

## LAPLACE INSTRUMENTS MODEL / RANGE SELECTOR

Model	Item	Notes	1	2	3	4	5	6	7	8	9	10
SA1002	EMC emissions analyser	10KHz—1.1GHz, includes PC software and serial interface	RF3G	●	●	●	●		●			
SA3000	EMC emissions analyser	As SA1000 but with frequency range 10KHz—3GHz RF3G	RF3G	●	●					●	●	
-optA	SA3000 option	200Hz RBW for band A (10KHz—150KHz)		●		●						
-optTG	SA3000 option	Tracking generator output		●	●	●	●		●	●	●	
SA1020	Broadband pre-amplifier	10KHz—1GHz, 20dB gain, low noise, battery powered.	Inc.						●	●	●	
RF100	Near Field Probe set	E and H field probes. Used for detection of potential emission frequencies and 'hot spots'.	Inc.						●	●	●	
CTK015	Active near field probes	Self contained, small tip, flat response, with RF output.										
RF200	Broadband antenna	30MHz—1GHz, calibrated log periodic with adjustable stand	B		●						●	
RF240	Broadband antenna	800MHz—4GHz log periodic antenna	B2		●						●	
RF300	Large loop antenna	Complies with CISPR15/EN55015. 2 metre diameter, 3 axis	L			●						
RF300C	Calibration loop	For RF300, calibration loop to EN55015	LC			●						
RF600	FM band filter	Used where FM radio signals prevent radiated tests on OATS	F		●						●	
RF700	30MHz high pass filter	Used to reduce low frequency noise during mission tests	H		●						●	
RF800	Band B Filter	Filter, 150KHz—30MHz. Reduces out-of-band noise.	J		●						●	
RF910	Band B pre-selector	Automatic pre-selector, 150KHz to 30MHz, 8 sub bands	R	●				●				
RF915	Band A & B pre-selector	Automatic pre-selector, 9KHz to 30MHz, 11 sub bands	RA	●		●	●					
ARA	Compact antenna	Broadband active dipole antenna, 30MHz to 1GHz	ARA									
CTS011	Miniature antenna	Broadband active antenna, 30MHz to 2.5GHz. Very small!	CTS									
ERS	Emissions Ref. Source	Traceable standard for test site calibration.	C			●					●	
EMC3.5G	Emissions Ref. Source	Comparison source of emissions to 3.5GHz	C3			●						
LISN16A1P	Single phase LISN	Fully compliant 2 line LISN with pulse limiter and pre-amp. Full range of commercial and military LISNs also available.	4	●		●	●					
PLIP	Voltage probe	CISPR16 voltage probe with protective galvanic isolation	6	●		●	●					
CRS-1530	Conducted Ref. Source	Calibration source for LISNs. Ensures accurate results.	CC	●		●	●					
Scan-EM	Near field E & H probes	Active probes. Sensitive, small and flat freq. response.										
RF1000	1GHz Synthesiser	Signal source and system controller. Incl. PC software.						●	●			
RF2000	2.4GHz Synthesiser	Higher frequency version of above. Range 30MHz—2.4GHz						●	●	●	●	
RF3000	3GHz Synthesiser	As above, but to 3GHz						●	●	●	●	
-RH	Option for synthesisers	Interface to HI-4422 remote field sensor via fibre optic link									●	
HI-4422	Field sensor	Isotropic sensor, 30MHz—1GHz (2GHz option available)									●	
RF1100	Power amplifier	30MHz—1GHz, 24W output						●	●	●	●	
RF1170	Power amplifier	30MHz—1GHz, 70W output						●	●	●	●	
RF1200	Power amplifier	0.8GHz—2GHz, 12W output						●	●	●	●	
RF1240	Power amplifier	0.8GHz—2GHz, 40W output						●	●	●	●	
RF1300	Power amplifier	0.8GHz—3GHz, 8W output						●	●	●	●	
LETIS	System integrator	Automatic switching unit for immunity test systems.								●	●	
Lc300/2	Test cell	30MHz—3GHz, emissions and immunity, fully calibrated.						●	●	●	●	
Lc600	Test cell	Larger version of above to 60cm cube EUT						●	●	●	●	
CIT-10	Conducted RF tester	100KHz—250MHz integrated test system. Includes PC software										●
CDN		Full range available										
AC2000	IEC61000-3-2 and -3	Harmonics and Flicker analyser										●
AC1000	Clean power source	Low THD supply for harmonics tests. Rated at 1kW										●

### KEY

Included ●  
Option ●  
Select one ●

### Notes

1. Kit code
2. Conducted
3. EN55022
4. EN55015
5. EN55014
6. IEC61000-4-3
7. CLIENTS (1GHz)
8. CLIENTS (2/3GHz)
9. Chamber system
10. IEC61000-3-2 & -3

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# LAPLACE INSTRUMENTS

## EMC Compliance Test Solutions

- ▼ An integrated range covering emissions and RF immunity.
- ▼ European, US and international standards.
- ▼ Convenient desk-top systems.
- ▼ Designed for the non specialist.
- ▼ Create your own test laboratory.
- ▼ Self test and self certify.

### Unique Features

- No need for emissions test site (OATS)! Test where convenient, no restriction on product size or location.
- Test integrity assured due to unique Reference Source and integrated auto-correction software.
- Unique LaplaCell provides an instant benchtop solution for both radiated emissions and RFI immunity compliance testing.

The use of in-house facilities for EMC emissions testing has now become recognised as a cost effective and logical contribution to the EMC compliance strategy for any organisation.

The Laplace range of EMC test products is designed to provide the user with all that is required to perform compliance or pre-compliance testing for all common EN and FCC standards.



LAPLACE INSTRUMENTS LIMITED



EN55011 IEC61000-4-3 EN55022 IEC61000-3-2 IEC61000-4-6 FCC part 18 Def Stan59-41 CISPR16 EN50081-1 EN50081-2 EN55015

EMC testing is all about selecting the right test equipment for the particular type of product to be tested. This requires consideration of the product application, its use, its size and decisions about the standards to be used. Then the resources available in terms of test site must be considered. Some tests/standards are not site critical, others are. The diagram below will help to make informed choices as to the most cost effective solution.

Laplace supplies EMC test products to test houses, laboratories and organisations both large and small. At every level, Laplace equipment offers a proven, practical, cost effective solution.

**Before deciding...check the facts!!**

**Fact 1.**

For most radiated emissions testing the dominant source of measurement error is the test site. This includes OATS (Open Area Test Site), Anechoic chambers, screened rooms and test cells.

Laplace emissions test systems are unique in having the ability (as standard) to **calibrate** the test site and to **automatically apply correction factors** to the results.

Synthesisers also act as system controllers and PC interface, providing fully automated test routines.

Harmonics test now mandatory on all products

A complete test system for conducted RF

Required for accurate harmonics measurements

**Fact 2.**

The second most important source of error is background interference. This is always a factor on OATS and intermittent background signals are a particular difficulty.

The Laplace emissions test software includes **powerful routines to cope with background interference**, even intermittent signals and unstable conditions.

**Fact 3.**

RFI susceptibility, although a common problem in the modern world, is the most difficult test to perform as it requires considerable resources in terms of test chambers and RF generators.

The LaplaCell300 and associated modules provides a **fully compliant IEC61000-4-3 immunity test system** easy to use and at a very affordable price.

The LaplaCell300 test cell also provides an ideal solution to the problems of OATS as listed above. So the one cell provides a complete solution for all the test site difficulties.

