

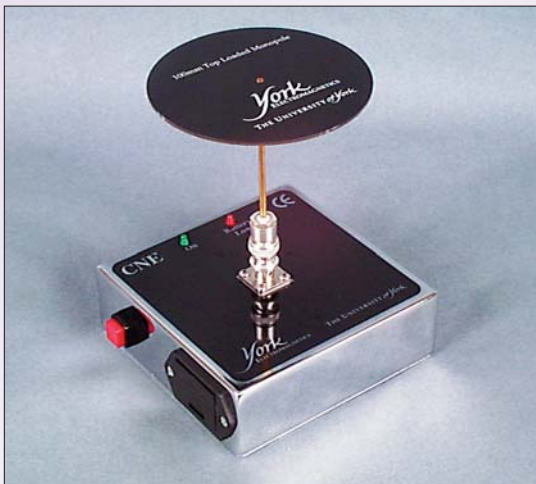
## A LOW COST Comparison Noise Emitter CNE V

### Introduction

The Comparison Noise Emitter (CNE) was developed by the University of York as a research tool for the evaluation of screened room resonances. CNE V has been developed as a low cost version in response to the needs of pre-compliance test equipment users. In terms of its RF performance it is comparable to the CNE III. The main difference is the battery requirement. CNE V operates from a single PP3 9v battery. Either a rechargeable NiMH battery or a standard alkaline battery can be used.

### Description

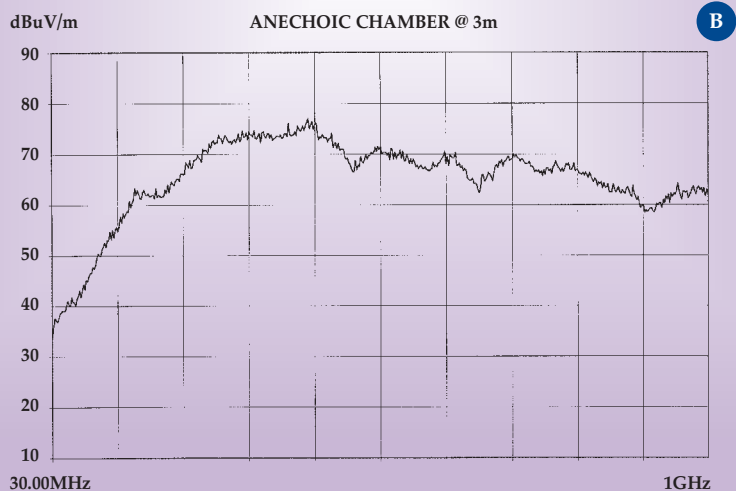
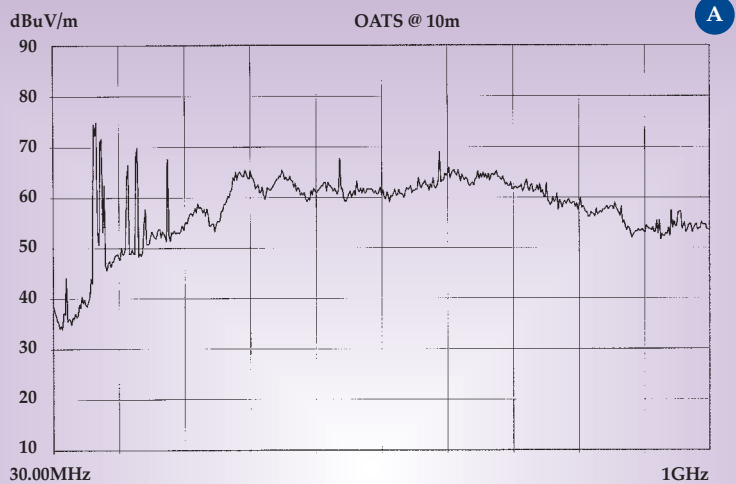
The CNE V is a broadband noise source with a useable output power from 30MHz to 1GHz. A monopole antenna is available which may be attached to the BNC connector on the top of the unit enabling it to act as a radiating field source. The CNE can be used as a source for carrying out checks on open area test sites (OATS) and anechoic chambers. The broadband nature of the output enables the observation of details that would be missed with a comb generator. The power output of the unit also avoids the over-loads possible with impulsive noise sources which may cause damage to the sensitive input circuits of receiving equipment. The unit is battery powered so that it can be operated as a 'small' source without the effect of cables which would modify the fields generated. An LED indicates when the battery power is low. The battery is easily removed and replaced to minimise the potential downtime. The CNE is housed in a plated metal box and can be orientated to give vertical or horizontal polarisation. The small size and light weight make it ideal for spot checks and portability.



### Applications

- ◆ Comparison between different measurement environments such as OATS or Anechoic Chambers
- ◆ As a reference source for radiated measurement systems:
  - daily pre-test checks
  - long term performance monitoring
  - cable position investigation
- ◆ Investigation of screened room behaviour
- ◆ Characterising filter performance
  - Measuring cable loss

Typical field strengths **A** at 10m on an OATS **B** in an anechoic chamber at 3m. Measurements taken with the 100mm top loaded monopole. Vertical polarisation with bandwidth of 120 kHz.



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### Technical details

Frequency range	30MHz to 1GHz Useable down to 150kHz
Output	50 ohms nominal
Power Source	PP3 9v battery
Battery Life	NiMH rechargeable 2 hours Alkaline cell 5 hours
Battery monitor	Green LED Indicates normal operation Red LED Indicates battery low
Output connector	BNC female
Size	120 x 120 x 41mm (60mm including BNC connector)
Finish	Chrome plated steel
Weight	525g

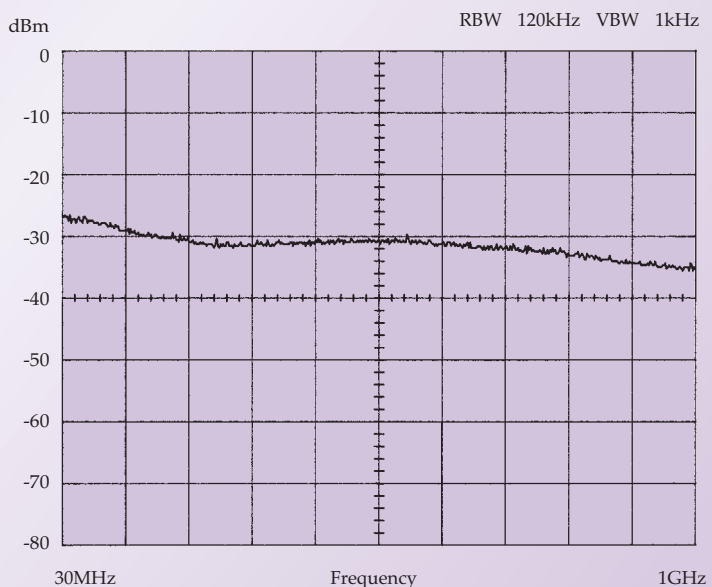
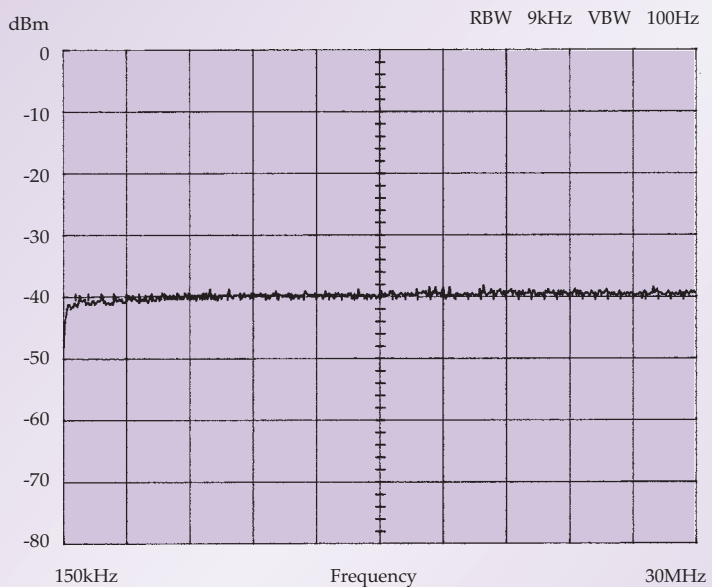
### Antenna TLM03

Type	100mm top loaded monopole
Frequency range	30MHz to 1GHz
length	100mm
disk diameter	100mm

### Ordering Information

Order Code	CNEP02
Includes	CNE V 30MHz to 1GHz Comparison Noise Emitter TLM03 100mm Top Loaded Monopole PP3 9v NiMH Battery BCH02 Battery Charger
User Manual	Test Plots: (1) Direct output 30MHz to 1GHz measured on a Spectrum analyser.

### Typical output power into 50 ohms



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