

The **SAS-230/ "a" "b" "c"** is a 20 MHz to 3+ GHz omni-directional antenna with a radome. It is supplied with single or Dual outputs using type N connectors.

Features: Improved performance over the **SAS-220**. Unit is supplied with RF and power connections accessible from the bottom of the SAS unit. The standard power/control connector is a 10 pin MS connector that carries all DC voltages and control lines required to operate the unit.

Power requirements: 12 VDC for PreAmplifiers and 5 VDC for switch(es).

Option of Latching or Failsafe switches and Limiters for the high and/or Low band is available also.

A neoprene gasket is used to environmentally seal the radome to the base plate. For extremely abusive environments we offer a 'Foam Filled' option to completely captivate all of the internal elements.



SAS-230/ "a" "b" "c"

Electrical:

Low Band Pre-amp: Gain 19 to 21 dB, NF: 4.5dB typ., 6dB max., Output TOI +30 dBm (1 dB comp.+17 dBm)

High Band Pre-amp(if required): Gain 18 to 22 dB, NF 6 dB max., Output TOI +25 dBm (1 dB comp. +12 dBm)

a = "1" for Single N-Type output. The additional loss is 1.5db Max. <950 MHz and >1050 MHz. Insertion loss between 950 and 1050 MHz is <4.5dB.

a = "2" for Dual N-Type outputs. 20 MHz to 1. GHz 'Low' band and 0.8 to 3 GHz 'High' band.

b = "0" for a completely PASSIVE unit.

b = "1" for low band Active from 20 MHz to 1 GHz and high band Passive from 0.8 GHz up to 3 GHz minimum.

b = "2" for low band Active from 20 MHz to 1 GHz and high band Active from 0.8 GHz up to 3 GHz minimum.

NOTE: Add "S" for One Latching switch for preamplifier BYPASS capability.

New Option!! NOTE: Add "FS" for Two FAILSAFE switches for preamplifier BYPASS capability.

NOTE: Add "R" for Receive Only applications.

c = "F" for flat bottom, eight .272 through holes at edge of SAS antenna for mounting. 17.75" dia.

c = "M15" for flange on bottom with a 1.5" NPT pipe thread.

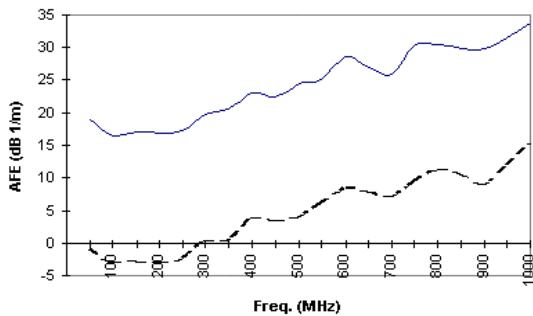
c = "T" for Tripod mounting. Flange on bottom with 1.5 inch ID tube.

Options:

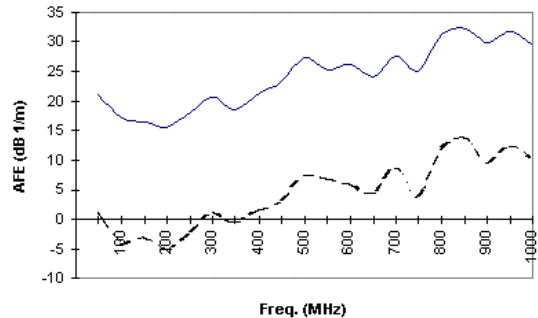
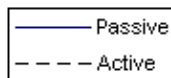
Foamed Elements to lock elements in place for high vibration requirements. Tripods, Pneumatic Masts, Multicouplers, Power supplies (PSD-12 or /24VDC or /110 or /220 VAC).

Individually calibrated antenna with Certificate of Conformance.

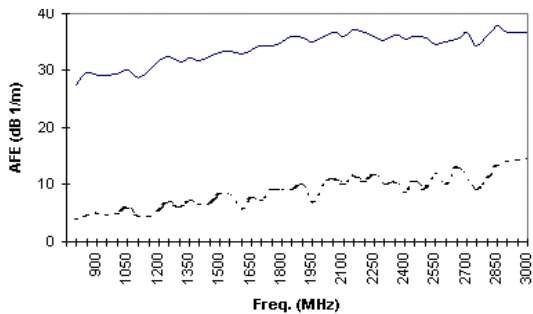
In all cases for "a" = 2. The PSD-12/S Decoupling Power supply is suggested. The MS Connector is also removed as it becomes unnecessary.



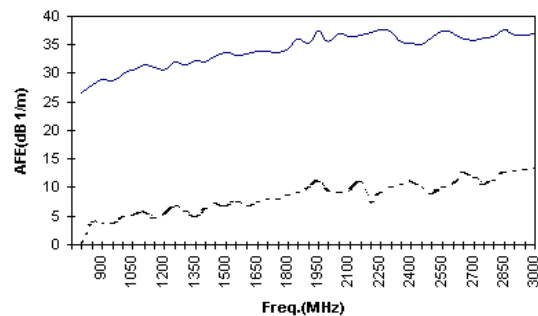
SAS-230/22 Low-band antenna factor curves obtained from calibrations on the ground plane



SAS-230/22 Low-band antenna factor curves obtained from calibrations at 2 m elevation



SAS-230/22 High-band antenna factor curves obtained from calibrations at the ground plane



SAS-230/22 High-band antenna factor curves obtained from calibrations at 2 m elevation

SAS-22/A Typical Antenna Factor and Typical Sensitivity (Minimum Detectable E-Field, MDF) (Referenced to a 1 kHz Bandwidth)		
Frequency (MHz)	AFE (dB m ⁻¹)	MDF (dB μV/m)
20	17.6	-4.6
30	12.9	-9.0
40	11.6	-9.8
50	10.2	-11.6
80	4.9	-16.3
100	2.6	-19.7
200	3.2	-18.8
300	2.3	-19.0
400	4.3	-16.9
500	6.7	-15.0
600	10.5	-12.4
700	8.9	-14.7
800	10.5	-12.1
900	13.1	-14.2
1000	15.2	-11.3
2000	28.3	-7.4

Broadband Electric-Field Antenna SAS-2/A		
Frequency	Typical Sensitivity (Minimum Detectable E-field) (dBuV/m) Referred to 1 kHz Bandwidth	Typical Electric Field Antenna Factor (dB m ⁻¹)
100 Hz	58	40
300 Hz	47	28
1 kHz	34.5	16
3 kHz	24	8
10 kHz	14	4
30 kHz	5.5	2
100 kHz	-3	2
300 kHz	-8	2.2
1 MHz	-12	2
3 MHz	-13	2
10 MHz	-14	2.25
30 MHz	-15.7	4
100 MHz	-17	6
300 MHz	-18	5
1 GHz	-10.5	16