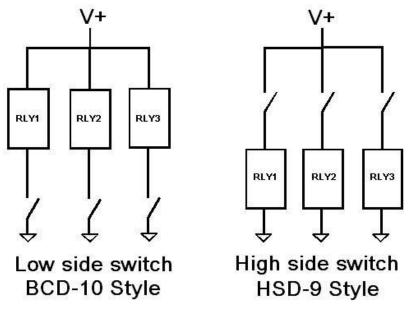# *UM* Unified Microsystems

HSD-9 User's Manual
Revision 1.01
November 2011

Specifications
Size: 2.4" X 1.9"
Voltage: 24V DC
Current: 1A

Overview
The HSD-9 provides 9 channels of high side drivers. It is designed to convert low side switching to high side switching. The BCD-10 and some other band decoders utilize low side switches. Some antenna switches are designed for high side switches. Figure 1 shows the difference between high side and low side switching.

Figure 1.

Connections to the BCD-10

Figure 2 shows typical connection between a BCD-10 and the HSD-9 high side driver. Note that the two boards should be connected to the same ground and power source. G1 should be inserted to run the BCD-10 logic and output drivers from the same supply.

The outputs of the BCD-10 connect to the inputs of the HSD-9. Any BCD-10 output can be connected to any HSD-9 input. When a band is selected on the BCD-10, the corresponding output will go low. When an HSD-9 input is brought low, voltage will be applied to the corresponding output, driving the attached relay.

The BCD-10 allows combining outputs. For example if you have a tribander for 10, 15 and 20 Meters, you can wire these outputs together so that the tribander will connected if any of these bands are selected. Jumpers should be inserted per the directions in the BCD-10 manual.

If multiple bands are combined on the BCD-10, only one input from the HSD-9 needs to be connected to the BCD-10. It can be attached to any one of the outputs of that band combination.

The BCD-10 logic operates at 12V. Figure 2 shows the power connections when the relays are run at a different voltage or from a different power supply. The BCD-10 +VR and HSD-9 must be connected to the same power supply. If the switch relays are run at +12V, the separate connection for +12V on the BCD-10 is not needed if jumper G1 is inserted.
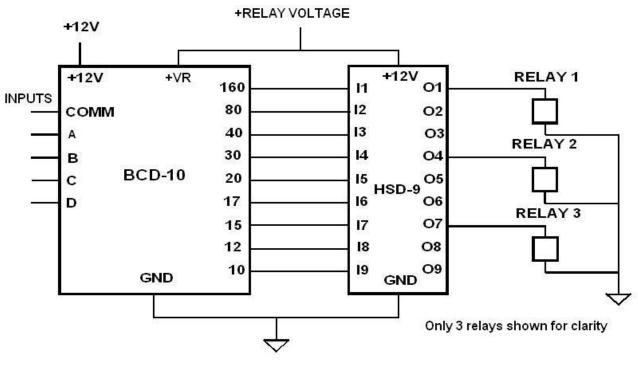

Figure 2

Warranty Information

Unified Microsystems warrants the components workmanship of the HSD-9 for a period of 1 year from the date of purchase. A copy of the receipt must be included with any units returned for warranty repairs. Unified Microsystems will, at its option, repair or replace defective units returned during the warranty period. Unified Microsystems reserves the right to change specifications of it products at any time without notice.

Support is available via email: w9xt@unifiedmicro.com   Please put HSD-9 in the subject line for fastest response.

Unified Microsystems
PO Box 133
Slinger, WI 53086
www.unifiedmicro.com