



**The on-line Magazine for the customers of TMD Technologies Limited
(Thorn Microwave Devices Ltd)**

Issue 17: Autumn 2000

MD's Message

TMD's strategy to develop international markets is continuing, and our customer base is strengthening. It is just as well, given the decline in the size of the domestic market!

We have successfully changed our banking arrangements, and are now with Royal Bank of Scotland. We are consequently able to provide competent support to our overseas customers requiring complex banking facilities, and have found RBS service to be extremely effective.

In June we changed the company name to remove reference to Thorn; our new name more adequately describes the changing base of our business.

As a measure of the progress my management team is making to improve the processes and procedures of our business operation, we were recently audited by several different customers, and finally by BSI. I am pleased to say that not only did we come out with flying colours, but also the progress we are making to professionalise our business was highlighted by our customers.

It is a long, slow process to implement change; we still have a way to go, and are committed to the process of continuous improvement.

*Peter J. Butcher
Chairman and Managing Director*

TMD Technologies Limited is celebrating its change of name with an exciting display of products and services on Stand 95 at European Microwave 2000.

On show will be a selection from the company's range of microwave tubes, power supplies, amplifiers, and receivers for radar, EW, EMC, communications, laboratory and medical applications. Also, TMD will be showing examples from its expanding Processing Services operation.

Following its recent partnership with the French company Prâna R & D, TMD is currently engaged in developing a range of amplifiers that will cover the entire frequency range required for full EMC testing (see inside).

TMD's range of advanced TWTs now includes a new Ku band tube with a peak power of 2 kW.

Also on show will be the 50 kW PTM6363 high voltage power supply for high performance radar.

In addition, there will be a demonstration of receiver capability for ELINT and COMINT incorporating TMD's advanced pulse analysis and digital signal processing (DSP) technology.

IN THIS ISSUE

- * Amplifier One-Stop Shop
- * On Show in Australia
- * Quality News
- * New Appointment

Throughout the 1990s, TMD's instrumentation amplifier range for EMC, radar, EW, communications, medical and scientific applications has been going from strength to strength.

Thanks to unique power supply technology gained from military specification design experience, TMD has produced amplifiers with an excellent reputation for high performance and reliability. At only typically 177 mm high x 700 mm deep, and weighing a mere 27 kg, they are the smallest and lightest available on the market.

Increased amplifier output power and extended frequency range has enabled TMD to offer the most attractive package at the best price combined with quick delivery. Furthermore, maximum design and production flexibility ensures that every effort is made to meet customers' particular specification requirements.

Fine examples of TMD's unique expertise are the new millimetric amplifiers, such as the 100 W pulsed, 34.82-34.9 GHz PTC6429, developed specifically to address the more stringent EMC test requirements for avionics subsystems, as well as for communications and weather radar.

Amplifiers for IFF Testing

TMD has now developed a new range of solid state amplifiers for IFF testing in the band 1030-1080 MHz, with pulsed power up to 1 kW. The first amplifier to be introduced is the PTC6434, designed for a naval surface platform.

Expansion of Amplifier Range for EMC Testing TMD is working towards providing suites of amplifiers to cover the entire frequency range currently required for full EMC test capability. To achieve this, the company has significantly extended its range of low frequency amplifiers through partnership with the French company Prâna R & D based in Brive, France.

Prâna is a specialist and world leader in Class A* solid state amplifier technology from 10 kHz -4 GHz for EMC testing, communications and scientific applications. This technology complements TMD's own Class C** solid state capability used mainly for laboratory, medical and military applications - see ('Amplifiers for IFF Testing', above).

Thus the individual strengths of TMD and Prâna combine to offer an impressive amplifier capability ranging from 10 kHz-40 GHz, with output powers from 50 W-20 kW.

*Broadband, linear

**Narrow band, high power

New Look for Year 2000

In recognition of their new partnership, both TMD and Prâna have changed the livery of their amplifiers to a distinctive black and gold.

Quality News

July and August this year has been a very busy time for audits, and I am delighted to say that we have come through with flying colours.

At a recent six monthly BSI audit to renew our ISO9001 certification (which this time was also a two year strategic review) we achieved zero non-conformities, and the auditor commented that he considered TMD's progress to be excellent!

Moreover, we have been successfully audited by two major customers who were also very pleased with TMD, as shown below:

".....the changes made over the past two years have been excellent; a great improvement since our last visit two years ago; and the degree of control maintained during so much change has been impressive".

"..... TMD is a professional and forward thinking company"

We are very proud of these outside views of TMD, because they reflect all the hard work we have done to improve our quality performance over the past few years. Now we have revitalised enthusiasm to continue the improvement process even further!

Lynne Pegler Quality Director

Woolloomooloo Naval Base, Garden Island Fleet Base East, Defence Exhibition
- 17-18 August 2000

An annual event held in Sydney at the Naval Base at Woolloomooloo, this year's exhibition was a joint effort which combined key people and resources from the UK MoD DESO/RN, the Australian Defence Force (ADF) and, in particular, the Royal Australian Navy (RAN).

The exhibition was set up in a marquee on the quayside alongside the British warship HMS Sutherland, a UK Type 23 destroyer moored at the Naval Base with other UK and Australian ships especially for the event.

There were approximately 30 exhibitors, including companies from both the UK and Australian Defence Industries such as BAE, Racal, and Rolls Royce.

More than 200 key visitors attended, mainly from the Australian Defence Industry (ADF & RAN) and the UK DoD.

TMD was delighted to have the opportunity to be present at this exhibition, which offered high level exposure to many key decision makers and departments in ADF (Army, Navy, Air Force and research units) and the

Australian industry in general. The principal EW areas that TMD networked were via the Australian Chapter of the Association of Old Crows.

TMD exhibited a travelling wave tube amplifier as part of the telephonics radar on the Kaman Seasprite helicopter - a recent acquisition by the Royal Australian Navy - as well as a 50 kW synthetic aperture radar TWTA, which is of interest to various ADF departments. Also shown was an 8 kW high voltage power supply for pod mount ECM and a mini-tube amplifier for UAV towed drone application.

The exhibition was opened by the Australian Parliamentary Secretary for Defence, the Rt Honourable Senator Eric Abetz, various dignitaries from the Australian Department of Defence, and representation from the UK MoD.

A cocktail party for VIPs and guests was held aboard HMS Sutherland. The UK Government and MoD were represented by Roger Matthews, First Secretary for Defence at the UK Embassy in Canberra. Opening speeches were given by the British High Commissioner Sir Alastair Goodlad, the Rt Honourable Senator Eric Abetz, and Commander Rupert Wallace of HMS Sutherland.

TMD was interviewed by the local TV station, and gave presentations on the company's exhibits. In addition, the Australian Defence Magazine interviewed TMD and an article has been commissioned on the company's activities in Australia - to be featured in a forthcoming issue.

As a result of this highly successful operation, an extensive follow-up procedure has been initiated by TMD to address all the enquiries regarding TMD's capabilities, services and product ranges.

New Ku Band TWTs

TMD's range of advanced TWTs now includes a new Ku band tube with a peak power of 2kW.

This tube was designed in only 4 months and the prototypes built and tested in under a year. The design was carried out using TMD's latest software investments, the "Opera 3D" electromagnetic suite from Vector Fields and the "Ideas" 3D mechanical modeling package from SDRC.

Advanced construction techniques have been employed to meet the harsh military environmental specification.

New Appointment

Since 1996 Paul Plurien has been operating as TMD's Marketing Director based in Paris but he has now permanently relocated to the UK.

Originally trained as a radar and communications engineer, Paul has held senior engineering and marketing management positions in different companies in the UK, France, Belgium, USA and Canada, including Mallory Batteries, EEV, Richardson Electronics, SFIM and TNP Electronique.

Most notably, for 11 years he was the President of EEV Inc and EEV Canada based in Elmsford NY. In his last position at TNP Electronique he was President of the company which he founded.

He now brings his knowledge of both engineering and marketing as well as his extensive experience of the microwave tube industry to lead TMD through its next exciting stage of expansion and development into the new millennium.