

## DAD860 DIGITAL TO ANALOG DECODER WITH AVAILABLE DAD860 CONTROL MODULE



The Drake model DAD860 Digital to Analog Decoder is a digital demodulator and decoder, for ATSC 8VSB broadcast or in-the-clear QAM television signals, that delivers a standard NTSC composite analog video and stereo audio output. This device, used in conjunction with an analog NTSC modulator, allows a cable system operator to continue to provide analog versions of services that will only be available to him as digital in the future. It may also be utilized to provide the alternate digital channels now available from many broadcasters.

There is no change in image format if the digital signal received is transmitted in standard definition. If the signal is high definition, options are given to either crop or "letterbox" the 16:9 proportioned image into a 4:3 format. The DAD860 is AFD Ready. This means that the DAD860 supports automatic aspect ratio control through the Active Format Description metadata that may be broadcast with the video. AFD control may be overridden if desired.

The DAD860 is packaged in an extruded aluminum module that is compatible with the Drake RMM12 or RMM4 rack mounting units normally used for our analog mini-rack components. The DAD860 is one unit wide and thus takes one of 12 available slots in the RMM12. There is a companion controller, the DAD860 Controller, that can be used to program and monitor between one and ten DAD860 modules. The controller module is two units wide as mounted in the RMM12.

The DAD860 modules may be intermixed with analog modulators from the Drake VMM mini-rack series, all powered by a single PSM121. This allows an analog demodulator to be replaced by a DAD860 while reusing existing analog modulators.

The DAD860 can operate independently of the DAD860 Controller module. In this situation, the DAD860 must be programmed from a PC that is connected to the front panel RS232 connector on the DAD. Once the unit is programmed, the PC may be disconnected and the DAD860 will save and remember the settings in nonvolatile memory so power interruptions do not corrupt the operating parameters.

Considering the flexibility described in the above paragraphs, the DAD860 may be used in several configurations. First, if mounted in the RMM12 rack cage (only 2RU or 3.5" high), up to 12 DAD860s can be mounted and powered by a PSM121. In this case no DAD860 Controller module is used. Each DAD860 would be individually setup with a PC connection to its front panel port. To check status or change settings at a later date, the PC would simply be reconnected. All settings will be stored in the DAD860s.

If a local controller is desired instead of PC programming, up to ten DAD860s can be mounted in the RMM12 along with one controller module and one PSM121. When using the DAD860 Controller module, no PC is required for setup.

Of course other variations are possible, for example - 5 DAD860s, 5 VMM860AS modulators, and one DAD860 Controller, all powered by one PSM121. Up to four DAD860s may be mounted 'on their side' in a RMM4, 1 RU high rack chassis. In this case, no controller is used. The four DAD860s would be programmed via the RS232 port and a PC. In this RMM4 case, one could use two DAD860s and two modulators such as VMM600s or VMM860AS, all mounted in the RMM4. The RMM4 includes a power supply that can power up to four modules.



## DAD860 Specifications

<b>Input Frequency Range</b>	
Off Air mode:	54 to 806 MHz, CH 2 – 69.
CATV modes:	54 to 860 MHz, CH 2 – 135.
<b>Recommended Input Levels</b>	
8VSB:	-26 to +30 dBmV.
64QAM & 256QAM:	-12 to +15 dBmV.
<b>Connector &amp; Impedance:</b>	Type F, 75 Ohms, 6 dB or better return loss.
<b>Demodulation</b>	
Modulation and Symbol Rates Accepted:	8VSB @ 10.762 Ms/s. 64 QAM (ITU B) @ 5.057 Ms/s. 256QAM (ITU B) @ 5.3606 Ms/s.
Equalizer span:	- 75 to + 75 $\mu$ Sec.
<b>Video</b>	
Output Format:	480i NTSC Video, 1 V p-p.
Aspect ratio:	The DAD860 provides choices for displaying a received HD picture in the 480i NTSC output. Usually a cropped or a letter box setting is chosen.
Closed Captioning:	YES. EIA-608 analog (VBI) closed captioning in the output.
Video Output Connector:	Type F female.
<b>Audio</b>	
Audio channel selection:	YES, when multiple channels are provided.
Output level:	Approximately 250 mV rms, user programmable.
Audio Output Connectors:	RCA, two – left and right channels.
<b>Other</b>	

Power:	Power supplied by PSM121 or RMM4 power supply.
Operating Temp. Range:	0 deg C to + 50 deg C
FCC:	Meets FCC, Part 15 requirements.

**Features, price, and specifications are subject to change without notice or obligation.**