



# *AeroAntenna Technology, Inc.*

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## **Operational Description AT1595-82 and AT1595-83 Active Inmarsat Antennas**

AT1595-82 and AT1595-83 antennas are accessories for Inmarsat transceivers (i.e. the IsatPhone Pro). The Inmarsat satellite constellation consists of three satellites in geosynchronous orbit that provide voice and data coverage to most of the Earth's surface.

AT1595-82 and AT1595-83 antennas use a common power amplifier and are designed to transmit in the Inmarsat frequency band (1626.5 MHz to 1660.5 MHz). These antennas do not generate or modulate a signal, but instead amplify and transmit the signal. As such, these antennas do not have any special features for stabilizing frequency.

The power amplifiers on these antennas have a coupler and power detector on the output to monitor output power and provide feedback. This allows the feedback circuit to ensure linearity and indirectly suppress spurious emissions. The power detector also allows a failsafe power level of 37.5 dBm to be programmed into the antenna to prevent power being transmitted.