

User Report:

**AEQ's PHOENIX MOBILE TESTED BY
ONDA REGIONAL RADIO, MURCIA, SPAIN**

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For many years, we at Onda Regional Radio (www.orm.es) have placed our trust and confidence in AEQ's ISDN equipment for our remote broadcasts. (We normally do at least 30% of our programming from remote locations each day). AEQ recently provided us with a new remote audio codec device to try out - the PHOENIX MOBILE. With a great deal of anticipation, we put the PHOENIX to the test as soon as it arrived.

We really appreciate the fact that PHOENIX's design follows suit with other outstanding equipment made by AEQ - great stability, ease of use, variety of features, and user friendly characteristics.



***"The Gyroplane" Remote – Personalities Marta Ferrero (L) and Carmen Maria Conesa (R)
(PHOENIX MOBILE shown in foreground)***

Stability: We had the PHOENIX connected continuously for several days without experiencing a single problem. It reliably maintained its connection throughout our testing – on both stable communications lines, and others that were not as stable. Nor did it produce any functional or operational errors during the test periods. The audio quality via IP connections was phenomenal. When used via a conventional POTS telephone line, the audio quality varied depending on the quality of the telephone line. But regardless, it was consistently better than the audio we could get using ISDN equipment in G722. We tested the units at several locations. It remained stable, with no broadcast interruptions what so ever. Being able to work from any location in the world where we have a POTS telephone line available is very important. It also gives us a lot of independence since we don't have to contract with the telephone company(s) for any additional service.

Ease Of Use: The bright, clear, color LCD screen, along with a variety of direct access keys distributed over the surface of the codec, enabled us to make adjustments quickly and to very easily display the status of several parameters of the device. We should also stress how quickly a user can easily control the basic functionality of the unit.

Features: PHOENIX has a comprehensive list of audio coding modes available, some of which are very low latency, and others which provide high quality modes in MP3 and MP2 formats. Additionally, we really liked the internal routing mixer. It gives the PHOENIX a great deal of flexibility when configuring inputs, outputs, and monitoring the equipment.

Characteristics: Some additional features we really liked were the logical layout and quality of the keys on its surface, its large clear screen, and the translucent hinged cover which protects the control surface from accidental dialing (which could cause a connection to be interrupted or alteration of the equipment's configuration). At the back of the unit are two slots for optional communications modules (which we found to be very interesting for future applications), an internal battery, and balanced XLR and TLS connectors on the front of the unit. It is worth pointing out that remote transmissions are typically subject to delays, sometimes in excess of 50 milliseconds. The PHOENIX very aptly provided the right mix in the headsets (RX + TX) to enabling users to work comfortably.

Communications: The unit we tested had built-in IP, as well as an optional module for use with a POTS line. We understand that in the near future AEQ will also make a module which will allow the PHOENIX to operate via mobile telephony; an indispensable feature in our very mobile-centric world. PHOENIX also has an optional battery pack which enables it to operate independently when AC power is not available. While cellular telephony provides us with major advantages regarding where remotes can be done, it can sometimes be problematic due to limited coverage or network saturation. A very interesting service offered by AEQ is a free, high-availability, SIP server which the company provides to its customers for use when making connections over IP.

Practical Application: After using the PHOENIX for only a few days, we became confident in its use and operation and we decided to put it to the test in a "real-world" situation. Its performance did not disappoint us. We tested its use in several different scenarios. The first involved using an IP connection during a political event. We should point out that this news event is probably our most important remote of the year. It was with that in mind that we took along the PHOENIX to cover the event. We connected the PHOENIX to an Ethernet switch where it shared an Internet connection with five PCs, all of which were transferring data to and from remote servers as well as sending and receiving e-mail. The PHOENIX and computer network traffic shared the connection over two, 11 hour work days without a single hitch or interruption to the remote broadcast. While PHOENIX can be used in conjunction with a SIP server, it also has the option of making a point-to-point connection

over IP without going through a SIP server. And the process is practically as simple as making a phone call. The remote audio was broadcast at the highest quality offered by the codec, and we were quite satisfied with it.

Another test scenario we subjected it to was at the opposite end of the spectrum. We used a POTS connection, and left the PHOENIX unattended (no operator present). We took advantage of its automatic off-hook feature, and linked it with a mobile unit receiver. The mobile transmitter unit broadcast the audio to the mobile receiver. The receiver's audio was then input to the PHOENIX. PHOENIX then sent the coded audio via a POTS line back to the main studio. PHOENIX did its job admirably, transferring the audio with the highest quality afforded by the telephone line, and without any interruption or degradation of quality.

Summary: We feel that AEO's PHOENIX MOBILE Audio Codec is a very practical and necessary solution for any venue where dependable communications and transfer of high quality audio is essential. Its performance is consistent with, or better than, typical ISDN and G722 broadcasts. Additionally, it allowed us to take advantage of using existing conventional telephone lines where remotes are typically done. In addition, we saved the cost of installing a telephone line, which in Spain amounts to about €200 (~ \$320). It allows us to use the GSM mobile telephony system (being able to transmit quality audio for the same cost as a normal voice call), or an IP connection at no additional cost. AEO's PHOENIX MOBILE could very well become the industry standard for broadcasting events at remote locations - both indoors (pavilions, buildings, etc.) and outdoors (highways, streets, squares, etc.). Those of us who work in the Technical Department at Onda Regional de Murcia feel that AEO has made a very wise decision by launching this new device. We strongly recommend that you try the PHOENIX MOBILE for yourself. The way you do remote broadcasts will change completely. This codec will give you freedom to work, high quality sound, and the added benefit of cost savings - a combination that we technicians have always wished for.

Signed: TECHNICAL DEPARTMENT, ONDA REGIONAL DE MURCIA