



## Tech Talk Application Note #1©

**Application:** Adding RBDS with the Broadcast Devices, Inc. CDS-300/302 switcher/DA's

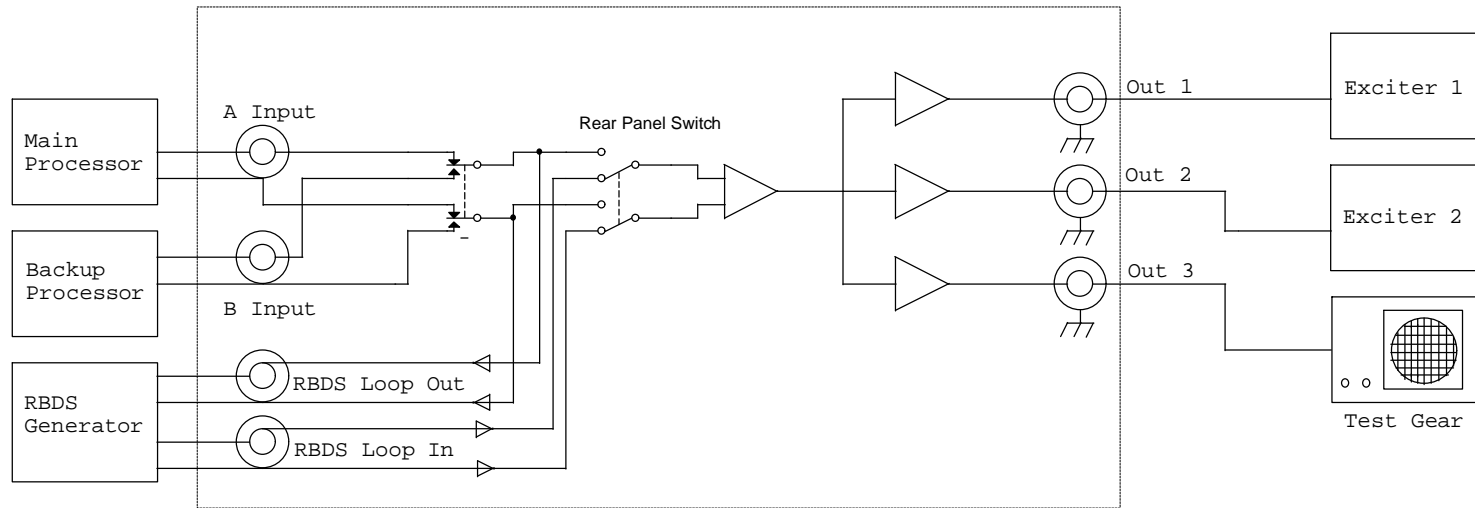
**Benefits:** Reduction in cost by eliminating the need for a second RBDS generator. The RBDS generator is locked to the incoming pilot. One less input to the exciter is used allowing for application of 67 and 92 KHz sub carriers to an analog exciter. Many older exciters only have provision for one composite and two sub carrier inputs. By use of method described in this application note, an older but serviceable exciter can be used which reduces costs. Allows main and back up processor containing the RBDS signal to be fed to either exciter for better redundancy.

This application note describes how to use the CDS series composite audio switcher/DA's to for RBDS generator applications. By use of the CDS-300 or CDS-302, a station can utilize one RBDS generator to apply an RBDS sub carrier to main and standby exciters simultaneously.

Refer to the accompanying block and connection diagrams for this discussion. Main and backup audio processing chains are routed to the A and B inputs of the CDS-300/302. Next, the rear panel RBDS loop through switch is moved to the "IN" position. This allows the selected composite signal to be routed out to the RBDS encoder. Connect a suitable 50 ohm B.N.C. cable to the loop through output. The other end of this cable should be connected to the RBDS encoder input. Connect the output of the RBDS encoder to the loop through input on the rear of the CDS-300/302. Each CDS-300/302 DA output will now contain the main channel, pilot, stereo sub carrier and RBDS sub carrier for application to the wide band composite input on an analog exciter. Connect the outputs of the DA to the main and back up exciter. Once all connections are made, follow the RBDS encoder manufacturer's instructions for set up and level trimming. A final level trim can be accomplished using the front panel level controls of the CDS-300/302.

For any application feel free to call or email us for further information. Telephone – (914) 737-5032 or email us at [Techsupport@Broadcast-Devices.com](mailto:Techsupport@Broadcast-Devices.com)

# CDS-300/302 Composite Switcher/DA



RBDS Generator Application - RBDS Locked to Pilot

# RBDS Connection Diagram - CDS-300/302

