

Reference grade monitors
don't have to cost more than
a new car.

CM250
OLED
only \$6,495



FSI Flanders Scientific Inc.
www.ShopFSI.com

Your 4K Questions Answered

Saving Time and Money in Audio Post

Help

Search Coalition Sites



Home News Experts Topics Vendors Events Webinars

sign up for newsletter

Home > Experts > Allan Tépper > Handheld Vocal Microphones: A Trend Towards Condenser Electret?

<< [Back To Listings](#)

Like Sign Up to see what your friends like.

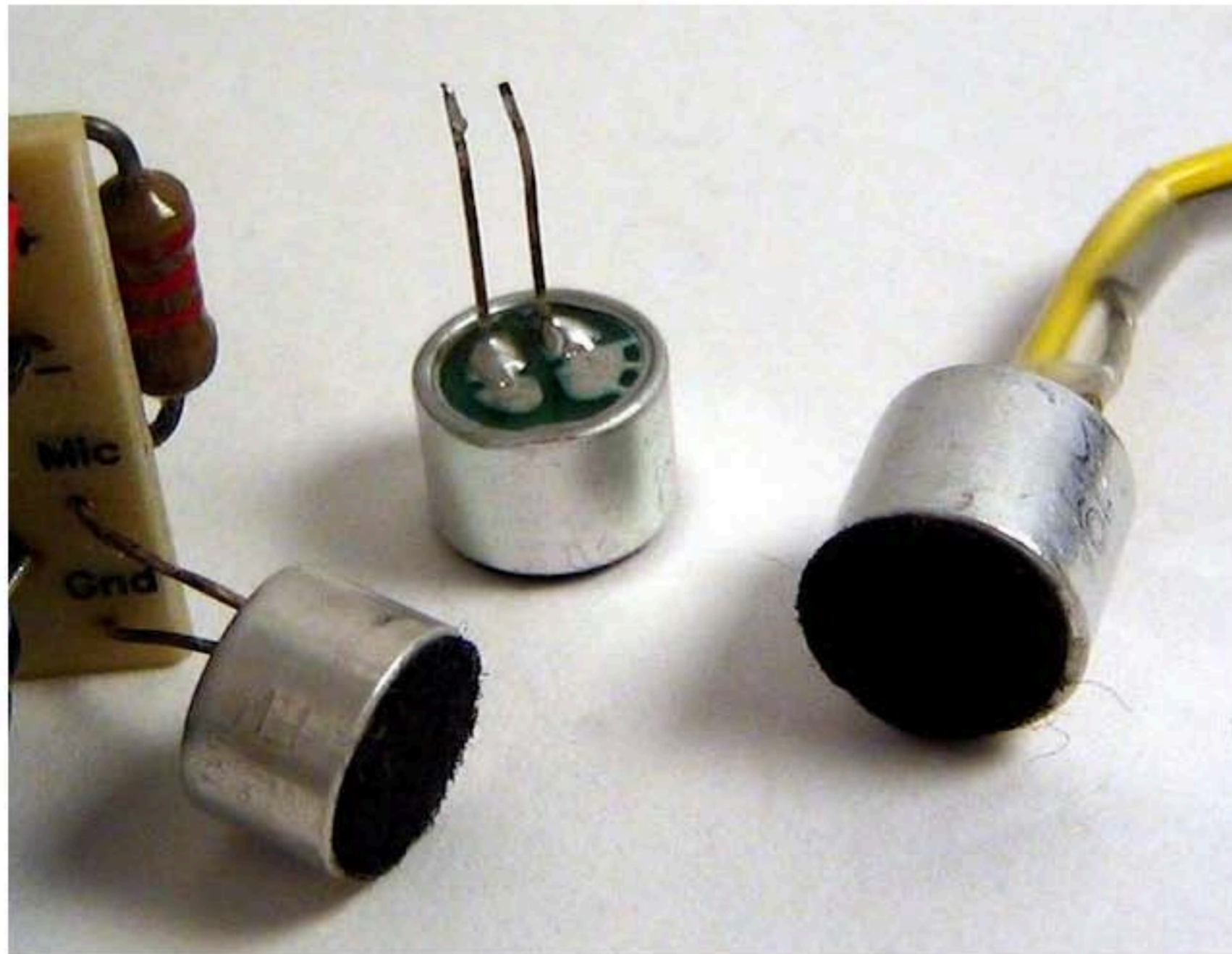
Tweet 3



Handheld vocal microphones: a trend towards condenser electret?

Have an open mind to condenser electret when considering new handheld interview microphones, together with traditional dynamics.

By [Allan Tépper](#) | August 04, 2014



With new handheld vocal microphones I am currently testing for reviews, there is a new trend toward *condenser electret*, which challenges the long established thinking. In traditional ENG (Electronic News Gathering), for decades there has been a preference for *dynamic* handheld interview mics. One of the reasons for that is because dynamics are generally much more durable. However, several factors are changing, so we must have an open mind when evaluating.

Ever dream of FLYING?

DSLR Pros

Most read articles by TecnoTur

- ▶ [UltraStudio Mini Monitor works with DaVinci Resolve, but should you use it for serious grading?](#)
- ▶ [Sony KDL-40BX420E: a low cost monitor for 1080p video editing at worldwide framerates](#)
- ▶ [Mac Mini for pro video editing: a field report from Guatemala](#)
- ▶ [Review: iRig Pre XLR mic preamp for iPad/iPhone/iPod Touch](#)
- ▶ [11 things I love about Vimeo Pro](#)

Tweets

Follow



Fotodigital-online @fotodig 4h
4K Monitors Under \$850 by Jose Antunes
[#provideo](http://provideocoalition.com/jantunes/story) via @provideo

Retweeted by ProVideo

Expand



ProVideo @ProVideo 3h
4K Monitors Under \$850
bit.ly/1rOctTr

Some microphones I am testing

I am currently testing several microphones for review, of which at least three are handheld and marketed for field interviewing and/or singing, and two of those are electret condenser, not dynamic, which is very surprising for me. I am not going to list all of the makes or models here in this article due to embargos that will be lifted soon. (I am also currently testing one stereo microphone which is not handheld on its own.)

Some industry-standard handheld *dynamic* microphones used in ENG for decades



↑ The RE-50/B from Electro-Voice and the RE50N/D-5 higher output version are one of the most popular handheld interview mics for ENG in the United States.

The most popular handheld *dynamic* microphones that have been used already for decades in ENG include the:

- [Electro-Voice 635A](#), together with the higher output neodymium 635N/D version, and the two respective black versions which end with the letter B: 635A/B and the [635N/D-B](#)
- [Electro-Voice RE50/B](#) and its higher output neodymium [RE50N/D-B](#) version (both with internal shock absorber)
- [Shure BETA58A](#)
- [Shure SM58](#)

Newcomer handheld vocal mics



↑ The AT2005USB hybrid dynamic mic from Audio Technica is one that I have covered in several articles and ebooks.

Here are some newcomer handheld vocal mics, both dynamic and condenser electret, in the form of the:

- [Audio Technica AT2005USB](#) hybrid dynamic mic (which I have reviewed and covered in several articles and ebooks in two languages). It is *hybrid* since it is both digital (USB and iOS) and analog (XLR balanced).
- A particular microphone that I can't mention at publication time of this article, due to its current embargo. Stand by.
- [MXL MM130](#) analog condenser electret mic (which I am evaluating and will publish a review soon), made specifically for exclusive use with smartphones and tablets, via a TRRS unbalanced connection.
- [RØDE Reporter](#) (which I am evaluating and will publish a review soon). The RØDE Reporter is quite longer than the other models mentioned in this article, and is balanced analog XLR only (as it comes), as are all of the mics listed in the upper group of microphones listed above.

Tweet to @ProVideo

Find us on Facebook



ProVideo Coalition



Compose your epic
with Media Composer®

Hollywood-proven. Indie-priced.

Subscribe for \$49.99/month

iO4K
THUNDERBOLT.

4K and HD I/O for
Thunderbolt™ 2



Thunderbolt 2
daisy-chaining



AJA
VIDEO SYSTEMS

Blackmagicdesign



Blackmagic
Cinema Camera

High resolution
2.5K sensor

13 stops of super wide
dynamic range

Capacitive LCD
touchscreen with
Metadata entry

EF Lens Mount

Includes DaVinci
Resolve software

Available Now
\$1.995

The question I asked MXL, and the response



↑ The MM130 from MXL (shown above connected to an iPad inside an [iOgrapher](#)) is one of several handheld vocal microphones I'll be covering from several brands. The MM130 has an analog output and includes a cable that terminates in unbalanced 3.5 mm TRRS plug for direct connection to smartphones and tablets, via their analog input. The MM130's included cable also features a 3.5 mm stereo female connector to connect monitoring headphones.

I asked MXL the following question about their MM130 handheld electret condenser microphone, knowing that other mics available from the same company exist both as condenser or as dynamic:

- **Tépper:** Since the MM130 is a condenser microphone (and condenser microphones are generally considered to be less durable than dynamic microphones, especially for field use), does MXL consider the MM130 to be more fragile than the handheld dynamic mics? Some of the classic dynamic handheld mics that have been on the market for decades have the fame of being able to be used to hammer a nail and not affect their performance. That is really too much to ask, but I would like to know MXL's opinion about undesired drops of the microphone. However, I don't want to perform either test myself (hammering or dropping), so I am asking for the manufacturer's own statement to publish.

Here is the response I received from MXL:



DaVinci Resolve Mac

Full DaVinci now on Mac OS X

Realtime GPU based design

Powerful node based correction

32 bit float YRGB processing

Automatic 3D object tracker

From \$995



Edit in
Premiere Pro.
Comp in
After Effects.
Play in
Creative Cloud.

When we decided to make an interview microphone for the mobile market, we had to make a choice. Do we make it bulletproof, or create the best sound possible? We chose sound quality because we felt that the pro users of this product needed the best recording possible. There is definitely a trade-off between durability and sound. We chose sound. However, the capsule is technically an electret, not a (standard) condenser. It is not as delicate as a (standard) condenser. With the solid all metal body it is housed in, it does make the mic relatively strong. We felt that the user is already careful with their equipment, as the phone they are using is much more delicate than the mic.

With the electret mic we chose, we are able to deliver dual pick up patterns, both omni and cardioid. It also has dual gain options. A dynamic mic cannot do this. The electret capsule delivers a clearer sound. The sound advantages of the electret over a dynamic far outweigh the durability issue. We do not suggest using the mic as a hammer. We don't think that the average user is going to do a "Roger Daltry" with the mic. It should survive the occasional, casual drop, since the average distance from the mic to the floor is about three to four feet. Though we cannot guarantee it will survive, we built it with a strong enough body to minimize the damage from the drop.

Perry Goldstein
Director of Sales and Marketing
MXL



Thanks Perry for the response!

My initial conclusion: I will leave the sound quality and other factors up to the individual results of my upcoming reviews, but thanks to that response from MXL, we should all keep an open mind instead of immediately rejecting the idea of an electret condenser mic for handheld field use, as some of us may have done before now.

Photo credit for the Electret condenser microphone capsule photo:

"[Electret condenser microphone capsules](#)". Licensed under [CC BY-SA 3.0](#) via [Wikimedia Commons](#).

Blackmagicdesign



Free Trial

Panasonic

New AJ-PX270
P2 HD Camcorder



AVCULTRA

SOLUTIONS FOR PRO VIDEO

VIDEOGUYS
800-323-2325



EDIUS Pro 7

Adobe Creative Cloud

Media Composer 7



SCREENLIGHT

Bring order
to your review
and approval

30-Day Free Trial

EDITSTOCK

DOWNLOAD
REAL FOOTAGE TO
PRACTICE EDITING

USE COUPON CODE PVC
AND SAVE 10% ON
YOUR ORDER

iO4K

THUNDERBOLT.

4K and HD I/O for

SONY
make.believe

gorgeous,
super-sampled
HD

Upcoming articles, reviews, and books

Stand by for upcoming articles, reviews, and books. [Sign up to my free mailing list by clicking here.](#)

Si deseas suscribirte a mi lista en castellano, [visita aquí](#). Si prefieres, puedes suscribirte a ambas listas (castellano e inglés).

My latest book (paperback + ebook)

My most recent book is available in two languages, and in paperback as well as an ebook. The ebook format is Kindle, but even if you don't have a Kindle device, you can read Kindle books on many other devices using a free Kindle app. That includes iPad, Android tablets, Mac computers, and Windows computers. Although generally speaking, Kindle books are readable on smartphones like Androids and iPhones, I don't recommend it for this particular book since it contains both color photos and color comparison charts. The ebook is also DRM-free.

Thunderbolt™ 2



Visit us at NAB,