

PRESS INFORMATION

from TMD Technologies, LLC, USA

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TMD introduces a drop-in replacement 6-18 GHz, 100 W MPM to support the US Military's radar, EW and communications systems

TMD Technologies, a world leader in RF, microwave, and high-power amplifiers has introduced the PTXM9754, an ultra-compact, modular MPM (Microwave Power Module). This unit is ideally suited for high-performance military radar, EW/EA/ECM and communications systems. It utilizes a 'super-mini' TWT (travelling wave tube), a solid-state preamp, and an optimized high density switched-mode power supply to form a single 'drop-in' amplifier block. This design provides a FFF (form, fit, function) equivalent to existing 6-18 GHz MPMs installed across many shipboard, airborne, and ground-based systems.

Tom Curtin, VP Sales and Business Development, TMD Technologies, LLC said: "This advanced unit has been designed in direct response to unprecedented demand for a drop-in replacement as an alternative to existing 6-18 GHz 100 W (minimum) MPMs. Following a high-priority development project at our design facility in London, UK, TMD has produced a superior high-performance amplifier, built to stringent specifications, and readily available to support existing and new DoD programs."



A host of features

The PTXM9754 features a broadband 6 to 18 GHz TWT capable of providing 100 W CW minimum across the band. It incorporates a high-speed focus electrode modulator to allow operation at high PRFs, making it ideal for pulsed applications such as in ECM and radars. A low gain TWT working with a low noise solid state preamplifier provides optimum noise performance.

Compact, lightweight, and high reliability

As well as being of low weight and small size, the PTXM9754 features excellent thermal management. Its high electrical efficiency means that the minimum of cooling is required - resulting in high reliability operation over a wide temperature range. Also, by virtue of its fully encapsulated HV section, the unit will operate at high altitudes and humidity.

Prime power requirement is 28 V DC.

Helping the system designer

Integration of the TWT and power supply simplifies the system designer's task by eliminating TWT interconnections (and the associated reliability and safety hazards). Such integration also further reduces overall system size – making installation easier.

Furthermore, the MPM is factory-adjusted to optimise TWT performance, obviating the need for user adjustments and streamlining replacement logistics and reducing replacement times in the field.

A control interface is incorporated, allowing remote operation and status monitoring and providing diagnostic outputs for BIT purposes. The versatile PTXM series can also be configured to incorporate a number of TWT models – thus allowing the user to specify frequency and peak power parameters.

TMD Technologies, LLC, USA



Leader in scientific, professional microwave and high-power RF innovation

TMD Technologies, LLC is the US subsidiary of UK company TMD Technologies Limited. Established in 2013 in Baltimore, Maryland, TMD USA provides complete technical and commercial support to TMD’s US customers and offers a comprehensive product repair center. We operate under a State Department SSA, and all employees are cleared.

The US Sales and Business Development team is fully trained and actively involved in supporting TMD’s entire product line-up, including TWTAs, MPMs and HVPSSs along with new business development in the United States.

TMD Technologies Limited. Leaders in scientific and technical microwave and RF innovation and quantum-enabled technology



TMD's headquarters design and manufacturing facility in West London, UK.

With a heritage dating back to the 1940s, TMD Technologies Limited (TMD) is a world-class designer and manufacturer of professional microwave and RF products. At the company headquarters in Hayes, West London it produces specialised transmitters, amplifiers, microwave power modules (MPMs), high voltage power supplies, microwave tubes and transponders for radar, EW and communications applications. A previous twice Queen's Award winner, it also produces a range of advanced instrumentation microwave amplifiers for EMC testing, scientific and medical applications.

TMD is also making on-going and substantial investment in the development of quantum-enabled technology under the UK National Quantum Technologies Programme (UK-NQTP).

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