



ACM4330A Series RF Switch and Attenuator

When there is a requirement for a non-intrusive method of operating a Guard Receiver alongside a Transmitter in the same band, and enabling protective muting without the introduction of RF coupling losses. American Wireless developed the ACM4330A LMR Interface product as a solution for this requirement .

This unique solution provides the required non-intrusive system interface which enables the monitoring of the guard receiver while providing protection from the adjacent transmitter installed in the same vehicle or facility.

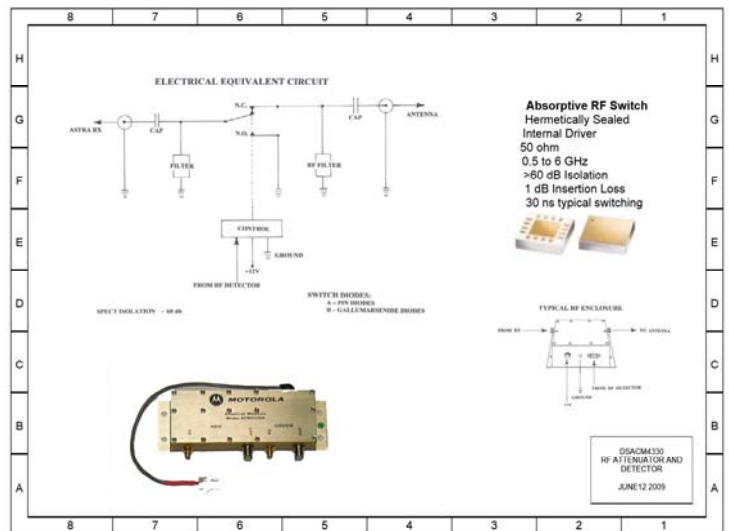
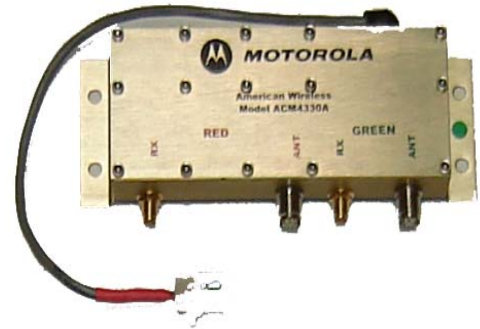
The guard receiver is protected by 60dB or greater with the RF switch. 120 dB is optionally available from 130 MHz to 3 GHz.

The ACM4300A will detect the transmitter RF, enabling it to switch off the guard receiver audio and protect the front end of the guard receiver. The switch output is a dry contact and can be used for controlling other equipment.

There are specially configured Pin diode switch modules used on both the antenna and receiver ports of the attenuator. The antenna and receiver ports are isolated to attenuate RF levels greater than 60 dB.

The guard receiver I/O ports are protected to 20 watts, or optionally up to 150 watts as may be required. The guard receiver may be muted by the transmitter.

For Motorola radios, the receiver volume is controlled by a dedicated button on the DEK Box. Five volume levels from pre-set low to high. Volume adjust tone is on for 2 sec in trunked modes. An external 15 watt audio amplifier module is available.

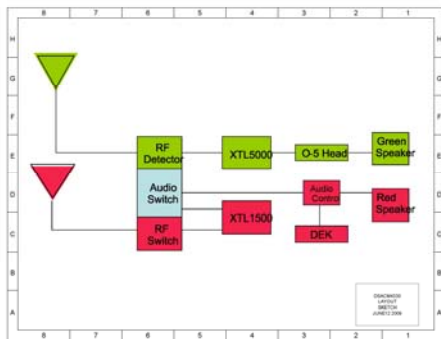


Audio Control Box



A typical application of the ACM4330 is employed by the Orange County Sheriff Department Communications for their Hot Red Monitor receivers using the Motorola XTL series radios.

The product solution provides the non-intrusive system interface that enables the monitoring of the Red Receiver, while providing protection from the Green System transmitter installed in the same vehicle.



Red Receiver Volume is controlled by a dedicated button on the DEK. Box.

- Five levels from pre-set low to high.
- Volume adjust tone on for 2 sec.

The Red receiver speaker is muted by the Green Transmitter. The Red receiver is protected by >120dB or greater with the RF switch.

The solution is non-intrusive to either radio



ACM4300 Series Assembly

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