

HF Loop Antenna 9kHz - 30MHz

HLA 6120

- Low flat antenna factor
- Useable with most test receivers
- Pulse overload warnings

The HLA 6120 is ideal for the 3m magnetic field measurements as required by VDE 0871 and FCC 18.

A preamplifier matches the extremely low impedance of the loop. The HLA 6120 has a virtually constant factor over the whole of its frequency range, making it ideal for swept measurement systems.

Overload Warnings for Confidence of Measurement

One of the main reasons active HF antennas have not been widely accepted is the lack of overload warnings. With the HLA 6120, overload indications, both audible and visual, are given when signals are present at a level likely to cause non-linearity in the preamplifier and thus impair the integrity of the measurement.

This important feature detects the presence of high level signals, either pulsed or continuous, and gives a warning. Even single pulses (clicks) can be detected. For unattended measurements, a hold facility can be used. When the antenna is used remotely, TTL level logic signals provide a warning indication.



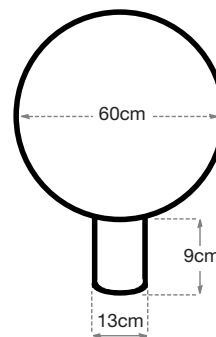
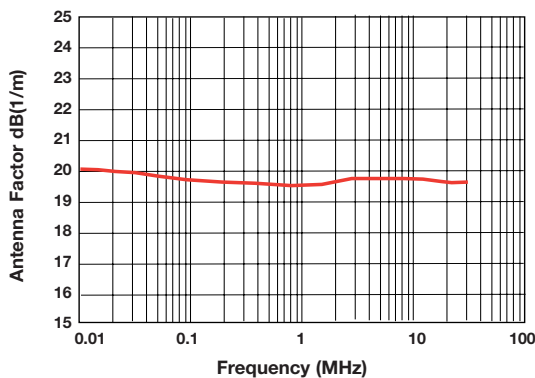
HLA 6120 mounted on optional tripod CAS 6012

Power Sources

The antenna is powered by an external power supply / battery pack, allowing operation both near to a mains power supply and in remote applications.

CBP9720 Battery pack supplied as standard

Typical Antenna Factor - HLA 6120



Technical Specifications		HLA 6120	
Frequency range	9kHz - 30MHz	Operating temperature range	0 - 50°C
Antenna factor	20dB±1dB	Size L x W cm	62 x 70
Maximum measurable field	>137dBµV/m (7V/m)	Weight	2kg
Overload threshold	140dBµV/m (10V/m)	Loop diameter	60cm
Output impedance	50Ω Nominal	Power supply requirements	90-265V ac 45-63Hz
Warnings (local & remote)	Low power, RF cable fault, signal overload	CBP9720 Battery pack supplied as standard	

Large Loop Antenna 9kHz - 30MHz

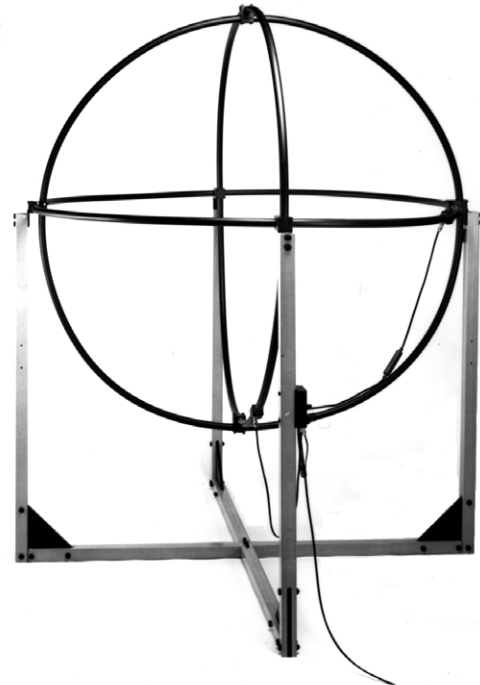
LLA 6142

- As specified in EN55015 (CISPR15)
- Individually calibrated

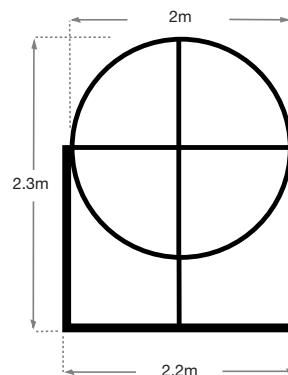
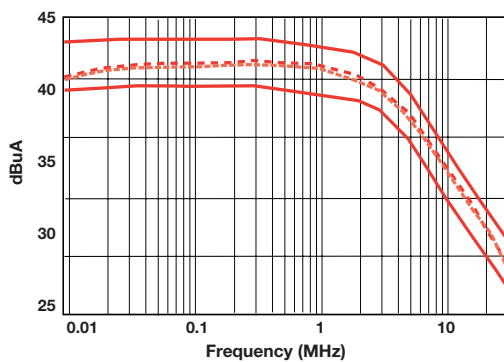
Field strength measurements at frequencies below 30MHz can pose problems with the super-imposition of ambient broadcast signals. In some cases, it is virtually impossible to make measurements at certain frequencies. This is due to the strength of ambient HF broadcast stations, both local and remote.

The LLA 6142 offers an ingenious solution to this problem. By placing the device under test inside the loop, the effect of ambient signals can be reduced dramatically; giving a signal to ambient noise improvement in the order of 40dB. This allows the loop to be used in almost any environment. This antenna is suitable for measurements according to EN55015. Tests have shown good correlation between conventional 60cm loop open site measurements.

The LLA 6142 consists of three identical single-turn shielded loops, each with Faraday gaps to give electric field rejection. The outputs from the 3 loops are routed via ferrite loaded cables to a coaxial switch on the main supporting frame of the antenna. The loops measure the magnetic component in three planes to emulate the three components of the magnetic dipole of the device under test.



Typical Frequency Response



Technical Specifications			LLA 6142
Frequency range	9kHz - 30MHz	Storage temperature range	-40 to + 70°C
Loops	Switchable Between X, Y & Z Planes	IP rating (IEC 529)	IP 52
Conversion factor of current probe	0dB ref to 1S (as required for EN55015)	Height	2.3m
RF Connector	BNC Female	Floor area occupied	2.2m x 2.2m
Impedance	50Ω	Diameter	2m
Operating temperature range	-10 to + 55°C	Weight	25kg