



**A.H. Systems, Inc.**

9710 Cozycroft Ave.  
Chatsworth, CA 91311

Tel: (818) 998-0223    ♦    sales@AHSystems.com  
Fax: (818) 998-6892    ♦    www.AHSystems.com



## “The 10 Factors You Need to Consider When Selecting an EMC Antenna”

The antenna is one of the least understood components in an EMC test instrumentation set-up, and a poor choice of antenna(s) can lead to multiple problems including erroneous test data, failed tests, lengthy or difficult test procedures, and challenges with repeatability. Useful to beginners and the more experienced alike, this webinar, presented by AH Systems, guides you through the key parameters that need to be considered when selecting an EMC test antenna.

### 1.) Will it Fit?

The lower the frequency the larger the antenna

Check door dimensions versus antenna dimensions

Check there is space around antenna to retain calibration validity

May need ferrite on feed cable

Take only the space you need (dismantle as applicable)

Consider how you are going to store the antenna

### 2.) Two-man lift?

Put procedures in place to minimize risk of damage / harm

Will existing polarization-change mechanism cope with the weight?

Consider keeping the shipping crate

Budget for calibration shipping costs

### 3.) Consider Portability

A purpose built attaché case aids test-site sharing and gives a professional appearance when conducting on-site tests and when providing consultancy.

**A.H. Systems**

EMC Antennas and more





**A.H. Systems, Inc.**

9710 Cozycroft Ave.  
Chatsworth, CA 91311

Tel: (818) 998-0223 ◆ sales@AHSystems.com  
Fax: (818) 998-6892 ◆ www.AHSystems.com



#### 4.) Indoor / Outdoor

Can the antenna withstand sudden downpours, high winds, sun loading?

5.) If intended for emissions measurement only, opt for a dedicated emissions antenna

6.) If emissions picked up by antenna are weak, consider an active antenna (preamplifier placed before the feeder cable)

7.) Bear in mind the trade off between high-gain and reduced beamwidth

8.) Double-check the compliance standard to see if a specific antenna is stipulated

9.) Check the antenna data plots for excessive VSWR, good antenna factor (both should have smooth / continuous plots)

10.) Opt for antenna that covers the required range. An ultra-wide-band antenna exceeding present needs may come with a trade-off in performance.

**A.H. Systems**

EMC Antennas and more

