

### 2X2 MIMO Transmitter (Client) Single Radio

# Viper 400-i11t

## // Description

CDM Wireless, a leader in innovative wireless broadband network solutions, proudly introduces the Viper 400-i11t transmitter.

Viper 400-i11t is a single radio 2x2 MIMO transmitter with an internal dual-polarity MIMO antenna, 1 Ethernet port, ultra-wide frequency range and high RF output for performance up to 6 miles at maximum data rates.

With actual data rates of 290 Mbps, this unit delivers constant capacity to stream high resolution video, audio, VoIP and live recordings without interruption of camera control or loss of data.

Installation is fast and easy with an all cast aluminum enclosure, universal mounting kit and 1 Cat-5/6 cable for power and data.

This transmitter can easily be combined into any P2P/P2MP hybrid deployment and is compatible with all Viper 400/650 series products. This allows flexible network design, phased deployments and high bandwidth upgrades that are scalable, fast and budget friendly.

## // Designed for Security Integrators

The Viper 400 series are uniquely designed to satisfy the needs of security integrators. They are specifically designed to meet the challenges of designing and deploying wireless networks in uncontrolled environments by offering no maintenance, simplicity, and maximum flexibility in configuration and future upgrades.

With multiple radios, antennas, frequencies, channel bandwidths, spatial multiplexing, adaptive noise immunity and selection of protocols, Viper delivers constant throughput by analyzing, selecting and optimizing the frequency spectrum and mitigating interference.

All Viper products include software, licenses, accessories and unlimited bandwidth at no additional charge.

Assisting customers is our specialty! Each Viper system is pre -programed to each customers specific network requirement.

At CDM, we deliver complete Plug and Play systems.



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### Factory Programmed for Your Network

### // Key Features

- 1 2x2 MIMO transmitter with panel antenna
- P2P / P2MP / Bridge / Backhaul / MESH
- Bandwidth of 290 Mbps throughput<sup>1</sup>
- Range of 6 miles at maximum throughput<sup>1</sup>
- Frequency 4920 to 5950 MHz
- Adaptive Noise Immunity
- Dynamic Frequency Selection
- 1 Gigabit Ethernet port, 802.3af with Auto-MDI/X
- 16kV ESD protection on Ethernet and RF ports
- AES 256 / 3DES encryption and VLAN support for enhanced security
- Industrial-grade cast aluminum enclosure/mount
- Includes universal mounting kit and POE supply
- Windows-based GUI and Web browser interface for programming and monitoring
- Tested and delivered with a site map drawing showing installation locations of each unit
- Made in USA

<sup>1</sup> Higher/lower actual throughput and range depends on environment

...Innovative Broadband Network Solution P2P / P2MP / Bridge / Backhaul / MESH

#### // WIRELESS INTERFACE

Radios:	1 2x2 MIMO transmitter	
Antennas:	18dBi, 24deg Integ	rated MIMO panel
Data Connect Rate:	400 Mbps	
Data Throughput Rate:	290 Mbps <sup>1</sup>	
Frequency:	4920 - 5950 MHz <sup>2</sup>	(Dynamic Freq Selection)
Transmit Power:	1300mW (31dBm) <sup>2</sup>	
Supported Channels:	10/20/40 MHz	
Wireless Standards:	802.11a/n/ac (Stan	dard & Proprietary modes)
MAC protocols:	TDMA, CSMA/CA,	Polling
Modulation:	OFDM / BPSK, QP	SK, up to 256-QAM
Quality of Service:	4 QoS class levels	(voice, video, high, low)
Range:	6 miles at MCS7 wi	th 18dBi antenna <sup>1</sup>
TX Power / RX Sensitivity:	TX/RX at MCS0	30dBm / -96dBm
	TX/RX at MCS7	27dBm / -77dBm
	TX/RX at MCS9	22dBm / -72dBm

#### // POWER

POE Input :	48VDC power injector and/or POE (802.3at) compatible switch on port 1
Consumption:	12 Watts maximum

TX/RX at 6Mbit

#### // INTERFACES

Ethernet

1 Gigabit Ethernet port , 802.3af with Auto-MDI/X

31dBm / -96dBm

27dBm / -81dBm

#### // SYSTEM MANAGEMENT AND CONTROL

Antenna Alignment, Freq Scan, Freq Sniffer, Spectrum Usage, Channel Snooper, TX Power, TX/RX Signal Strength, Signal Quality, Connection Rate, Data Rate, Noise Floor, Signal-to-Noise Ratio, Bandwidth, Ping, Flood Ping, Ping Speed, Netwatch, IP Scan, Traffic Monitor, Email, Packet Sniffer, Torch, System Health, Resource Stats, History, Logging, Scripts, Scheduler, SMS, Watchdog, Graphing, Trace Route, MAC Server.

<sup>1</sup> Higher/lower actual throughput and range depends on environment

<sup>2</sup> Operating range limited by Country Regulations

CDM Wireless, your trusted wireless broadband solutions provider, proudly introduces our Viper 400 product solutions.

The Viper 400 product series are uniquely designed to satisfy the needs of security integrators. They are specifically designed to meet the challenges of designing and deploying wireless networks in uncontrolled environments by offering no maintenance, simplicity and maximum flexibility in configuration and future upgrades.

Frequency, RF modes and antenna selection are a few of the most important elements of a reliable high performance wireless network.

The Viper 400 series includes a complete line of MIMO transmitters, receivers and repeaters with a wide selection of configurations for multiple radios, radio modes and combination of internal and external antenna selections, designed to operate in any environment with fast installation and no maintenance.

#### // AUTHENTICATION, SECURITY AND ENCRYPTION

Authentication:	RADIUS server MAC enabled
Security:	SSL based authentication
Local/Remote Admin:	SSH, IP/MAC Telnet, Win GUI, HTTPS, FTP, Serial Console
Encryption:	AES 128/256, Triple DES with CBC-MAC, RADIUS, EAP
VPN:	EOIP, VLAN, PPOE, PPTP, IPIP, L2TP
VLAN:	802.1Q / 802.1QinQ / 802.1ad
Protocols:	RTP/IP, UDP/IP, TCP/IP, HTTPS, VRRP, NTP, DNS, DHCP, ARP, WDS
GPS Support:	Asynchronous NMEA0183, NMEA/RTCM or simple text

#### // ENVIRONMENTAL & ENCLOSURE SPECIFICATIONS

Material:	Cast aluminum
Finish:	Powder coat paint
Rating:	IP67, IP66
Temperature:	-40C to +70C
Humidity:	0-95% (wind driven rain)
Dimensions:	7.5" x 7.5" x 2.75"
Weight:	3 Lbs.
Connectors:	1 Weatherized feed thru for cables or conduit
LEDs:	Power, Ethernet Activity
Mounting:	Mast, pole or wall
Grounding:	DC Ground
Vibration:	IEC 60721-3-4 4M5 Random
Mechanical:	IEC 60721-3-4 4M5
Solar Radiation:	ASTM G53 1000 hours
Ice Load:	25mm radial
Salt Fog:	IEC 68-2-11 Ka 500 hours

Regulations:

FCC Part 15, Class B

# The Viper 400 Product Line

With the Viper 400, integrators can choose from a wide band of frequencies and variety of antenna types, including: panel, sector, omni-directional and parabolic. Most P2MP installations consist of several radio models and antenna types.

Installation is fast and easy with an all cast aluminum enclosure, universal mounting kit, 1 Cat-5/6 cable for power/data and 2 additional POE+ ports for powering external devices.

All Viper products include software, licenses, accessories and unlimited bandwidth at no additional charge.

CDM far surpasses the industry competition on performance, quality, factory programming and assisting customers with design, installation and performance testing and optimization.

#### At CDM, our customers are our #1 priority !



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Made in USA / Viper 400-i11t, Rev 1