

# **LETIS**

**Laplace EMC Test Integration System**

## **User Guide**

Issue 1.0

May 2005

**LAPLACE INSTRUMENTS LTD**

# INTRODUCTION

The LETIS is designed to simplify the operation of integrated emissions and immunity test systems based on the Laplace range of equipment. It will automatically switch power amplifiers at the appropriate range change frequency (normally 1GHz) and permit switching between immunity mode and emissions measurement mode. The LETIS is controlled via USB port from the standard RFSynth software provided with the RF1000, RF2000 or RF3000 synthesisers.

Safety features include the switching of power amplifiers to 'standby' mode when they are not 'on-line' and segregation of RF feeds between the emissions path and the immunity path.

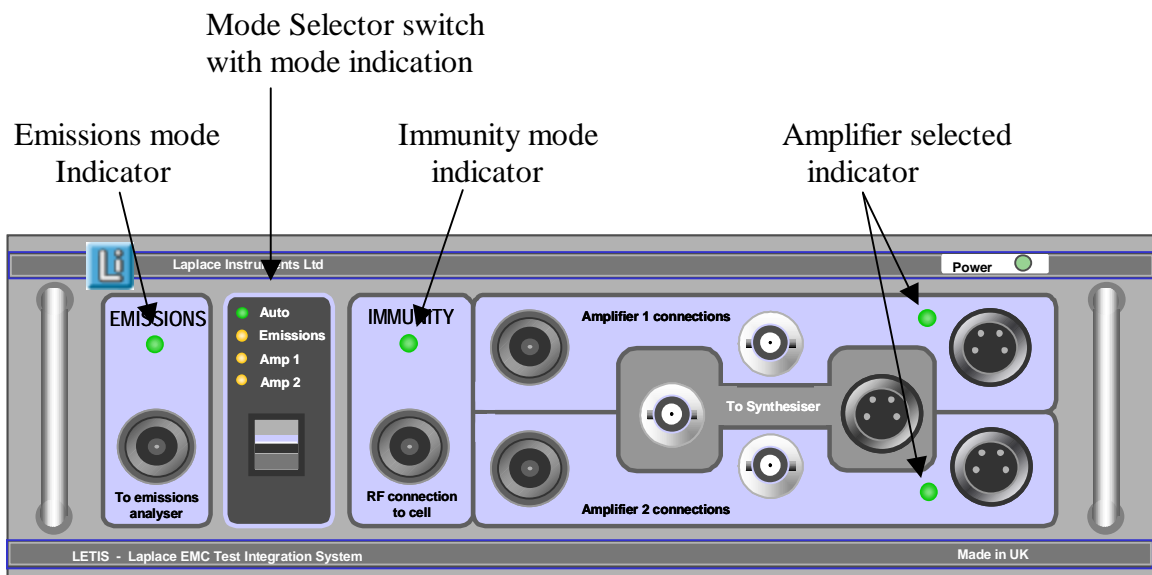
Operation can be either fully automatic, or manual from the front panel.

## Description

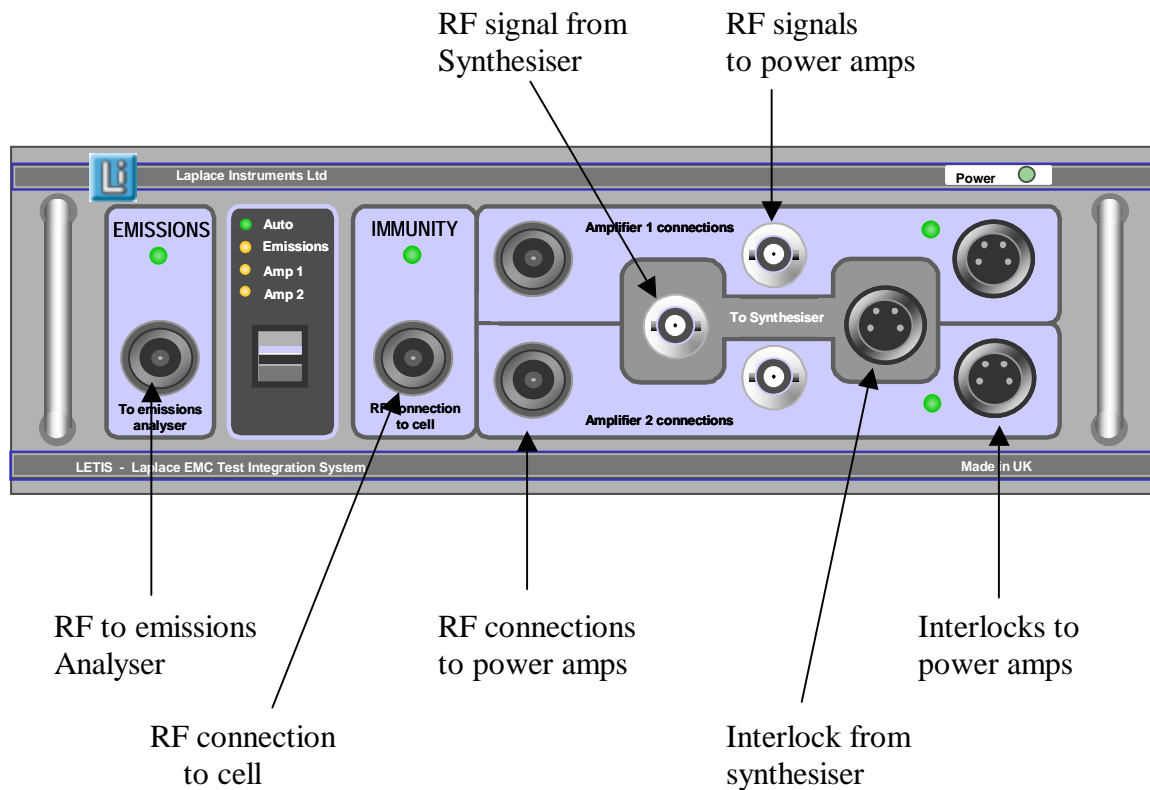
The LETIS uses the same case format as the standard Laplace range of instrumentation and can be stacked in the normal manner. Power is provided by mains and has an auto sensing PSU which can accept 110V – 240V, 50/60Hz. The USB port and mains power socket are on the rear panel, all other connectors and controls are on the front panel.

## Front Panel

### Controls and indicators



## Connections



## Operation

1. Connect all cables as shown below.
2. Switch all units on.
3. The LETIS should default to Auto, Emissions mode.
4. The system can be used for emissions testing only at this stage.
5. For auto operation and immunity testing, connect the USB cable from the LETIS and the PC.
6. Run the RFSynth software.
7. The LETIS will switch to a power amplifier only when actually running an immunity test.
8. If you need emissions testing, simply close the RFSynth software.
9. For immunity testing, leave the mode in Auto. The power amplifiers will automatically switch at 1GHz.

## NOTES

- \* If not using the RFSynth software, the mode selector switch can be used to operate the system in Manual mode.
- \* If the switch is used to exit Auto mode, the RFSynth software must be restarted to resume Auto operation.

- \* When in Auto mode, pressing the mode selector switch down will exit Auto mode (green LED turned off) but leave the selected channel unchanged. Therefore use the Up or Down positions to select the required channel. If the switch is used UP to reselect Auto operation, the RFSynth software must be restarted (as described above).

The diagram shows a typical system with SA1000 emissions analyser, RF2000 synthesiser, RF1100 and RF1200 power amplifiers. All other configurations will be similar or have some sections omitted.

