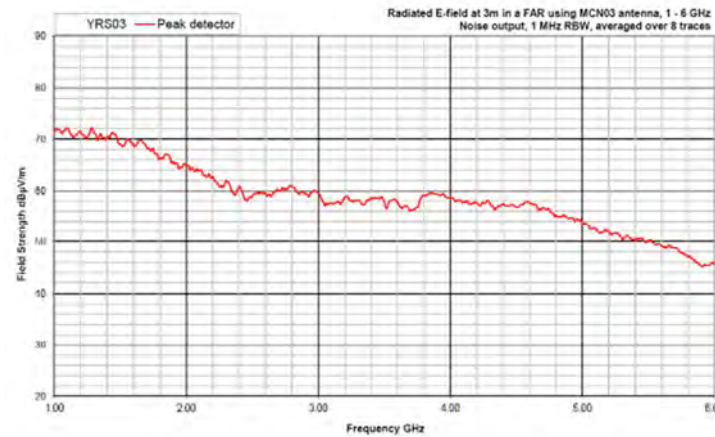
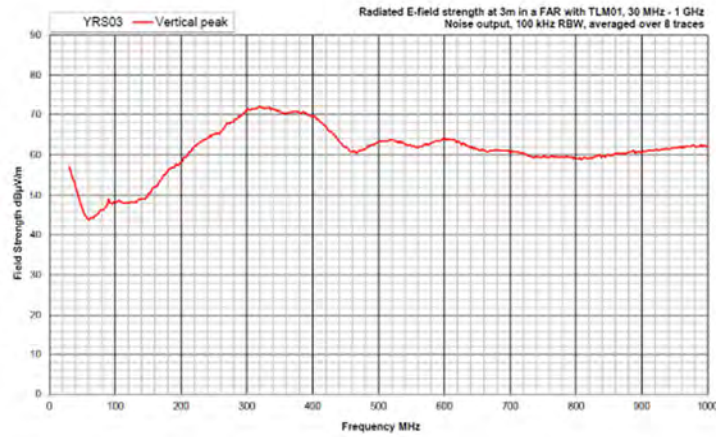
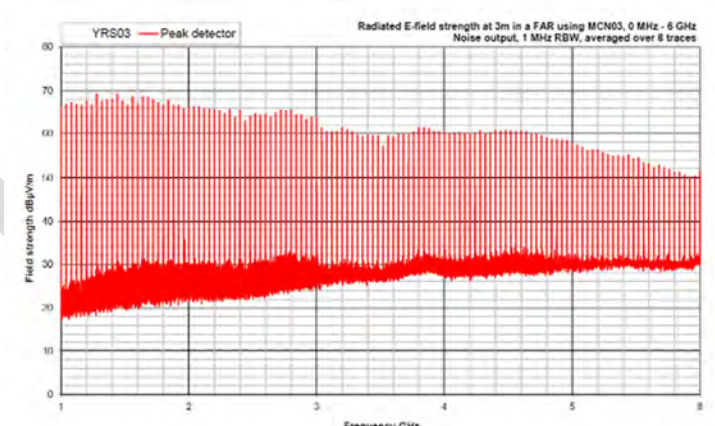
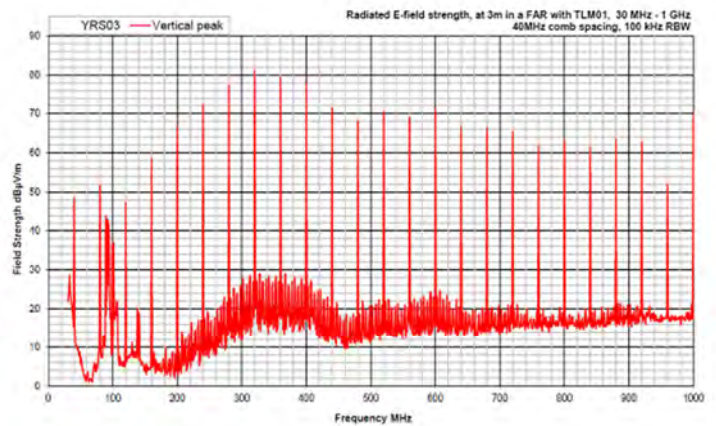
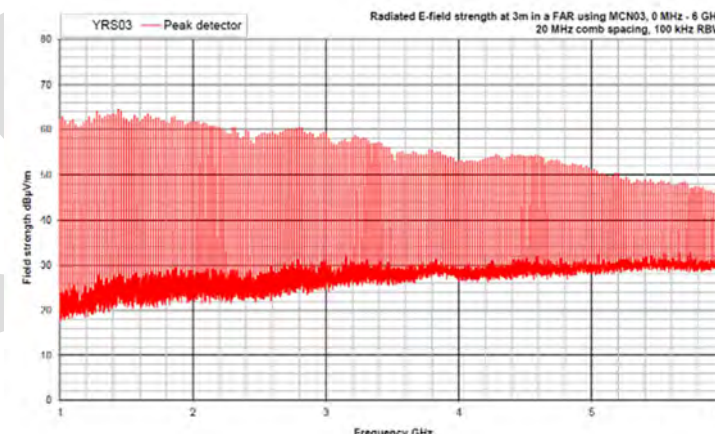
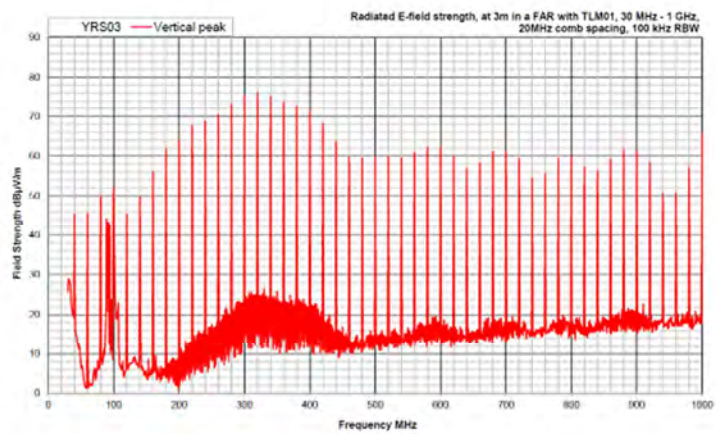


Typical radiated measurement results (measured using a spectrum analyser)

Noise output



Comb output



YRS03 – York Reference Source

The YRS03 is a multi-mode reference source capable of producing a broadband noise or comb output up to 6GHz.

- Selectable noise or comb output
  - ✓ Flexibility across a range of applications
- Stable output
  - ✓ Repeatable measurements
- 10 MHz to 6 GHz output
  - ✓ Applications across a broad frequency spectrum
- Compact and portable
  - ✓ Comparisons between sites and environments
- Battery powered
  - ✓ No power or interconnecting cable effects on measurements

The YRS03 is a broadband noise and comb source that is capable of producing a continuous noise output or a comb of frequencies within the 10 MHz to 6 GHz range, with step size being selected by the user. The noise generator enables observation of details over the full spectral range, while the comb generator allows for the reference signal output and noise floor to be viewed simultaneously.

For radiated operation the output can be attached to a selection of antennas available in a range of frequency coverage and types.

The YRS03 is an ideal source for carrying out checks on Open Area Test Sites (OATS) and fully- or semi-anechoic chambers. The YRS03 is compact and battery powered, allowing operation as an electrically small source, which minimises the effect of the YRS03 itself when characterising the electromagnetic environment. The YRS03 is housed in a metal enclosure so that it can be mounted in direct contact with a metal ground plane as may be required by some tests.



Applications

- Radiated and conducted measurement systems validation and verification
- Reference source for:
  - ✓ Daily pre-test checks as required by the accreditation authorities e.g. ISO17025, DEFSTAN 59-411
  - ✓ Long-term performance monitoring
  - ✓ Cable position investigation
  - ✓ Investigation of screened room behaviour
  - ✓ Characterisation of filter performance
  - ✓ Cable loss measurements
- Measuring amplifier gain and bandwidth
- Spectrum analyser/receiver pre-check
- Investigation and characterisation of different measurement environments such as OATS, fully- or semi-anechoic chambers



**Specifications**

<b>Noise mode:</b>	
Frequency Range	10 MHz to 6 GHz direct connection into 50Ω system 30MHz to 6 GHz radiated using MON03 monopole and MCN03 monocone antennas
Temperature stability	15°C to 30°C <+/-1dB 10 MHz to 6 GHz, 5°C to 40°C <+/-2.5dB 10 MHz to 6 GHz
Time stability	<1dB (typical over a 12 month period)
Operating time	7 hours typical with alkaline cells
<b>Comb modes:</b>	
Frequency Range	10 MHz to 6GHz direct connection into 50Ω system 30MHz to 1GHz radiated using TLM02 and MON03 monopole antennas
Comb signal step size	Selectable between: 5 MHz (5 MHz, 10 MHz, ... 3 GHz min.) 10 MHz (10 MHz, 20 MHz, ... 3 GHz min.) 20 MHz (20 MHz, 40 MHz, ... 6 GHz min.) 40 MHz (40 MHz, 80 MHz, ... 6 GHz min.)
Temperature stability	Amplitude: 15°C to 30°C <+/-0.5dB 10 MHz to 6 GHz, 5°C to 40°C <+/-1dB 10 MHz to 6 GHz Frequency: 5°C to 40°C <+/- 0.5 ppm
Time stability	<1dB (typical over 12 month period) <+/-1 ppm (typical over a 12 month period)
Operating time	10 hours typical with alkaline cells
<b>Other:</b>	
Output connector	50 Ω N-type socket
Dimensions	120 mm x 120 mm x 60 mm (79 mm including connector)
Weight	1kg (including cells)
Power supply	4 x 1.5V cells (AA or equivalent). Alkaline or rechargeable.
Indicators	Active – green LED Battery low – red LED
Controls	Rotary switch for mode selection including OFF

**Standard order kits**

Part Number	Description	Parts included
YRS03KIT01	Standard YRS03 reference source kit with antenna	<ul style="list-style-type: none"> <li>• YRS03 reference source</li> <li>• MCN03 - 1 to 6 GHz (optimum) monocone antenna</li> <li>• Hard case</li> <li>• 4 x AA cells</li> <li>• Manual</li> </ul>
YRS03KIT02	Enhanced YRS03 reference source kit with multiple antennas	<ul style="list-style-type: none"> <li>• As per YRS03KIT01 plus</li> <li>• TLM02 - 30MHz to 300MHz (optimum) 270mm long top-loaded monopole</li> <li>• MON03 - 200 MHz to 1 GHz (optimum) 270 mm long monopole antenna</li> </ul>

**Accessories**

<b>Antenna</b>	TLM02	30MHz to 300MHz (optimum) 290 mm long top-loaded monopole
	MON03	200 MHz to 1 GHz (optimum) 270 mm long monopole antenna
	MCN03	1 to 6 GHz (optimum) 120 mm diameter monocone antenna.

**Output measurement results**

TBC

**Typical direct output measurement results (measured using a spectrum analyser)**

