

ETA ENTERTAINMENT
TECHNOLOGY
ASIA

For The Technical And Production Professionals

J
U
L
Y
2
0
1
8

TDC Shines at ViVid Sydney 2018



KNOWLEDGE HUB



Data Sheets and Other
Fairytals

ON THE JOB: Gearhouse Broadcast with Shure Axient Digital and Clear-Com

CASE STUDY: Astro Spatial Audio at Tommy's World New Production

www.e-techasia.com

IT'S THE **PERFORMANCE** THAT MATTERS.

ULTRA-COMPACT SIZE

LOW WEIGHT OF ONLY 8 KG

BUILT-IN AMPLIFICATION & DSP



M-F3A

A masterpiece of sophisticated German engineering

M-F3A is an ultra-compact active line array system offering crystal-clear sound reproduction with extremely low tonal coloration and studio quality highs due to its hornless design.



The unique PA sound is achieved by incorporating eight high-efficiency 2.8" neodymium mid-frequency drivers and 7 pieces of 1" direct radiation dome tweeters into each unit.

All drivers are mounted on an A4 paper-sized front surface in a cabinet weighing only 8 kg including the rigging, 400W class-D amplification and DSP.



www.se-audiotechnik.com

s|||e[®]
AUDIOTECHNIK

Also available in
WHITE

CONTACT ASIA PACIFIC

Alex Schloesser
alex.schloesser@se-audiotechnik.com



THE ALEX SCHLOESSER COLUMN

Data Sheets and Other Fairytales



I want to try something different for this issue's column. As I have mentioned before, I find myself spending a lot of time these days on checking and verifying performance data for gear. I have recognized that I need to do this much more often than in the past. This is not about the good old days (which never really were that good anyway), but a lot of Companies in Pro Audio have learned to use the Data Sheets for marketing

purposes and to many sales people the messaging is equal to: You can say what you want, and never need to proof what you claim.

I do see a need for staying vigilant, so that we all can be on top of this and not fall victim to some silly claims, that have no meaning in the real world. For reference, I will use one example and I would like to encourage you all to go about those matters rather critical in the future. Let's look at some of the active Loudspeaker models out there right now. The availability of cheaper amplification allows active systems (systems with DSP and Amplification on board) to be much more affordable. Allow me one example here.

Let's consider a 12" Woofer, 1" Compression driver active P.A. speaker box with a claimed maximum SPL of 136 dB. I will not name any brand or model, but check around and you will easily find a few who claim to be right there in this ballpark. Now let's debunk this statement together. For the sake of the argument I will consider that this loudspeaker has a very decent woofer and also a high-quality compression driver and that the Amplifier will deliver all the power, that it is promising. This alone is already more than what I have seen in most cases.

If you use the best and most powerful available drivers available right now, you will get to individual max SPL of around 132 in the LF and about 131 in the HF theoretically, so not so far off the claimed 136 dB. However, the calculated max SPL above is only happening in an idealized and calculated environment and also not in broad band response. The woofer in a wooden cabinet will perform different and it will have to pay a SPL price because of cabinet volume and port compression and maximum excursion of the cone. Realistically (trust me I have done the numbers), this cabinet will do maximum of around 120 dB SPL down to 50 Hz.

When you look at the technical specifications and if the manufacturer is decent enough to release this data for your review, you will find that this system could either a. "Theoretically" do that max SPL and what good has a "theoretical" max SPL ever done for you? This also includes the recently more often seen phrase "Calculated maximum SPL" and I have no idea who has come up with that useless and stupid performance specification.

The b. option would be that the cabinet would produce this kind of SPL at a very specific frequency over a extremely short period of time (before going up in flames). I hope that I don't need to go into detail about the lack of good that this is going to do for you in your relationship with your client and the performer. I want to be able to use and read data sheets, so that I can use this data for my simulations and for planning of projects. If data sheets are no longer trustworthy, then my job will get much more complicated. Please don't go out and support or repeat those silly and stupid statements, there are no "alternative facts"

I do see a need for staying vigilant, so that we all can be on top of this and not fall victim to some silly claims, that have no meaning in the real world.

Alex will be offering some Systems Tuning Worskhop around Asia and if you are interested to participate in one please email Alex on dates and location. Alex is reachable at alex@asaudio.de