



### TECHNICAL SPECIFICATIONS

System Information	
Processor Specs	Atheros MIPS 24KC, 400MHz
	NSM
Memory Information	32MB SDRAM, 8MB Flash
	NSM
Networking Interface	2 X 10/100 BASE-TX (Cat. 5, RJ-45) Ethernet

Regulatory / Compliance Information	
	M5**
Wireless Approvals	FCC Part 15.247, IC RS210, CE
RoHS Compliance	YES

Physical / Electrical / Environmental / Antenna	
Enclosure Characteristics	Outdoor UV Stabilized Plastic
Mounting Kit	Pole Mounting Kit included
Power Method	Passive Power over Ethernet (pairs 4, 5+; 7, 8 return)
Operating Temperature	-30C to 75C
Operating Humidity	5 to 95% Condensing
Shock and Vibration	ETSI300-019-1.4
	NSM
Dimensions	294 x 31 x 80 mm
Weight	0.4 kg 0.5 kg (M3/M365)
Power Supply (included)	24V, 0.5A POE 24V, 1A POE (M3/M365)
Max Power Consumption	8 Watts
Antenna Gain	11 dBi (M2) 13.7 dBi (M3/M365) 16 dBi (M5)
Polarization	Dual Linear

Operating Frequency Summary (MHz)	
	M5**
902-928	5470-5825*

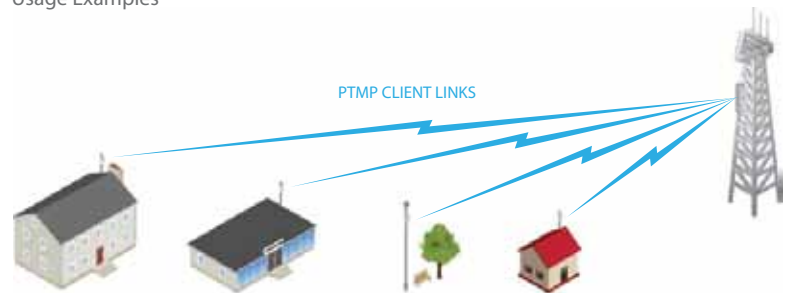
## OVERVIEW

### Leading Edge Industrial Design

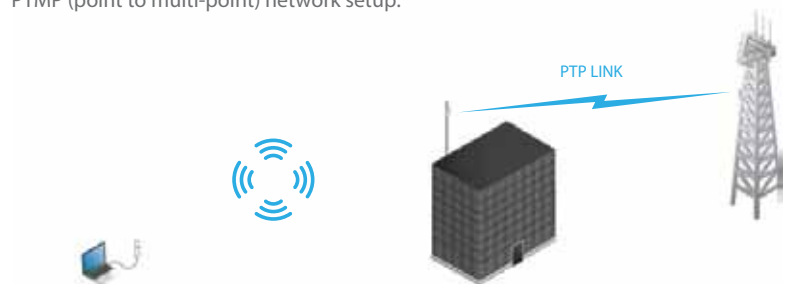
The original NanoStation set the bar for the world's first low-cost and efficiently designed outdoor broadband CPE. The new NanoStation M and NanoStation Loco M take the same concept to the future with new redesigned sleek and elegant form-factors along with integrated AirMax (MIMO TDMA Protocol) Technology.

The low cost, hi-performance, and small form factor of NanoStation M and NanoStation Loco M make them extremely versatile and ideal in several different applications (see diagrams on right for some usage examples).

Usage Examples



NanoStation M as powerful clients in an AirMax PTMP (point to multi-point) network setup.



NanoStation M as a powerful wireless client. Use two NanoStation M to create a PTP link.

### Integrated AirMax Technology

Unlike standard WiFi protocol, Ubiquiti's Time Division Multiple Access (TDMA) AirMax protocol allows each client to send & receive data using pre-designated time slots scheduled by an intelligent AP controller.

This "time slot" method eliminates hidden node collisions & maximizes air time efficiency. It provides many magnitudes of performance improvements in latency, throughput, & scalability compared to all other outdoor systems in its class.

**Intelligent QoS Priority** is given to voice/video for seamless access.

**Scalability** High capacity and scalability.

**Long Distance** Capable of high speed 50km+ links

**Latency** Multiple features dramatically reduce noise.

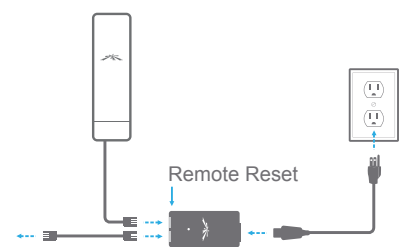
### Dual Ethernet Connectivity

The New NanoStation M provides a secondary ethernet port with software enabled POE output for seamless IP Video integration.



### Intelligent POE \*\*

Remote hardware reset circuitry of NanoStation M allows for device to be reset remotely from power supply location. In addition, any NanoStation can easily become 802.3af 48V compliant through use of Ubiquiti's Instant 802.3af adapter (sold separately).



\* Only NanoStation M models.

\*\* Remote reset is an additional option. Nanostation M comes standard as 24V without remote reset.

### SPECIFICATIONS (CONT.) - NSM5

NanoStation M5- Operating Frequency 5470-5825 MHz							
OUTPUT POWER: 27 dBm							
5 GHz TX POWER SPECIFICATIONS				5 GHz RX POWER SPECIFICATIONS			
	DataRate	Avg. TX	Tolerance		DataRate	Avg. TX	Tolerance
11a	6-24 Mbps	27 dBm	+/- 2 dB	11a	6-24 Mbps	-94 dBm min	+/- 2 dB
	36 Mbps	25 dBm	+/- 2 dB		36 Mbps	-80 dBm	+/- 2 dB
	48 Mbps	23 dBm	+/- 2 dB		48 Mbps	-77 dBm	+/- 2 dB
	54 Mbps	22 dBm	+/- 2 dB		54 Mbps	-75 dBm	+/- 2 dB
11n / AirMax	MCS0	27 dBm	+/- 2 dB	11n / AirMax	MCS0	-96 dBm	+/- 2 dB
	MCS1	27 dBm	+/- 2 dB		MCS1	-95 dBm	+/- 2 dB
	MCS2	27 dBm	+/- 2 dB		MCS2	-92 dBm	+/- 2 dB
	MCS3	27 dBm	+/- 2 dB		MCS3	-90 dBm	+/- 2 dB
	MCS4	26 dBm	+/- 2 dB		MCS4	-86 dBm	+/- 2 dB
	MCS5	24 dBm	+/- 2 dB		MCS5	-83 dBm	+/- 2 dB
	MCS6	22 dBm	+/- 2 dB		MCS6	-77 dBm	+/- 2 dB
	MCS7	21 dBm	+/- 2 dB		MCS7	-74 dBm	+/- 2 dB
	MCS8	27 dBm	+/- 2 dB		MCS8	-95 dBm	+/- 2 dB
	MCS9	27 dBm	+/- 2 dB		MCS9	-93 dBm	+/- 2 dB
	MCS10	27 dBm	+/- 2 dB		MCS10	-90 dBm	+/- 2 dB
	MCS11	27 dBm	+/- 2 dB		MCS11	-87 dBm	+/- 2 dB
	MCS12	26 dBm	+/- 2 dB		MCS12	-84 dBm	+/- 2 dB
	MCS13	24 dBm	+/- 2 dB		MCS13	-79 dBm	+/- 2 dB
	MCS14	22 dBm	+/- 2 dB		MCS14	-78 dBm	+/- 2 dB
MCS15	21 dBm	+/- 2 dB	MCS15	-75 dBm	+/- 2 dB		

NanoStation M5 - Antenna Information	
Gain	14.6 - 16.1 dBi
Cross-pol Isolation	22 dB minimum
Max VSWR	1.6:1
Beamwidth	43 deg. (H-pol) / 41 deg (V-pol) / 15 deg (Elevation)
Return Loss	
Vertical Azimuth	
Vertical Elevation	
Horizontal Azimuth	
Horizontal Elevation	

### MISC

## TOUGH Cable

OUTDOOR CARRIER CLASS SHIELDED

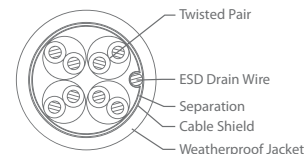
Protect your networks from the most brutal environments with Ubiquiti's industrial-grade shielded ethernet cable, TOUGH Cable.

**Increase Performance** Dramatically improve your ethernet link states, speeds, and overall performance with Ubiquiti TOUGH Cables.

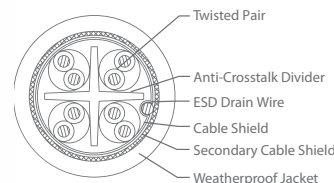
**Extreme Weatherproof** TOUGH Cables have been built to perform even in the harshest weather and environments.

**Eliminate ESD Attacks** Protect your networks from devastating ESD Attacks, TOUGH Cables eliminate ESD attacks and ethernet hardware damage.

**Extended Cable Support** TOUGH Cables have been developed to have increased power handling performance for extended cable run lengths.



**LEVEL 1**  
SHIELDING PROTECTION



**LEVEL 2**  
SHIELDING PROTECTION

### Bulletproof your networks

TOUGH Cable is currently available in two versions: Level 1 Shielding Protection and Level 2 Shielding Protection.

**Level 1** is a Category 5e (Up to 1Gbps Ethernet Support) Outdoor Carrier Class Shielded Cable.

**Level 2** is a Category 5e Enhanced Gigabit Performance (1Gbps Ethernet Support) Outdoor Carrier Class Shielded Cable.

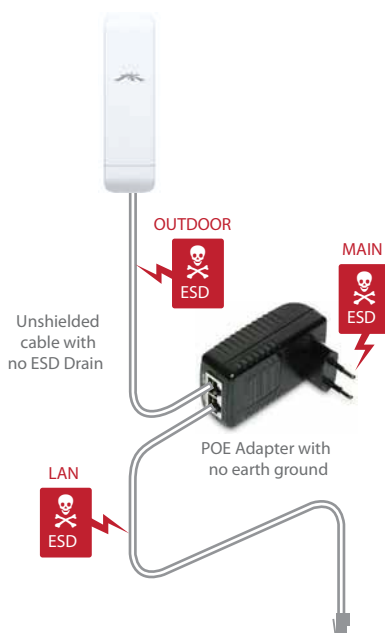
#### Additional Information:

- 24 AWG copper conductor pairs
- ESD Drain Wire: 26 AWG integrated ESD Drain wire to prevent ESD attacks & damage.
- PVC outdoor rated jacket
- 0.35um foil shield
- Multi-Layered Shielding
- 1000ft (304.8m) length
- Use with TOUGH Cable Connectors (sold separately) for optimal performance

Learn more:

[www.ubnt.com/toughcable](http://www.ubnt.com/toughcable)

ESD Attacks are overwhelmingly the leading cause for device failures. The diagram below illustrates the areas vulnerable to ESD Attacks in a defenseless network.



By using a grounded Ubiquiti POE adapter (included) along with Ubiquiti TOUGH Cable (sold separately), you can effectively eliminate ESD Attacks.

