

PharmaChem Deploys Super WiFi Technology to Address Challenging Indoor / Outdoor Wireless Access Needs

Operating in a free-trade zone just 50 miles off the coast of Florida, PharmaChem Technologies G.B. Ltd manufactures bulk active ingredients for pharmaceutical companies from around the world. PharmaChem's world-class facility in Freeport, Bahamas enjoys competitive advantages to include a skilled labor pool, ready access to the largest deep-water port in the region and a state-of-the-art container port with weekly sailings to and from Asia, North America, and Europe.

Another key element supporting PharmaChem's efforts to maintain its competitive edge is a state-of-the-art Super WiFi network deployed in August of 2021. Super WiFi is used to blanket both indoor and outdoor areas across the entire 70-acre property to deliver robust and reliable wireless access for its employees in extremely challenging RF and line-of-site conditions.



PharmaChem manufactures bulk active ingredients for pharmaceutical companies all over the world at this 70-acre, state-of-the-art facility in Freeport



The presence of volatile chemicals required that all indoor Super WiFi radios be housed in ATEX spark suppression enclosures with externally mounted, dual-band antenna arrays

The Challenge: PharmaChem requires reliable wireless connectivity for both employee handheld devices and mission critical IoT sensors installed throughout the facility. The indoor portion of the PharmaChem facility involves a myriad of difficult conditions for RF signals to include a labyrinth of corridors, tight spaces between heavy machinery and a number of specially equipped, chemical mixing rooms with sealed, heavy metal wall construction. In addition to the indoor wireless coverage requirements, PharmaChem relies a great deal on outdoor wireless access across all 70 acres of the property for employee device connectivity and other operationally critical applications.

The Solution: The PharmaChem deployment was designed and implemented over the course of Q2 and Q3 of 2021 with numerous pandemic-related project delays. Kryst Wireless' reseller partner in the Bahamas – RAS Caribbean served as the project lead and The Super WiFi products used include a mix of Altai Technologies' CX200 dual band Micro APs housed in ATEX spark suppression enclosures for indoor manufacturing and office area coverage along with two dual band A8 Macro base stations for long-range outdoor coverage. Altai's AltaiGate Network Management platform is utilized for single screen, comprehensive management and monitoring of all 58 Super WiFi access points on PharmaChem's premises.



A8n macro base station

A Successful Result: Super WiFi is delivering exceptional indoor / outdoor coverage and data capacity throughout PharmaChem's facilities despite the extremely challenging RF environment. It is estimated that 120-140 standard Wifi APs would have been required to deliver the same level of coverage PharmaChem now enjoys with only a fraction of that number using Super WiFi APs. Super WiFi's streamlined solution translated into a lower total project cost, a faster deployment and simplified network management.

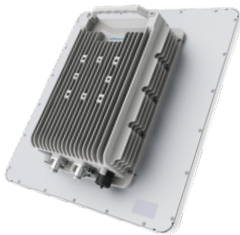
CX200 Super Wifi AP

Dual-Band
External Antenna
2x2 802.11ac
MU-MIMO



A8-Ein (ac) Base Station

Integrated Smart
Antenna
Dual-Band
8x8:2 802.11ac



PharmaChem's multi-purpose, three-story building includes a 2000 square meter, high-volume processing plant with an annual production capacity of over 100 metric tons of bulk active pharmaceutical ingredients and a wet processing side equipped with a mix of glass-lined and stainless-steel reactors

About Kryst Wireless

Kryst Wireless is Altai Technologies' North America Master Distributor of Super Wifi technology focused on building scaled distribution of Altai's product line across the US and Canada. Kryst has offices in Kansas City and Toronto and a growing network of reseller partners across North America.

About Altai Technologies' Super Wifi Product Line

Super WiFi has been deployed extensively around the world beginning in 2007 to address the most challenging wireless access applications where traditional WiFi vendors' products fail to deliver the desired coverage, or prove too costly due to the high number of required access points.

Primary examples where Super WiFi regularly differentiates itself from other WiFi products include expansive outdoor area coverage, challenging line of sight situations, and RF interference laden locales such as heavy manufacturing facilities.

Altai's extensive product line supports connectivity for any wifi enabled device and includes large macro base stations capable of delivering coverage for up to a mile complimented by micro access points repeaters and wireless bridge products.

Contact Kryst Wireless for Super Wifi solution design and pricing support:

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