

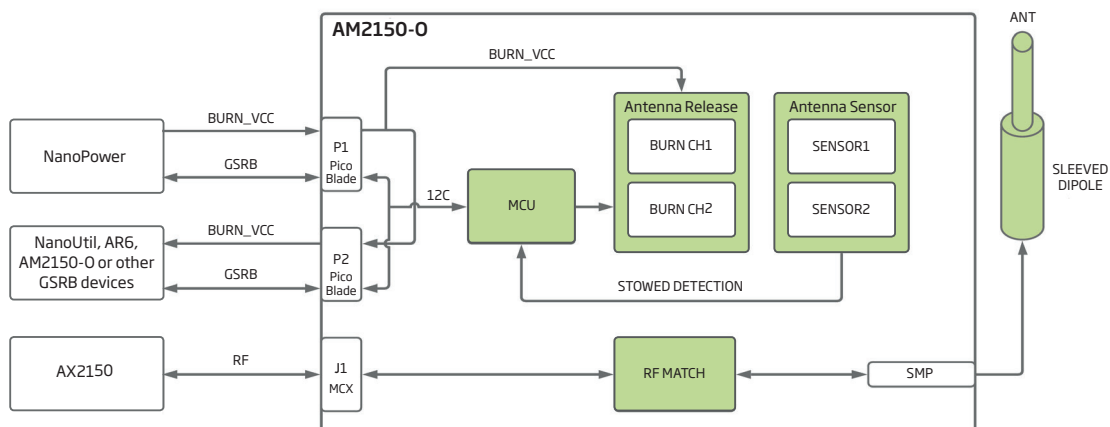
NanoCom AM2150-0

The NanoCom AM2150-0 is an S-band antenna solution for systems requiring near omni-directional radiation pattern. It is designed to complement AX2150 low power radio transceiver and other radio systems.

Depending on the orientation of the antenna and interaction with the exterior of the spacecraft, the antenna gives a near omni-directional radiation pattern. The antenna can be used stand-alone or in combinations with other antennas like the NanoCom AM2150-PS. The antenna system consists of a single deployable sleeve dipole type of antenna with a flight proven hold down and release mechanism.

The hold down and release concept have been used in GomSpace since 2013 with many successful deployments of antennas.

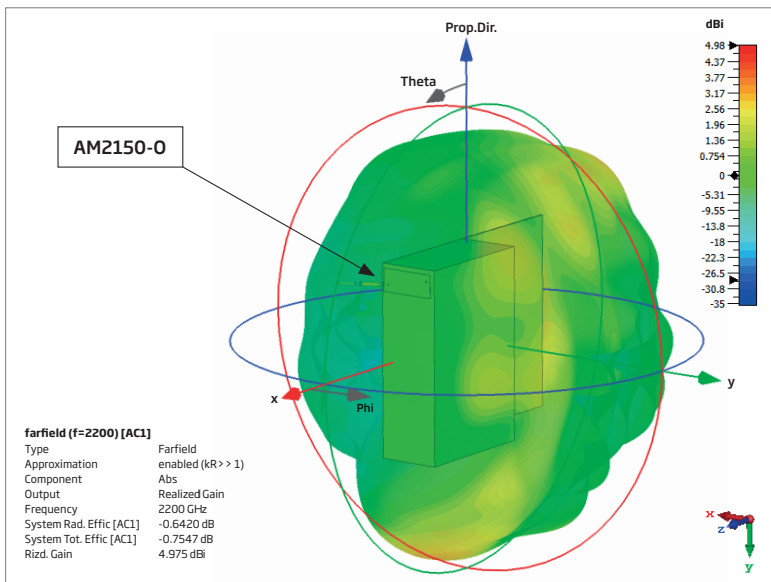
NanoCom AM2150-0 includes all circuitry necessary to perform and monitor antenna release.



Technical Information

NANOCOM AM2150-O - KEY FEATURES:

Features	<ul style="list-style-type: none"> • Deployable antenna designed with low loss materials • Coverage 2025 - 2290 MHz • Radiation pattern: near omni-directional depending on placement • Redundant release mechanism
Performance	<ul style="list-style-type: none"> • Matching $S_{11} < -10\text{dB}$ • Antenna gain: <ul style="list-style-type: none"> - Circular Polarized gain $> -12\text{ dBi}$ for $> 80\%$ of directions - ABS gain $> -12\text{dBi}$ of $> 95\%$ of directions
Mounting	<ul style="list-style-type: none"> • Choice of mounting plates for different mounting locations. • The mounting plates have a selection of interface to other GomSpace modules such as: GPS, Flight preparation panel, Fine sun sensor, etc.
Interfaces	<ul style="list-style-type: none"> • MCX Coaxial connector for RF • Pico Blade for GSRB I2C and burn voltage
Mass	<ul style="list-style-type: none"> • < 100 gram pr. module excluding harness



Simulated system radiation pattern example for AM2150-O mounted on 6U nano satellite structure with deployable solar panels.

Gain probability function (CCDF) for the satellite configuration shown above evaluated for all 1° solid angles.

GomSpace can provide simulated gain plots for specific satellite configurations upon request. Contact GomSpace sales for further information.

