Anechoic Chamber

LS OF SOUTH AFRICA

LS telcom

LS of South Africa Radio Communication Services (Pty) Ltd

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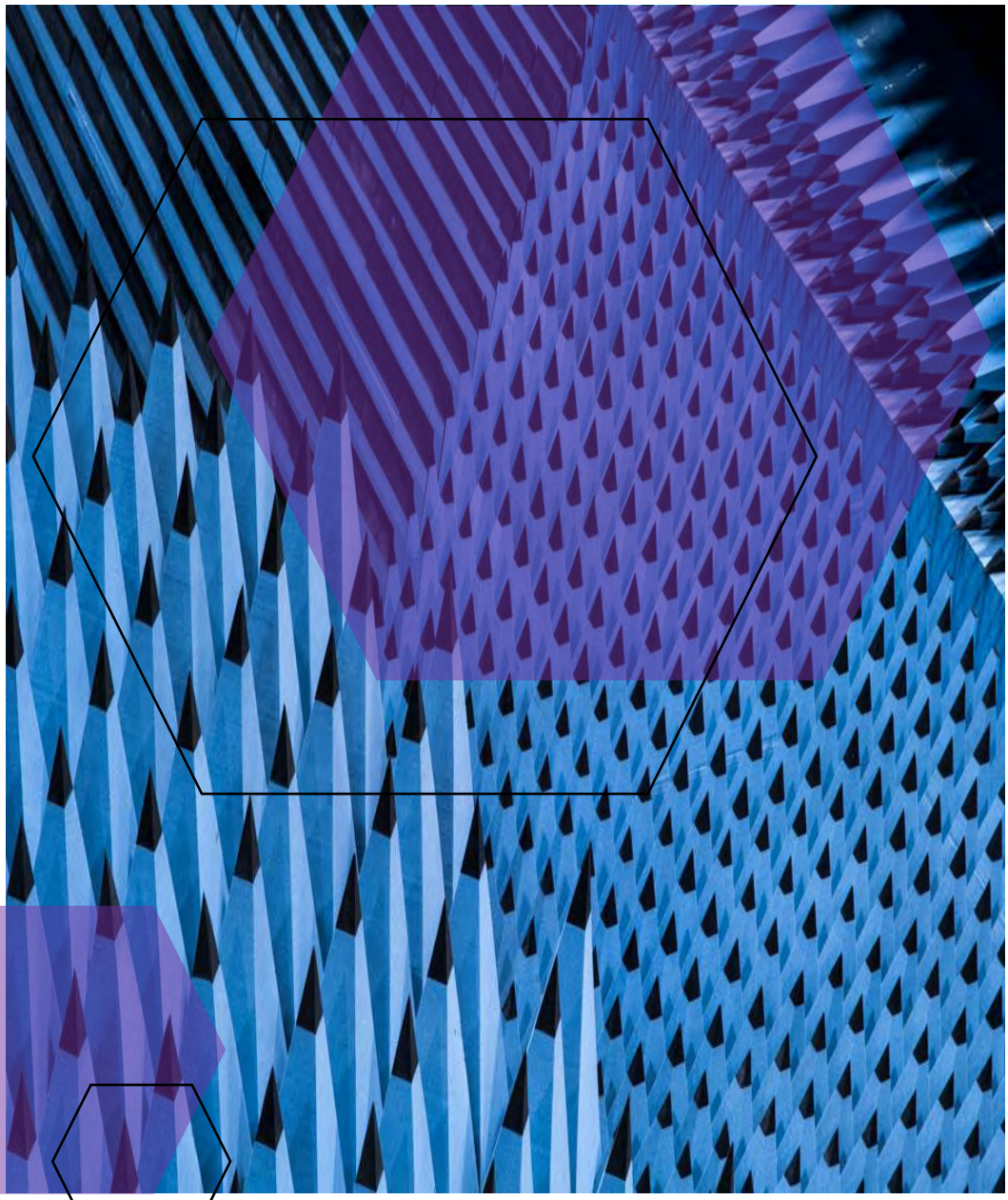

RF ANECHOIC CHAMBER

LS COMPLETES IT OWN FULLY LINED ANECHOIC CHAMBER

LS Completed its own full anechoic chamber, lined with conductive carbon material to reduce external RF interference, and eliminate multipath artifacts. This creates the ideal environment for testing antennas, radars, electronic devices, and is typically used to house antennas to test their performance of its radiation pattern and electromagnetic interference.

All electronic devices must undergo official certification before market launch and deployment to ensure compliance with RF regulators. LS offers in house Pre-compliance EMC and EMI testing to assist manufacturers in the prototype stage prior to entering official compliance and approval.

Our chamber meets the requirements for pre-compliance testing using the NSA method outlined in the CISPR-16-1-4.

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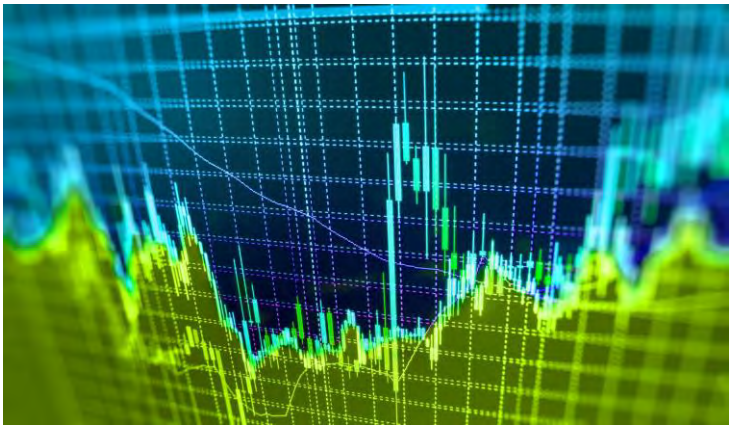
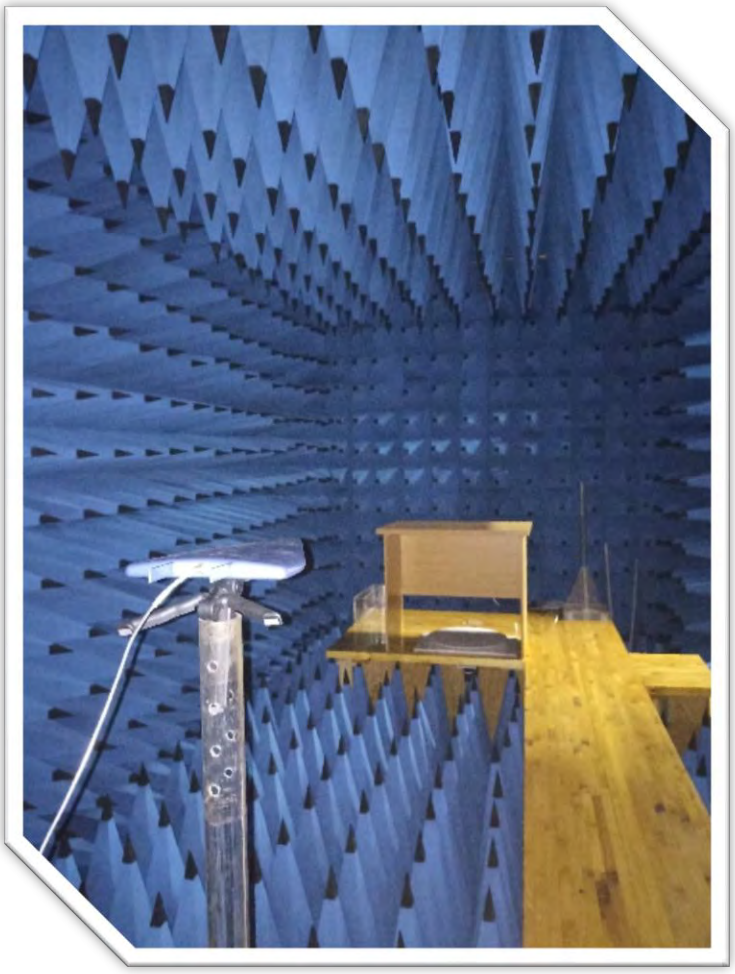


COMPLIANCE

BENEFITS OF USING OUR ANECHOIC CHAMBER

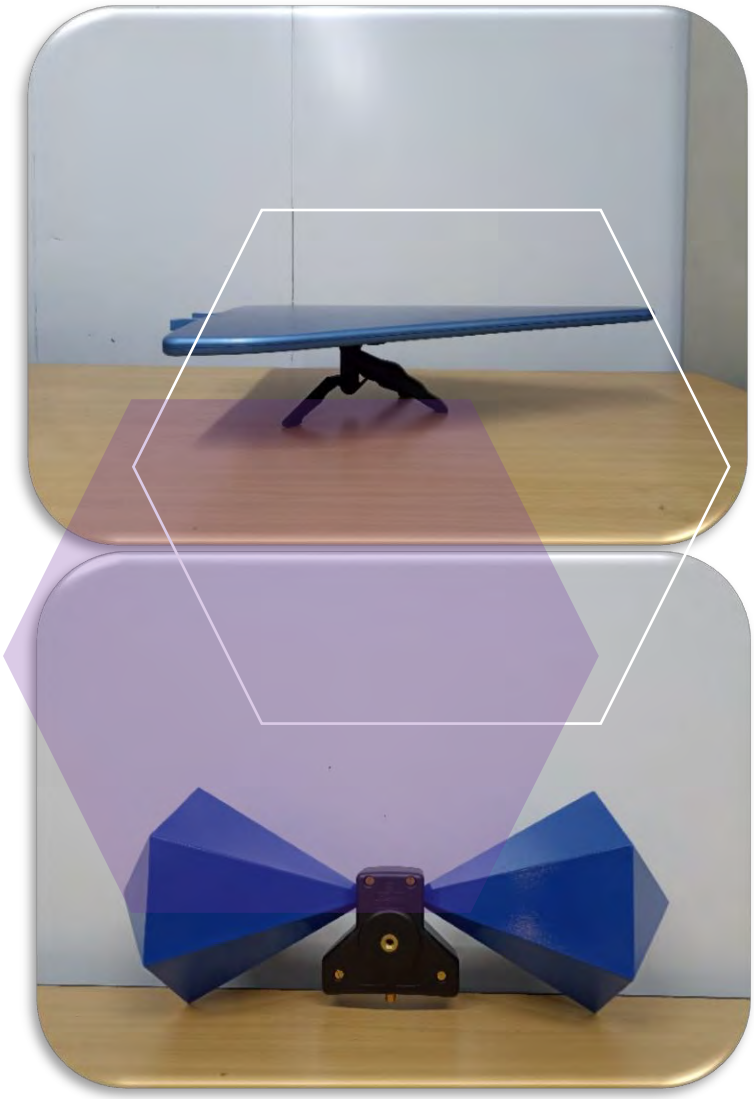
- Comply with ICASA Type approval regulations.
- High accuracy of EMC Pre-compliance measurements.
- *Fully lined walls and floor with carbon coated absorber cones eliminates multipath artifacts for accurate characterization of antenna field measurements.
- Use of Real-Time Spectrum Analyzer and a set of industry approved EMC antennas to obtain representative RF performance.
- Automated measurement reporting for fast turnaround testing times.
- A cost-effective way to determine whether your product will pass official certification.



CHAMBER SPECIFICATIONS

CHAMBER SIZE, SPECIFICATIONS AND ADVANTAGES.

- Our anechoic chamber measures 6m(L) x 5m(W) x 3m(H).
- Antenna separation of 3m allows for a large frequency range to be measured in the far field.
- Test volume of 1.2m to allow a range of devices to be measured.
- Offers about 100 dB of attenuation in 80 MHz – 6 GHz range.
- Can achieve a noise floor of-128 dBm.
- Remotely controlled turn table with a strong stepper motor for a 360 – degree antenna pattern measurements.



TYPE APPROVALS:

COMPLY WITH THE REGULATIONS!

In terms of section 35 (1) of the Electronic Communications Act, “No person may use, supply, sell, offer for sale or lease or hire any type of electronic communications equipment or electronic communications facility, including radio apparatus, used or to be used in connection with the provision of electronic communications, unless such equipment, electronic communications facility or radio apparatus has, subject to subsection (2), been approved by the Authority”. - https://www.icasa.org.za/pages/type-approval

Who needs to obtain a Type approval Certificate?

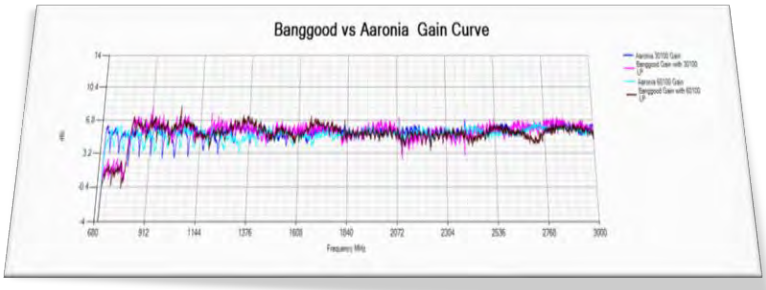
1. Manufacturers
2. Importers
3. Distributors

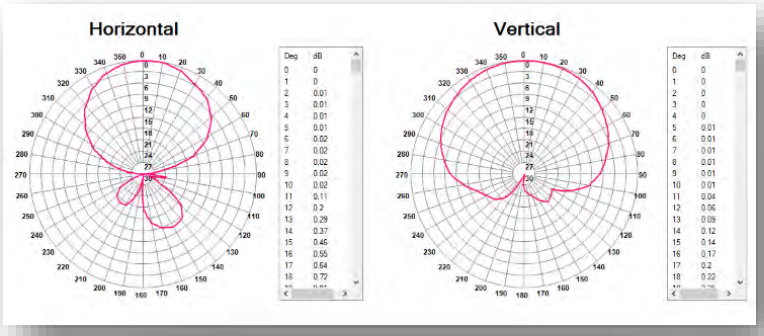
For more information on type approval regulations, exemptions, application process, fees, and forms, please visit their local website at: www.icasa.org.za

DELIVERABLES

WE PROVIDE YOU WITH THE FOLLOWING:

- EMC radiated measurements.
- EMI immunity measurements.
- Antenna pattern and gain characterization.
- Out of band measurements.
- Automated reports to cut down on costs.
- Advise and regulatory requirements input.
- State of the art equipment and engineering service.





CERTIFICATION

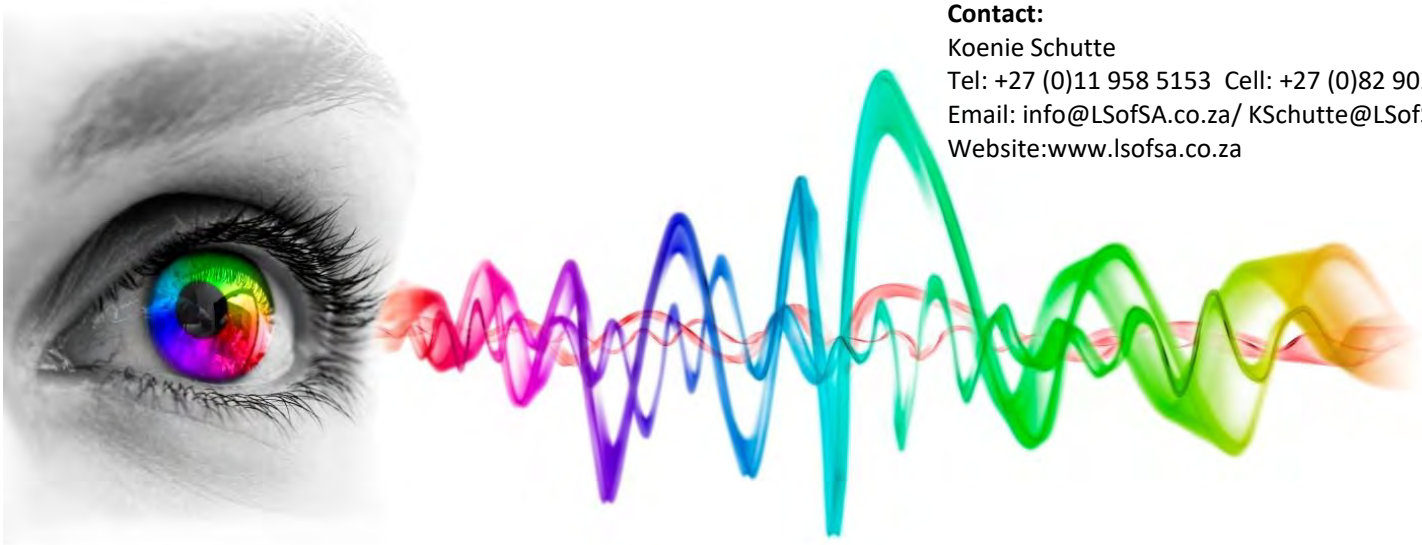
PROCESS

LS will provide highly detailed reports to the end client, where all the necessary points of evaluation will be addressed. These pre-compliance tests will ensure that the client is aware of all parameters measured and if all measured values are in line with electromagnetic parameters set out by ICASA.

Once pre-compliance is done and the client is certain that it will be type approved, the necessary compliance testing and initial report can be given to the end certified agent/company.

For Antenna Characterization, all parameters measured are delivered in a final report, where the following parameters are given:

- HRP
- VRP
- Gain
- Repeatability
- Front to back ratio
- Optional out of band characterization *what happens when you do not comply))



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