

### Overview and Identification

The BAPI 418 MHz or 433 MHz dipole antenna (BA/ANT418 or BA/ANT433) features a durable, unobtrusive housing that sticks permanently with integral adhesive to flat, non-conductive surfaces such as windows, drywall, ceiling tiles, plastic, etc.

The cable comes in a standard 79" length or optional 180" length and a screw-on RP-SMA coax connector. The antenna has flexible dipole shafts and offers a horizontal Omni directional pattern when shafts are mounted vertically with a minimal sensitivity vertically.

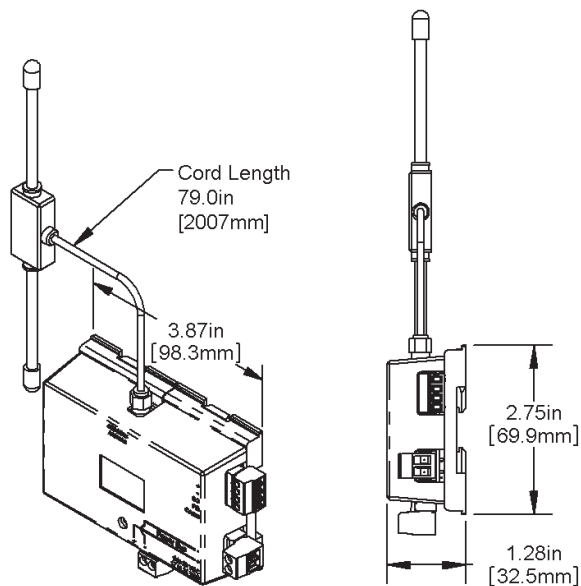


Fig. 1: 418/433 MHz Receiver and Dipole Antenna

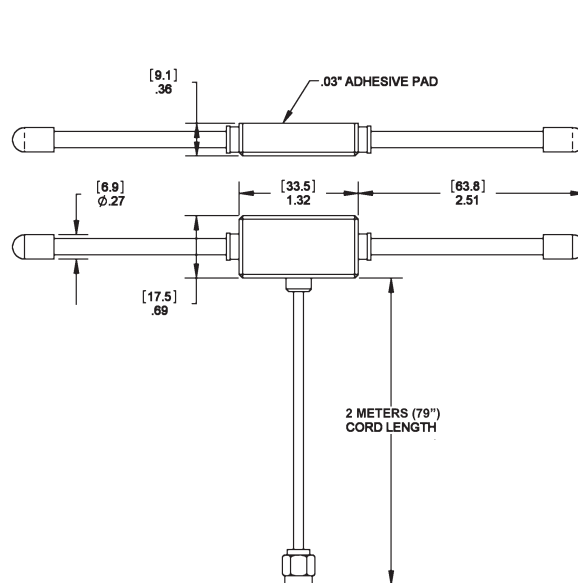


Fig. 2: 418/433 MHz Dipole Antenna

### Mounting

To mount the 418 MHz or 433 MHz dipole antenna, peel off the protective film from the adhesive pad and stick the antenna to a wall or other non-metallic support so that antenna is vertical for best reception. A wooden or plastic furring strip or PVC pipe attached to a ceiling beam w/U bolts makes a great mount. The antenna may be hung from any ceiling fixture using fiber or plastic twine, do not use wire. Do not use perforated metal strapping, commonly called plumbers tape. Antenna's should be mounted as far away from metal plates or bars as possible to avoid RF energy being reflected back or blocked on the other side of the metal. An antenna will not work inside a metal box. Mounting to drywall between studs, ceiling tiles, brick, or concrete is very common.

Transmission distance performance will vary based on environment and antenna orientation. 100 feet is the maximum that can be expected if there are no obstructions (Open Air). In general, each obstruction will half the expected transmission distance. Obstructions include but are not limited to; walls, partitions, floors, ceilings, doors, tinted glass, the ground, many people, vehicles, foliage, rain, snow and fog. Metal (solid or screen) blocks the RF signal preventing propagation but also can bounce the signal around the potential obstacle. Wood, drywall, plaster, brick, and concrete attenuates the signal but will let it pass (if it's not too thick) at a reduced signal strength. Anything that holds water absorbs the signal to the point of blockage like rain, fog, people, ground, dense foliage etc. Elevator shafts and stairwells usually block RF signals.

Specifications subject to change without notice.

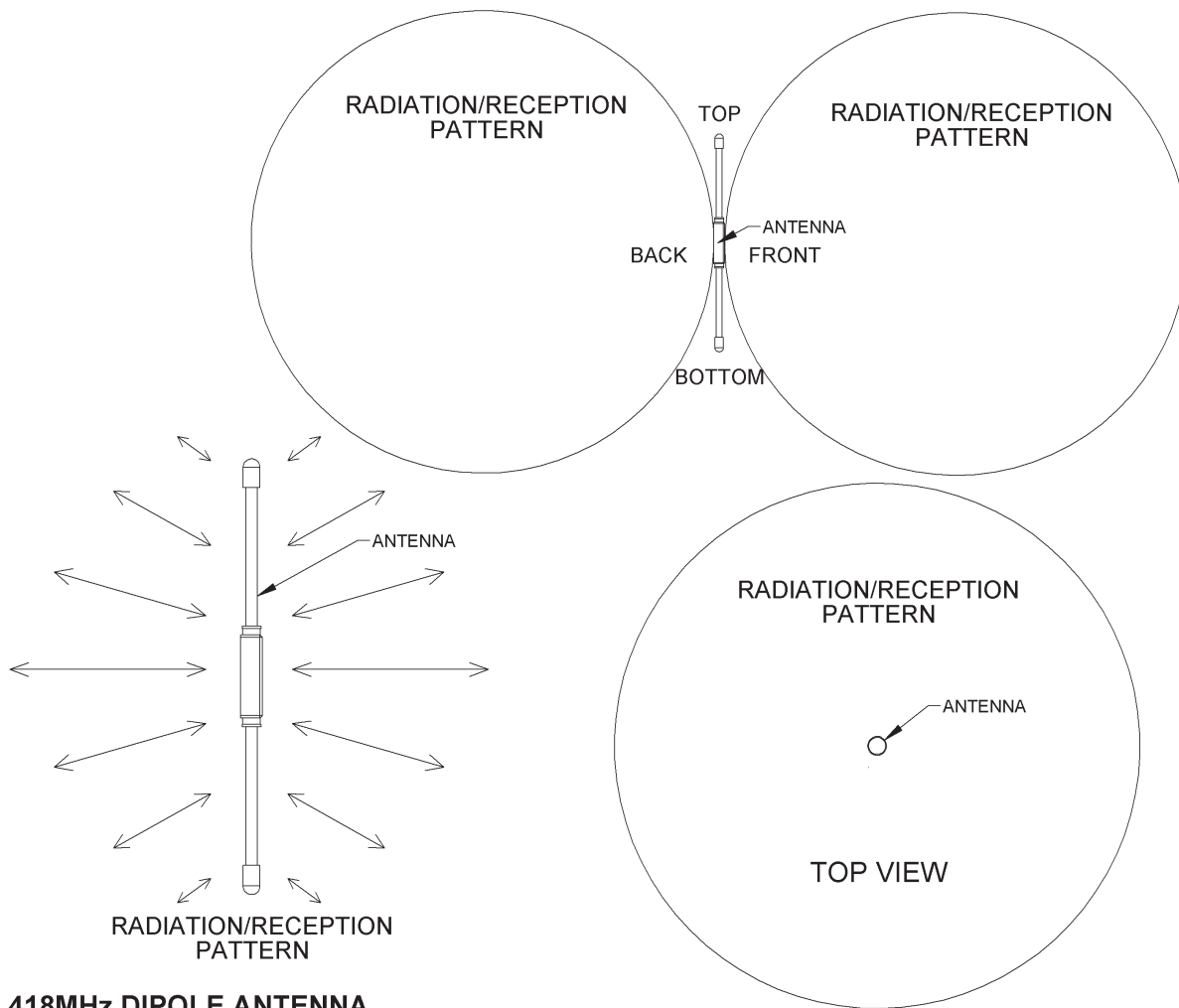
### Wiring and Termination

After mounting, screw the connector into the receiver marked 418MHz or 433MHz. The coax cable should never be kinked or crushed in any way. The cable should never be spliced or cut into. Extra cable should be loosely coiled with large coils. Do not kink the cable.

### Specifications

Center Frequency.....418MHz	Impedance ..... 50 ohms
Recommended Oper. Freq. ....408 to 428MHz	Connector ..... RP-SMA
Wavelength .....1/2-wave	Cable Length ..... 79" or 180"
VSWR .....<1.5 typical at center	Coax type ..... RG-174

### Dipole Antenna Pattern



**418MHz DIPOLE ANTENNA**

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