

Use and Operational Description

These devices are intended for installation on civil aviation aircraft to receive broadcast satellite transmissions from XM Satellite Radio Inc. providing XM Radio (audio) and XM Weather (data) to the crew and/or passengers. The XMD075A and XMD076A provide both weather and audio and the XMR050 only provides audio.

Wireless communication is used only for the XM Radio functionality and is identical between the (3) models. The wireless link uses Bluetooth technology (low power Class 2) as a bi-directional 115.2K baud serial transceiver for user commands (volume, channel, and category) and channel information (channel number/name, artist, song title) between the receiver and the remote controller.

Circuit Description

Note: Since only the XM Radio functionality uses the wireless feature, the weather data functionality needs no explanation.

All of the audio functionality is contained on the Heads Up XMSC-63 printed wire assembly (PWA). Refer to the "Block Diagram XW Wireless" if needed. This PWA contains on-board connector to interface to the aircraft's DC power (11 - 32 VDC) and audio systems.