

# A.H. SYSTEMS



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## Antenna Selection by Test Type



# Antenna Selection by Test Type

## IEEE STD-291

IEEE Standard methods for measuring electromagnetic field strength of sinusoidal continuous waves, 30 Hz to 30 GHz.

Frequency	Model	Antenna Type
9 KHz – 60 MHz	<b>SAS-550-1B</b>	Active Monopole, Battery Power
1 KHz – 30 MHz	<b>SAS-563B</b>	Active 12" Loop, Battery Power
20 MHz – 330 MHz	<b>SAS-540</b>	Biconical Antenna
290 MHz – 2 GHz	<b>SAS-510-2</b>	Log Periodic Antenna
700 MHz – 18 GHz	<b>SAS-571</b>	Double Ridge Guide Horn
18 GHz – 40 GHz	<b>SAS-574</b>	Double Ridge Guide Horn
0.75 GHz – 40 GHz	<b>Pyramidal Horns</b>	Standard Gain Horn Series
20 MHz -18 GHz	<b>PAM-0118P</b>	Preamplifier
18 GHz – 40 GHz	<b>PAM-1840VH</b>	Preamplifier

## IEEE STD-299

IEEE Standard Method for Measuring the Effectiveness of Electromagnetic Shielding Enclosures.

Low Range (14 KHz – 20 MHz) <i>Split into three ranges: 14 to 16 KHz, 140 to 160 KHz, 14 to 16 MHz</i>		
Frequency	Model	Antenna Type
1 KHz = 30 MHz	<b>SAS-563B</b>	Active 12" Loop, Battery Power
1 KHz – 30 MHz	<b>SAS-563P</b>	Passive 12" Shielded Loop

Mid Range (300 MHz – 1 GHz) <i>Split into two bands 300 to 400 MHz and 850 to 1000 MHz</i>		
Frequency	Model	Antenna Type
170 MHz – 340 MHz	<b>FCC-3</b>	Tuned Dipole Antenna
325 MHz – 1 GHz	<b>FCC-4</b>	Tuned Dipole Antenna
Alternative		
190 MHz – 2 GHz	<b>SAS-512-2</b>	Log Periodic Antenna

High Range (1.7 GHz to 18 GHz)		
Frequency	Model	Antenna Type
1.7 – 2.6 GHz	<b>SAS-581</b>	Standard Gain Horn Antenna
2.6 – 3.95 GHz	<b>SAS-582</b>	Standard Gain Horn Antenna
3.95 – 8.2 GHz	<b>SAS-583</b>	Standard Gain Horn Antenna
5.85 – 8.2 GHz	<b>SAS-584</b>	Standard Gain Horn Antenna
8.2 – 12.4 GHz	<b>SAS-585</b>	Standard Gain Horn Antenna
12.4 – 18 GHz	<b>SAS-586</b>	Standard Gain Horn Antenna
Alternative		
700 MHz – 18 GHz	<b>SAS-571</b>	Double Ridge Guide Horn Antenna

## MIL-STD-461

Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment.

Frequency	Model	Antenna Type
20 MHz – 330 MHz	<b>SAS-540</b>	Biconical Antenna
20 MHz – 330 MHz	<b>SAS-543</b>	Biconical, High Power, 1000 W
170 MHz – 3 GHz	<b>SAS-570</b>	Double Ridge Guide Horn
700 MHz – 18 GHz	<b>SAS-571</b>	Double Ridge Guide Horn
18 GHz – 40 GHz	<b>SAS-574</b>	Double Ridge Guide Horn
9 KHz – 60 MHz	<b>SAS-550-1B</b>	Active monopole Antenna
100 Hz – 60 MHz	<b>ECF-10</b>	Equivalent Capacitance Fixture
20 Hz – 2 MHz	<b>SAS-560</b>	Loop-Emissions, per MIL-STD 641
20 Hz – 50 KHz	<b>SAS-561</b>	Passive Radiating Loop
20 Hz – 20 MHz	<b>BCP-610</b>	Monitoring Current Probe
10 KHz – 500 MHz	<b>BCP-620</b>	Monitoring Current Probe
10 KHz – 100 MHz	<b>ICP-621</b>	Injection Current Probe
1 MHz – 500 MHz	<b>ICP-622</b>	Injection Current Probe
20 Hz – 500 MHz	<b>CPF-630</b>	Current Probe Fixture

## FCC part 15

Federal Communications Commission (FCC) rules and regulations, regulates low power, unlicensed devices that could cause interference to the Broadcast Radio Services.

Frequency	Model	Antenna Type
25 MHz – 1 GHz	<b>TDS-535-2</b>	Tuned Dipole Antenna Set
20 MHz – 330 MHz	<b>SAS-540</b>	Biconical Antenna
20 MHz – 330 MHz	<b>SAS-542</b>	Biconical Antenna, Folding
700 MHz – 18 GHz	<b>SAS-571</b>	Double Ridge Guide Horn
18 GHz – 40 GHz	<b>SAS-574</b>	Double Ridge Guide Horn
290 MHz – 2 GHz	<b>SAS-510-2</b>	Log Periodic Antenna
190 MHz – 2 GHz	<b>SAS-512-2</b>	Log Periodic Antenna
80 MHz – 4 GHz	<b>SAS-517</b>	Log Periodic Antenna
25 MHz – 2 GHz	<b>SAS-521-2</b>	BiLogical Antenna
9 KHz – 60 MHz	<b>SAS-550-1B</b>	Active Monopole, Battery Power
100 Hz – 60 MHz	<b>SAS-550-2B</b>	Active Monopole, Battery Power
20 MHz – 2 GHz	<b>PAM-0202</b>	Preamplifier
20 MHz -18 GHz	<b>PAM-0118P</b>	Preamplifier
18 GHz – 40 GHz	<b>PAM-1840VH</b>	Preamplifier



# Antenna Selection by Test Type

## CISPR

The International special committee on Radio Interference is best known by its abbreviation CISPR, is a special committee under the sponsorship of the International Electrotechnical Commissions (IEC).

Frequency	Model	Antenna Type
20 MHz – 330 MHz	<b>SAS-540</b>	Biconical Antenna
20 MHz – 330 MHz	<b>SAS-542</b>	Biconical Antenna, Folding
30 MHz – 1 GHz	<b>SAS-545</b>	Biconical Antenna
1 GHz – 18 GHz	<b>SAS-547</b>	Biconical Antenna
700 MHz – 18 GHz	<b>SAS-571</b>	Double Ridge Guide Horn
18 GHz – 40 GHz	<b>SAS-574</b>	Double Ridge Guide Horn
190 MHz – 2 GHz	<b>SAS-512-2</b>	Log Periodic Antenna
25 MHz – 2 GHz	<b>SAS-521-2</b>	BiLogical Antenna
9 KHz – 60 MHz	<b>SAS-550-1B</b>	Active Monopole, Battery Power
1 KHz – 30 MHz	<b>SAS-563B</b>	Active 12" Loop, Battery Power
9 KHz – 30 MHz	<b>SAS-565H</b>	Passive 24" Shielded Loop
10 KHz – 100 MHz	<b>ICP-621</b>	Injection Current Probe
1 MHz – 500 MHz	<b>ICP-622</b>	Injection Current Probe
20 Hz – 500 MHz	<b>CPF-630</b>	Current Probe Fixture
20 MHz – 2 GHz	<b>PAM-0202</b>	Preamplifier
20 MHz -18 GHz	<b>PAM-0118P</b>	Preamplifier
18 GHz – 40 GHz	<b>PAM-1840VH</b>	Preamplifier

## RTCA/DO-160

Environmental Conditions and Test Procedures for Airborne Equipment.

Frequency	Model	Antenna Type
20 MHz – 330 MHz	<b>SAS-540</b>	Biconical Antenna
20 MHz – 330 MHz	<b>SAS-542</b>	Biconical Antenna, Folding
700 MHz – 18 GHz	<b>SAS-571</b>	Double Ridge Guide Horn
18 GHz – 40 GHz	<b>SAS-574</b>	Double Ridge Guide Horn
290 MHz – 2 GHz	<b>SAS-510-2</b>	Log Periodic Antenna
25 MHz – 2 GHz	<b>SAS-521-2</b>	BiLogical Antenna
9 KHz – 60 MHz	<b>SAS-550-1B</b>	Active Monopole, Battery Power
1 KHz – 30 MHz	<b>SAS-563B</b>	Active 12" Loop, Battery Power
20 Hz – 20 MHz	<b>BCP-610</b>	Monitoring Current Probe
10 KHz – 500 MHz	<b>BCP-620</b>	Monitoring Current Probe
10 KHz – 100 MHz	<b>ICP-621</b>	Injection Current Probe
1 MHz – 500 MHz	<b>ICP-622</b>	Injection Current Probe
20 Hz – 500 MHz	<b>CPF-630</b>	Current Probe Fixture
20 MHz – 2 GHz	<b>PAM-0202</b>	Preamplifier
20 MHz -18 GHz	<b>PAM-0118P</b>	Preamplifier
18 GHz – 40 GHz	<b>PAM-1840VH</b>	Preamplifier

## ANSI

American National Standard Electromagnetic Compatibility

Frequency	Model	Antenna Type
20 MHz – 330 MHz	<b>SAS-540</b>	Biconical Antenna
20 MHz – 330 MHz	<b>SAS-542</b>	Biconical Antenna, Folding
700 MHz – 18 GHz	<b>SAS-571</b>	Double Ridge Guide Horn
18 GHz – 40 GHz	<b>SAS-574</b>	Double Ridge Guide Horn
190 MHz – 2 GHz	<b>SAS-512-2</b>	Log Periodic Antenna
25 MHz – 2 GHz	<b>SAS-521-2</b>	BiLogical Antenna
9 KHz – 60 MHz	<b>SAS-550-1B</b>	Active Monopole, Battery Power
25 MHz – 1 GHz	<b>TDS-535-2</b>	Tuned Dipole Antenna Set
1 KHz – 30 MHz	<b>SAS-563B</b>	Active 12" Loop, Battery Power

## ETSI

The European Telecommunications Standards Institute (ETSI) is an independent, non-profit, standardization organization in the telecommunications industry (equipment makers and network operators) in Europe, with worldwide projection.

Frequency	Model	Antenna Type
20 MHz – 330 MHz	<b>SAS-540</b>	Biconical Antenna
20 MHz – 330 MHz	<b>SAS-542</b>	Biconical Antenna, Folding
700 MHz – 18 GHz	<b>SAS-571</b>	Double Ridge Guide Horn
18 GHz – 40 GHz	<b>SAS-574</b>	Double Ridge Guide Horn
290 MHz – 2 GHz	<b>SAS-510-2</b>	Log Periodic Antenna
25 MHz – 2 GHz	<b>SAS-521-2</b>	BiLogical Antenna
9 KHz – 60 MHz	<b>SAS-550-1B</b>	Active Monopole, Battery Power
1 KHz – 30 MHz	<b>SAS-563B</b>	Active 12" Loop, Battery Power

## TEMPEST

TEMPEST is an unclassified short name referring to investigations and studies of unintentional intelligence-bearing signals.

Frequency	Model	Antenna Type
100 Hz – 60 MHz	<b>SAS-550-2B</b>	Active Monopole Antenna
20 MHz – 330 MHz	<b>SAS-540</b>	Biconical Antenna
20 MHz – 330 MHz	<b>SAS-545</b>	Omni-Directional Biconical
700 MHz – 18 GHz	<b>SAS-547</b>	Omni-Directional Biconical
18 GHz – 40 GHz	<b>SAS-571</b>	Double Ridge Guide Horn
290 MHz – 2 GHz	<b>SAS-574</b>	Double Ridge Guide Horn
20 MHz -18 GHz	<b>PAM-0118P</b>	Preamplifier
18 GHz – 40 GHz	<b>PAM-1840VH</b>	Preamplifier



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**A.H. Systems**

EMC Antennas and more

