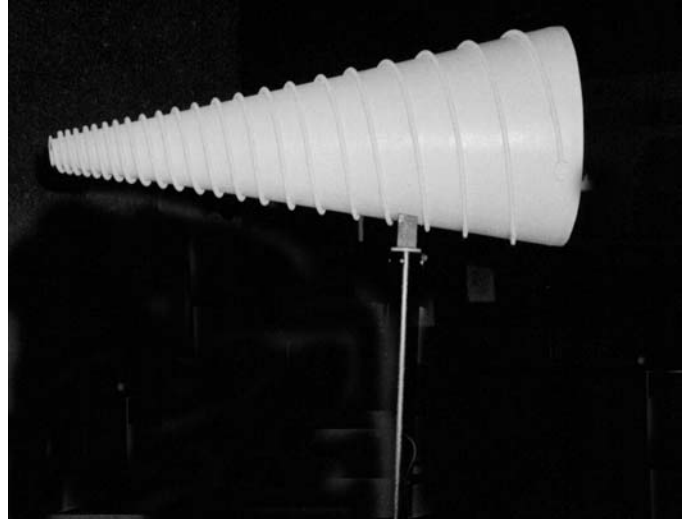


Our **CLS series** antennas are compact, moderate gain, low VSWR conical log spirals designed to transmit and receive signals over a broadband. **CLS** antennas are available for left or right circular polarization. The customer should specify the desired polarization when ordering the antenna. These antennas are capable of receiving signals in either linear or circularly polarized fields (with up to 3 dB variance for linear fields). **CLS** antennas are ideally suited for use in anechoic chambers and enclosures where space is at a premium and isolation is critical.

**CLS series** conical log spiral antennas are recommended for radiated emissions and radiated susceptibility measurements in accordance with MIL-STD, TEMPEST and SAE requirements. They may be used for plane wave measurements as per MIL-STD-285 requirements.



**CLS-2010/A**

Standard **CLS** antennas are intended for relatively permanent installations. The antenna cone is supplied with a mast, which can be mounted on any tripod with a 1/4-20 stud. **CLS** antennas may be supplied with special mounting holes in the base plate for end mounting.

Each **CLS series** antenna is individually calibrated at 1m per SAE ARP958, and supplied with a certificate of conformance.

### SPECIFICATIONS

U U U U U U U U U U INDIVIDUALLY CALIBRATED U U U U U U U U U U

	CLS-1010/A	CLS-2010/A	CLS-110/A	CLS-5018
<b>FREQUENCY</b>	100 MHz - 1 GHz	200 MHz - 1 GHz	1 - 10 GHz	0.5 - 18.0 GHz
<b>POLARIZATION</b>	LH Circular*	LH Circular*	LH Circular*	LH Circular*
<b>IMPEDANCE</b>	50 ohms	50 ohms	50 ohms	50 ohms
<b>VSWR</b>	2.5 : 1 (max.)	2.5 : 1 (max.)	2 : 1 (Typ.)	2 : 1 (Typ.)
<b>POWER</b>	100 W cw, 150 W peak	100 W cw, 150 W peak	50 W cw, 100 W peak	1 W
<b>CONNECTOR</b>	N female	N female	SMA female	SMA female
<b>LENGTH</b>	40"	32"	5.5"	10"
<b>DIAMETER</b>	26"	13"	4.5"	8"
<b>WEIGHT (LBS/KG)</b>	27 / 12.2	17 / 7.7	2 / .9	2.5 / 1.1

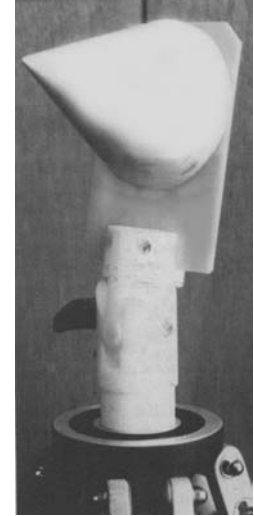
\* For right-hand circular polarization, add subscript 'R' to the model number while ordering.

### OPTIONS

- 1) Tripod TP-5
- 2) Tripod Pan/Tilt Head
- 3) 10-foot RF cable
- 4) Tilt adapter for **CLS-110/A**
- 5) Carrying Case/ Storage Case

TYPICAL ANTENNA FACTOR, GAIN AND INPUT POWER  
REQUIRED FOR GENERATING 10 V/M AT 1 METER SPACING

FREQUENCY (MHz)	CLS-1010/A			CLS-2010/A		
	Antenna Factor (dB m <sup>-1</sup> )	Gain (dBi)	E 10 V/m	Antenna Factor (dB m <sup>-1</sup> )	Gain (dBi)	E 10 V/m
100	12.5	-2.27	5.62			
200	12.2	4.05	1.31	17.2	-1.0	4.2
300	16.1	3.67	1.43	14.8	5.0	1.1
400	17.1	5.17	1.01	16.9	5.4	0.9
500	20.3	3.91	1.35	18.7	5.5	0.9
600	21.1	4.69	1.13	20.7	5.1	1.0
700	23.2	3.93	1.35	22.1	5.0	1.1
800	23.5	4.79	1.11	24.1	4.2	1.3
900	24.2	5.11	1.03	25.0	4.3	1.2
1000	24.9	5.33	.98	25.7	4.5	1.2



**CLS-110/A**  
with TILT MOUNT

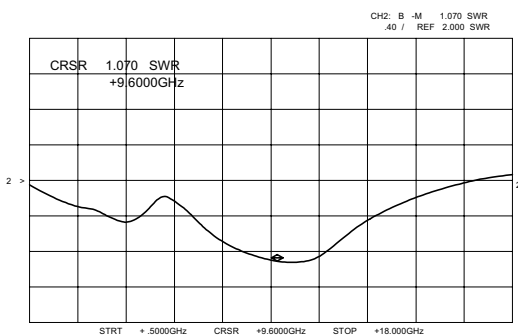
TYPICAL ANTENNA FACTOR AND GAIN

FREQUENCY (GHz)	CLS-110/A		CLS-5018
	ANTENNA FACTOR (dB M <sup>-1</sup> )	GAIN (dBi)	GAIN (dBic)
0.5			-1.5
1.0	29.23	1.0	-1.0
2.0	35.25	1.0	0.0
3.0	38.27	1.5	-1.1
4.0	38.77	3.5	0.1
5.0	42.71	1.5	-0.9
6.0	43.79	2.0	0.0
7.0	44.63	2.5	0.2
8.0	47.79	0.5	0.1
10.0	48.23	2.0	0.5
12			0.0
14			2.0
16			1.5
18			0.2



**CLS-5018**

**CLS-2010/A - Typical VSWR**



**CLS-110/A - Typical VSWR**

