

FEMA site at 9221 Ward Parkway, Kansas City, Missouri

Antenna: 1942-RT, United States Antenna Products
Frequency Range 2 MHz to 30 MHz
Power handling capability 1 kW with 2 kW Peak
Location Roof top installation

Directional Antenna

Is a directional antenna (other than radar) used? **See antenna legend above.**

If yes, provide the following information:

- i. Width of beam in degrees at the half power point: **N/A**
- ii. Orientation in horizontal plane (degrees): **N/A**
- iii. Orientation in vertical plane (degrees): **N/A**

Antenna Height

Will the antenna extend more than six meters above the ground, or if mounted on an existing building, will it extend more than six meters above the building, or will the proposed antenna be mounted on an existing structure other than a building? **Yes, existing building**

If yes, provide the following information:

- i Overall height above ground to tip of antenna (in meters): **6.1 meters (above building)**
- ii Elevation of ground at antenna site above mean sea level is: **244 meters**
- iii Distance to nearest aircraft landing area (in kilometers): **10.10 km**
- iv List any natural formations of existing man-made structures (hills, trees, water tanks, towers, etc.) which, in the opinion of the applicant, would tend to shield the antenna from aircraft and thereby minimize the aeronautical hazard of the antenna. **None**

2.0 to 30.0 MHZ HF BROADBAND ANTENNAS

The model 1942 compact, NVIS antenna is available in two separate models. Both models have an RF Power Handling Capacity of 1 kW CW / 2 kW PEP.

The 1942-RT (Roof Top) is designed for a semi-permanent roof top installation. It's small footprint (less than 50 ft. square) allowing mounting on most all flat roof commercial buildings. The antenna is designed to be mounted on existing roofs and does not require roof penetrations for installation.



Both antennas have stainless steel elements and ground radials. Both have snap together aluminum mast sections that can be assembled on the ground and easily pivoted up to the erect position. Both systems utilize guy wires manufactured by *Phillystran, Inc.* using coated Kevlar® for maximum strength.

These broadband terminated center-fed antennas require no tuning across the entire bandwidth, eliminating the need for antenna adjustment or an antenna tuner. The 1942 antenna achieves a VSWR of 2.5:1 or less over its entire range. A near vertical radiation pattern at frequencies below 10 MHz is ideal for reliable communications at 500 miles (800 km). Lower radiation angles above 10MHz allow for reliable communications over much greater distances.

1942-RT Antenna

<i>Electrical Characteristics</i>	
Frequency range	2.0 — 30.0 MHz
Power handling capability PEP/average	1000 Watts/2000 Watts
Polarization	Horizontal
Maximum VSWR	2.5:1
Input impedance	50 Ohms
Input connector	Type "N"
Coaxial Cable	Not Included

<i>Mechanical Characteristics</i>	
Mast Height	20 ft. / 6.13 m
Construction	Aluminum Mast
	Stainless Steel Elements And Ground Radials
Guy Wires	Solid Polyurethane coated Kevlar® coated guy wires
Deployment Area	50 ft. square
Net weight*	75lbs / 34kg
Shipping weight	90 lbs / 40.8kg
Erection Time	Varies by building, complete installation in less than one day.

Aerial view of FEMA site at 9221 Ward Parkway, Kansas City, Missouri



US Antenna Products, Model 1942-RT