RangeLAN2™

7540 Series Extension Point

Data Mobility for Hard-to-wire Environments

Data Sheet



Advantages

- **Optimized Throughput**
  10BaseFree two-radio design maximizes available bandwidth for local clients and backbone traffic.
- **Durable**
  Wide temperature range and vibration specifications for harsh environments. Optional NEMA 4 outdoor enclosure available.
- **Fault Tolerant**
  SmartAttach configurable connection lists let designers specify preferred and backup links for robust failure recovery.
- **Easy to Install & Manage**
  Software for site surveys and topology display eases installation and management. Choose from a wide variety of antenna options.

Extend Wireless LANs to Areas Unreachable by Network Wiring

The RangeLAN2 7540 Series Extension Point (EP) provides wireless LAN coverage in places you never thought possible. Proxim's innovative 10BaseFree™ two-radio architecture supports data mobility like a RangeLAN2 Access Point, but without the inconvenience of a hardwired network connection. Using one radio to support local stations and a separate radio to rebroadcast data back to the wired LAN, 10BaseFree architecture maximizes performance, network design flexibility, and failure recovery robustness. Best of all, EPs are compatible with all OpenAir™-compliant end-user devices.

RangeLAN2 7540 Series EPs use Proxim's patented frequency-hopping spread-spectrum (FHSS) technology. Products based on this technology have been named *PC Magazine*'s Editors' Choice and *LAN Magazine*'s Product of the Year. More OEM solutions providers have standardized on RangeLAN2 technology than all other wireless LAN solutions combined.

Two-radio Architecture Delivers High Performance

The 10BaseFree two-radio architecture prevents mobile station "blocking" by giving the backbone link its own non-interfering channel. Dynamic bandwidth allocation reserves bandwidth for backbone links under all network load conditions. Other solutions compromise throughput with single-radio designs, forcing bandwidth sharing between downstream links, local mobile stations, and upstream traffic.

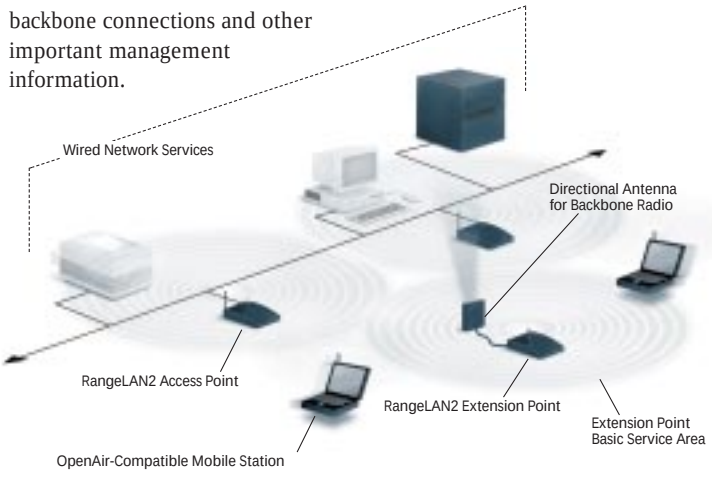
SmartAttach™ Configuration for Robust Failure Recovery

From simple to complex network topologies, RangeLAN2 7540 Series EPs give network designers the options they need. Simple network extensions require no configuration at all.

For more complex networks designers can use SmartAttach to specify preferred and fallback connections for predictable performance and graceful failure recovery.

Easy to Manage

RangeLAN2 7540 Series EPs incorporate features that ease management and diagnostic tasks. Units unable to find a connection for backbone traffic automatically enter a special "error domain," which frees attached clients to look for alternate connections. Network managers can connect to the EP and troubleshoot from the ground. Managers can also use telnet, SNMP, modem, or a direct wired connection to review tree-oriented lists of current backbone connections and other important management information.



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Specifications

General

Architecture ..... 10BaseFree two-radio design
- Backbone (BB) radio—Rebroadcasts traffic bound for wired network
- Basic Service Area (BSA) radio—Handles local roaming clients and traffic from downstream backbone radios

Radio Data Rate ..... 1.6 Mbps, each radio

Channels ..... Supports 15 independent, non-interfering "virtual channels" (hopping patterns)

Range (varies by antenna) ..... Up to 3 miles (5 km) point-to-point outdoors line-of-sight (antenna dependent, not all antennas are available in all markets). Up to 500 ft. (150m) radius (using 7015 omnidirectional antenna)

Security ..... Data scrambling; 20 character encrypted security ID

Certifications ..... • US—FCC Part 15, UL, CSA
• International—Contact Proxim for a list of currently certified countries

Compatibility ..... Fully interoperable with all RangeLAN2 and Wireless LAN Interoperability Forum (WLI Forum) certified products. Connection to Token Ring networks requires RangeLAN2 7530 Series operating in transparent mode

Warranty ..... 1 year parts and labor (return to factory)

Network Information

Maximum Hop Depth 3

Domains ..... Choice of 16 domains. Multiple Extension/Access Points on the same domain enable seamless, wireless networks

SmartAttach ..... • Master lists—Specify the preferred and fallback links used during boot and failure recovery
- Backbone Link Search Timer—Timeout specifying when to attach to fallback master(s) when preferred master is not available
- Error Domain—Allows roaming clients to seek other connections when backbone link fails; allows from-the-ground troubleshooting

Installation & Management

Management Interfaces ..... SNMP; text-based menu system

Wireless Network Management ..... Radio and network statistics; antenna aiming tool; link quality diagnostics

SNMP Agents ..... Version 1 RFC 1213, 1493; Proxim Enterprise MIB

SNMP Traps ..... Cold start; link up; link down; authorization; other vendor-specific

Physical Management Connections ..... Phone line via customer-supplied modem; wireless network; direct cabled connection/DB9 plug, requires customer-supplied null modem cable

Radio

Frequency Band ..... 2.4 GHz frequency band, actual frequencies in use vary by country

Radio Type ..... Frequency Hopping Spread Spectrum (FHSS)

Radio Output Power ..... 500 mW or 100 mW (varies by country, not user-configurable)

Environmental

Temperature Range ..... -20 to +60 degrees centigrade

Humidity (non-condensing) ..... 10 to 90%

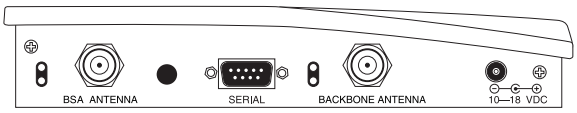
Enclosure (available separately) ..... Optional NEMA 4 rain and splash proof; heater option; RF connectors

Physical Specifications

Weight ..... Approximately 1.5 lbs (0.7 kg)

Size ..... 1.66" high x 6.54" long x 8.54" wide (42mm x 166mm x 217mm)

Input Voltage ..... 10 to 18 VDC



Accessories Included ..... Operating manual, power adapter

Ordering Information *(Two Antennas Required with each EP)*

Extension Points	Backbone Antennas	BSA Antennas
•7540 RangeLAN2 Extension Point, 100mW	•7022 12 dBi Outdoor Directional Antenna**	•7012 5.15 dBi Omnidirectional Outdoor Antenna
•7541 RangeLAN2 Extension Point XR, 500mW*	•7024 8.5 dBi Outdoor Directional Antenna	•7014 9.0 dBi Omnidirectional Outdoor Antenna
	•7031 15 dBi Outdoor Directional Antenna**	•7015 1 dBi Omnidirectional Outdoor Antenna

* Check for availability in your market
** Not FCC approved for use with 7541

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#7680-0009 rev. C 6/99 CI/JA