

Highlights

- Electronically focused coverage footprints
- Geo-I Dynamic Beam Steering and Shaping (DBSS)
- G.R.I.P.S. Feature Set
- FlexVMT™ Technology at Full Power - 500mWatts Conducted Power
- IEEE 802.11 b/g
- Small size and low power requirements

v2.2 Enhancements

- IEEE 802.1X Radius Support
- Multiple SSIDs and VLANs
- Multiple Radius Server Support
- Secure Administration w/ Certificate
- White List (MAC)
- Firewall (IP)
- Admin Device Identification

G.R.I.P.S. Feature Set

- Geo-Location
- Reach - Extended
- Interference - Mitigation
- Privacy/Security - Increased

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The 3110X offers the same functionality as the 3100X with the addition of the Serial Console connection for system health monitoring.

The Phocus Array™ 3110X System is a “Full Power” wireless access point with a patented electronically configurable circular phased Array™ antenna system based on the IEEE 802.11 b/g standard. The Phocus Array’s™ coverage footprint is configurable to support the design of custom RF networks.

Many wireless RF networks can be dramatically simplified or “tuned” for the best coverage footprint at a significantly reduced capital infrastructure expense using the Phocus Array’s™ smart antenna technology.

Based on Fidelity Comtech’s patented Flexible Vector Modulator Technology™ (FlexVMT™), the circular 8-element phased Array™ antenna system has a variable coverage footprint that ranges from a standard 360° “super” omnidirectional pattern to an extended long-reach focused 43° co-phase pattern, and standard 90 and 180 degree coverage patterns.



The Phocus Array™ 3110X combines signals from all eight antenna elements to form each directional or “super” omni pattern.

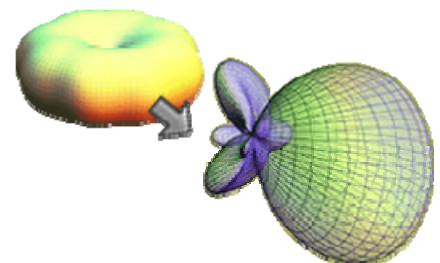
The FlexVMT™ can electronically switch between steered or shaped patterns almost instantly on a packet-by-packet basis, or be statically administered. The Phocus Array™ 3110X is the premier IEEE 802.11 compliant access point with built

in Geo-I™ capabilities (Dynamic Beam Steering and Shaping).

Because the Phocus Array™ 3110X selectively directs its signal, security and privacy are dramatically improved by reducing eavesdropping possibilities and interference. This also supports “good neighbor” behavior by keeping the RF coverage footprint focused on the intended coverage area, and not spilling over into unintended areas..

The directed antenna patterns also avoids other radiation patterns and sources, reducing interference. And with its ultra sensitive receiver, the Phocus Array™ improves signal reach and quality for better throughput performance due to fewer packet retransmissions. The result is increased throughput speed for your wireless applications. In addition, the Phocus Array™ system typically has four times the range of typical Wi-Fi access points.

Phocus Arrays™ are being used in seaport container terminals, intermodal railroad yards, auto processing facilities, strategic and tactical government security applications, and defense applications. Since 2001, Fidelity Comtech has provided premier RF components, antennas and interfaces to commercial and government customers. Our products feature set and FlexVMT™ technologies are changing and improving the way the world uses wireless communications.



*From Omni-directional to
 43° co-phase Pattern*

Fidelity Comtech - Phocus Array™ 3110X v2.2 (Page 2)

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|--|--|---|---|----------------------------|--|---------------------------------|-------------------|---------------------|--|----------------------------|--|--------------|-----------------------------------|---------------|--|-------------|--|-------------------|---------------------------------------|---------------------|--|-----------------------|---|
| Geo-Location | <ul style="list-style-type: none"> • Geo-I—Dynamic Beam Steering and Shaping included | | | | | | | | | | | | | | | | | | | | | | |
| Reach Improvement | <ul style="list-style-type: none"> • Phased array's "Super-Omni" signal using spatial integration provides up to 6.1 dB better performance than traditional antenna diversity systems, thereby doubling reach in free space and balancing coverage • Focused signal's range can increase up to 4 times over the "super" Omni-directional pattern's reach or 16 times the coverage area | | | | | | | | | | | | | | | | | | | | | | |
| Interference Improvement | <ul style="list-style-type: none"> • Bi-directional link reliability also dramatically improves with a focused beam and receiver antenna gain • Focused directed or shaped beam reduces interference by up to 88% | | | | | | | | | | | | | | | | | | | | | | |
| Privacy/Security | <ul style="list-style-type: none"> • Focused directed or shaped beam keeps signal away from threats and permits "Good Neighbor" behavior • WEP, WPA, WPA2 (PSK and EAP: EAP-TLS/EAP-FAST/PEAP/TTLS/LEAP; TKIP/CCMP) • White list (MAC) and tables firewall (IP) • Multiple: <ul style="list-style-type: none"> - Radius server support w/ certificates - VLANs (16) + FlexSecure - SSIDs | | | | | | | | | | | | | | | | | | | | | | |
| Modes Supported | <ul style="list-style-type: none"> • Only AP Bridge mode is supported in the security software release • Customers that need AP Router, AP Client and Ad Hoc modes need to purchase v2.1 | | | | | | | | | | | | | | | | | | | | | | |
| Management & Software Interface | <ul style="list-style-type: none"> • Remote software/firmware UpGradeability using secure browser-based administration, configuration, monitoring and pattern selection; SNMP (Ethernet MIB-2) • Admin device identification: model number, serial number, unique naming | | | | | | | | | | | | | | | | | | | | | | |
| Power Consumption | <ul style="list-style-type: none"> • Low power requirements simplify installation and increase usage in mobile or remote applications | | | | | | | | | | | | | | | | | | | | | | |
| Ruggedized Package | <ul style="list-style-type: none"> • Optimal for outdoor and mobile vehicle applications | | | | | | | | | | | | | | | | | | | | | | |
| Compact Size | <ul style="list-style-type: none"> • Ideal for portable / vehicle systems and those that require a small "wind sail" profile | | | | | | | | | | | | | | | | | | | | | | |
| Physical Characteristics | <table> <tr> <td>Antenna Type (s)</td> <td>Eight (8) element uniform circular phased array Each with an associated FlexVMT T/R module</td> </tr> <tr> <td>Dimensions (≈½ cubic foot)</td> <td>9.5" width x 9.5" depth x 11" height (.24m x .24m x .28m)</td> </tr> <tr> <td>Weight</td> <td>9.0 lbs (4.1 Kgs)</td> </tr> <tr> <td>Connections</td> <td>10/100 Ethernet via industrial RJ-45 connector Serial console RS/232 UART IP67 circular connector</td> </tr> </table> | Antenna Type (s) | Eight (8) element uniform circular phased array Each with an associated FlexVMT T/R module | Dimensions (≈½ cubic foot) | 9.5" width x 9.5" depth x 11" height (.24m x .24m x .28m) | Weight | 9.0 lbs (4.1 Kgs) | Connections | 10/100 Ethernet via industrial RJ-45 connector Serial console RS/232 UART IP67 circular connector | | | | | | | | | | | | | | |
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| Certifications | Radio / Vibration / Environmental FCC - Part 15, IC - CoC | | | | | | | | | | | | | | | | | | | | | | |
| Warranty | System One year limited warranty (Extended warranty available) | | | | | | | | | | | | | | | | | | | | | | |

Since 2001, Fidelity Comtech, Inc. (FCI) has been the premier provider of RF amplifiers and antennas to commercial and government end customers, system integrators, and original equipment manufacturers (OEMs). Our customers use our products in security, ultra-high mobility, mobile network, mobile asset tracking and management, and data wireless local area network (WLAN) applications. Located at the base of the Rocky Mountains in Longmont, Colorado, Fidelity Comtech designs, manufacturers, and Services products for our customers from amplifiers and antennas to complete system products like the Phocus Array™ System family of wireless access points and routers.

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