

**TAMUZ**  
MONITORS

# **BLACK MILAN series**

*Hybrid MultiView Broadcast Monitors*



***High-quality multi-format MultiView Broadcast Video Monitors,  
for SD and HDTV applications***



***High-End Monitoring Solutions for  
Broadcast, Industrial, Medical, Office, Entertainment,  
Surveillance, Military or Aviation applications!***



***It's Time to Change to the  
TAMUZ Digital Broadcast Monitors  
for your SDTV or HDTV Control Desk or OB-Van***



*Customized Monitor Wall in an OB truck  
built with **BLACK MILAN QLM 124W** and **SPARROWHAWK LSM 124W HD***

***High Quality LCD Monitors for MultiView applications with Ethernet Remote Control  
Integrated, MultiFormat MultiView Monitors for SD / HD  
Display size from 19"W, 24"W up to 37"***

## BLACK MILAN The Hybrid MultiView Broadcast Monitors

Hybrid integrated MultiView application with FullHD Monitors

Automatic Alignment and Calibration (AAC)

Four auto-detect SD/HD-SDI or analog inputs as model QLM

Four auto-detect SD/HD-SDI or analog plus 5th SD/HD-SDI input as model QCM

10 bit resolution for digital inputs

MultiView processing delay 1 frame

Embedded Audio Metering, 8 channels per input

Free layout configuration of video, borders, level meters and more,

storable and recallable as four individual setup's

Dynamic and static UMD support, NTP timecode and Clocks

On screen alarms for audio and video

Fault detection and notification via SNMP

MultiColor Tally for each input

TCP/IP, USB and RS422 remote, WINDOWS software for setup

QLM/QCM 119W is rack mountable, all models have VESA compatible mounting



Alignment and Calibration  
functionality in the **BLACK MILAN** series  
using the AAC probe PM 5639



Four universal SD/HD-SDI Inputs  
with loops and analog CCVS capability.  
Two TCP/IP ports for MultiViewer  
and Monitor remote  
in the **BLACK MILAN** series



## Monitors with built-in MultiView Processor

The **BLACK MILAN** series is applicable as a MultiView Monitor. The processor is built-in. All **BLACK MILAN** series monitors are equipped with universal inputs auto detecting analog composite and digital SD and HD signals. The multiviewer layout is configurable by the user and can be stored as one of the four presets.



- Broadcast Quality video interface, showing a MultiImage or one full video image at 19W, 24W, 32W or 37W screens
- High-resolution active matrix TFT LCD color displays
- Wide viewing angles, "norm" brightness (80 cd/m<sup>2</sup>) or higher brightness (>250 cd/m<sup>2</sup>) adjustable and high contrast
- 16:9 aspect ratio mode, 4:3 selectable for each input
- MultiSync and MultiFormat capability
- Internal ITU-R601 / R709 video signal processing
- MultiView processing time 1 frame
- Four looped video inputs for analog CCVS and/or SD/HD-SDI
- The QCM version has additional a 5th SD/HD-SDI input for displaying the image unprocessed in 1:1 mode
- Audio Level Meter, 8 channel per input
- Supports dynamic and static UMD insertions
- Realtime clock as analog or digital image, LTC sync
- Professional and reliable input connectors
- Direct access keys for input selection and quad presets
- OSD monitor and multiviewer menu for individual setups
- 2x addressable 10/100 baseT TCP/IP port for remote
- 1x USB port for firmware upload
- OnScreen Tally, GPI/O port for Tally
- Built-in AAC Auto Alignment and Calibration with optional Color Analyzer probe
- Rugged and compact lightweight full metal housing design
- Anti-reflective glass protection filter
- Low power consumption, powered by universal power supplies



## Free Windows software for setup

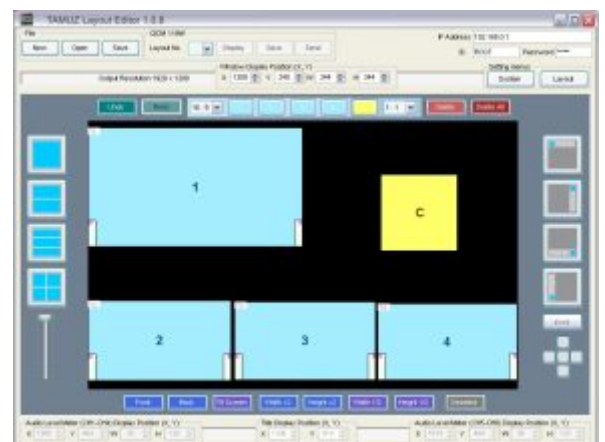
The **MILAN** software is developed to configure the layout and setup of **TAMUZ MultiView Monitors** remotely.

The screenshot on the right shows how to configure the **BLACK MILAN QCM/QLM** monitors.

Radio buttons and pull-down lists allows access to all features and functions of the monitors. The user can arrange and scale the video image on the desktop to create his own layout.

Each input signal can have individual borders, UMD's or audio level meters, as overlay or beside the video image.

An additional streaming feature transmits the video signals in the layout of the setup at the ethernet port.





## Hybrid MultiView Broadcast Monitor

The **BLACK MILAN** model **QLM 119W** is a High Quality LCD Monitor equipped with four inputs and integrated MultiView processor, capable to accept any analog or digital SD or HD format. The **BLACK MILAN** model **QCM 119W** has additional a 5th direct to view SD/HD-SDI input. Regarding the compact size the QCM / QLM 119W can be mount in a 19" rack using 8 RU.

### Technical Specifications:

|                                      |   |   |
|--------------------------------------|---|---|
| Model: . . . . .                     | <b>QCM / QLM 119W</b>                                   |   |
| Screen Type: . . . . .               | active matrix color TFT, ISP technology                 | SD/HD Formats: . . . . . 1080i @ 30 / 29.97 / 25                        |
| Screen Size: . . . . .               | 19" wide  | . . . . . 1080p @ 30 / 29.97 / 25 / 24 / 23.98                          |
| Screen Format: . . . . .             | 16:10 native aspect ratio                               | . . . . . 720p @ 60 / 59.97 / 50  |
| Pixel Resolution: . . . . .          | 1440 x 900 RGB dots                                     | . . . . . 576i @ 25   |
| Screen Resolution: . . . . .         | 96 dpi  | . . . . . 480i @ 30   |
| Color Resolution: . . . . .          | 16 million colors                                       | Composite Video Input: 1 Vpp, 5 MHz ±0.2 dB                             |
| Color Temperature: . . . . .         | 6504°K nominal  | Video Standards: . . . . . 625/50, 525/60, auto detection               |
| Color Temp. Range: . . . . .         | 3200 to 9300 °K select and adjustable                   | Tally Light: . . . . . embedded video insertion                         |
| Luminance: . . . . .                 | max. 300 cd/m2  | Tally Feature: . . . . . closed contact at GPI/O port                   |
| Contrast: . . . . .                  | 500:1   | Tally Connector: . . . . . Sub-D 25pin                                  |
| Response Time: . . . . .             | 8 ms, typical   | Power Requirements: . . . . . DC 12 V +10% / -10%                       |
| Viewing Angle: . . . . .             | ±80° horizontal, ±80° vertical                          | Power Connector: . . . . . XLR-4M                                       |
| Backlight: . . . . .                 | multiple CCF Lamps                                      | Power Consumption: . . . . . max. 80 W                                  |
| Backlight Lifetime: . . . . .        | >50.000 h's   | Power Safety: . . . . . ground on frame                                 |
| Screen Classification: . . . . .     | A Grade   | External Power Supply: . . . . . Switching Power Supply                 |
| Screen Certification: . . . . .      | ISO 13406-2, Cl. 2                                      | External Voltage: . . . . . AC 100-240 V ±10%, 50-60 Hz                 |
| Interface Type: . . . . .            | TAMUZ "MILAN"   | Mains Connector: . . . . . IEC-320 3pin                                 |
| Interface Characteristic: . . . . .  | Broadcast MultiFormat MultiViewer                       | DC Output Connector: . . . . . XLR-4F                                   |
| Image Processing: . . . . .          | scanning free scalable to any ratio                     | Housing: . . . . . full lightweight metal                               |
| Video Processing: . . . . .          | HiRes digital adaptive Comb Filter                      | Frame Color: . . . . . coated RAL 7016                                  |
| Serial Digital Processing: . . . . . | native 4:2:2, 10 bit dithering                          | Panel Protection: . . . . . non-glare anti-reflective glass filter      |
| Aspect Ratio: . . . . .              | 16:9 normal, 4:3 selectable                             | Dimensions: . . . . . 438 (W) x 352 (H) x 142 (D) mm                    |
| Operation: . . . . .                 | OSD Menu, remote controlable                            | Weight: . . . . . 8,5 kg  |
| Remote Operation: . . . . .          | TCP/IP, IR Controller, RS422, USB                       | VESA Mounting: . . . . . VESA100 threads at rear                        |
| AAC Port: . . . . .                  | Port for probe PM5639/T, K-10, CA200 or others at front | Environment: . . . . . 0 to +50°C, operation                            |
| SD/HD-SDI Inputs: . . . . .          | 10 bit, 1.5 Gbit/s                                      | Storage: . . . . . -30 to +60°C, 5 to 95% humidity                      |
| . . . . .                            | 800 mVpp, 4:2:2   | Certification: . . . . . CE, EN 50082-2, EN 55022                       |
| SD/HD Standards: . . . . .           | SMPTE 260M / 274M / 269M / 352M                         | Accessories: . . . . . Windows software for setup, 19" brackets, manual |
| SD/HD-SDI Impedance: . . . . .       | 75 Ohm terminated                                       |   |
| SD/HD-SDI Connector: . . . . .       | BNC 75 Ohms type  |   |





## Hybrid MultiView Broadcast Monitor

The **BLACK MILAN** model **QLM 124W** is a High Quality LCD Monitor equipped with four inputs and integrated MultiView processor, capable to accept any analog or digital SD or HD format. The **BLACK MILAN** model **QCM 124W** has additional a 5th direct to view SD/HD-SDI input. Regarding the compact size the QLM/QCM 124W can be mount at a 19" rack using 9 RU.

### Technical Specifications:

Model: ..... **QCM / QLM 124W**  
 Screen Type: ..... active matrix color TFT, ISP technology  
 Screen Size: ..... 24" wide  
 Screen Format: ..... 16:10 native aspect ratio  
 Pixel Resolution: ..... 1920 x 1200 RGB dots  
 Screen Resolution: ..... 94 dpi  
 Color Resolution: ..... 16 million colors  
 Color Temperature: ..... 6504°K nominal  
 Color Temp. Range: ..... 3200 to 9300 °K select and adjustable  
 Luminance: ..... max. 400 cd/m2  
 Contrast: ..... >800:1  
 Response Time: ..... 12 ms, typical  
 Viewing Angle: ..... ±80° horizontal, ±80° vertical  
 Backlight: ..... multiple CCF Lamps  
 Backlight Lifetime: ..... >50.000 h's  
 Screen Classification: ..... A Grade  
 Screen Certification: ..... ISO 13406-2, Cl. 2

Interface Type: ..... TAMUZ "MILAN"  
 Interface Characteristic: Broadcast MultiFormat MultiViewer  
 Image Processing: ..... scanning free scalable to any ratio  
 Video Processing: ..... HiRes digital adaptive Comb Filter  
 Serial Digital Processing: native 4:2:2, 10 bit dithering  
 Aspect Ratio: ..... 16:9 normal, 4:3 selectable  
 Operation: ..... OSD Menu, remote controlable  
 Remote Operation: ..... TCP/IP, IR Controller, RS422, USB  
 AAC Port: ..... Port for probe PM5639/T, K-10, Ca200 or others at front

SD/HD-SDI Inputs: ..... 10 bit, 1.5 Gbit/s  
 ..... 800 mVpp, 4:2:2  
 SD/HD Standards: ..... SMPTE 260M / 274M / 269M / 352M  
 SD/HD-SDI Impedance: 75 Ohm terminated  
 SD/HD-SDI Connector: .. BNC 75 Ohms type

SD/HD Formats: ..... 1080i @ 30 / 29.97 / 25  
 ..... 1080p @ 30 / 29,97 / 25 / 24 / 23.98  
 ..... 720p @ 60 / 59.97 / 50  
 ..... 576i @ 25  
 ..... 480i @ 30  
 Composite Video Input: 1 Vpp, 5 MHz ±0.2 dB  
 Video Standards: ..... 625/50, 525/60, auto detection

Tally Light: ..... embedded video insertion  
 Tally Feature: ..... closed contact at GPI/O port  
 Tally Connector: ..... Sub-D 25pin

Internal Power Supply: .. Switching Power Supply  
 External Voltage: ..... AC 100-240 V ±10%, 50-60 Hz  
 Power Consumption: ..... max. 120 W  
 Power Safety: ..... ground on frame  
 Mains Connector: ..... IEC-320 3pin

Housing: ..... full lightweight metal  
 Frame Color: ..... coated RAL 7016  
 Panel Protection: ..... non-glare anti-reflective glass filter  
 Dimensions: ..... 550 (W) x 398 (H) x 160 (D) mm  
 Weight: ..... 18 kg  
 VESA Mounting: ..... VESA100 threads at rear

Environment: ..... 0 to +50°C, operation  
 Storage: ..... -30 to +60°C, 5 to 95% humidity  
 Certification: ..... CE, EN 50082-2, EN 55022  
 Accessories: ..... Windows software for setup, manual

Options: ..... IR remote, flexible desktop stand FDS2, 19" rack mount kit XW-RK





## Hybrid MultiView Broadcast Monitor

The **BLACK MILAN** model **QLM 137W** is a High Quality LCD Monitor equipped with four inputs and integrated MultiView processor, capable to accept any analog or digital SD or HD format.

The **BLACK MILAN** model **QCM 137W** has additional a 5th direct to view SD/HD-SDI input.

All monitors are equipped with 2x VESA100 threads. An adapter to industry mounts is available.

### Technical Specifications:

|                                      |   |   |
|--------------------------------------|---|---|
| Model: . . . . .                     | <b>QCM / QLM 137W</b>                                   |   |
| Screen Type: . . . . .               | active matrix color TFT, MVA technology                 | SD/HD Formats: . . . . . 1080i @ 30 / 29.97 / 25                    |
| Screen Size: . . . . .               | 37" wide  | . . . . . 1080p @ 30 / 29.97 / 25 / 24 / 23.98                      |
| Screen Format: . . . . .             | 16:9 native aspect ratio                                | . . . . . 720p @ 60 / 59.97 / 50                                    |
| Pixel Resolution: . . . . .          | 1920 x 1080 RGB dots                                    | . . . . . 576i @ 25   |
| Screen Resolution: . . . . .         | 64 dpi  | . . . . . 480i @ 30   |
| Color Resolution: . . . . .          | 16 million colors                                       | Composite Video Input: 1 Vpp, 5 MHz ±0.2 dB                         |
| Color Temperature: . . . . .         | 6504°K nominal  | Video Standards: . . . . . 625/50, 525/60, auto detection           |
| Color Temp. Range: . . . . .         | 3200 to 9300 °K select and adjustable                   | Tally Light: . . . . . embedded video insertion                     |
| Luminance: . . . . .                 | max. 700 cd/m2  | Tally Feature: . . . . . closed contact at GPI/O port               |
| Contrast: . . . . .                  | >1.000:1  | Tally Connector: . . . . . Sub-D 25pin                              |
| Response Time: . . . . .             | 8 ms, typical   | Internal Power Supply: . . . . . Switching Power Supply             |
| Viewing Angle: . . . . .             | ±85° horizontal, ±85° vertical                          | External Voltage: . . . . . AC 100-240 V ±10%, 50-60 Hz             |
| Backlight: . . . . .                 | multiple CCF Lamps                                      | Power Consumption: . . . . . max. 250 W                             |
| Backlight Lifetime: . . . . .        | >50.000 h's   | Power Safety: . . . . . ground on frame                             |
| Screen Classification: . . . . .     | A Grade   | Mains Connector: . . . . . IEC-320 3pin                             |
| Screen Certification: . . . . .      | ISO 13406-2, Cl. 2                                      | Housing: . . . . . full lightweight metal                           |
| Interface Type: . . . . .            | TAMUZ "MILAN"   | Frame Color: . . . . . coated RAL 7016                              |
| Interface Characteristic: . . . . .  | Broadcast MultiFormat Quad                              | Panel Protection: . . . . . non-glare anti-reflective glass filter  |
| Image Processing: . . . . .          | scanning free scalable to any ratio                     | Dimensions: . . . . . 890 (W) x 530 (H) x 160 (D) mm                |
| Video Processing: . . . . .          | HiRes digital adaptive Comb Filter                      | Weight: . . . . . 32 kg   |
| Serial Digital Processing: . . . . . | native 4:2:2, 10 bit dithering                          | VESA Mounting: . . . . . 2x VESA100 threads at rear                 |
| Aspect Ratio: . . . . .              | 16:9 normal, 4:3 selectable                             | Environment: . . . . . 0 to +50°C, operation                        |
| Operation: . . . . .                 | OSD Menu, remote controlable                            | Storage: . . . . . -30 to +60°C, 5 to 95% humidity                  |
| Remote Operation: . . . . .          | TCP/IP, IR Controller, RS422, USB                       | Certification: . . . . . CE, EN 50082-2, EN 55022                   |
| AAC Port: . . . . .                  | Port for probe PM5639/T, K-10, CA200 or others at front | Accessories: . . . . . Windows software for setup, manual           |
| SD/HD-SDI Inputs: . . . . .          | 10 bit, 1.5 Gbit/s                                      | Options: . . . . . IR remote, desktop stand, universal mounting kit |
| . . . . .                            | 800 mVpp, 4:2:2   |   |
| SD/HD Standards: . . . . .           | SMPTE 260M / 274M / 269M / 352M                         |   |
| SD/HD-SDI Impedance: . . . . .       | 75 Ohm terminated                                       |   |
| SD/HD-SDI Connector: . . . . .       | BNC 75 Ohms type  |   |



## Where to buy

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MONITORS**

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