PRODUCT DATA SHEET

AM Radio Antenna

Up to 100W, Medium Efficiency for Commercial Broadcast STA / TIS

Model AN2X

Our AN2X Antenna may be mounted atop a square or round pole of wood, metal or fiberglass. It can operate in conjunction with the Vertical Profile Antenna Support and Grounding System (web link). It may also be building-installed on a flat roof using a ballasted stand with groundplane. It has a much longer basepipe and more efficiency than Model ANXX.

INSTALLATION REQUIREMENTS

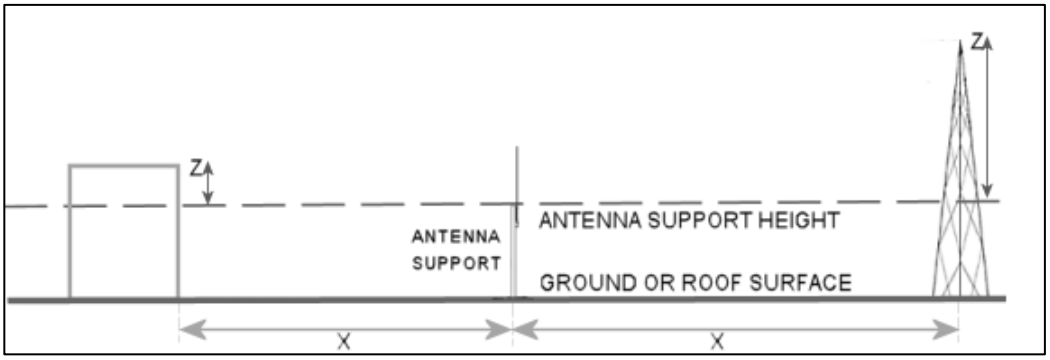
Ideal Antenna Siting
May be installed atop an antenna support (pole/tower/mast) in a yard area adjacent to a host building or on a tower / mast on the flat roof of the building. May not be installed on the side of (in parallel with) an existing pole, tower or mast. The host building should have generator power backup if the application is for public safety.

Yard Locations
If the antenna support (pole / tower / mast) is installed in the yard of a building, locate it on a side of the building in which there is minimal paving, sidewalks and utilities for the buried cable to cross, or consider an aerial cable installation. Choose a yard area with adequate room for the buried groundplane (if required). The distance from the antenna support to the building should be at least the radius of the groundplane. 50' distance is preferred.

Roof Locations
Buildings with flat roofs can make an excellent antenna site. The flat roof dimensions should be at least twice the radius (*i.e.*, the diameter) of the antenna's groundplane. Example: if the groundplane radius is 10', the roof dimensions should be at least 20' by 20'.

All antenna locations benefit from minimal nearby obstructions in order to produce an unimpeded signal. As illustrated on the chart below, the distance of separation (x) to a nearby obstruction that exceeds the height of the antenna support (pole/tower or mast) should be at least twice the distance that the obstruction is taller than the antenna support (z). Example: If the building above is 15 feet taller(z) than the antenna support, it needs to be 30 feet away (x). Example: If the tower above is 50 feet taller than (z) the Antenna Support, it needs to be 100 feet away (x). Antennas installed closer to obstructions may evidence signal degradation and/or shaping. See chart on next page.

All products described here are subject to availability based on manufacturing capacity and shipping dates. We have made every effort to ensure the accuracy of the information; however, we do not accept liability for errors or omissions. We reserve the right to change these specifications without notice.



Lightning protection is important. Though damage seldom occurs due to the fact that these kinds of antennas are not often installed high above the ground, lightning can strike them; and when it does, it needs to be directed to the ground so damage to connected electronics does not result. Information Station Specialists can provide a lightning arrestor to redirect lightning and static discharges to ground. In most cases, these arrestors will reset so the output of the radio station is not interrupted. Information Station Specialists provides the arrestor in a weatherproof cabinet which provides a convenient bonding point for the antenna groundplane, as well.

SPECIFICATIONS

Frequency range: 530-1710 kHz.
Series-fed, center-loaded whip.
Vertically polarized.
Omni directional (0-360).
Anodized aluminum finish.
Adjustable tip for precise tuning.
Power: up 100 watts carrier (1710 kHz) with 100% modulation. Less at lower frequencies and for modulation types that exceed 100% positive. See chart below.
Radiation efficiency: 32 mV/m/km at 530 kHz & 92 mV/m/km at 1710 kHz, referenced to 1 KW (mV/m/km/1KW IDF – inverse distance field) on a 20’ support pole or tower (at top) or flat-roof-mounted; positioned above 25’/32-element groundplane. See chart below.
Lateral separation from taller structures required for full range.
Bandwidth (3:1 SWR): 530 kHz: 5 kHz; 1710 kHz: 10.4 kHz.
Temperature endurance: -40°C. to 85°C.
Wind endurance: 80 miles per hour with ¼” of ice.
Overall assembled length: varies with frequency, i.e., 380” for 530 kHz, 240” for 1710 kHz.
Accessories: Split-type mounts with stainless-steel hardware kit; masts, stands; lightning arrestors; enclosures, groundplanes, guying kits.

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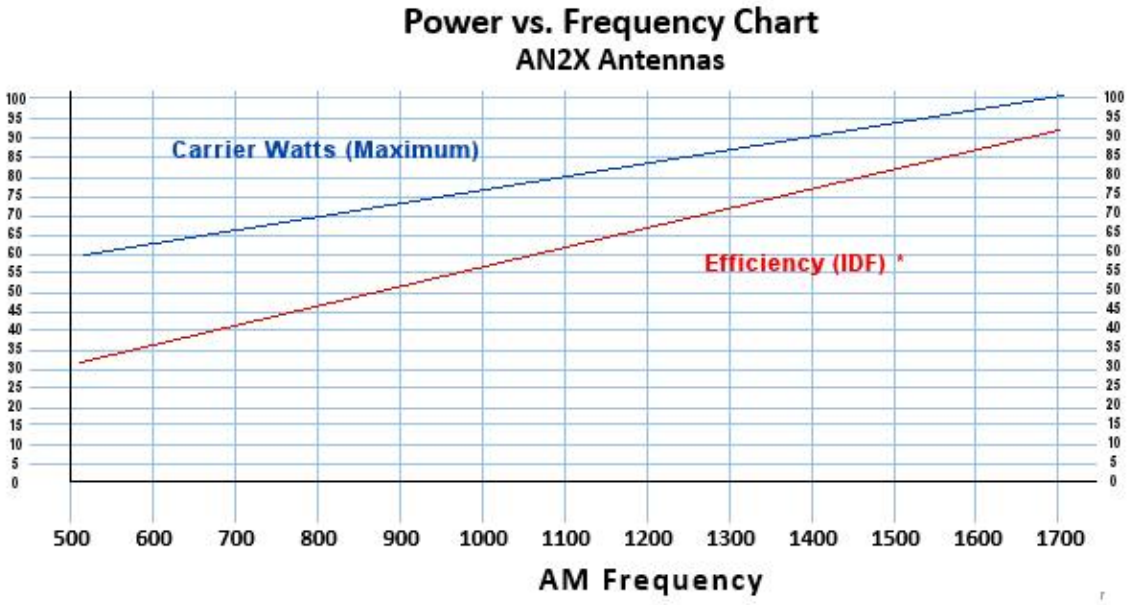
RF exposure separation: 1-meter minimum recommended.

CHART



Note: Efficiency and maximum power estimates on this chart are applicable only when the antenna is installed at the specified mounting height and above a groundplane of the size described in these specifications.

WARRANTY | REPAIR & REPLACEMENT | REMOTE TECH SUPPORT

Information Station Specialists (doing business as The Radio Source) provides a one-year, limited warranty on new products against defects in materials and workmanship under normal use. We also provide repair and replacement and, best of all, remote technical support for the life of the product. See our promise.

HOW TO ORDER

Request quote. (web link)

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