

# Multichannel Digital Loggers

## DigioLOG™



[www.digiolog.ru](http://www.digiolog.ru)

***digioLOG***

## Multichannel Digital Loggers DigioLOG™



We are offering to your consideration new devices for digital multichannel logging, storage and processing of audio information – loggers DigioLog, based on the specialized digital signal processors and designed on the basis of advanced technologies and comprehensive analysis of domestic and foreign analogs, that has allowed to achieve high operational characteristics and better «price/quality/safety» ratio

Logger Digiolog is a single-housing compact and functionally complete construction in a fast metal housing.

Algorithms of audio information reducing, used in the loggers, are specially adapted for running in the conditions of noises. The provided degree of reducing – from 2 (without losses) up to 53 in comparison with the initial signal.

### PURPOSE USE

Logging, storage and analysis of the accumulated audio information, received from different signal sources: telephone line, linear outputs of different devices, microphones and others.

### RANGE OF APPLICATION

**Dispatch and operations services, corporation and business networks, such as:**

- dispatch centers: of power services and power distribution services, railways, airways, shipping, transportation companies, gas and oil refining companies;
- operative centers of emergency, rescue and civil defense services;
- operations centers of security services;
- communications posts of the police, fire brigades, ambulance;
- perations centers of different types of troops;
- market, bank, trade companies (logging of verbal negotiations and agreements);
- television and radio, press agencies, courts;
- recording of radio communications at emergency-rescue operations;
- multi-channel recording of party-line meetings.



### FACILITIES AND ADVANTAGES

- Twenty-four-hour autonomous mode of running without computer.
- Simple mounting and running.
- Large range of power supply, low power consumption, power-up from the accumulator.
- Noiselessness, cooling technology without fans.
- Internal hybrid drive with enhanced safety and run-life: hard disk + flash-memory.
- Audio history for a long period.
- Using of powerful digital processor for complex audio processing.
- Expanded dynamic and frequency range, internal phantom power supply.
- Equalization of the volume of the remote and the near subscribers.
- Entirely electronic regulations.
- High-speed access to the data 100 Mbit/sec.
- Built-in servers FTP (files), WWW (adjustments, log), RTSP (media).
- Integration into the local network of the company, wireless networks and the Internet connections.
- Remote access and monitoring in the current time.
- Data protection against unauthorized access, files coding, nonsusceptibility to viruses, cryptosecure network SSL protocols (HTTPS, FTPS).
- Possibility of quick upgrade by means of the firmware changing.





## digioLOG CAYMAN CAYMAN-4A, CAYMAN-5



### ADVANTAGES

- Operation without computer, noiselessness.
- Small size and small supplied power.
- High-speed access to the data.
- High-capacity hybrid drive with advanced safety.
- Powerful signal processor for audio processing.
- Different periphery hook-up.
- Operation with PC without drivers installation.
- Integration into the local network, wireless networks and the Internet connection.
- Possibility of monitoring for remote low-speed connections.
- Built-in servers FTP (files), WWW (web), RTSP (media).
- Remote access at current time, WEB interface.
- Data protection against unauthorized access, content and traffic codification.
- Changeable firmware, possibility of upgrade.

### DISTINCTIVE FEATURES OF VERSIONS

FUNCTIONS	CAYMAN 4A	CAYMAN 5
Channels	4	4+microphone
Built-in microphone	-	+
Audio ports type	4 x RCA	4 x RJ-12
Galvanic isolation of inputs	adapter	+
Phantom power 12 V	ON/OFF	+
Galvanic isolation on phantom, power	-	clustered
Discreet sampling frequency, kHz	8..48	8..32
Type inputs	linear	linear, diff.
Hook-up to telephone circuit	adapter	+
Producer of request for ANI	-	+
Rated response, V Quadratic mean (for amplification +0 dB)	0.5	2.5
Preamplifier, dB	+46	+12
Compressor, AGC	+	+
Separation between channels, dB	>100	>90
Input resistance ~, kOm	47	23
Input resistance DC, mOm	-	10
Expansion slot (RS-232, sensors, Power supply)	+	-
Infrared control	USB adap.	built-in
Alarm sensors (actuation)	2(+4)	(+4 galv.)
Size, mm	105 x 165 x 26	105 x 205 x 26

Autonomous logger on the basis of the up-to-date signal processor (800MMACS) with internal drive on the hard disk, network interface Ethernet and all-purpose USB device/host. Versions with additional slot of flash-card of the CD type. Metal housing.

### FACILITIES

- 4 specialized channels.
- Hard disk: from 40 GB (max. up to 1 TB).
- Flash-disk/buffer: 256 MB...4GB.
- Slot of flash-card of the SD type (SDHC) for CAYMAN5 version – SD.
- Reduction (compatibility): PCM 16, MP3 (LAYER III MPEG 1,2,3,5) 16-160 kbit 4.
- Reduction (compatibility): PCM 16, MP3 (LAYER III MPEG 1,2,2.5).
- 16-160 kbit 4:1..12:1, M2400 53:1, FLAC (without losses) ≈2:1.
- Audio files, format: WAV (PCM, MP3, M2400), FLAC.
- Discreet sampling: 8, 16, 32, 48 kHz (independent along the channels).
- Inputs mixing modes.
- Parallel hook-up to the line.
- Audio codec capacity 24 bit.
- Sound processing (log channel) 32 bit.
- Signal/noise >85 dB.
- Prime amplifier.
- Logging: input, output, typesetting, AOH, DTMF, Caller ID, fax
- Actuation types: tel. line, acoustic start, timer, operator commands, external alarm sensors, button of the device.
- LCD indicator, control buttons.
- built-in nonvolatile clock, time synchronization: NT P, GPS, local.
- Interface: R S-232, Ethernet 10/100 Mbit, USB 2.0 12 Mbit.
- Network connections: Ethernet, SLIP (RS-232, USB CDC), PPP (RS-232)
- Protocols: T CP/IP, UDP, DHCP, TFTP, FTP, FTPS (SSL), RTP, RTSP, HTTP, HTTPS (SSL/TLS), NTP, SMTP.
- USB periphery (without drives installation) device: Mass Storage, CDC.
- host: Hub, Mass Storage, HID Keyboard, IR Control.
- Built-in services FTP, FTPS (customer and server), WWW, RTSP.
- E-mail events notification.
- Baud-rate FTP 4 MB/sec, data exchange USB 0.9 MB/sec, SD card 2.5 MB/sec
- Equalization of the volume of the nearest and the farthest subscribers.
- Independent controlled compressor and expander at logging and playback.
- Output to the earphones.
- Cold start less than 2 sec (typical).
- Protection against power supply failure during logging process.
- Hook-up of USB periphery 5 V: up to 1 A.
- Power supply 8..18 V (or adapter: circuit ~220 V, ±60B PABX).
- Compact size: 105 x 165 x 26 mm.
- Weight: 500 g.

### CONSUMPTION (MODE)

- Maximum – 5 Wt (4 channels for logging, access 100 Mbit, hard disk).
- Hybrid drive – 1.2 Wt (4 channels for logging, energy saving).
- OFF – 0.2 Wt (activation, clock, LCD).

## digioLOG MDL-4NET-XX MDL-4NET-XX (-01, -02, -11, -12, -19")



### ADVANTAGES

- Operation without computer.
- Simple mounting and running.
- Small size and small supplied power.
- Large range of power supply, accumulator hook-up.
- Noiselessness.
- High-speed access to the data.
- Hybrid drive (flash + hard disk) with enhanced safety.
- Integral audio history for a long term.
- All-purpose high-resistance inputs with galvanic isolation and protection against excess voltage, absence of the impact on the hooked-up line
- DSP processor for audio processing.
- Widened dynamic and frequency range, phantom supply.
- Entirely electronic regulations.
- Integration into the local network of the company, wireless Wi-Fi connection.
- Internet connection.
- Remote access and monitoring in the current time.
- Data protection against unauthorized access, content coding.
- Possibility of firmware upgrade.

Autonomous logger on the basis of the up-to-date signal processor (800MMACS) with internal driver on the hard disk and network interface Ethernet 10/100.

Compact, fast metal housing with the height 1H. 4 all-purpose channels with galvanic isolation (4xRJ12). Possibility of control and audio monitoring in the current time. Different options of design version. Cooling technology without fan.

### FEATURES

- The logger is equipped with the system of telephone conversations log notification.
- High quality of speech digitization due to using specialized microcircuits of audio codecs (Analog Devices), unattainable for standard conversion devices.
- Using of readjustable compressor of dynamic range provides comfortable listening to loud and quiet audio signals.
- Actuation sensor on the basis of frequency analysis responses only to the speech signal, cutting off all the other undesirable actuations.
- Two-level mode of recording on the hard disk. Data are logged onto the buffer nonvolatile flash driver, and only after its filling are quickly rerecorded onto the hard disk, similarly to the new technologies of hybrid disks ReadyDrive or Flashon, dramatically increasing its life time and safety.
- At logging, consumes up to 5 Wt, when simultaneously logging all the channels on the hard disk and having access to the data with the bi-trate 100 Mbit.

### FACILITIES

- 4-e all-purpose galvanically isolated channels: telephone / linear / balanced / phantom 12 V.
- Hard disk: 40 GB (max. Up to 1 TB).
- Flash disk/buffer: 0.1..2 GB (option).
- Reduction (compatibility): PCM16, G.711, G.721(G.726), G.722, GSM 6.10.
- Audio files, format: W AV.
- Discreet sampling: 8, 16, 32 kHz (independent).
- High-impedance parallel hook-up to the line.
- Audio codec capacity 24 bit.
- Signal/noise: >85 dB.
- Preamplifier up to +46 dB.
- Logging: input, output, typesetting, AOH, DTMF, Caller ID, fax.
- Actuation types: tel. line, acoustic startup, speech sensor, timer, operator commands, external alarm sensors, keyboard.
- Time synchronization.
- Interfaces: R S-232, Ethernet 10/100 Mbit.
- Built-in FTP and WW servers.
- Data baud rate via FTP up to 3 Mb/sec.
- Versions (distinctive features):
  - 01, -11 – two-color LEDs of status;
  - 02, -12 – graph. LCD, control buttons.
- Independent controlled compressors of the dynamic range at logging and playback.
- Equalization of the volume of the nearest and the farthest subscribers
- Outputs onto the earphones.
- Compact size: 105x130x44 mm, (for versions. 19" - 437x300x43.6 mm).
- Weight: 500 g.

# digioLOG MDL2-xNET MDL2-4U, MDL2-2N, MDL2-4N, MDL2-6, MDL2-8, MDL2-8A, MDL2-8N, MDL2-12, MDL2-12N, MDL2-16, MDL2-16N, MDL2-16A, MDL2-32



## ADVANTAGES

- Operation without computer, noiselessness.
- Small size and small supplied power.
- High-speed access to the data.
- High-capacity hybrid driver with advanced safety.
- Powerful signal processor for audio processing.
- Operation with PC without drives installation.
- Integration into the local network, wireless networks and the Internet.
- Possibility of monitoring for remote low-speed connections.
- Built-in servers FTP (files), WWW (web), RTSP (media).
- Remote access at current time, WEB interface.
- Data protection against unauthorized access, content and traffic codification.
- Changeable firmware, possibility of upgrade.

## Further development of the popular series MDL-4NET.

**Autonomous logger on the basis of the up-to-date signal processor (800MMACS) with internal driver on the hard disk and network interface Ethernet 10/100.**

Compact, fast metal housing with the height 1H. 4 all-purpose channels with galvanic isolation (4xRJ12). Possibility of control and audio monitoring in the current time via standard browser. Different options of design version. Cooling technology without fan.

## FACILITIES

- All-purpose channels.
- Hard disk: from 120 GB ( up to 1 TB max.).
- Flash-disk/buffer 12 MB..4 GB.
- Reduction (compatibility): PCM 16, MP3 16-160 kBit 4:1..10:1, M2400 53:1, FLAC (without losses) ≈2:1.
- Audio files, format: WAV (PCM, MP3, M2400), FLAC.
- Discreet sampling: 8, 16, 32 kHz (independent along the channels).
- Inputs mixing modes.
- Parallel hook-up to the line.
- Audio codec capacity 24 bit.
- Sound processing (log channel) 32 bit.
- Signal/noise >85 dB.
- Prime amplifier.
- Logging: input, output, typesetting, AOH, DTMF, Caller ID, fax.
- Actuation types: tel. line, acoustic start, timer, operator commands, external alarm sensors, alarm sensors, button of the device.
- LCD indicator, control buttons.
- built-n nonvolatile clock, time synchronization: NTP, GPS, local.
- Interface: RS-232, Ethernet 10/100 Mbit, USB 2.0 12 Mbit.
- Network connections Ethernet, SLIP (RS-232), PPP (RS-232).
- Protocols: T CP/IP, UDP, DHCP, TFTP, FTP, FTPS (SSL), RTP, RTSP, HTTP, HTTPS (SSL/TLS), NTP, SMTP.
- Built-in services FTP, FTPS (customer and server), WWW и RTSP.
- E-mail events notification.
- Baud-rate via FTP:
  - reading 6 MB/sec, without performance losses during the process of audio logging;
  - logging, 3 MB/sec.
- Equalization of the volume of the nearest and the farthest subscribers.
- Independent controlled compressor and expander at logging and playback.
- Output to the earphones.
- Cold start less than 2 sec (typical).
- Protection against power supply failure during logging process.
- Monitoring of supply voltage, useful current, temperature inside the housing.
- Power supply 8..18 V (or adapter: circuit ~220 V, ±60B PABX).
- Compact size: 105 x 130 x 44 mm.
- Weight: 500 g.

## CONSUNPTION (TYPICAL, MODE)

- 5 Wt (4 channels for logging, access 100 Mbit, hard disk).
- Hybrid drive – 1.2 Wt (4 channels for logging, energy saving).
- OFF – 0.2 Wt (actuation, clock, LCD).

## VERSIONS DISTINCTIVE FEATURES: (-xx: 01, 02, 03, 04, 19")

FUNCTIONS	MDL2-4U-XX	MDL2-2N-XX MDL2-4N-XX MDL2-8N-19" MDL2-12N-19" MDL2-16N-19" MDL2-32-19"	MDL2-6-XX MDL2-8-XX MDL2-12-04 MDL2-16-0 MDL2-16-19" MDL2-32-19"	MDL2-8A-XX MDL2-16A-04
Channels	4, equivalent MDL-4NET	2, 4, 8, 12, 16	6, 8, 12, 16, 32	8, 16
Type audio connectors	4xRJ-12	xRJ-12	xRJ-12-duplex, for 19"-separated	x3.5 MM
Hook-up to telephone line	+	+	+	adapter
Audio sources hook-up	+	+	+	+
Microphones hook-up	+	+	+	+
Galvanic isolation of inputs	+	+	+	-
Phantom supply 12 V	+	+	+	+
Imbedded resistors of microphones phantom supply	+	+	for version 19"	+
Galvanic isolation on phantom supply	separated	separated	grouped	-
Discreet sampling frequency, kHz (independently on the channels)	8..32	8..32	8..32	8..32
Type inputs	linear, diff.	linear, diff.	linear, diff.	linear
Rated sensitivity, quadratic mean. (at amplification+0 dB)	2.5 V	2.5 B 250 mV	2.5 V	1 V
Additional input analog AGC	-	+	+	-
Additional preamplifier, dB	-	+20	-	+20
Preamplifier (smoothly), dB	+0..46	+0..33	+0..33	-12..+35
Compressor, AGC (volume equalization)	+	+	+	+
Type of the used codec of the channel	independent	duplex	duplex	duplex
Separation between channels, dB	>100	>80	>80	>80
Input resistance ~	200 kOhm	2 mOhm	20 kOhm	47 kOhm
Input resistance DC	2 mOhm	10 mOhm	10 mOhm	-
Active request driver AOH 500 Hz	+	+	+	-
Recordkeeping notification	tone	tone, voice	tone, voice	-
Expansion slot (RS-232, sensors, supply)	+	+	+	+
Alarm sensors (actuation)	2(+4)	2	2	+
Accumulator hook-up (terminal block)	+	+	+	+
Replaceable disk	-	for version 19" 1U RACK	for version 19" 1U RACK	-
dimensions, mm	105 x 130 x 44	105 x 130 x 44 105 x 130 x 65 19" 1U	105 x 130 x 44 105 x 130 x 65 19" 1U	105 x 130 x 44 105 x 130 x 65

## VERSIONS:

- **01** – LEDs of status and logging (4xRJ12 or 8xRJ12);
- **02** – graphic LCD, control buttons 4xRJ12);
- **03** – additionally, IR control (4xRJ12);
- **04** – in a high housing, large LCD, IR control (8xRJ12);
- **19" 1U** – design 19" 437 x 300 x 43.6 mm;
- **19" 1U RACK** – additional replaceable 2.5" disk in the protecting cartridge SATA/USB.



***digioLØG***

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