described.
To address these concerns and create a lower on-camera profile for the microphone, Holophone now offers the H-4 Multi-Cable to reduce the height of the H4 SuperMINI by six inches. The original version remains available as well.

The Holophone H4 SuperMINI 5.1 surround sound microphone provides optimum 360-degree pickup according to the company.

With the H4 Multi-Cable, the microphone and encoder can be separated, with the microphone head connecting directly to the camera through a cold shoe connector, and the H4 encoder attached to the side of the camera or worn as a belt pack. A three-foot or optional five-foot cable connects the microphone head to the encoder.

WIRELESS WORLD
While camera-mounted microphones are typically connected via cable to the camera, handheld and lavaliere mics, while also capable of being cabled, are now more often connected via wireless.

Wireless transmitters, in general, can take one of three main forms—built into the body of a handheld mic, an external bodypack often used with lavaliers, or as a plug-on to the XLR connector of just about any kind of mic.

Lectrosonics has teamed up with Holi Sound to produce its first dynamic wireless handheld, the UTPR20. Complementing the existing Lectrosonics UT-series of wireless condenser, the new UTPR20 incorporates the Holi Sound R20 dynamic microphone element with a Lectrosonics digital hybrid transmitter.

The new UTPR handheld microphone from Lectrosonics incorporates the Holi Sound R20 dynamic capsule.

Lectrosonics also provides the UH4004 digital hybrid UHF plug-on transmitter that connects to any microphone with an XLR connector. With the plug-in, “you can turn any mic into a transmitter,” Winkler said.

All the new Lectrosonics products employ the company's digital hybrid technology, which encodes the analog signal in a proprietary way using DSP. The resulting signal is still analog and transmitted over an analog RF link, but it doesn’t require companding. The new products are also compatible with older Lectrosonics wireless systems.

REX, a new analog wireless microphone system from Teleco in Burnsville, Minn., offers a choice of microphones from sister company Electro-Voice. (Teleco and Electro-Voice are both part of Bosch Communications).

The REX-2 from Electro-Voice is a microphone made of makelite material and is secured around one ear. The REX-2 has the same mic capsule as the REX-I, but is made of more rigid material and fits over both of the wearer’s ears.

The REX-4 handheld transmitter/mic is “virtually the same size as the wired versions of the mics to make the artist feel more comfortable and to minimize visual obstruction during performance,” said Tony Price, vice president of sales, world-wide, for Electro-Voice and Teleco.

As in most wireless systems, different mics from different manufacturers can also be used with the system.

Sony recently introduced the battery-powered ECM 957PRO stereo microphone with a swivel capsule. One of the popular applications for the ECM 957PRO is to use it for newsgathering with an external mic with our portable audio recorders,” Komanduri said.

Now for Sony in the wireless realm is its new digital wireless system which includes the DWT-B01 bodypack transmitter, DWR-S01 dual channel diversity receiver and DWA-01D digital wireless adapter.

“Compared with analog wireless the new digital wireless system does not have to implement companding,” Komanduri said. “Comparisons are prone to reducing the overall audio quality and adding artifacts.”

Zaxcom’s digital wireless system can transmit two channels of audio on a single RF carrier. Designed more to be connected to an audio mixer than the microphones directly, the TRX900 transmitter includes a backup recorder.

“If there is any problem with the transmission, you have a backup recording or a transcription of what went to the receiver,” said Glen Sanders, president of Zaxcom in Pompton Plains, N.J. The receiver model is the ZVR000.

The 1200 series, a new wireless system from Azden, uses DTV compatible frequency bands, according to Wayne Alonso, vice president of sales in Azden in Tuckahoe Square, N.Y. Some of the microphone choices for the system include the Azden EX-503 lapel mic, or the Sony ECM-44 lavaliere.

DPA has a new miniature cardioid lavaliere, the 4008, designed for field conditions and equipped with necessary adapters to work with a variety of wireless systems. The mic can also be used hard-wired.

TRIED AND TRUE
Even with all the new microphones, there are those tried and true models that have become standards in any news road case, and are used with either wired or wireless systems.

The Electro-Voice 635, RE50, and RE18 are at least 40 years old or older. “These haven’t diminished in popularity,” Price said. “At every trade show we hear different stories of what these mics have gone through, and still keep working.” That includes fires and floods, accidentally left dangling out a car door while being driven 20 miles down the freeway, and even fighting off a would-be attacker in Nicaragua.

Sony’s new digital wireless system includes the DWT-B01 bodypack transmitter, DWR-S01 dual channel diversity receiver and DWA-01D digital wireless adapter.

A different kind of handheld mic is the HHB DRM85, also known as FlashMic. This mic uses a condenser capsule that is proprietary to Sony, and available in cardioid or omni polar patterns. But FlashMic doesn’t have an XLR connector, or audio output except a headphone output. Rather it contains an internal 1 GB flash recorder, developed by HHB, that can store three hours of uncompressed digital audio sampled at 48 kHz and around 18 hours of compressed digital audio sampled at 32 kHz.

A USB cable is used to connect the output of the Flash recorder to a Mac or PC.

Last year HHB added a line input to FlashMic so that it could connect to a microphone box for feed needs. For this use, the mic element is muted.

In another newsgathering application, the FlashMic is used by reporters to “do voice-overs after the filming of a news scene,” said Dawn Birt, product manager for Sony Professional Products and HHB USA. “They use FlashMic in the edit room, or on location, whatever the situation calls for and the editors can be done in the truck, if a laptop is handy, and also e-mailed for editing.”
All The News That's Fit to be Heard
News crews demand smaller, wireless mics for next-gen cameras

by Mary C. Gruszka

NEW YORK —

The proliferation of mini handheld cameras for both established professional and burgeoning amateur newsgathering has led manufacturers to develop microphones geared for the smaller size and weight, with price and performance compatible with the camera.

New mics in this category range from shotguns to lavs and handhelds.

WHAT'S YOUR SMALLEST?
The new Sennheiser MKE400 miniature camera mount shotgun mic is a consumer type of mic for smaller camcorders, said Scott Houston, associate product manager for professional products at Sennheiser USA.

"It mounts on the camera’s microphone and plugs into the camera’s external mic input." The mic uses a mini-plug, and a mini-to-XLR adapter is available.

The increasing popularity of everything mini in the mic world is a common theme among news crews, according to Karl Winkler, director of business development at Lectrosonics, a developer of professional audio equipment in Rio Rancho, N.M.

"At NAB every year, people ask what’s your smallest receiver?" Winkler said. "That’s their primary criteria. [At the same time], people expect features, and want the receivers to be intuitive, functional, easy-to-use. [We put in] a lot of design prowess to make it happen."

"To address this demand for wireless microphones, even for small cameras, Lectrosonics offers its new SR digital hybrid receiver, which is the size of a couple of decks of cards."

Of course, there are microphones available for all types of portable cameras. Last year, Sony introduced the ECM-605S, a stereo shotgun mic that can also be switched to mono. This mic joins the mono shotguns in the Sony lineup, including the ECM-673, ECM-674, and ECM-678.

"We have shotgun mics with appropriate price points and functionality designed to complement the cameras they will be used with," said Karl Kussmaul, professional audio product manager at Sony.

At IBC 2007, DPA Microphones launched the 4017 shotgun mic, designed to handle high sound pressure levels, according to the company. Another key feature of the mic is its weight, only 71 grams.

"If you’ve ever tried holding a mic boom for more than 10 minutes, your arms will appreciate the low weight of the 4017," said Poul Kosta sales and marketing director for DPA.

Sennheiser offers its ME66-K6 shotgun, which continues to be the company’s “backbone mic, especially for ENG use,” according to Houston.

If one or two-channels of audio pickup aren’t enough, then there’s the Holophone H4 SuperMINI 5.1 surround-sound microphone, which several news organizations are test driving for ENG, according to Holophone CEO Jonathan Godfrey, chief executive officer for Holophone in Toronto.

In its original form, the H4 SuperMINI consists of an egg-shaped microphone assembly mounted on a six-inch high electronics module (encoder, preamp, and monitor) which in turn gets mounted on top of a camera. While this provides optimum 360-degree pickup, Godfrey said that some camera operators felt this produced a higher microphone profile than

Word
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Church officials say it not only improved duplication and broadcast efficiencies, it greatly improved the worship experience for the church’s members. The use of new monitoring technologies created a facility where there isn’t a bad seat in the house. It even provides viewing throughout the facility in order to keep people in touch with the service in the sanctuary.

"Through the utilization of two 22-foot 16-9 Draper rear projection screens located directly over our pulpit, every seat in the sanctuary is a great seat in terms of viewing," Pastor Jenkins said. "Other technologies make it easy and efficient to show our congregation scriptural references, lower third graphics, lyrics for praise and worship, PowerPoint presentations and much more."

Pastor Jenkins recommends to other faith-based broadcasters to make sure they have the personnel in place to operate the particular technologies they select.

"Don’t go with the latest technology with all of the accompanying bells and whistles just because they are on the market," he said. His comments on future expansion will ring true with any broadcaster; "while in the construction phase of a project, put in the infrastructure for what you plan on implementing in the future."

Understanding the costs of broadcasting is crucial, religious broadcasters need to understand the demographics and most efficient means of reaching their target audience, Pastor Jenkins said.

"For some churches it could be either radio or television. For others the Internet, podcasting, or traditional CD and DVDs may be the best way of reaching the masses of people worldwide," Pastor Jenkins said. The bottom line is “making sure you have the budget in place to underwrite the expense of this effort.”