



The

Broadcasters' Desktop Resource

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... edited by Barry Mishkind – the Eclectic Engineer

Checking it Out

The DASDEC-II EAS Encoder/Decoder



By Kevin Raper

[November 2010] With the FCC imposed “180-day Clock” now running, stations are starting to give strong attention to the new CAP-enabled EAS boxes. A few manufacturers have already brought out new products, although until the Part 11 re-write, feature-sets cannot be completely firmed up – the promise from the manufacturers is a free upgrade after Part 11 is finished. Kevin Raper recently installed one of the new boxes – the DASDEC II – and offers his comments.

When our EAS receiver at WCKI died recently I had to make a very careful choice. With CAP and other enhanced EAS coming soon, I did not want to be stuck with a very expensive "Boat Anchor" in the equipment rack, yet I had to comply with the Rules as they are now.

As a proponent of the KISS Principle (Keep It Simple, Stupid), I thought it might be beneficial to take advantage of the situation to clean up our three receivers, EAS, computer, monitor, printer, and audio switching relay box and replace it all with a one-box solution.

The solution I chose was the DASRADR package from Digital Alert Systems – a DASDEC-II Radio Encoder/Decoder with the DAS3RAD radio package, including three integrated, browser-tuned AM/FM/NOAA receivers. Digital Alert Systems is better known on the TV side, but they are making a definite effort to bring this product to the radio industry.

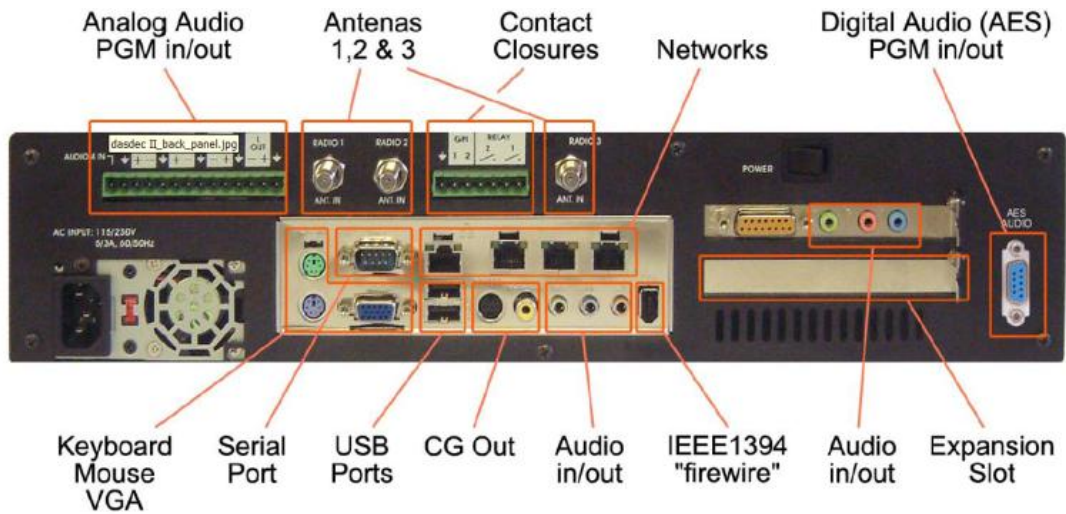


The DASDEC II

UNPACKING AND INSTALLING

When the DASDEC II came in, it was packed very well. Emptying the box, the first thing I noticed was the no-paper owner's manual - it had only had a print out of the Quick Setup Guide – the rest was all contained in pdf files on a CDROM.

It only took a few minutes to mount it in the rack and wire it up. I plugged the AC power cord into a UPS then plugged in a monitor, keyboard, mouse, Ethernet cable, antenna cables, and the station audio wires and fired it up. That took a whole two minutes, and the system booted right up.



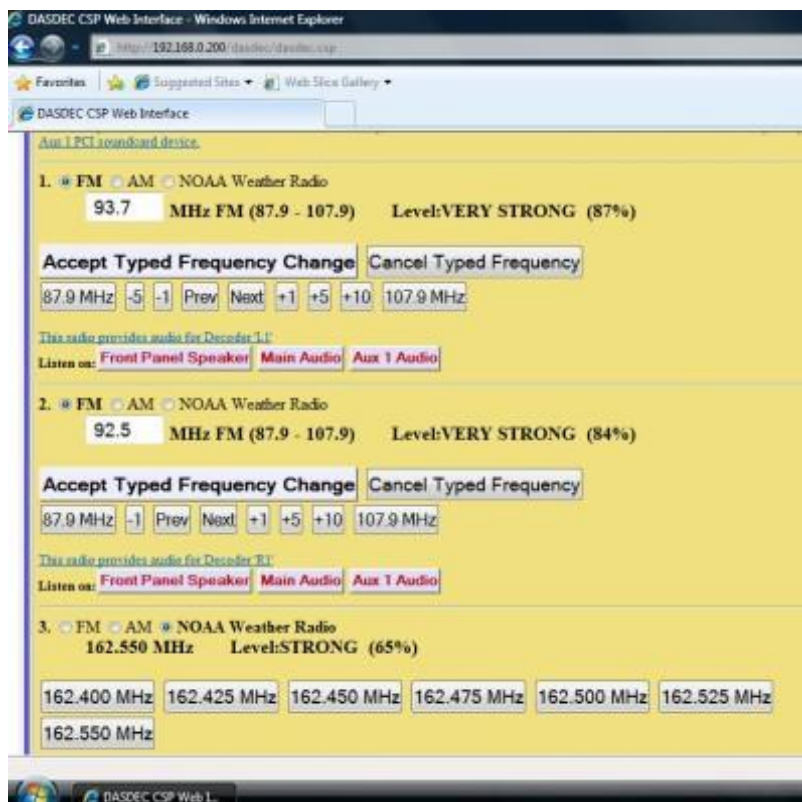
The rear view of the DASDEC II

Since the DASDEC can be controlled via any web browser on the same local network, I was able to retreat and do the set-up from my comfortable office chair, instead of standing in the transmitter room.

SET-UP WAS A SNAP!

Using by the Quick Set-Up guide, it took less than five minutes to completely set up the DASDEC! Try that with any of the older EAS Units.

Setup is just as easy whether you are an LP-1, LP-2, or just an "End-of-the-Line" station like WCKI. It can even be set up to send the Required Weekly Tests completely automatically, including scheduling.



Setting up the receivers is quick and easy

The browser-tuned radios are easy to set up and, if in the future, the FM Band is expanded, access to the additional frequencies is only a software upgrade away. There is no more tuning a radio with a tiny screw driver.

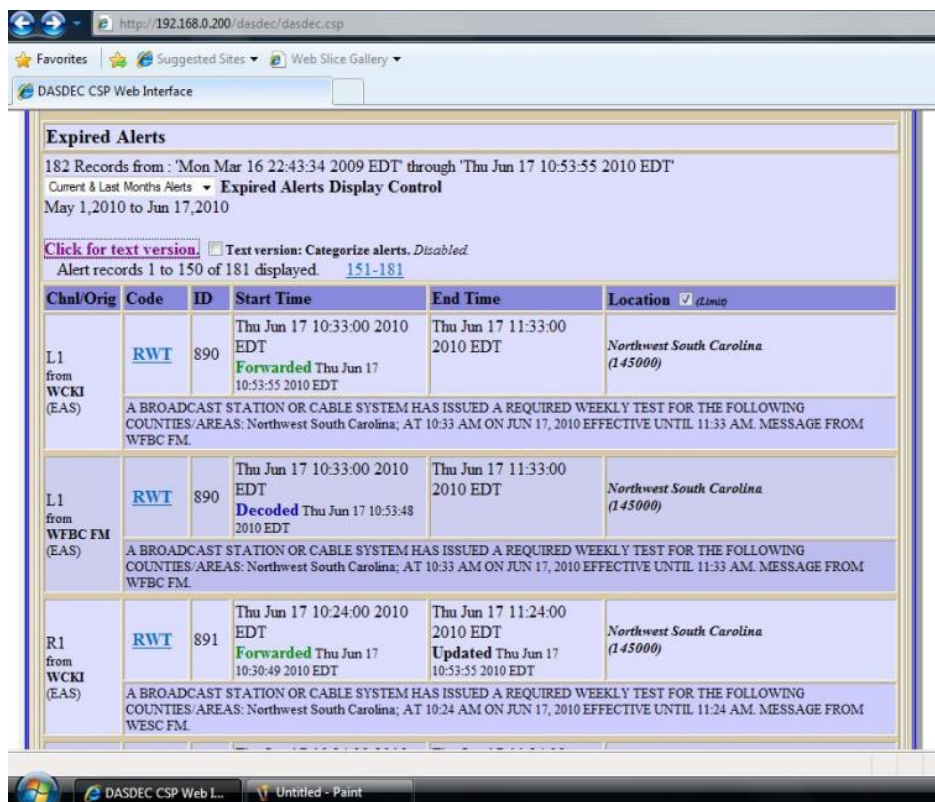
ON LINE

Using the front panel (or an external trigger button) and external router, one DASDEC can control up five stations' program lines.

The DASDEC has plenty of memory – as much as 16 GBs – to store the various files and data that can come in via the CAP protocol. It can store hundreds or thousands of alerts, hundreds of images, several hours of audio or video. Additional storage can be had via the USB port, but for most part, stations will find plenty of storage space without any add-ons.

NO MORE PAPER LOGS!

I also was glad to see the end of the long snakes of thermal printer paper. The DASDEC II will store a year of EAS Logs internally and display them on screen or sent them to a printer as desired – you can print daily, weekly, monthly, whatever you like.



The EAS Log can be reviewed on screen or quickly printed out

If you do have an old-fashioned GM like mine that wants to see a paper log – or for general archival purposes - the DASDEC II will output a text log to your printer. I print my log the first of each month.

```
http://192.168.0.200/dasdec_originated_events/re...
-----
Server: 'DASDEC-1F EAS' @ 192.168.0.200
DASDEC-1EN Alert Report at 'Thu Jun 17 13:54:37 2010 EDT'
From 'Sat May 1 00:00:00 2010 EDT' to 'Fri Jun 18 00:00:00 2010 EDT'
-----
36:   RWT   REQUIRED WEEKLY TEST           'Orig'(DASDEC )   ORG=EAS
      'Mon May 10 10:39:00 2010 EDT' to 'Mon May 10 10:54:00 2010 EDT'
      Originated : 'Mon May 10 10:39:46 2010 EDT'
              Orleans, NY(036073)

809:   RWT   REQUIRED WEEKLY TEST           'R2'( Monroe)   ORG=EAS
      'Mon May 10 10:40:00 2010 EDT' to 'Mon May 10 10:55:00 2010 EDT'
      Decoded : 'Mon May 10 10:40:57 2010 EDT'
              Orleans, NY(036073)

809:   RWT   REQUIRED WEEKLY TEST           'R2'(DASDEC )   ORG=EAS
      'Mon May 10 10:40:00 2010 EDT' to 'Mon May 10 10:55:00 2010 EDT'
      Forwarded : 'Mon May 10 10:43:08 2010 EDT'
              Orleans, NY(036073)

37:   RWT   REQUIRED WEEKLY TEST           'Orig'(WCKI )   ORG=EAS
      'Fri May 14 11:44:00 2010 EDT' to 'Fri May 14 11:59:00 2010 EDT'
      Originated : 'Fri May 14 11:44:51 2010 EDT'
              Greenville, SC(045045)

830:   SVR   SEVERE THUNDERSTORM WARNING   'L2'(KGSP/NWS)  ORG=WXR
      'Fri May 14 20:09:00 2010 EDT' to 'Fri May 14 21:39:00 2010 EDT'
      Decoded : 'Fri May 14 20:09:55 2010 EDT'
              Rutherford, NC(037161)

830:   SVR   SEVERE THUNDERSTORM WARNING   'L2'(WCKI )   ORG=WXR
      'Fri May 14 20:09:00 2010 EDT' to 'Fri May 14 21:39:00 2010 EDT'
      Forwarded : 'Fri May 14 20:11:51 2010 EDT'
              Rutherford, NC(037161)

829:   RWT   REQUIRED WEEKLY TEST           'R1'(WESC FM )  ORG=EAS

Done
http://192.168.0.200...
```

A sample printout of the EAS log

The DASDEC gives format options for the display and printout, such as sorting by type of event, originator, time, etc. Additionally, for archival purposes, you can download the data onto any USB storage device and/or email the EAS logs to any address you choose.

OTHER FEATURES

As mentioned, a lot of flexibility is built into the unit. With FEMA approving the CAP Version 1.2 digital protocols for data messages, the unit can receive text, picture, and video files from emergency management departments that are equipped with the CAP encoders. CAP text output is an inexpensive option but since we are an automated, analog mono AM with no plans for RDS, it was not necessary for us to buy it now.

Via software the DASDEC can be set to notify the user by visual alert or email if no incoming EAS test has been received after seven days. Again, the system can be set for generating the RWT automatically, if it has not been done manually.

In addition to software control, the receiver can accept external inputs to trigger an RWT or hold off a transmitted alert during a stop set or live read. It can also trigger two external closures to trigger a light or anything else controlled by a contract closure - they even can be used to start the coffee machine!

And, since the DASDEC II is 100% software driven, any changes the FCC makes to the EAS is only a software upgrade away. Most such upgrades are capable of being done automatically – and without charge – for at least two years.

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