



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 concern in warehouses and factories where the physical environment may cause signal interference.

UMD (Unique Micro Design) delivers these services by first conducting a passive, active and/or predictive survey and then designing the Wi-Fi network to optimise access points 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 arrays, mounting options, cabling and power management details.



UMD's wireless network experts are Ekahau Certified, including 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 | |
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| 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 the floor plans and information on the location and RF 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 their number 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. |

RF Services Include:

- Conduct RF site surveys
- Determine network interfacing requirements
- (including security considerations)
- Pre-configure radio terminals and wireless access points
- Provide handheld devices and vehicle mounting equipment
- Design RF systems
- Conduct and manage installations
- Commission sites
- Provide ongoing after sales support
- Project management





Importance of RF Site Surveys:



Create signal consistency for a stable network



Locate poor coverage areas



Identify interferences to maximise signal strength



Testing to ensure the appropriate frequency is used

