

## EM-6855 | Antenna, Omni Directional Wideband



### Features

- **Small size**
- **Wide frequency coverage**
- **Omni-directional response**
- **Flat frequency response**

### Description

The EM-6855 Omni-Directional Wideband Antenna is capable of operating as either a transmitting or receiving antenna over the 4.5 to 40 GHz frequency range.

An omni-directional antenna is an antenna which radiates power (or intercepts electromagnetic fields) uniformly in one plane, with a directive pattern shape in a perpendicular plane. The EM-6855 omni-directional antenna is a vertically polarized antenna, and exhibits a 360 degree pattern in the horizontal plane.

Directivity and gain are directly related in antennas. The directivity of an antenna is a statement of how the of RF energy is focused. An omni-directional antenna and a directional

### Specifications

#### Electrical

<b>Frequency Range:</b>	4.5 GHz - 40 GHz
<b>Polarization:</b>	Vertical
<b>Output Impedance:</b>	50 Ohms, nominal
<b>VSWR, typical:</b>	< 1.7:1
<b>VSWR worst case</b>	< 2.0:1
<b>Average Gain:</b>	0 dBi, typical
<b>Connector:</b>	Type K, female
<b>Continuous Power:</b>	20 Watts

#### Mechanical

<b>Diameter:</b>	5.72 cm (2.25")
<b>Height:</b>	5.72 cm (2.25")
<b>Weight:</b>	0.114 kg (0.25 lb.)
<b>Mounting:</b>	(2) #8-32 tpi mounting studs

Ref: 100425

Specifications subject to change without notice. Unless otherwise specified, product is manufactured in Johnstown, NY USA.



## **EM-6855 | Antenna, Omni Directional Wideband**

### **Continued**

antenna such as a horn, having the same amount of RF energy at the connector yield different fields. From a transmission point of view, the energy radiated by the omni directional antenna is distributed over a large area, whereas the same energy is concentrated into a smaller area by the directional antenna.

The signal strength measured at a given distance from an omni -directional antenna versus that measured in the beam of a directional antenna is lower. This lower signal level corresponds to the lower gains exhibited by omni-directional antennas.

The EM-6855 antenna is enclosed in a weather resistant radome. A 25.4 cm (10") support rod provides a means for mounting the antenna to the Electro-Metrics Model EM-6134 Tripod. A threaded ¼ - 20 female connector is located at the end of the rod.