Digital Alert Systems

Application Note

Using Inovonics Model 677 External Receiver with DASDEC-II/III

Introduction

The Inovonics Model 677 AM/FM/NOAA Triple Tuner incorporates three independent radio tuners, each capable of AM, FM, and WX (NOAA Weather) reception. With primary utility as an off-air monitor receiver for EAS and NOAA emergency broadcasts, the 677 functions as a stable and dependable radio receiver and audio source for connecting to a DASDEC™/One-Net™ that either doesn't have the internal tuner option or may require a more robust tuner for challenging reception cases.

This application note focuses on the wiring between the DASDEC chassis and the Model 677. For further configuration information, including tuning configurations and level settings, please see the respective device manuals.

Overview

The Model 677 is a compact ½ rack design featuring independent, balanced mono analog audio outputs on three male XLR connectors. The front and rear panels are shown in Figure 1 below.

Figure 1. Front and rear of Model 677 Triple Tuner

All DASDEC models feature a 3.5 mm (1/8") tip-ring-sleeve (TRS) mini plug for external dual unbalanced mono audio inputs to two EAS decoders. Since the line-in is a monoaural connection, one TRS mini plug provides the audio of two sources provided from external radios.

This plug should be wired, as shown in Figure 2. The tip and ring use the positive side of the XLR to feed separate EAS decoder channels.

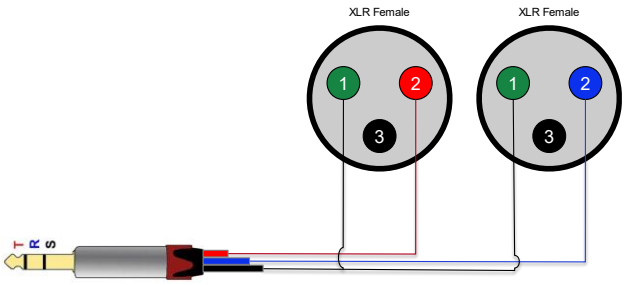

Figure 2. Wiring of 3.5mm "mini" plug for line input from XLR.

- The tip is the left input, the ring is the right input, and the sleeve is a common ground. Each audio input feeds one decoder channel represented in the DASDEC as L(#) and R(#), respectively, where (#) represents the assigned decoder channel numbers 1 through 3. (*Refer to the DASDEC manual for more information*)
- Since this is an unbalanced input, the levels are – 6dB lower than the displayed values of the tuner's front panel and web interfaces.

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- The external inputs to the DASDEC are the blue-colored 3.5 mm plug(s). Refer to the diagrams below for the location of the line inputs.

Figure 3. The rear panel of DASDEC-III Model "EL" – dual monitoring inputs only.

It is important to note that DASDEC-II model LCs and DASDEC-III model DAS3-ELs are dual inputs only and do not have the hardware necessary to support a third or fourth audio input.

The DASDEC-III models DAS3-EX, CX, & GX and all DASDEC-II models DASTV, DASLPTV, DASRAD, DASLPFM, and DAS-LC+ feature four external monitoring inputs, with each pair of inputs on separate connectors, as represented in Figure 4 below.

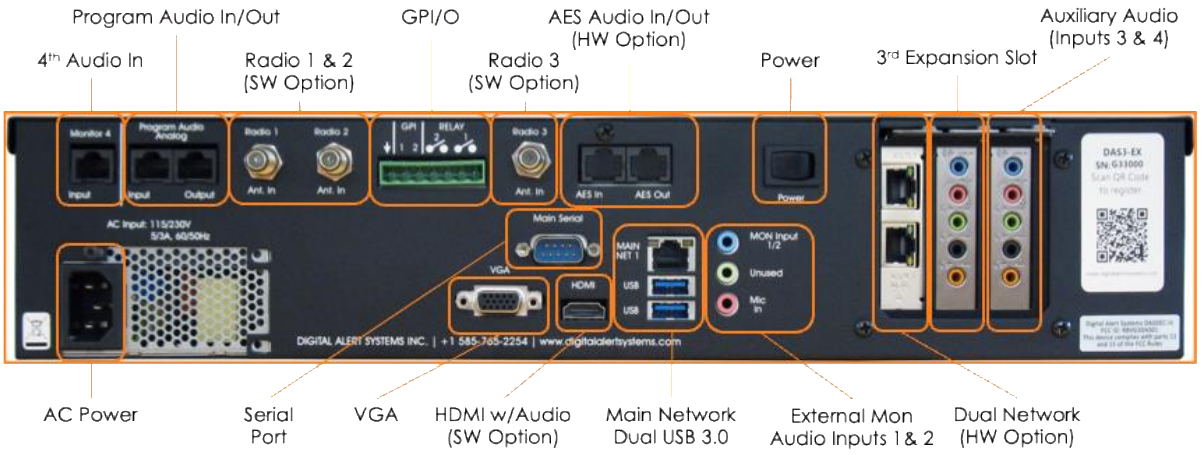

Figure 4. The rear panel of DASDEC-III EX, CX, & GX has four standard inputs; the picture shows the EXP-EAS six-input option installed.

In addition, all four input DASDECs have a Monitor 4 input using either a two-wire connection to the Phoenix connector strip (DASDEC-II) or an RJ-45 plug (DASDEC-III). This allows the device to incorporate a fourth external input and three optional internal tuners. The wiring for this Monitor 4 input on a DASDEC-III is shown in Figure 5.

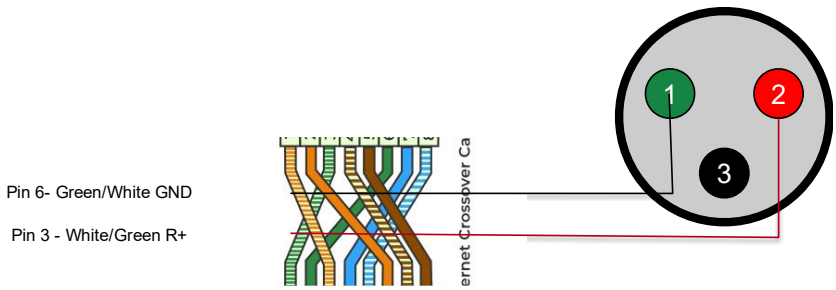

Figure 5. Wiring connection for Monitor 4 input (DAS3-EX/CX/GX)

Depending on the specific DASDEC model, several wiring options are showcased below.

Option 1. DASDEC Model LC or DAS3-EL

Connecting the Model 677 to a DASDEC Model LC or DAS3-EL is a simple connection as shown below.

Figure 6. DAS3-EL showing connections from two external receivers.

NOTES

The DASDEC LC and DAS3-EL are two-input devices, therefore only two of the three receivers are used.

These will be configured in the DASDEC as inputs L1 and R1.

Refer to the operating manual for details on proper menu configurations for each device.

Option 2. DASDEC Model DASTV, DASRAD, DASLC+ or DAS3-EX/CX/GX

Figure 7. DASDEC-III models DAS3-EX/CX/GX showing connections from three external receivers.

NOTES

The DASDEC DASTV, DASRAD, DASLC+ or DAS3-EX/CX/GX are four - input devices, therefore all three of the Model 677's receivers can be used.

These will be configured in the DASDEC as inputs L1, R1 & L2. The R2 input is not used in this configuration.

Refer to the operating manual for details on proper menu configurations for each device.

Option 3. DASDEC Model DASTV, DASRAD, DASLC+ or DAS3-EX/CX/GX

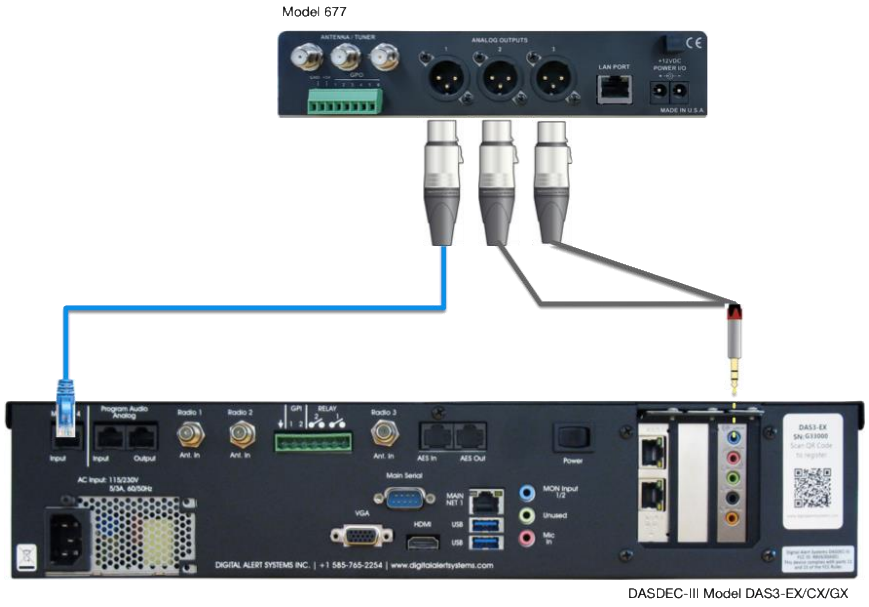

Figure 8. DASDEC-III models DAS3-EX/CX/GX showing connections from three external receivers.

NOTES

This is an alternate to Option 2, using the Monitor 4 input via the XLR-RJ45 cable, and inputs 1 & 2 using the XLR-TRS cable.

These will be configured in the DASDEC as inputs L1, R1 & R2.

The L2 input is not used in this configuration.

Refer to the operating manual for details on proper menu configurations for each device.

Option 4. DASDEC Model DAS3-EXR/CX/GX with EXP-EAS-E Option

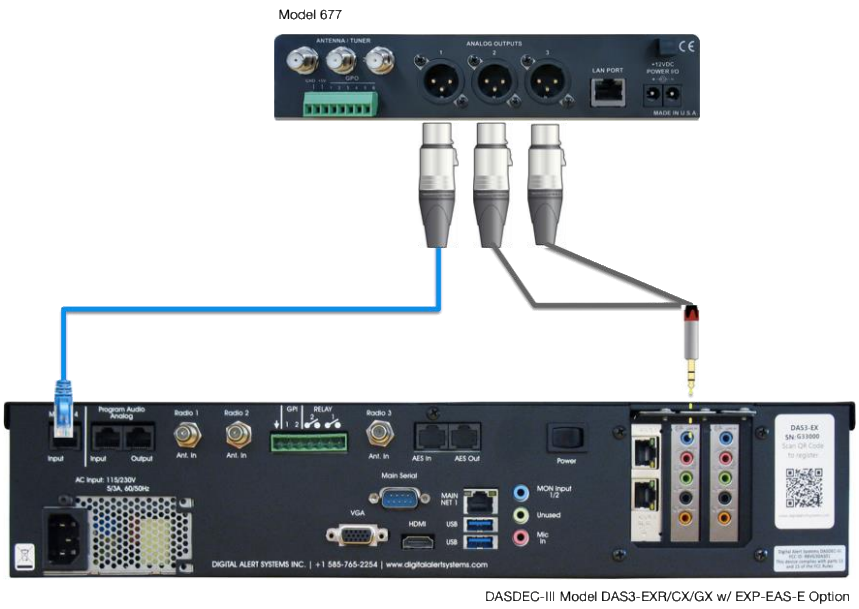

Figure 9. DASDEC-III models DAS3-EXR/CX/GX using internal radios and three external receivers.

NOTES

This is a variation of Option 3, using the internal radios & the Monitor 4 input via the XLR-RJ45 cable, inputs 5 & 6 using the XLR-TRS cable.

Monitor 4 will have the same name. Monitor 5 & 6 will show as inputs R3 Source & L3 Source.

Refer to the operating manual for details on proper menu configurations for each device.

Summary

The DASDEC flexible emergency messaging platform and the Inovonics Model 677 Triple Tuner make a great combination when requirements dictate that a separate tuner and EAS decoder are the best fit.

While several options are outlined above, other configurations that combine the DASDEC's internal and external tuners are possible. Customers are encouraged to check the hardware installation guide and the latest user guide for additional details, or contact support (support@digitalalertsystems.com) for assistance.

For additional information or to get copies of the latest manuals, please visit these sites:

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