Plextek RFI is a UK based design house specialising in the design and development of RFICs, MMICs and microwave/mm-wave modules. Projects range from feasibility studies to the design and development of microwave ICs, components and sub-systems.

Technology areas
Our skills cover RF, microwave and mm-wave component and sub-system development including: custom IC design (GaAs, GaN and Si), high frequency SMT based PCBs, chip and wire assemblies, MCMs, LTCC, thin-film and waveguide. We have designed over 80 custom ICs at frequencies ranging from baseband to 100GHz and are a third party design house for Cree (Wolfspeed), GCS, Qorvo and WIN.

Our clients
Our clients range from start-ups to major multi-nationals. Companies that have used Plextek RFI’s services include Aeroflex, Analog Devices, C-MAC, Frontier Silicon, Inmarsat, National Semiconductor, QinetiQ, Selex, Sony Semiconductor, TDK and Thales.

Company information
Plextek RFI Ltd is located near Cambridge in the UK. It was formed from the RF Integration team of Plextek Ltd.

Project Examples

GaAs/GaN MMIC
Si IC
Microwave
mm-wave

Our experience includes broadband MMICs for ESM, receiver and transmitter ICs for point to point microwave links and GaN PAs for both commercial and defence applications. We are a 3rd party design house for Cree (Wolfspeed), GCS, Qorvo and WIN, and have our own in-house test lab for evaluation of both bare-die (RFOW) and packaged MMICs.

Plextek RFI’s design services are used by industry leading IC vendors. National Semiconductor used our design services to help create an innovative world class transceiver design that has sold in excess of 700 million units.

Example projects include: the design and supply of an 8 to 18GHz, fast switching, low noise synthesiser for Selex; a fast switching (<10ns) 200W X-band solid-state PA for a marine radar application; X-band PA modules using plastic packaged GaN transistors, thin film filters; LTCC modules; and a dual-channel 2 to 18GHz receiver for ESM.

Knowledge of high volume commercial product development and an in-depth understanding of mm-wave technology allows us to offer a valuable skill set. Our design work includes custom MMICs for V-band and E-band applications and 40 to 43GHz multi-chip modules for wireless infrastructure.