Stratum™ X1 - 5GHz

Product Snapshot

The Stratum X1 - 5GHz is a compact MIMO 2x2 point-to-multipoint endpoint or CPE, specifically engineered for the dependable and efficient transmission of high-resolution video and essential business data. It serves as an endpoint for the Stratum X3 Multipoint Base Station, enabling the implementation of cost-effective multipoint networks.

With its compact design and a throughput capacity of up to 500 Mbps, the Stratum X1 is perfect for applications such as street-level installations in video surveillance networks.

- Throughput up to 500 Mbps

- Wide Band Radio - 5.150 – 5.850 GHz

- AES 128-bit encryption is upgradeable to 256-bit

- 20, 40, and 80 MHz channels.

- Full tilt and swivel mounting kit included.

Advanced Interference Management

To achieve peak performance in challenging RF environments characterized by dense unlicensed radio usage and significant interference, the Stratum X1 – 5GHz utilizes our highly efficient WORP® (Wireless Outdoor Router Protocol). Proxim ClearConnect®, a crucial component of WORP®, provides effective interference management.

To learn more about Proxim ClearConnect™ follow this link https://proxim.com/resources/technology/proxim-clearconnect/

Security

Over the air transmission is secured via 128-bit AES encryption, with an option to upgrade to 256-bit when ultra-high security is desired.

Rugged Reliability

Stratum X1 features a robust IP67-rated metal enclosure designed to provide dependable performance over many years, even in severe conditions including strong winds, high salt exposure, and extreme temperatures.

Proxim WORP®

WORP® is a dynamic, asynchronous protocol designed to optimize the performance of outdoor wireless point-to-point and point-to-multipoint wireless links. WORP's asynchronous nature allows the uplink and downlink to adapt to network traffic demands dynamically.

In a WORP® powered network, a base station autonomously handles on-demand bandwidth allocation and quality of service (QoS) settings based on the specific requirements of each client within the network.

To learn more about the benefits of WORP® in point to point and point to multipoint networks click here https://proxim.com/resources/technology/worp/

Flexible and Secure Management Options

Management options include Proxim BlueConnect™; our Bluetooth-enabled mobile management application; TLS 1.3 web GUI, SSH 2.0 CLI, and SNMP v3 for ProximVision Advanced, and other network management solutions.

Specifications

PRODUCT MODELS

| SX1-1023C-US | Stratum X1, 5 GHz CPE, 500 Mbps, 35° dual pol antenna or RP-SMA - US PoE | PN: 906-00025 |

LICENSES

| SX1-102xA-AES256-UPG | Stratum X1, 5 GHz All-purpose unit AES 256 license upgrade | PN: 997-00071 |

INTERFACES

| WIRED ETHERNET | One auto MDI-X RJ45 1 Gbps Ethernet with PoE in |
| WIRELESS PROTOCOL | WORP® (Wireless Outdoor Router Protocol) |

RADIO & TX SPECS

| MIMO | 2x2:2 |
MODULATION	OFDM BPSK-QAM1024
FREQUENCY	5.150 - 5.925 GHz (Subject to Country Regulations)
CHANNEL SIZE	20, 40 and 80 MHz
TX POWER	Up to 27 dBm (dual chain)
TX POWER CONTROL	0 - 24 dB, in 1 dB steps. Automatic TPC with configurable EIRP limit

	20 MHz	40 MHz	80 MHz
TX POWER	MCS0:	MCS0:	MCS0:
2 RF	27	27	27
	MCS11:	MCS11:	MCS11:
2 RF	18	18	18
RX SENSITIVITY (Per=10-6)	MCS0:	MCS0:	MCS0:
	-92	-90	-86
	MCS11:	MCS11:	MCS11:
	-61	-59	-55
Throughput - Dual Stream	223 Mbps	435 Mbps	500 Mbps
OTHER	Dynamic Channel Selection (DCS) based on interference detection		
	Dynamic Frequency Selection (DFS) based on radar signature		
	Automatic Transmit Power Control (ATPC) with EIRP limit support		

ANTENNA

SX1-1023C   Integrated 2x2 MIMO 15 dBi dual Polarized 35 degree Panel Antenna plus two RP-SMA Connectors
                 (Software switch between integrated antenna and connectors)

ANTENNA PATTERNS

H-pol Azimuth

Legend:
- 4.900 GHz
- 5.200 GHz
- 5.300 GHz
- 5.500 GHz
- 5.700 GHz
- 5.900 GHz

H-pol Elevation

Legend:
- 4.900 GHz
- 5.200 GHz
- 5.300 GHz
- 5.500 GHz
- 5.700 GHz
- 5.900 GHz

V-pol Azimuth

Legend:
- 4.900 GHz
- 5.200 GHz
- 5.300 GHz
- 5.500 GHz
- 5.700 GHz
- 5.900 GHz

V-pol Elevation

Legend:
- 4.900 GHz
- 5.200 GHz
- 5.300 GHz
- 5.500 GHz
- 5.700 GHz
- 5.900 GHz
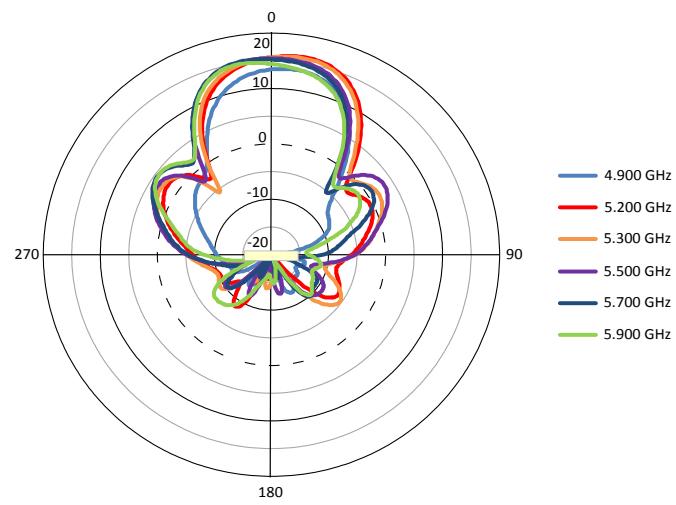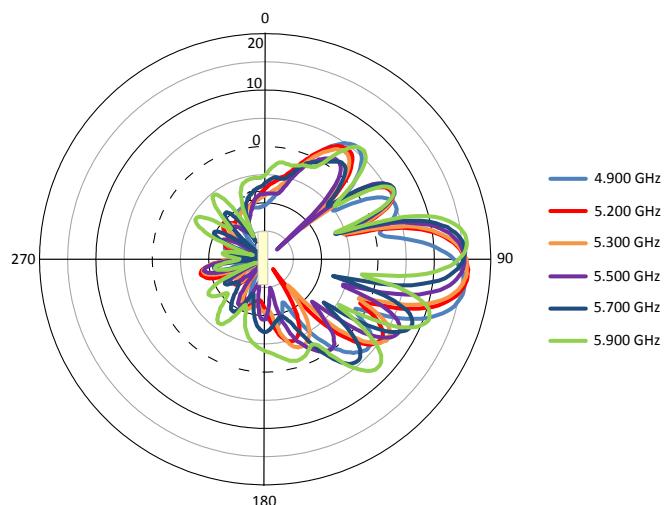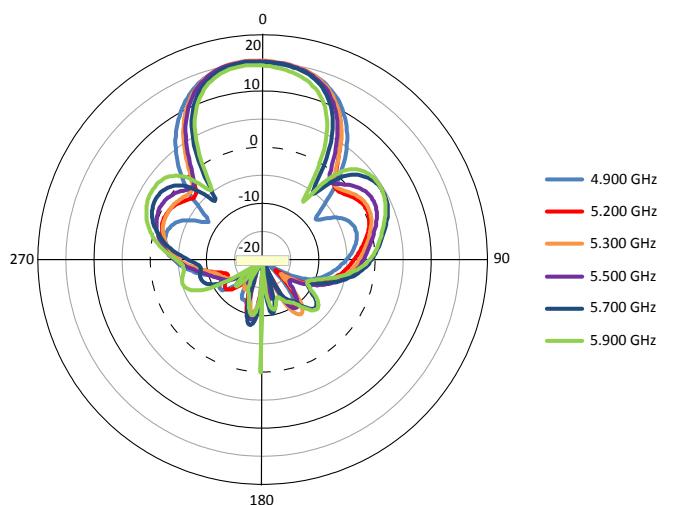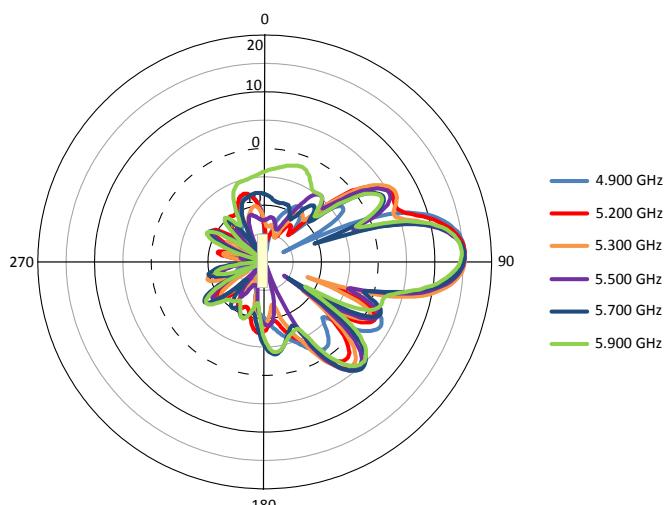
MANAGEMENT

BLUETOOTH LOW ENERGY	Proxim BlueConnect™
REMOTE	Telnet and SSH 2.0, Web GUI and TLS 1.3, TFTP, SNMP v1/v2c/v3
OTHER	Syslog, SNTP and local time, Spectrum analyzer
MULTI-LANGUAGE SUPPORT	Web Interface available in English, French, Spanish and Chinese

SECURITY

ENCRYPTION	AES 128 (AES 256 via license upgrade)
AUTHENTICATION	Internal MAC Address Control List, Radius based Authentication (with VLAN and QoS provisioning)

QoS

ASYMMETRIC BANDWIDTH CONTROL	Asymmetric UL/DL committed and maximum information rate per service flow
PACKET CLASSIFICATION CAPABILITIES	802.1p priority and IPTOS
SCHEDULING	Best Effort, Real Time Polling Services

NETWORK

MODES	Bridging, Routing
IP STACK	IPv4 and IPv6 simultaneously
VLAN	802.1Q: Management VLAN. Transparent, Access, Trunk and Mixed mode. QinQ double tagging
GATEWAY FEATURES	DHCP Server & relay, NAT with Std ALGs, PPPoE end point with Proxy DNS

POWER

802.3at compliant

POWER CONSUMPTION

14 to 17 W max in MIMO 2x2 mode

ENVIRONMENTAL SPECS	OPERATING TEMPERATURE	STORAGE TEMPERATURE	HUMIDITY - IP RATING	WIND LOADING
	-40° to 60°C	-50° to 70°C	100% relative humidity	180 km/h (112.5 mph)
	-40° to 140° Fahrenheit	-58° to 158° Fahrenheit	IP67	
PHYSICAL SPECS	**DIMENSIONS (Shipping Carton)**	**DIMENSIONS UNPACKAGED**	**WEIGHT (Shipping Carton)**	**WEIGHT (UNPACKAGED)**
SX1-1023C	310 x 226 x 98 mm (12.2 x 8.9 x 3.85 in)	170 x 217 x 56 mm (6.7 x 8.55 x 2.2 in)	2.85 kg (6.28 lbs)	1.24 kg (2.73 lbs)

SAFETY STANDARDS

IEC 62368-1:2018
UL 62368-1:2019, CSA C22.2 No. 62368-1:19

CERTIFICATIONS (Pending)

EMC/EMI: CFR47, FCC part 15, Subpart B (class A)
Bluetooth: FCC Part 15 Subpart C 15.247,15.205, 15.207 & 15.209
UNII 1 and 3: FCC part 15, Subpart C 15.247, 15.205, 15.207 & 15.209, Subpart E 15.407
UNII 2A and 2C: FCC part 15, subpart E 15.407, 15.247, 15.205, 15.207 & 15.209 (Pending)

PACKAGE CONTENTS

- One Stratum SX1-1023C unit with two RP-SMA connectors
- Three RP-SMA weather proofing caps
- One M25 weather proofing cable glands
- One power injectors and country specific power cords
- One full axis mounting kits
- One Grounding kits
- One Quick Installation Guides

MTBF & WARRANTY

>450 000 hours, 2-year warranty, ServPak Extended Support available.

ABOUT PROXIM WIRELESS:

Proxim Wireless is a global leader in advanced wireless broadband and WiFi solutions that deliver high performance and high availability communications. Celebrating 40 years of pioneering wireless solutions, Proxim is recognized for unparalleled reliability, superior performance, and drive for innovation.