

CANOPY SYSTEM 5.2 GHz EXTENDED RANGE BACKHAUL MODULE SPECIFICATIONS

Canopy 5.2 GHz Extended Range Backhaul Module 5210BHRF (DES) or 5211BHRF (AES)

Modulation Rate	10 Mbps
Aggregate Throughput	7.5 Mbps
Operating Range	10 miles (16 km)
Operating Frequency Range	U-NII 5250-5350 MHz
Non-Overlapping Channels	3
Channel Width	20 MHz with 5 MHz spacing
Modulation Type	High Index Binary 2-level Frequency Shift Keying (FSK) optimized for interference rejection
Encryption	5210BHRF is DES, 5211BHRF is AES
Carrier to Interference (C/I)	3 dB nominal, with receiver input at -65 dBm and higher
Receiver Sensitivity	-83 dBm @ 10^{-4} Bit Error Rate (BER)
Effective Isotropic Radiated Power (EIRP)	1 W
DC Power	0.34 amp @ 24 VDC (8.2 watts) typical, 9.1 watts max.
Antenna Beam Width	3 dB antenna beam width 6 degrees, Azimuth and Elevation with Reflector
Operating Temperature	-40°F to +131°F (-40°C to +55°C)
Wind Survival	118 mi/hr (190 km/hr)
Dimensions	Module: 11.75 in H x 3.4 in W x 3.4 in D (29.9 cm H x 8.6 cm W x 8.6 cm D). Passive Reflector: 18 inch H x 24 in W (45 cm H x 60 cm W)
Weight With Passive Reflector	6.5 lb (3 kg)
Access Method	TDD
Interface	10/100 BaseT, half/full duplex. Rate auto negotiated (802.3 compliant)
Protocols Used by Canopy	IPv4, UDP, TCP, ICMP, Telnet, HTTP, FTP, SNMP Version 2C
Network Management	HTTP, TELNET, FTP, SNMP
FCC ID	ABZ89FC5807
Industry Canada Certification Number	109W-5210

Canopy 5.2 GHz Extended Range Backhaul Module 5210BHRF20

Modulation Rate	20 Mbps
Aggregate Throughput	14 Mbps
Operating Range	5 miles (8 km)
Operating Frequency Range	U-NII 5250-5350 MHz
Non-Overlapping Channels	3
Channel Width	20 MHz with 5 MHz spacing
Modulation Type	High Index 4-level Frequency Shift Keying (FSK) optimized for interference rejection
Encryption	DES
Carrier to Interference (C/I)	10 dB nominal, with receiver input at -65 dBm and higher
Receiver Sensitivity	-77 dBm @ 10^{-4} Bit Error Rate (BER)
Effective Isotropic Radiated Power (EIRP)	1 W
DC Power	0.34 amp @ 24 VDC (8.2 watts) typical, 9.1 watts max.
Antenna Beam Width	With passive reflector, 6 degrees azimuth and elevation (at 3 dB antenna beam width)
Operating Temperature	-40°F to +131°F (-40°C to +55°C)
Wind Survival	118 mi/hr (190 km/hr)
Dimensions	Module: 11.75 in H x 3.4 in W x 3.4 in D (29.9 cm H x 8.6 cm W x 8.6 cm D). Passive Reflector: 18 inch H x 24 in W (45 cm H x 60 cm W)
Weight With Passive Reflector	6.5 lb (3 kg)
Access Method	TDD
Interface	10/100 BaseT, half/full duplex. Rate auto negotiated (802.3 compliant)
Protocols Used by Canopy	IPv4, UDP, TCP, ICMP, Telnet, HTTP, FTP, SNMP Version 2C
Network Management	HTTP, TELNET, FTP, SNMP Version 2C
FCC ID	ABZ89FC5807
Industry Canada Certification Number	109W-5210

For more information about how the Canopy system can extend your network and services, call **1-866-515-5825** or visit us at **www.motorola.com/canopy**



**MOTOROLA CANOPY™
WIRELESS BROADBAND**

*5.2 GHz Extended Range
Backhaul Solution*

**FAST, SECURE AFFORDABLE
NETWORK EXTENSIONS**

Today's data-driven world demands reliable solutions to connect people and things to the Internet. With the Motorola Canopy™ Wireless Broadband Platform you can connect things faster and more affordably than most other wireless broadband offerings. Motorola provides an array of different modules so that you can tailor the system to meet your performance and cost requirements. With 5.2 GHz Extended Range Backhaul Modules, you can provide additional capacity at existing backhaul locations, or use them to access 2.4 GHz or 5.7 GHz AP clusters. With 5.2 GHz Extended Range Backhaul Modules, network operators can extend the range of 5.2 GHz backhuls to 10 miles (16 km) – reducing the equipment and costs associated with installing shorter backhaul links. The Canopy system architecture gives you the ability to efficiently design the network to meet your specific requirements.

Customer Benefits

Ease Of Installation

The Canopy 5.2 GHz Extended Range Backhaul Modules share the same form factor as all the other Canopy modules, so each can be deployed quickly and cost-effectively. As with the entire Motorola Canopy Wireless Broadband Platform, complete system installation can be completed within 24 hours, in most cases, saving valuable time and expenses while getting your network running quickly.

Cost-effective Solution

The Motorola Canopy Backhaul portfolio is priced so that you can focus your valuable resources on deploying applications and services to help build your network while offering high-speed Internet connectivity at a fraction of the cost of wireline services.



Flexible Solutions For Your Needs

The 5.2 GHz Extended Range Backhaul provides network operators an additional frequency which can be used in conjunction with other Canopy backhaul equipment. Collocating 5.2 GHz Extended Range Backhaul equipment with 2.4 GHz or 5.7 GHz backhuls effectively doubles throughput.

Performance Specifications

Configuration	Rate	Throughput	Range
5.2 Extended Range Backhaul 10 Mbps	10 Mbps	7.5 Mbps	10 mi (16 km)
5.2 Extended Range Backhaul 20 Mbps	20 Mbps	14 Mbps	5 mi (8 km)

Highest Level Of Security

Standard Canopy modules come with DES encryption built in. Modules with AES encryption are also available to provide the highest level of security as required for government agencies and financial institutions.

Faster Time To Market

Whether you are building a private network or deploying the Canopy equipment in a public network, the ease of deployment and cost-effectiveness of the Canopy solution will allow you and your customers to begin generating revenue almost immediately.