From HF (2-30 MHz) up to and including mm-wave frequencies, our work at Plextek spans the design and supply of antennas for a variety of communications and radar applications. The complexity of our designs varies from simple patch and planar inverted-F antennas (PIFA), to wide-band/multi-band designs, to high-performance electronically scanned arrays. Our work frequently sees the incorporation of multi-band cellular, GPS and Bluetooth/Wi-Fi designs into products for high-growth areas like the vehicle telematics market, while ISM-band antennas have been developed for street-light telemetry products, parking sensors and other products relating to the Internet of Things (IoT). Our work also includes the design and creation of bespoke microwave and mm-wave high-performance directional antennas with low sidelobe levels for radar applications.

Our highly qualified team also undertakes propagation measurements, analysis and modelling. We have been involved in projects where channel sounding has been carried out at microwave and mm-wave frequencies for last-mile links and Formula 1 telemetry, while path loss measurements at UHF and microwave frequencies have led to the development of empirical propagation models for cellular-type links in suburban and urban environments. HF ionospheric and tropospheric propagation, as well as terrain-based scenarios, are also covered within Plextek's propagation portfolio.

The innovative antennas and propagation work carried out by Plextek is reflected in the numerous presentations given at international conferences and publications in peer-reviewed technical journals.