Broadcast Antennas & Transmission Systems

SYSTEMS WITH RELIABILITY, LP
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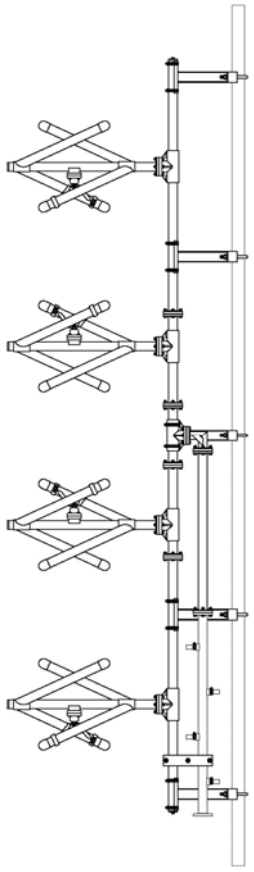
# SWR ILLUMITRON
## FM ANTENNAS



## Product Specifications:

| | |
|---|---|
| **Frequency Range** | 88 – 108 MHz |
| **Polarization** | Circular, Horizontal, Vertical |
| **Power Rating** | 100 watts – 100 kilowatts |
| **System Input** | EIA Standard |
| **Circularity** | ± 2 dB Free Space |
| **VSWR** | 1.1:1 ± 200 kHz |

## Features:

**•IDEAL REPLACEMENT OR UPGRADE FOR ALMOST ANY CONVENTIONAL TRANSMITTING ANTENNA IN THE FM BROADCAST RANGE.**

**•DESIGNED TO PROVIDE A UNIFORM, OMNI DIRECTONAL AZIMUTH PATTERN WHEN MOUNTED IN "FREE SPACE."**

**•CUSTOM MODELS AVAILABLE TO MEET SPECIFIC AZIMUTH PATTERNS (FOREIGN AND DOMESTIC).**

**•DESIGNED TO MEET STRICT ELVATION PATTERN SPECIFICATIONS.**

**•99% OF INPUT POWER IS RADIATED TOWARD THE HORIZON IN A SINGLE LOBE.**

**•ELIMINATES HARMFUL SIDE LOBES AND TOWARD THE GROUND RADIATION (RFR / RFI)**

**•INCREASED MINIMUM FIELD INTENSITY. AVERAGE FILD INTENSITY REMAINS UNCHANGED (MAXIMUM FIELD INTENSITY TYPICALLY DECREASES, RESULTING IN A SIGNIFICANT REDUCTION OF INTERFERENCE TO ALL CO-CHANNEL AND ADJACENT STATIONS.**

**•RUGGED CONSTRUCTION.** Designed to perform for many years under extreme operating conditions.

**•CUSTOM MOUNTING BRACKETS AVAILABLE.**

**•WEATHERIZATION (OPTIONAL).** Electrical deicers or radomes are available for areas that experience periods of heavy icing and/or snow conditions.

**•WARRANTY.** 2-year limited warranty on defects and workmanship to the original purchaser.

**Notes:**
**1.** SWR, Inc. maintains a continuous program of product improvement and therefore reserves the right to change specifications without notice.

**Standard 1 / 2 and Full Wave Space Specifications**

| Standard 1/2 Wave Space | | | | Standard Full Wave Space | | |
|---|---|---|---|---|---|---|
| # of Bays | Aperture (ft.) | Power Gain | dB Gain | Aperture (ft.) | Power Gain | dB Gain |
| 2 | 15 | 0.69 | -1.61 | 20 | 1.00 | 0.00 |
| 4 | 25 | 1.20 | 0.80 | 40 | 1.90 | 2.78 |
| 6 | 35 | 1.70 | 2.30 | 60 | 3.00 | 4.77 |
| 8 | 45 | 2.30 | 3.62 | 80 | 4.00 | 6.02 |
| 10 | 55 | 2.80 | 4.47 | 100 | 5.10 | 7.08 |
| 12 | 65 | 3.40 | 5.31 | 120 | 6.20 | 7.92 |

**1 / 2 and 3 / 4 Wave Space Specifications**

| 3/4 Wave Space | | | | 1/2 Wave Space | | |
|---|---|---|---|---|---|---|
| # of Bays | Aperture (ft.) | Power Gain | dB Gain | Aperture (ft.) | Power Gain | dB Gain |
| 2 | 20 | 0.94 | -0.30 | 15 | 0.69 | -1.61 |
| 4 | 31 | 1.62 | 2.10 | 25 | 1.00 | 0.00 |
| 6 | 47 | 2.35 | 3.70 | 35 | 1.58 | 2.00 |
| 8 | 62 | 3.16 | 5.00 | 45 | 2.09 | 3.20 |
| 10 | 77 | 3.98 | 6.00 | 55 | 2.63 | 4.20 |
| 12 | 92 | 4.68 | 6.70 | 65 | 3.16 | 5.00 |