

# PORTABLE RECORDERS

## High-Quality Tracks on the Go

By the Mix Editors

It wasn't that long ago that Sony came out with the PCM-D1 high-end portable recorder, with built in condenser mics in an X-Y configuration and 24/96 recording. Then Zoom came out with a low-cost portable recorder aimed at songwriters/artists, joining the ranks of Alesis, Yamaha, Roland and Tascam, and the market took off. Now, there is something of high quality for just about anyone.



### **Boss MICRO BR BR-80**

The pocket-sized BOSS MICRO BR BR-80 ([bossus.com](http://bossus.com)) records directly to an SD/SDHC memory card (up to 32 GB) with a built-in stereo condenser microphone, and is equipped with

three modes for creating, recording and performing music: an 8-track MTR (Multi-Track Recorder) mode; an eBand mode for onstage backing tracks and phrase training; and a Live Rec mode for instantly capturing high-quality stereo recordings. Plus, all three modes can be used in combination.



### **Fostex FR-2LE**

Manufactured from high-grade materials and specifically designed for professional location recording, the Fostex FR-2LE ([fostex.com/usa](http://fostex.com/usa)) records 24-bit/96kHz BWF files, as well as MP3 files, to a Type II CompactFlash card.

On an 8GB CF card, it can record 12 hours at 16-bit/44.1kHz. The FR-2LE is equipped with two phantom-powered XLR microphone inputs (XLR-phone combo) complete with precise control over the recording level, as well as high-quality microphone preamps and trim control. Analog out is offered on RCA connectors.

### **Korg MR-2**

The Korg MR-2 ([korgusa.com](http://korgusa.com)) uniquely offers Direct Stream Digital fidelity and records to (and plays back from) SD or SDHC cards. Recordings made on the MR-2 can be converted into nearly any multi-bit format for use on any project and within any DAW software/hardware platform. Multi-format recording and playback include SACD, 1-bit DSD at 2.8224 MHz, and multi-bit PCM formats up to 24-bit/192 kHz. DS-



DIFF, WSD, DSF, WAV/BWF, MP3 and MP2 recording and playback are also supported. The MR-2 uses a stereo electret condenser mic in an X-Y configuration that is capable of rotating 210 degrees. It provides an analog limiter, low-cut filter, and bass EQ. Forty Recording Setups call up specific mic sensitivity, limiter, low-cut filter, and bass EQ settings. Ten custom user settings can be memorized.

### **Nagra LINO**

The Nagra LINO ([nagraaudio.com](http://nagraaudio.com)) is a solid-state audio recorder with built-in microphones designed for use in any ultra-portable recording situation. It records to a removable SD/SDHC memory card of any memory capacity. (Standard SD cards have a maximum capacity of 2 GB; from 2 GB to 32 GB they must be of the SDHC type.) It records at resolutions from 16-bit/44.1kHz to 24-bit/96kHz to PCM mono or stereo audio WAV files, while MPEG compression allows for longer recording times.



### **Olympus LS-14**

The Olympus LS-14 Linear PCM recorder ([getolympus.com/us/en](http://getolympus.com/us/en)) uses two internal 90-degree directional stereo condenser microphones plus a third omnidirectional mic at the center, with a stated frequency response of 20 to 20k Hz, and an amplifier, supporting sound pressure levels up to 130 dB. Audio and system circuitry are separated to minimize sound degradation. Files are recorded in PCM or MP3 modes and saved to the 4GB internal memory, or on SD/SDHC cards up to 32 GB.



### **Roland R-26**

The R-26 ([rolandus.com](http://rolandus.com)) uses dual stereo mics and six channels of simultaneous recording. There are two types of stereo microphones built into the R-26, directional (X/Y) and omnidirectional, plus a pair of XLR/TRS combo inputs to accommodate external mics, for up to six channels (three stereo) of simultaneous recording, and an input for a stereo plug-in powered mic. In addition, users can mix the mics together to achieve the optimum balance. The R-26 is equipped with Roland's proprietary IARC (Isolated Adaptive Recording Circuit) on the inputs for the built-in mics and as well as the external inputs. This

analog circuit is completely isolated from the digital circuitry and has its own power supply, reducing digital noise and achieving very clear sound. The R-26 includes a USB interface and is bundled with SONAR LE software (Win).



### **SANYO Xacti ICR-XPS01M**

The SANYO Xacti ICR-XPS01M (us.sanyo.com) offers two recording formats: Linear PCM (16-bit/44 kHz) and MP3. Its high-sensitivity microphones capture sound from a 360-degree angle in a balanced, uniform manner, and are said to minimize noise levels. A 2GB microSD card is included and it accepts up to an 8GB microSD/microSDHC card. It features a touch sensor panel for transport control functions (Play, Pause, Forward, Rewind), Menu and Mode functions, as well as a large, full-dot matrix LCD display which can be operated with backlight on or off for additional

power savings. The use of a recording peak limiter ensures reliable recording by suppressing distortion from abrupt, loud, transient sounds.



### **Sony PCM-M10**

The PCM-M10/B (pro.sony.com) is a 96kHz/24-bit capable recorder with electret condenser stereo microphones, 4 GB of internal flash memory and a microSD/Memory Stick Micro (M2) Slot for expanded memory. Key features of the PCM-M10 recorder include a built-in speaker, cross-memory recording, digital pitch and key control, digital limiter, low-cut filter, track mark functions, a 5-second pre-recording buffer and A-B repeat capability. The recorder includes a USB high-speed port for simple uploading and downloading of native .WAV or .MP3 format recorded files to and from Windows PC or Macintosh computers. The M10 offers durable construction and long battery life using conventional AA alkaline batteries.



### **Sound Devices 744T**

The Sound Devices (sounddevices.com) 744T is a 4-track file-based digital audio recorder in an aluminum and stainless steel chassis housing two channels of built-in preamps with phantom power, limiters and highpass filters. The preamps offer frequency response linearity while maintaining low distortion and noise. It also has 2-channel, balanced mic/line level outputs on TA3 connectors, AES3 (XLR) or AES3id (unbalanced AES on BNC) digital inputs and AES3id outputs. The 744T records uncompressed PCM audio as WAV files, and is Broadcast Wave compliant. The 744T records uncompressed PCM or compressed MP3 audio to its internal hard drive, a Compact Flash card and an external FireWire drive, allowing for flexibility to complement the required workflow. It can be connected to Mac OS or Windows computers with FireWire 400 for high-speed data transfer



#### **Tascam DR-40**

The Tascam DR-40 ([tascam.com](http://tascam.com)) handheld 4-track recorder uses built-in condenser microphones, XLR mic or line inputs. The internal mics are adjustable from X/Y to A/B position, helping you to tailor your recording to the sound of the room. It also has a pair of Tascam microphone preamps for condenser microphones with phantom power, recording at up to 96kHz/24-bit resolution.



#### **Yamaha Pocketrak W24**

The Yamaha Pocketrak W24 ([usa.yamaha.com](http://usa.yamaha.com)) provides Linear PCM and MP3 stereo recording, is bundled with Cubase AI5, and also features a large dual (X-Y) microphone assembly for outstanding stereo sound quality at 24-bit/96kHz and a supplied wireless remote control. The W24 records to microSD/microSDHC cards (2 GB).



#### **Zaxcom Maxx**

The Zaxcom Maxx ([zaxcom.com/maxx](http://zaxcom.com/maxx)) is an audio mixer, RF transmitter, recorder, timecode reader/generator and visual timecode slate in one small package. Maxx has four full-size XLR analog mic/line level inputs with 48-volt phantom power that incorporate the Zaxcom Nomad's mic preamps with NeverClip, which prevents input clipping by using two A/D converters for each input channel providing enhanced dynamic range, and allowing an input to exceed 0 dB full scale by 20 dB. The four input channels can be mixed to a two-channel output bus over two sets of output connectors that can be individually configured as line, mic and consumer output levels.



#### **Zoom H4n**

The Zoom H4n ([samsontech.com](http://samsontech.com)) records up to 24-bit/96-kHz linear PCM WAV files, as well as MP3, to compact SD or high-capacity SDHC memory cards of up to 32 GB. The H4n has a high-quality preamp and uses on-board X/Y stereo condenser mics that allow for variable recording patterns at either 90 or 120 degrees. It also has a built-in M/S stereo decoder, an automatic level setting function, adjustable playback speed, MTR mode for simultaneous 2-track recording and 4-track playback, a low-cut filter, compressors, limiters, built-in combination XLR/Phone connectors with phantom voltage source capability, Hi-Z inputs, and a separate external mic input.