

A wireless RF (Radio Frequency) Site Survey is the process of planning and designing a Wi-Fi network that will deliver the desired wireless coverage, data rates, network capacity, roaming capabilities and quality of service. This is of particular importance in retail, warehouse and factories where the physical environment may cause signal interference.

UMD (Unique Micro Design) delivers Wi-Fi site services by first conducting a passive, active and/or predictive survey and then designing the Wi-Fi network to optimise access point location and configuration while accounting for RF interference.

RF Site Survey is an essential procedure for developing an effective wireless network infrastructure and ensuring high quality radio coverage. The physical site, where wireless devices are to be installed, must be examined and measurements taken to establish the types, quantities and locations of wireless access points, antenna setup,



mounting options, cabling and power management details.

UMD's wireless network experts are Ekahau Certified, using the site survey tools Ekahau AI Pro software and Ekahau Sidekick 2 hardware.

UMD RF Site Surveys ensure your devices always run smoothly without interruption or connection drop outs



Professional RF Services	
Environment Analysis (Passive Survey)	UMD analyses RF spectrum data to detect interference from nearby Wi-Fi networks and other non-802.11 sources (e.g. microwave ovens, cordless phones).
Wi-Fi Design (Predictive Survey)	UMD models the RF environment using simulation tools, which requires floor plans and information on the location and material characteristics of barriers such as walls or large objects. Virtual access points are then placed on the floor plan to estimate expected coverage and adjust access points numbers and location.
Validate Design (Passive Survey)	Ensures the wireless network has been properly designed including testing functionality using the tools and techniques to make data-driven Wi-Fi choices that remove risk and ensure your enterprise wireless network is always perfectly tuned to the needs of your environment and users.
Health Check (Passive Survey)	Wi-Fi Health Checks are designed to give invaluable tools in resolving many of the common Wi-Fi problems that limit productivity.
Active Surveys	Verifies network performance, measuring round-trip time, throughput rates, packet loss and retransmissions.

## Wi-Fi RF Services Include:

- Conduct RF site surveys
- Design RF systems
- Determine network interfacing requirements (including security considerations)
- Conduct and manage installations
- Documentation
- Provide ongoing after sales support
- Commission sites
- Project management

## **UMD Value Added Services:**

- Provide mobile terminals, printers, vehicle mounting equipment and wireless access points
- Pre-configure mobile terminals, printers and wireless access points







Create signal consistency for a stable network



Locate poor coverage areas

## **Importance of RF Site Surveys:**



Identify interferences to maximise signal strength

Testing to ensure the appropriate frequency is used

