



## EMC INFORMATION REQUIRED FOR QUOTATION

To help us understand your requirements and provide an accurate quotation, the following information is generally required for EMC Testing:

- · Model name / number.
- · Dimensions and weight.
- · Power supply requirements.
- Brief description of the functionality of the system, including details of the environment where the system will be used.
- Test specification required (if known). We can advise if unknown according to the functionality of the equipment and the intended environment(s) it will be used in.
- Signal or I/O cable arrangements we need to know the number of cables between individual enclosures of the system, and cables to/from the boundary of the system.

## For each cable we will need to know:

- · Type
- $\cdot$  Length
- Shielded or unshielded
  (For example: 20m CAT6 Ethernet, 10m Shielded RS232, 1.8m unshielded USB, etc.).
- · If unshielded, we also need to know the number of cores.
- Number of operating modes (For EMC testing purposes, we would recommend testing in a worstcase mode of operation).

- Confirmation of the highest fundamental frequency of any internal clock/oscillator/processor.
- Details of what to monitor for confirmation of correct functionality during immunity testing, and how to do this (visually, via support laptop, or by any other means).
- Details of any wireless devices incorporated in the system (Wi-Fi, Bluetooth, GSM, etc). If present, we require confirmation that these are pre-approved devices installed in accordance with the manufacturer's instructions – see the Radio RF905 form for guidance.
- Confirmation of the electrical cycle time of the equipment in particular whether we can monitor the system for correct functionality in a 3 second window. This is important because the Radiated RF and Conducted RF immunity tests are performed across a defined frequency range at 1% frequency increments, with the applied RF field applied for a minimum of 3s at each increment. It is not a problem if it takes longer to verify performance, but this will increase the time needed to perform the test and hence increase the cost.
- If possible, please provide a data sheet or basic block diagram of the system, to show hardwired connections to/from the equipment and between enclosures of the system. See the diagram overleaf as a basic example.

## For further information on EMC Testing please contact one of our engaged experts.

UK: +44 808 234 1667 US: +1 888 786 7555 contact.us@element.com



Technical Guidance from Element Experts

Typical Block Diagram for EMC Testing



Please advise if signal cables are shielded or not, and if unshielded, the number of cores.

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