

Digital Voice Recorders

Linear PCM Recorder

Studio-quality sound and
Full HD movie mode

LS-20M

V409110BE000
4 545350 03617-1



96 kHz / 24 bit Linear PCM: Record better-than-CD sound

The built-in high-quality microphones at a 90° angle provide natural and rich stereo sound

1920x1080 pixel, Full HD movie shooting

Shoot incredible movies with Magic Movie Effects, even in poor lighting thanks to individual white balance, 2-way light metering and exposure compensation

High-precision Digital Image Stabilisation for less blur

HDMI interface and web ready

Voice sync function and remote control set (optional) for hands-free use

Take your band session or concert recordings to a whole new level. Record beautifully nuanced sound and shoot Full HD videos at the push of a button. Multiple movie resolutions, white balance, digital zoom and built-in record level control deliver web-ready media for easy uploading to the video portal of your choice. The LS-20M supports HDMI television playback and the industry standard SDHC card format. Magic Movie Effects allow you to tune your performance, and the lithium ion battery lets you record professional sound and HD video for hours and hours. With the self-timer, voice sync and the optional remote control you can record sessions remotely - while you jam. The high fidelity microphones capture pure studio-quality sound, and the low-cut filter and high-resolution 96kHz / 24bit linear PCM recording format make for great recordings wherever you are.

Box Contents

- SD card (2 GB)
- F-3AC AC Adapter
- Instruction Manual
- LI-42B Lithium-Ion Battery
- KP-22 USB cable

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Specifications

Storage Media	
External Memory	SD / SDHC card (512 MB - 32 GB)
SD / SDHC Slot	Yes
Internal memory	No
USB functionality	
USB Audio class	Yes
USB Camera class	Yes
USB Storage class	Yes
USB Speed	USB 2.0 High Speed
Display	
Display Size	40.7 x 30.5mm / 2"
Main LCD	Colour LCD (320x240 dots)
Sub LCD	Mono backlit LCD (159x51 dots)
Display colour	Orange
Display Type	Full Dot Matrix Display
Device operation	
HOLD switch	Yes
Power switch	Yes
Recording Modes	
Recording format	PCM / MP3
PCM (WAV) format	
96kHz / 24bit	55min
88.2kHz / 24bit	1h
48kHz / 16bit	2h 45min
44.1kHz / 16bit	3h
MP3 format	
320 kbps	12h 45min
256 kbps	16h
Recording times shown above are approximate values for the included 2 GB SD card. Maximum recording capacity per each file is limited to approx. 4 GB for mp3 and 2 GB for PCM recording due to file system restrictions. Available recording time for SD/SDHC memory cards refer to the Olympus official web site (http://www.olympus-europa.com).	
Frequency response	
96kHz (PCM)	20 - 44.000 Hz
88.1kHz (PCM)	20 - 42.000 Hz
48kHz (PCM)	20 - 23.000 Hz
44.1kHz (PCM)	20 - 21.000 Hz
320 kbps (MP3)	50 - 20.000 Hz
256 kbps (MP3)	50 - 20.000 Hz
Data organisation	
No. of folders for Voice	5
Folder Music	128
Folder Video	999
Files per folder	999
File move	Yes
File divide	Yes
File Copy (Folder to Folder)	Yes
Time/date info	Yes
Operating Systems & Requirements	
Windows	Operating system: Windows XP (SP2 or later), Windows Vista, Windows 7 (Free USB port)
Macintosh	Operating system: Mac OS X 10.4.11 - 10.6 (Free USB port)
Power Supply	
Device standalone recharge function via AC adapter	Yes
Device standalone recharge function via USB	Yes
External power supply	AC Adapter F-3AC
Power Supply	Lithium-Ion Battery LI-42B
Li-Ion battery life	Recording: 1920x1080 30fps; 96kHz / 24bit: 1 h 5 min Playback: 1920x1080 30fps; 96kHz / 24bit: 2 h

Record function	
Index	Up to 16 per file
Partial Erase	Yes
Erase all files	Yes
Erase single files	Yes
Erase lock	Yes
Selftimer function	Yes
Rec Monitor	Yes
Manual Rec level control	Yes
Low Cut-Filter	Yes
Voice Sync	Yes
Image & Movie Recording	
Recording format movie	MOV (MPEG-4AVC/H.264)
Movie quality	1920 x 1080 (30fps) / Sound: PCM 1280 x 720 (30fps) / Sound: PCM 640 x 480 (30fps) / Sound: MP3
Note: Maximum movie file size is limited to 4GB, which equals approx. 30min recording in Full HD quality.	
Effective pixels	5.14 Megapixels
Image sensor	1/4 " CMOS
Focal length	49 mm / 59 mm (equiv. 35mm)
Light Metering	ESP light metering, Spot metering
White Balance	Auto, Sunny, Cloudy, Flourescent, Incandescent, Quick Operation
Image Stabiliser	Digital Image Stabilisation
Magic Movie	Pin Hole, Pop Art, Rock, Sketch
Reverse Angle Recording	Yes
Shutter speed range	1/30 - 1/4000 s
Focusing Range	30 cm - ∞
Digital Zoom	4 x
Exposure compensation	+/- 2 (1/3 steps)
ISO mode	Normal / High
Playback function	
Repeat playback	Yes
Equalizer	Frequency band: 60Hz / 250Hz / 1kHz / 4kHz / 12kHz Level: [-6] to [+6] dB 5 patterns
Visualiser	5 patterns
Other Features	
Beep signal (system sound)	Yes
Remote Control	Yes (optional)
Interfaces Input	
PC interface	USB Cable
Microphone jack	3.5 ø mm mini-jack, impedance 2.2 kΩ
Microphone input level	High (- 59 dBv) / Low (- 39 dBv)
LINE IN jack	3.5 ø mm mini-jack, impedance 39 kΩ
LINE IN input level	- 6 dBv
Interfaces Output	
HDMI™	HDMI micro connector (Typ D) *
Speaker Diameter	Built-in ø 16 mm round dynamic speaker
Max. working output	270 mW (8 Ω speaker)
Earphone jack	3.5 ø mm mini-jack, impedance 16Ω or more
Maximum headphone output	≤ 150 mV
* "HDMI", the HDMI logo and "High-Definition Multimedia Interface" are trademarks or registered trademarks of HDMI Licensing LLC.	
Languages	
Menu languages	English, German, French, Spanish, Italian, Russian
Dimensions	
WxHxD	135 x 63 x 18.1mm
Weight	154 g (incl. battery)
Housing colour	Black

Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.

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