

**PHOCUS ARRAY: A PHASED ARRAY TERMINAL FOR WIRELESS NETWORKING**

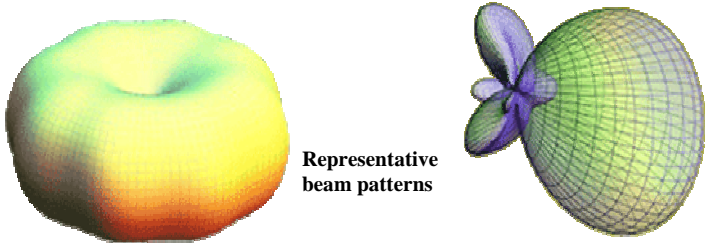
Wireless networking technology implementations continue to replace traditional wired networks, increasing the flexibility and reducing the time required deploying strategic networks. Embracing this shift, Fidelity Comtech releases PHOCUS ARRAY™, a WLAN system featuring an electronically steerable phased array.

Based on Fidelity Comtech’s patent-pending vector modulator technology, the PHOCUS ARRAY beam has a variable range from a tightly focused (high gain) 43° beam to a full 360° omnidirectional pattern.

By focusing the antenna beam towards an intended recipient, the system provides increased signal range, reduced interference, limits the opportunity for eavesdropping, and improves the overall network reliability.



This 802.11 compliant device features data routing on a packet-by-packet basis, PHOCUS ARRAY is configurable either as an access point or wireless client bridge/gateway. The system delivers this functionality at a compelling cost, size and weight previously unattainable.



Representative beam patterns

**FEATURES:**

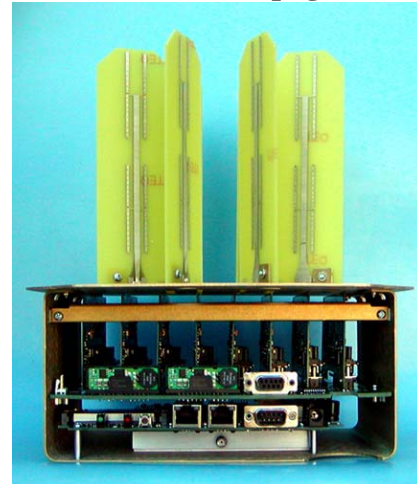
The PHOCUS ARRAY provides:

FEATURE	ADVANTAGE
<b>Increased Reach</b>	<ul style="list-style-type: none"> <li>• Focusing the signal increases the signal range up to 4 times</li> <li>• Link reliability increases with a focused beam</li> </ul>
<b>Reduced Interference</b>	<ul style="list-style-type: none"> <li>• Directing the transmission, reduces interference 88%</li> </ul>
<b>Increased Capacity</b>	<ul style="list-style-type: none"> <li>• Overall network capacity increases as frequencies can be reused in higher density</li> </ul>
<b>Data Packet Routing</b>	<ul style="list-style-type: none"> <li>• Routing data on a packet-by-packet basis to the specified user:               <ul style="list-style-type: none"> <li>• Reduces spectrum use</li> <li>• Enhances network capacity</li> <li>• Reduces the probability that a signal will be intercepted</li> </ul> </li> </ul>
<b>Transmit Power Control</b>	<ul style="list-style-type: none"> <li>• Physically limiting signal reduces probability of interception</li> </ul>
<b>Reduced emissions</b>	<ul style="list-style-type: none"> <li>• Minimizing sidelobes increases security by reducing the signal area</li> </ul>
<b>Ruggedize Package</b>	<ul style="list-style-type: none"> <li>• Capable of outdoor and mobile applications</li> </ul>
<b>Compact Size</b>	<ul style="list-style-type: none"> <li>• Transportable by an individual person</li> </ul>

**PRODUCT SPECIFICS:**

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PHOCUS ARRAY: External View



PHOCUS ARRAY: Internal Configuration View:

- 8 elements circular phased array
- 8 individual T/R modules
- Single board PC

PARAMETERS	SPECIFICS
<b>Antenna Design</b>	• Eight (8) element circular phased array
<b>Radiation Pattern</b>	• Variable to full Omnidirectional
<b>Array Control</b>	• Single board PC
<b>Router OS Platform</b>	• Debian Linux based wireless router configurable as a client or access point
<b>Size</b>	• 8.5" x 8.5" x 11"
<b>Weight</b>	• 9 lbs
<b>Antenna Gain</b>	• 15 dBi maximum (43° HPBW azimuth)
<b>Power Consumption</b>	• 9 Watts Average
<b>Input power</b>	• Power over Ethernet (PoE)
<b>EIRP</b>	• 45 dBm, (restricted by FCC limits)
<b>Pattern Reconfiguration</b>	• 75 uSec
<b>Operating Temperature Range</b>	• -40 Celsius to +85 Celsius
<b>Connections</b>	• Weatherproof (IP-65) Ethernet

**APPLICATION ENHANCEMENT:**

The PHOCUS ARRAY provides benefit to the following applications:

- Wireless ISP
- Enterprise Networks
- Wireless Hotspots
- Emergency First responders
- Military deployments
- Homeland Security

**CUSTOMIZABLE SOLUTIONS:**

Fidelity Comtech offers qualified clients the capabilities to configure the right solution for their particular application. We offer custom design, design licensing, private labeling and OEM arrangements. For further information and product availability contact Fidelity Comtech sales at (303) 678-8876 or e-mail: [info@fidelity-comtech.com](mailto:info@fidelity-comtech.com).