

Wireless Technology

450b Subscriber and Backhaul



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KEY FEATURES

Ultra-wide band radios support the entire band, from 4.9 to 5.925 GHz.

Gigabit Ethernet Interface provides the maximum transfer rates to the device.

3.5 mm audio jack allows direct connection of headphones without any adapters.

New System on a Chip (SoC) enhances Packet Processing Power more than 4x that of the 450 SM.

Capable of up to 300 Mbps aggregate in a 40 MHz channel.

Backhaul radios can function as a Point-to-Point (PTP) link or as a Subscriber Module (SM).

SPECIFICATIONS

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PRODUCT	MID-GAIN (17 dBi)	HIGH GAIN 4-PACK (24 dBi)	HIGH GAIN (Radio Only)
Global	C050045C011A	C050045H012A	C050045C012A
RoW	C050045B031A	C050045H021A	C050045B021A
FCC	C050045B032A	C050045H022A	C050045B022A
ISED	C050045B033A	C050045H023A	C050045B023A
EU	C050045B034A	C050045H024A	C050045B024A
No Encryption	C050045B035A	C050045H025A	C050045B025A
SPECTRUM			
Channel Spacing	Configurable on 2.5 MHz increments		
Frequency Range	4900 - 5925 MHz		
Channel Width	5 MHz, 10 MHz, 15 MHz, 20 MHz, 30 MHz, or 40 MHz		
INTERFACE			
MAC (Media Access Control)	Proprietary		
PHYSICAL LAYER			
MIMO	2x2 MIMO OFDM		
Ethernet Interface	100/1000BaseT, full duplex, rate auto negotiated, 802.3 compliant		
Protocols Used	IPv4, IPv6, UDP, TCP/IP, ICMP, Telnet, SNMP, HTTP, FTP		
Network Management	IPv4/IPv6 (dual stack), HTTP, HTTPS, Telnet, FTP, SNMPv2c & v3, Maestro™		
MTU	1700 bytes		
VLAN	802.1ad (DVLAN Q-in-Q), 802.1Q with 802.1p priority, dynamic port VID		
SECURITY			
Encryption	FIPS-197 128-bit AES, 256-bit AES (optional)		
PERFORMANCE			
PPS	50,000 pps	ARQ	Yes
Modulation Levels Adaptive	MCS	Signal to Noise Required (SNR, in dB)	
2X	QPSK	10	
4X	16-QAM	17	
6X	64-QAM	24	
8X	256-QAM	32	

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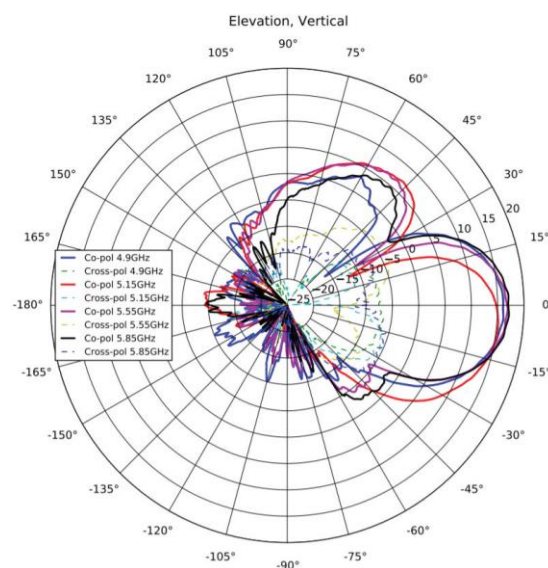
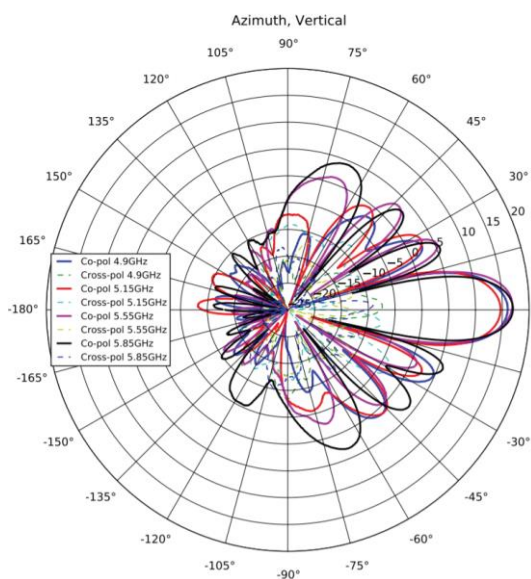
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Fact sheet

SPECIFICATIONS CONTINUED		
Ultimate Sensitivity	-94 dBm	
Maximum Deployment Range	Up to 40 miles (64 km)	
Latency	3 - 5 ms, typical	
GPS Synchronization	Yes, synchronized by Access Point	
Quality of Service	Diffserve QoS	
LINK BUDGET		
Transmit Power Range	22 dB dynamic range (to EIRP limit by region) (1 dB step)	
Maximum Transmit Power	+27 dBm (MIMO, combined V+H) (+22 dBm @ 256QAM)	
ANTENNA	MID-GAIN (17 dBi)	HIGH GAIN (24 dBi)
Integrated Antenna Peak Gain	17 dBi	24 dBi
3 dB Beamwidth - Azimuth	15°	7°
3 dB Beamwidth - Elevation	30°	7°
Polarisation	Dual linear, H + V	Dual linear, H + V
Front-To-Back Isolation	>20 dB	>25 dB
Cross Polarization	15 dB	15 dB
PHYSICAL		
Antenna Accessories	N / A	Optional Radome: N000900L021A
Surge Suppression	EN 61000-4-5: 10x700us, 4Kv EN 61000-4-2: ESD 30kV contact / 30kV air	EN 61000-4-5: 10x700us, 4Kv EN 61000-4-2: ESD 30kV contact / 30kV air
Mean Time Between Failure	> 40 Years	> 40 Years
Environmental	IP55	IP67
Temperature / Humidity	-40°C to +60°C (-40°F to +140°F), 0-95% non-condensing	-40°C to +60°C (-40°F to +140°F), 0-95% non-condensing
Wind Survival	200 km/hour (124 mi/hour)	200 km/hour (124 mi/hour)
Dimensions (HxWxD) (including mount)	12.5 x 24.8 x 12 cm (4.9” x 9.8” x 4.7”)	45 cm diameter x 28 cm (17.8” diameter x 11.2”)
Pole Diameter Range / Mechanical Tilt (w/ included mount)	2.5 to 4.1 cm (1” to 1.6”) w/ included clamp (to 5.7 cm (2.25”) w/ larger clamp± 20 ⁰ mechanical tilt	2.5 - 7.6 cm (1” to 3”) ± 20 ⁰ mechanical tilt
Power Consumption	9 W nominal, 12 W peak	9 W nominal, 12 W peak
Input Voltage	20 - 32 V DC	20 - 32 V DC
CERTIFICATIONS		
Canada (ISED)	109W-0032	09W-0042
FCC ID	Z8H89FT0032	Z8H89FT0042
ETSI	EN 301 893 v1.8.1, EN 301 893 v2.1.1 Clause 4.8 EN 302 502 v2.1.1	EN 301 893 v1.8.1, EN 301 893 v2.1.1 Clause 4.8 EN 302 502 v2.1.1

450b MID-GAIN ANTENNA PATTERNS



450b HIGH GAIN ANTENNA PATTERNS

