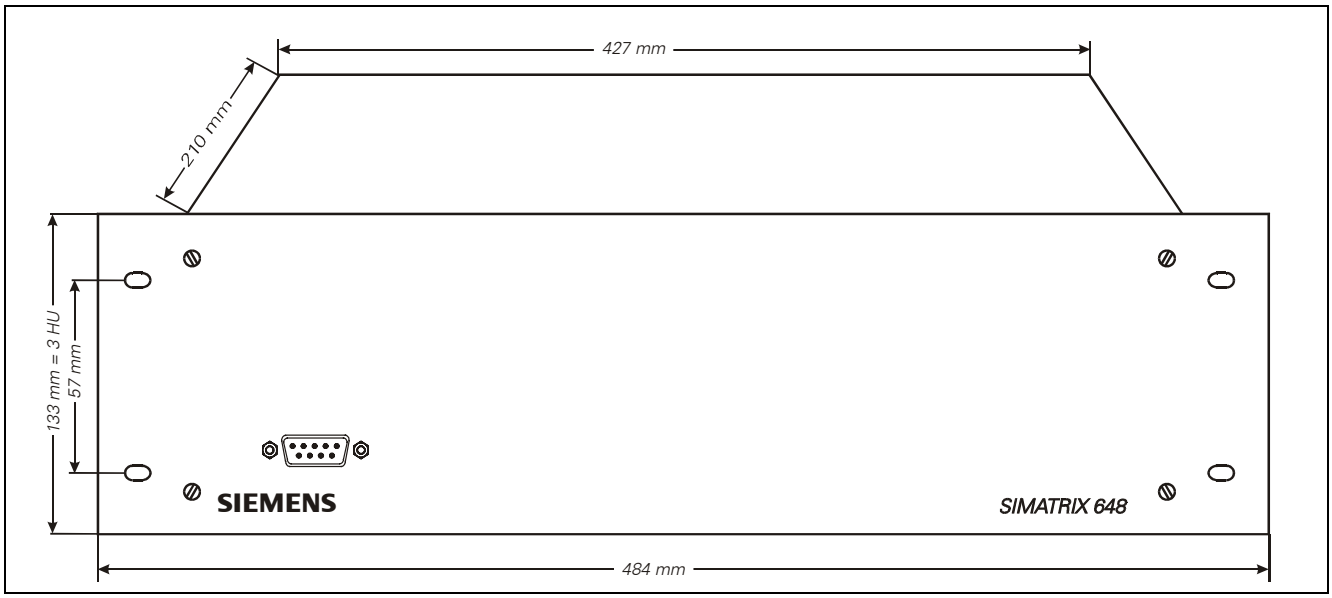


Fig. 2: Front view of SIMATRIX 648 video matrix

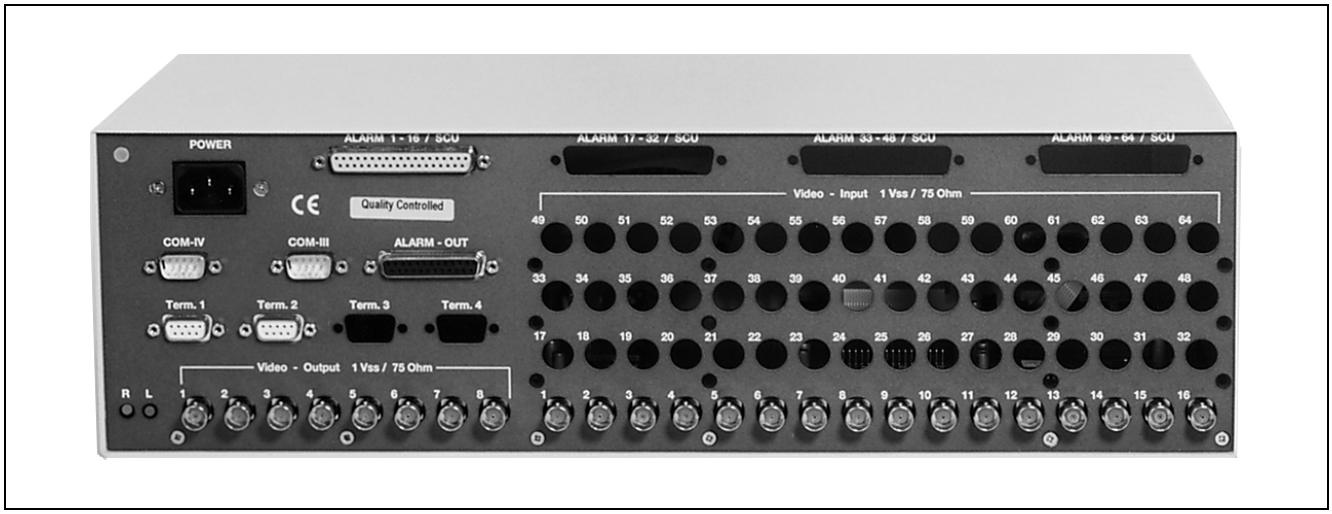


Fig. 3: Rear view of SIMATRIX 648 video matrix

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