



**TMD Technologies Limited**

Swallowfield Way Hayes Middlesex UB3 1DQ UK  
Tel 44 (0)20 8573 5555 Fax 44 (0)20 8569 1839

Ref: TMD408

Date: 26 March 2008

## Press Release

TMD develops ground-breaking 150 kV gridded electron gun

A ground-breaking gridded electron gun operating at 150 kV and 10 A has been developed by TMD Technologies. The device is believed to be one of the highest voltage shadow gridded designs ever built.

The design has a low emittance beam and the cathode is magnetically immersed, making the beam less susceptible to external magnetic fields. Both these features improve the quality of the electron beam.

The programme was funded by UK MoD via the DTIC (Defence Technology Innovation Centre).

“We completed the development in under twelve months,” explained TMD engineering director Howard Smith. “This was only possible due to our extensive experience in high voltage electron gun design.”

The company has previously developed un-gridded guns up to 250 kV and many other gridded designs at 30, 50 and 90 kV. Uses for these types of electron guns include high power radar systems, particle accelerators and other scientific research applications.

TMD employs finite element computer modelling and makes use of its in-house machine shop to provide rapid prototyping. The company has in-depth knowledge and experience of the wide variety of materials and processes involved in the design and manufacture of electron guns and thermionic dispenser cathodes.

TMD is able to produce designs for a wide variety of applications, including scientific research, medical LINACS and defence.

-ends-

Photo caption

TMD's 150 kV gridded electron gun is believed to be one of the highest voltage shadow gridded designs ever built.



Notes for editors

TMD Technologies is one of the world's leading designers and manufacturers of specialised transmitters for radar and electronic warfare applications, high voltage power supplies and microwave tubes. The multiple Queen's Award winning company also produces a range of advanced commercial microwave amplifiers for EMC testing and scientific applications.

Press enquiries

Stephen Bailey  
Antimony Communications

or

Heather Skinner  
TMD Technologies

Tel: +44 (0)1483 416807  
Fax: +44 (0)8707 656807  
Mobile: +44 (0)7010 716807  
Email: sbailey@antimony.co.uk

Tel: +44 (0)20 8581 5002  
Fax: +44 (0)20 8581 5012  
Email: heather.skinner@tmd.co.uk  
Web: www.tmd.co.uk

TMD Technologies Limited, Unit 3, Swallowfield Way, Hayes, Middlesex, UB3 1DQ, UK