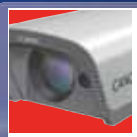


**TESSCO**

# The Wireless Bulletin

for Wireless Networking Solutions

VOLUME 1 ISSUE 1 MARCH 2008



800-472-7373  
[www.tessco.com/go/wns](http://www.tessco.com/go/wns)



# Welcome to the TESSCO Wireless Bulletin for Wireless Networking Solutions

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With new wireless applications and products introduced everyday, you and your networks need to be faster and more accurate than ever before. That's why we've developed The Wireless Bulletin for Wireless Networking Solutions, a useful resource designed specifically for professionals like you, who build, maintain and repair wireless networks, and require the essential products that make wireless work.

This valuable and easy-to-use bulletin is yet another example of how we're helping you get wireless right. It offers you access to everything you need and everything you need to know. Take a look inside to learn what's new, what's next and what's happening in wireless networking, featuring a range of in-demand solutions for everything from video surveillance, disaster recovery, campus coverage, SCADA, hazardous environments, to health care and hospitality.

As always, you can rely on us to provide you with what you need to succeed in wireless, including the broadest and most in-depth product offering in the industry, a diverse range of expertise and training services, backed by unparalleled product availability, guaranteed delivery and a simplified ordering process.

**At TESSCO, we're committed to your wireless success. Nothing less.**

**Call TESSCO Today.**  
800.472.7373 | [www.tessco.com](http://www.tessco.com)



TESSCO serves the professionals and organizations that build, operate and maintain wireless.

When you qualify to become a TESSCO customer, you have immediate access to a network of people, products and services and the knowledge, configuration, delivery and control you need to succeed.

## Doing Business With TESSCO

### KNOWLEDGE RESOURCES

**TESSCO's Knowledge Tools give you the expertise to make the right decisions.**

- **The Wireless Guide** Our award-winning biannual print publication with over 1,600 pages containing specifications and comparisons of more than 30,000 products from 350 manufacturers.
- **The Wireless Update** Our monthly e-newsletter with customized information for your job.
- **The Wireless Journal** Our bimonthly publication with new product releases, case studies, and technical or application articles.
- **The Wireless Bulletin** Our quick-and-easy overviews of the latest products and services for accessories, site planning, broadband, and installation, test, and maintenance.

### TRAINING AND EDUCATION

- **Custom or standard courses** for individuals or teams to stay competitive, improve quality, increase productivity, enhance employee morale, and retain key staff.
- **Comprehensive, hands-on training** on any product in this Wireless Bulletin or any application for technicians, engineers, executives, and sales people.

### TECHNICAL SUPPORT

- **Everyday assistance** in product specifications, applications and selection.
- **Design assistance** for your building and system engineering needs.

### PRODUCT AVAILABILITY

- **Offered items** Depend on the broadest offering in the industry from the largest number of manufacturers.
- **Non-offered items** Ask and we will make every effort to get it for you.
- **Guaranteed product availability** Ask how you can qualify for this 100% dependable reservation option when you know what you need and when you will need it.
- **Confirmation of availability** TESSCO.com or one of our team members will quickly confirm availability and lead times at time of order.

### CUSTOMER SERVICE

- **24/7** Call 800-472-7373 or visit TESSCO.com for immediate access and assistance.
- **SOS emergencies** When you need us most, we are ready for you. Call 800-472-7373.
- **One-call resolution** Call 800-472-7373 and we'll handle the rest.

# Video Surveillance Solutions



## Video Surveillance Solutions

### MARKETS

Carrier, utility, healthcare, education, campus environments, government, Homeland Security, enterprise, retail, hospitality, transportation, public safety, and construction.

### USES

All security applications:

- Indoor – public spaces, hallways, doors, classrooms, stairways
- Outdoor – campus, parking areas, public spaces, building accesses, remote locations, towers
- Homeland Security
- Integration and sharing of selected video information between agencies
- Protection of low- to high-security areas

### FEATURES AVAILABLE

Indoor and/or outdoor installations:

- Wireless-access cameras or IP access cameras in dome, bullet, CCD, IP, or pan/tilt/zoom (PTZ), low light or infrared models
- Fixed-wire cameras or IP-access cameras in dome, bullet, CCD, IP, pan/tilt/zoom (PTZ) models
- Digital and time-lapse recorders
- Remote system access:
  - > Single-point administration for entire system
  - > Full replay and long-term storage
  - > Multiple cameras and locations
  - > Individual-camera program and control
  - > PTZ control and biometrics control
  - > Electronic trigger control (e.g., doors, gates)
- Event notification by pager, cell phone, e-mail
- Watermark authentication
- Wireless systems:
  - > Wireless backhaul to NOC
  - > Wireless remote access (through Wi-Fi link, if existing)

### BENEFITS

- Secure connections
- Timely response by security personnel
- Deployment where cable cannot be installed
- Cost-effective in the right circumstances
- Remote monitoring

### INFORMATION NEEDED

- Area to be monitored (determines number of cameras)
- Existing system or new design
- Level of remote access needed (e.g., security personnel, police/fire, enterprise management, school administration, alarm company)
- Locations requiring simultaneous monitoring and access (e.g., school system with multiple locations/buildings)
- Budget

- Video storage requirements (e.g., number of frames per second and period of time to be saved)
- Distance between points
- Obstructions to line of sight (wireless)
- Bandwidth
- Network interface requirements
- Mounting/installation requirements
- Grounding needs / lightning protection
- Day / night
- Type of power
- Requirement for solar or battery backup
- Security of camera installation (e.g., tamper-proof enclosures to reduce vandalism and theft)
- Scalability of design
- Access and monitoring flexibility
- Ease of installation (wired)
- Camera enclosures
- Cable
- Mounting hardware
- Wireless radios and antennas
- Power solutions
- Video storage

### CRITICAL CONCERNS

- Wiring vs. wireless cost and feasibility
- Feasibility of using wireless considering

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Log on to **TESSCO.com** to create your customized worksheet to suit your project's buildout.

### Sample Bill of Materials

TESSCO No.	Sony Network High Speed PTZ Color Camera Solution	QTY.
411519	Sony Network High Speed PTZ Color Camera	16
322640	Sony Camera Power Supply	10
412920	Sony Outdoor 7"Clr Outdoor Dome Enclosure w/ Heater & Blower	10
442976	Sony Gooseneck Wall Mount Bracket for Dome Enclosures	10
486986	Sony Pole Mount Adaptor	10
488663	Sony 7" Ceiling Dome Mount	6
360719	Firetide Hotport 6101 Indoor Single Wireless Mesh Node.	6
455851	Wireless Solutions Airstream 5.8 GHz Base Station Unit	1
411649	AirStream 9 dbi Omni Directions base station antenna	1
433840	Wireless Solutions Airstream 5.8 GHz Short Range Client Unit	5
444861	Polyphaser NetGuard Lighting Protector for Shielded Twisted Pair	10
460923	Sony Real Shot Manager Software for 16 Cameras	1
427994	Pelco PMC14H, High Resolution 14" Color Monitor	1
488574	Analog to Ethernet Converter (Transmitter)	1
412774	Belden 4-Pair, 24 AWG, Shielded CAT5e Cable	300
416889	SMC 5-port 10/100 Desktop Switch	10
36101	Triplite On-Line UPS	1

TESSCO No.	Speco 8-Channel Triplex DVR w/Network DDNS Video Server	QTY.
320836	Speco 8-Channel Triplex DVR w/Network DDNS Video Server	1
415654	75' BNC Male to BNC Male Jumper	8
461656	21" Color Monitor	1
340733	Speco Color Weatherproof Dome Camera	4
320797	Wall Mount	4
494044	1/3" Color CCD Bullet Camera	4
426987	Weatherproof Day/Night Bullet Camera	4
35544	Indoor/Outdoor Infrared Illuminator	1
488715	Adtran Switch w/Integrated Router and VPN	1
415311	24 Port Cat5e Patch Panel	1
429563	1000' Plenum Cat5e	2
457537	1' Cat5e Patch Cables Blue	1
51621	BUD Industries Datacom Cabinet Assembly	1

# Video Surveillance Solutions



Sony Outdoor 7" Clear Lower Outdoor Dome Enclosure w/ Heater and Blower  
TESSCO # 412920



Sony Gooseneck Wall Mount Bracket for Dome Enclosures  
TESSCO # 442976



Sony Pole Mount Adaptor  
TESSCO # 486986



Sony External Pole Mount Antenna  
TESSCO # 477970



Firetide Hotport 6101 Indoor Single Wireless Mesh Node  
TESSCO # 360719



Wireless Solutions Airstream 5.8 GHz Wireless Station Unit  
TESSCO # 437896



Polyphaser NetGuard Lightning Protector for Shielded Twisted Pair  
TESSCO # 444861



Sony NVR  
TESSCO # 330907

## SONY

The SNC-RZ30N camera has the flexibility to see almost anything within the camera's range and field-of-view over an ordinary TCP/IP network.

**FEATURED PRODUCT:** Sony Network High-Speed PTZ Color Camera  
TESSCO # 411519



Pelco PMC14H, High Res 14" Color Monitor w/ Steel Housing  
TESSCO # 427994



Analog to Ethernet Converter  
TESSCO # 488574



Belden 4-Pair, 24 AWG, Shielded CAT5e Cable  
TESSCO # 412774



Adtran 1224 24 port Switch  
TESSCO # 427529



75' BNC Male to BNC Male Jumper  
TESSCO # 415654



SPECO 15" 1024X768 LCD TV  
TESSCO # 422771



Speco Color Weatherproof Dome Camera  
TESSCO # 340733



Wall Mount  
TESSCO # 320797



1/3" Color CCD Bullet Camera  
TESSCO # 494044



Weatherproof Day/Night Bullet Camera  
TESSCO # 426987



Indoor/Outdoor Infrared Illuminator  
TESSCO # 35544



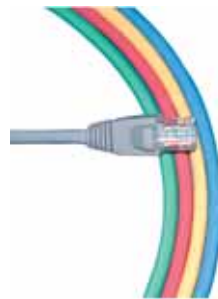
Adtran Switch with Integrated Router & VPN  
TESSCO # 488715



24 Port Cat5e Patch Panel  
TESSCO # 415311



1000' Plenum Cat5e  
TESSCO # 429563



1' Cat5e Patch Cables  
TESSCO # 457537



TrippLite On-Line UPS  
TESSCO # 36101

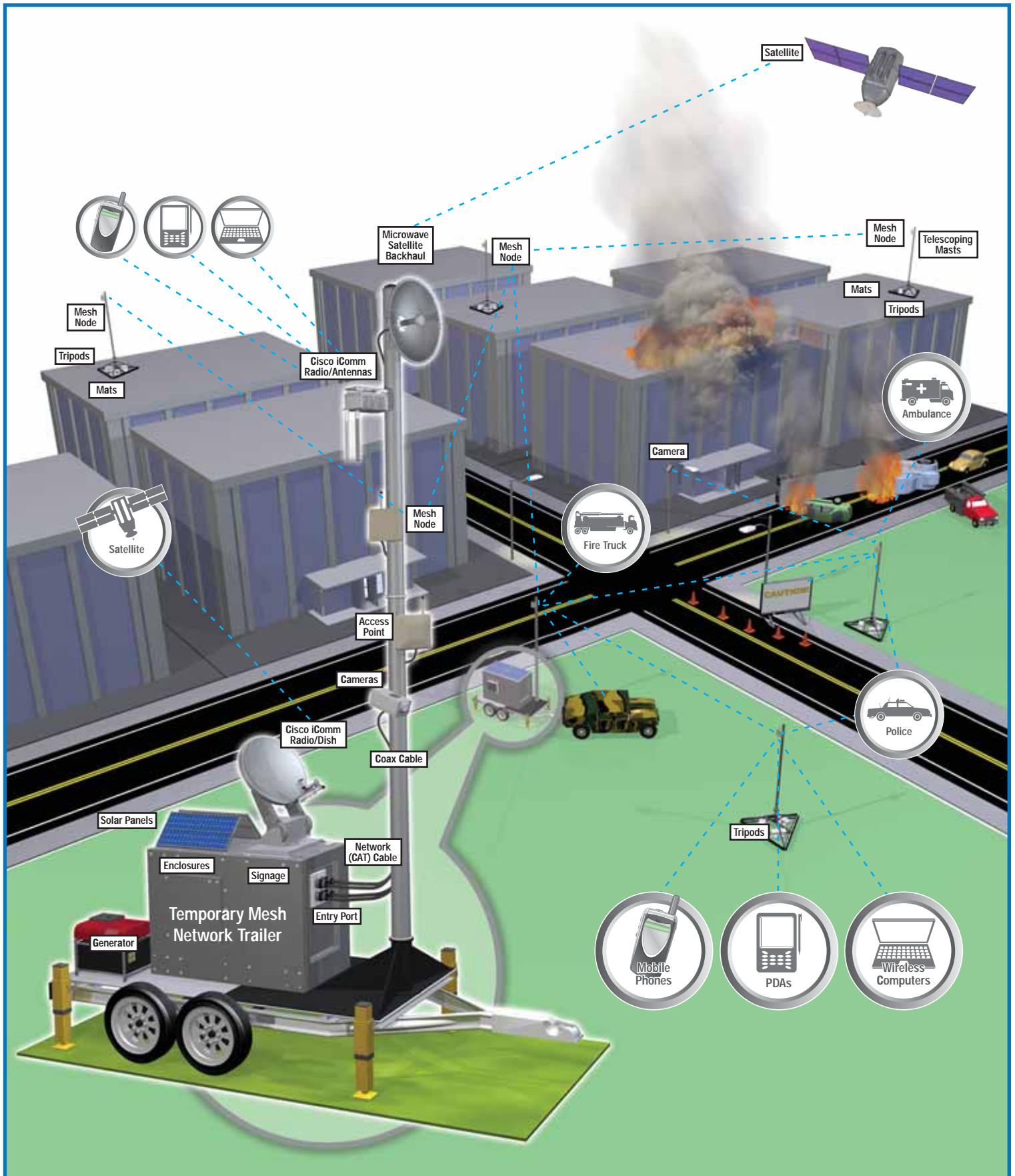
**FEATURED PRODUCT:** Speco 8-Channel Triplex DVR w/Network DDNS Video Server TESSCO # 320836



An integrated digital video recorder that combines the features of a time-lapse audio / video recorder, a multiplexer, and a video server to create a single security CCTV solution.



# Disaster Recovery Solutions



## Disaster Recovery Solutions

### MARKETS

Education, enterprise, government, healthcare, hospitality, public safety, utilities

### USES

- Disaster recovery
- Interim solution for delayed fiber or leased-line connectivity
- Network connectivity for events
- Public safety

### FEATURES

- Speeds ranging from 2 Mbps to 1.25 Gbps
- Distances ranging from a few meters to 90 miles
- Integrated and/or external antennas
- Licensed spectrum from 4.9 GHz to 80 GHz
- Unlicensed spectrum of 900 MHz, 2.4 GHz, 5.3 GHz, 5.8 GHz, 24 GHz and 60 GHz
- Line-of-sight (LOS), near-of-sight (NLOS) and non-line-of-sight (N-LOS) paths
- RF radios, free space optics and millimeter wave
- Satellite backhaul for connectivity anywhere

### BENEFITS

- Quick deployment time
- Portability
- Scalability
- Versatile network connections
- Carrier-grade reliability
- Economical
- Data and voice connectivity anywhere via TESSCO's satellite uplink solution

### INFORMATION NEEDED

- Height requirements
- Link distances
- Bandwidth requirements
- Path characteristics (LOS, NLOS or N-LOS)
- Security requirements
- Reliability requirements
- Antenna placement
- Environmental characteristics

### CRITICAL CONCERNS

- Grounding and lightning protection
- Network interface requirements
- Fresnel zone clearance
- Available spectrum

### OTHER EQUIPMENT OPTIONS

- Cable and connectors
- Grounding and lightning arrestors
- Antennas
- Mounting hardware
- Cameras
- Enclosures
- Power solutions
- Test equipment
- Tools
- Network routers and switches
- Additional Cisco hardware available upon request

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Log on to **TESSCO.com** to create your customized worksheet to suit your project's buildout.

### Sample Bill of Materials

TESSCO No.	Cisco ISR Based Instant Communications Solution	QTY.
320137	Cisco iComm Basic	3
331233	iComm Basic Third Party Products	3
360121	TracStar .75 Meter Portable Antenna, 1 Case	1
300589	TracStar .96 Meter Portable Antenna, 2 Cases	2
380359	TerraWave TWS-600 Series Bulk Coaxial Cable	500
474949	TerraWave N-Style Plug Connector for TWS-600 Cable	50
320004	Cisco iComm Pro	4
330900	iComm Pro Third Party Products	4
380364	TracStar .96 Meter Portable Antenna, 1 Case	2
370328	TracStar 1.2 Meter Portable Antenna, 2 Cases	2
330251	TerraWave 2.4 GHz 8 dBi Omnidirectional Antenna	12
361393	TerraWave 5.1-5.85 GHz 9 dBi Omnidirectional Antenna	12

TESSCO No.	Firetide HotPort 6202 Dual Radio Solution	QTY.
360212	Firetide HotPort 6202 Dual Radio	5
427579	RadioWave 5.8 GHz 17.9 dBi Low Profile Panel Antenna	3
486990	TerraWave 2.4 GHz 6 dBi Omnidirectional Antenna	5
462907	TerraWave 5.8 GHz 120 degree Sector Panel Antenna	2
479950	6' LMR-600 Jumper	10
431905	Universal Tripod Mount Accepts 2 3/8" Pole	5
464867	Ethernet Transition Cable	5
435715	Sony RZ25N PTZ Camera	2
486986	Sony Pole Mount Adapter	2
493973	Sony Outdoor Housing for RZ25N	2
322640	Power Supply	2
48272	Andrew Plain Galvanized Pipe 2-3/8"	5
417928	TerraWave 14"x12"x6" NEMA 4X Polycarbonate Enclosure	2
412774	Category 5e Cable	300
429441	Outdoor Cat5 Surge Suppressor	5

# Disaster Recovery Solutions



iComm Basic Third Party Products  
TESSCO # 331233



TracStar .96 Meter Portable Antenna, 2 Cases  
TESSCO # 300589



TerraWave TWS-600 Series Bulk Coaxial Cable  
TESSCO # 380359

**FEATURED PRODUCT:** Cisco ISR-Based Instant Comm Solutions - iComm Basic TESSCO # 320137

A portable communications solution, rapidly deployed in an emergency, network outage or an ad-hoc event to provide secure data, voice and wireless services.



Times Connectors for LMR600 Series Cable  
TESSCO # 330357



174W, 120VDC off-the-shelf Solar System  
TESSCO # 301299



Stand Alone AP  
TESSCO # 424925  
*Must Be Purchased as a Complete Solution*



A portable communications solution, rapidly deployed in an emergency, network outage or an ad-hoc event to provide secure data, voice and wireless services.

**FEATURED PRODUCT:** Cisco ISR-Based Instant Comm Solutions - iComm Pro TESSCO # 320004



Garmin Rino 530 GPS Unit  
TESSCO # 381732



Streamlight Survivor Series Flashlight  
TESSCO # 391767



Triplite On-Line UPS  
TESSCO # 36122



TracStar 1.2 Meter Portable Antenna, 2 Cases  
TESSCO # 370328



TerraWave 2.4 GHz 8 dBi Omnidirectional Antenna  
TESSCO # 330251



48 VDC Portable Generator  
TESSCO # 321757



RadioWave 5.8 GHz 17.9 dBi Low-Profile Panel Antenna  
TESSCO # 427579



2.4 GHz Omnidirectional Antenna  
TESSCO # 19585

**FEATURED PRODUCT:** Firetide HotPort 6202 Dual Radio



TESSCO # 360212

Provides reliable Ethernet connectivity over a high-performance, self-forming wireless mesh backbone — indoors, outdoors, or on board moving vehicles.




Universal Tripod Mount Accepts 2-3/8" Pole  
TESSCO # 430664



EnGenius Access Point  
TESSCO # 330138



Sony RZ25N PTZ Camera  
TESSCO # 435715



Sony Outdoor Housing for RZ25N  
TESSCO # 493973



Firetide Outdoor Access Point  
TESSCO # 442965



TerraWave 14"x12"x6" NEMA 4X Polycarbonate Enclosure  
TESSCO # 417928



Category 5e Cable  
TESSCO # 412774



Outdoor Cat5 Surge Suppressor  
TESSCO # 429441



4.9 GHz AirStream Long Range Point-to-Point Link  
TESSCO # 413850



DC to AC Power Inverter  
TESSCO # 300755

# Campus Coverage Solutions



## Campus Coverage Solutions

### MARKETS

Carriers, WISP or ISP, education (HED and K-12), hospitality, government

### USES

- Wireless Internet access for private use
- Enable collaboration and productivity, while reducing business and government operating costs
- Increase workplace productivity
- Internet access throughout campus with any Wi-Fi-enabled laptop, PDA or the new dual-mode Wi-Fi/3G mobile phones
- Free long-distance calls over wireless networks
- Internet access in business locations to attract customers
- Internet access in public locations as a service to visitors, residents and businesses
- Overlap hotspot coverage to form hot zones
- Internet access for registered users, such as students or employees, to access points, and often for a charge

### FEATURES AVAILABLE

- Speeds from 11 Mbps to 54 Mbps
- Uses Ethernet protocol for coverage from 100 feet to 300 feet from each access point or extension antenna
- Wall- or ceiling-mounted external antennas
- Unlicensed spectrum in 802.11a/b/g

### BENEFITS

- Supports voice, data and video services
- Increases productivity in the work place or learning institution
- Makes a connection from a computer to an open access point easily
- Provides free service at many campus Wi-Fi hot spots
- Convenient access to the Internet when away from work or home
- Easy set up and use of access points

### INFORMATION NEEDED

- Number of simultaneous users
- Coverage voids
- Map of signal leakage from your building
- Access point location(s)
- Map of channel usage
- Map of hot spot coverage: building-wide, campus-wide or city-wide
- Interference sources
- Stumble rogue or neighboring access points
- Overlapping wireless access point coverage
- Map of data rate usage
- Effects of outside or neighboring access points

### CRITICAL CONCERNS

- Advantage of government over private sector competitors
- “Evil twin” access points that appear legitimate but steal personal data
- Security risks of “shoulder surfing” in public areas
- Security risks of unencrypted wireless connection
- Existence and location of rogue access points

### OTHER EQUIPMENT OPTIONS

- Enclosures
- External antennas
- Cable
- Self-supporting towers
- Mounting options
- Ethernet switches
- Routers

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Log on to **TESSCO.com** to create your customized worksheet to suit your project's buildout.

### Sample Bill of Materials

TESSCO No.	TerraWave Antenna & Cisco 1242 Enclosure AP Solution	QTY.
436947	TerraWave Integrated Antenna & Access Point Enclosure	10
425948	TerraWave 2.4 GHz 5 dBi Mast Mount Omnidirectional Antenna	5
340387	TerraWave TWS-100 Series 20' Cable Assembly	3
454966	TerraWave 2.4 GHz Two-Way Splitter with RPTNC Plug	2
464993	TerraWave 2.4 GHz 14 dBi 90-Degree Sector Panel Antenna	2
451903	TerraWave 2.4 GHz 12.5 dBi 120-Degree Sector Panel Antenna	2
463979	TerraWave 2.4 GHz 8.5 dBi Patch Antenna	3
381612	Alpha Outdoor DC UPS	1

TESSCO No.	Motorola 5.2 GHz Canopy Campus Coverage Kit Solution	QTY.
350428	Motorola Canopy 5.2 GHz Cluster Kit	1
98865	Ballast Roof Mount 2 3/8" w/ 10' pipe	3
485156	Paladin RJ45 Crimp Kit	1
446739	Canopy Access Point Mount	1
352037	Coverage Extender w/ NEMA enclosure	1
478804	Motorola PTP 58600 5.8 GHz Wireless Ethernet Bridge	1
419899	CAT5 Surge Arrestor	2
474712	1000' Category 5e Cable	1
441602	RJ45 Connectors	60
330958	Adtran 1335 24 Port Layer 3 Switch/Router Wireless	2

# Campus Coverage Solutions



TerraWave 2.4 GHz 5 dBi Mast Mount Omnidirectional Antenna  
TESSCO # 425948



TerraWave TWS-400 Series 20' Cable Assembly  
TESSCO # 340387



EnGenius IP PBX  
TESSCO # 302235



2.4-2.5 GHz 120 Sector V Panel Antenna  
TESSCO # 495041

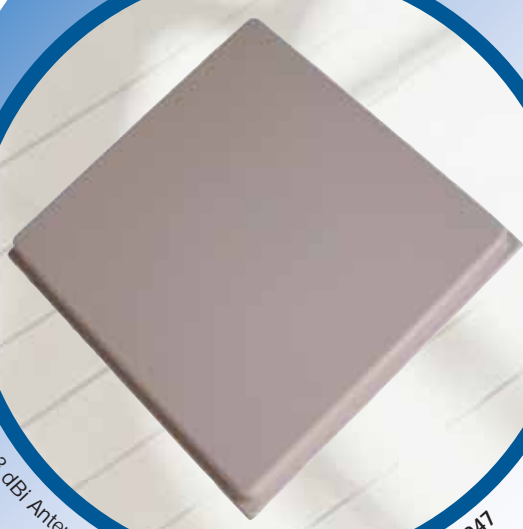


2.4-2.5 9dBi Outdoor Patch Antenna  
TESSCO # 470008




EnGenius WiFi SIP Phone  
TESSCO # 302455

**FEATURED PRODUCT:** 5.1-5.8 GHz-23 dBi Antenna & Access Point Enclosure TESSCO # 436947



Three-in-one outdoor solution: A fully integrated Cisco 1242 dual radio AP and a high-gain, 802.11a antenna contained within a ruggedized and weatherized enclosure.




Three-in-one outdoor solution: A fully integrated Cisco 1242 dual radio AP and a high-gain, 802.11 b/g antenna contained within a ruggedized and weatherized enclosure.

**FEATURED PRODUCT:** 2.4 GHz 19 dBi Antenna & Access Point Enclosure TESSCO # 340527




2.0-6.0 Micro LSXM Lightning Arrestor  
TESSCO # 426519



TerraWave TWS-195 Series 5' Cable Assembly  
TESSCO # 321770



TerraWave 4.9-5.85 GHz 18 dBi 60-Degree Sector Panel Antenna  
TESSCO # 381210



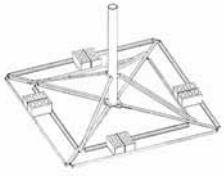
4.9 GHz, 22 dBi Sector Omnidirectional Antenna  
TESSCO # 445923



Ritron XT Call Box  
TESSCO # 485880



Rohn 60", 1-1/4" OD Non-penetrating roof mount  
TESSCO # 55966



Ballast Roof Mount 2-3/8" w/ 10' Pipe  
TESSCO # 98865



Canopy Access Point Mount  
TESSCO # 446739



Coverage Extender with NEMA Enclosure  
TESSCO # 352037



Alpha Outdoor DC UPS for Motorola PTP or Airstream  
TESSCO # 381612



Alcatel OS6602 OmniSwitch 24 port  
TESSCO # 426747



Advanced Antenna 24" Grid Reflector  
TESSCO # 391670

**FEATURED PRODUCT:** Motorola Canopy 5.7 GHz Cluster Kit TESSCO # 340311



Provides reliable, scalable and secure high-speed Internet access and private network interconnection.

**MOTOROLA**  
Authorized Canopy™ Solution Distributor



These enterprise-class ethernet radios provide an economical solution for lease line replacement and backhaul projects connecting buildings in a campus environment.

**FEATURED PRODUCT:** AirStream 5.8 GHz Mid-Range Point-to-Point Link TESSCO # 494894




Belden UV resistant Cat5 cable for outdoor applications  
TESSCO # 431188



Test-Um Wi-Net Window  
TESSCO # 490822



Sony PTZ IP surveillance camera  
TESSCO # 435715



Transector Outdoor PoE Surge Protector  
TESSCO # 414992

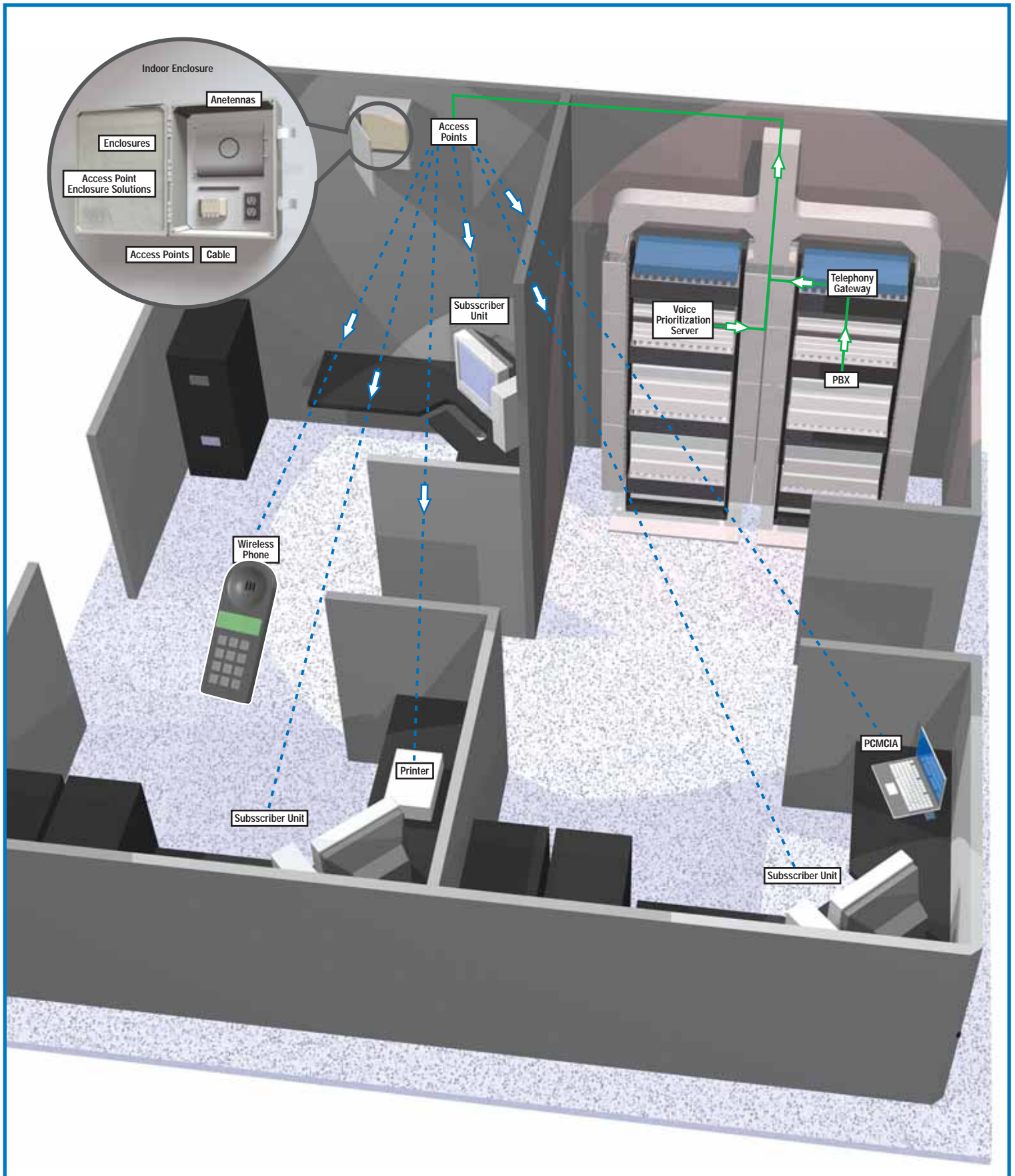


Engenius EnQue EX Enterprise VoIP system for 100 users  
TESSCO # 342537



Ruckus MediaFlex Multimedia Router  
TESSCO # 382713

# In-Building Coverage Solutions



## In-Building Coverage Solutions

### MARKETS

Small office, household, enterprise, education, healthcare, government, public safety

### USES

- Connecting computers, phones and other peripherals to a network
  - > File sharing
  - > Resource sharing
  - > Telephony
- Copper and fiber replacement
  - > Better ROI
  - > Quicker installation
- Temporary network
  - > Portable
  - > Inexpensive
- Long distance calls over a wireless network without fees

### FEATURES

- Data rates up to 54 Mbps
- Integrated and/or external antennas
- Unlicensed spectrum of 2.4 GHz and 5.8 GHz
- Power over Ethernet
- Indoor and outdoor use
- 802.11a/b/g-standard access points
- 802.11n routers

### BENEFITS

- Quick deployment time
- Portability
- Easy moving, adding or changing
- Scalability
- Quick ROI

### INFORMATION NEEDED

- Bandwidth
- Security
- Antenna placement
- Environmental characteristics
- Estimated user phone extensions

### CRITICAL CONCERNS

- Network interface requirements
- Expected number of users
- RF propagation obstructions

### OTHER EQUIPMENT OPTIONS

- Antennas
- Wi-Fi handsets
- VoIP system
- Enclosures
- Power solutions
- Test equipment
- Tools
- Network routers and switches
- Access points

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Log on to [TESSCO.com](http://TESSCO.com) to create your customized worksheet to suit your project's buildout.

### Sample Bill of Materials

TESSCO No.	Descriptions	QTY.
342998	Cisco 1252 TGN Access Point	11
352422	TerraWave 14"x12"x6" Polycarbonate Enclosure	23
416923	TerraWave TWS-100 Series 18" Cable Assembly	138
479980	TerraWave 2.4 GHz 2 dBi Rubber Duck Antenna	48
476985	TerraWave 5 GHz 5 dBi Rubber Duck Antenna	48
453956	TerraWave 2.4/5 GHz 3 dBi Dual Band White Rubber Duck	42
322762	TerraWave 14"x12"x6" Polycarbonate Enclosure	6
416923	TerraWave TWS-100 Series 18" Cable Assembly	36
340063	TerraWave TWS-400 Series 70' Cable Assembly	30
320531	TerraWave 2.4/5 GHz 3 dBi Dual Band Ceiling Mount Omni Antenna	18
425948	TerraWave 2.4 GHz 5 dBi Mast Mount Omnidirectional Antenna	15
433901	TerraWave 5 GHz 6 dBi Mast Mount Omnidirectional Antenna	15
321997	TerraWave TWS-195 Series 5' Cable Assembly	12
301505	TerraWave 2.4 GHz 5 dBi Patch Antenna	27
380170	TerraWave 4.9-5.85 GHz 7 dBi Patch Antenna	27
470948	TerraWave 9 dBi Fixed Attenuator	12
381038	TerraWave Totally Loaded Site Survey Kit	1
36122	Triplite On-Line UPS	1

TESSCO No.	Phone System Descriptions	QTY.
302235	EnGenius VoIP Gateway	1
302455	EnGenius Wifi SIP Phone	15
332449	EnGenius Wifi Desktop Phone	15

TESSCO No.	USB Models	QTY.
472945	Refer to TESSCO Sales or Tech Support	SMC PCMCIA
463888	Refer to TESSCO Sales or Tech Support	Bluetooth USB Adapter
475826	Refer to TESSCO Sales or Tech Support	SMC PCMCIA

# In-Building Coverage Solutions



Cisco 1252 TGN  
Access Point  
TESSCO # 342998

*Must Be Purchased  
as a Complete Solution*



EnGenius Indoor AP  
TESSCO # 330162



TerraWave TWS-100  
Series 18" Cable  
Assembly  
TESSCO # 416923



2.4-5.9 GHz  
Rubber Duck Antenna  
TESSCO # 380562



Desktop Phones  
TESSCO # 332449



KIRK Wireless Server 500  
TESSCO # 391359

**FEATURED PRODUCT:** TerraWave 14" x 12" x 6" Polycarbonate Enclosure TESSCO # 372235

NEMA 4X-rated enclosure is intended for indoor and outdoor use to protect the Cisco 1252 access point from the elements and theft.

## EnGenius™

Help reduce your company's overall communications costs with the EnGenius EnQue product line.

**FEATURED PRODUCT:** EnGenius EnQue IQ Wi-Fi SIP Phone TESSCO # 302455



Spectralink Kirk 3040  
Handset  
TESSCO # 381643



SOHO BDA Kit  
TESSCO # 487934



In-Building Antenna  
TESSCO # 98776



Signamax 48 port  
Category 5e patch panel  
TESSCO # 421958



Fluke Etherscope II  
Wireless Network  
Analyzer  
TESSCO # 391474



Eclipse Professional  
Twisted Pair Installation  
Kit  
TESSCO # 381783



Ruckus Media Flex  
TESSCO # 382713



TerraWave 14"x12"x6"  
Polycarbonate Enclosure  
TESSCO # 372399



Engenius  
802.11N Router  
TESSCO # 312871



In-Building Multiband  
Omnidirectional  
Ceiling Antenna  
TESSCO # 361897

**FEATURED PRODUCT:** EnGenius IP-PBX TESSCO # 302235



Supports 200 phone extensions, 200 voice mail boxes, and 50 concurrent calls at one time.




TerraWave 2.4 GHz 5 dBi  
Mast Mount  
Omnidirectional Antenna  
TESSCO # 425948



TerraWave TWS-400  
Series 70' Cable  
Assembly  
TESSCO # 340063



5.1-5.85 GHz  
Omnidirectional Antenna  
TESSCO # 390382



In-Building SMR / Cellular  
Antenna  
TESSCO # 463919



TerraWave 4.9-5.85 GHz 7  
dBi Patch Antenna  
TESSCO # 380170



TerraWave 9 dBi Fixed  
Attenuator  
TESSCO # 470948

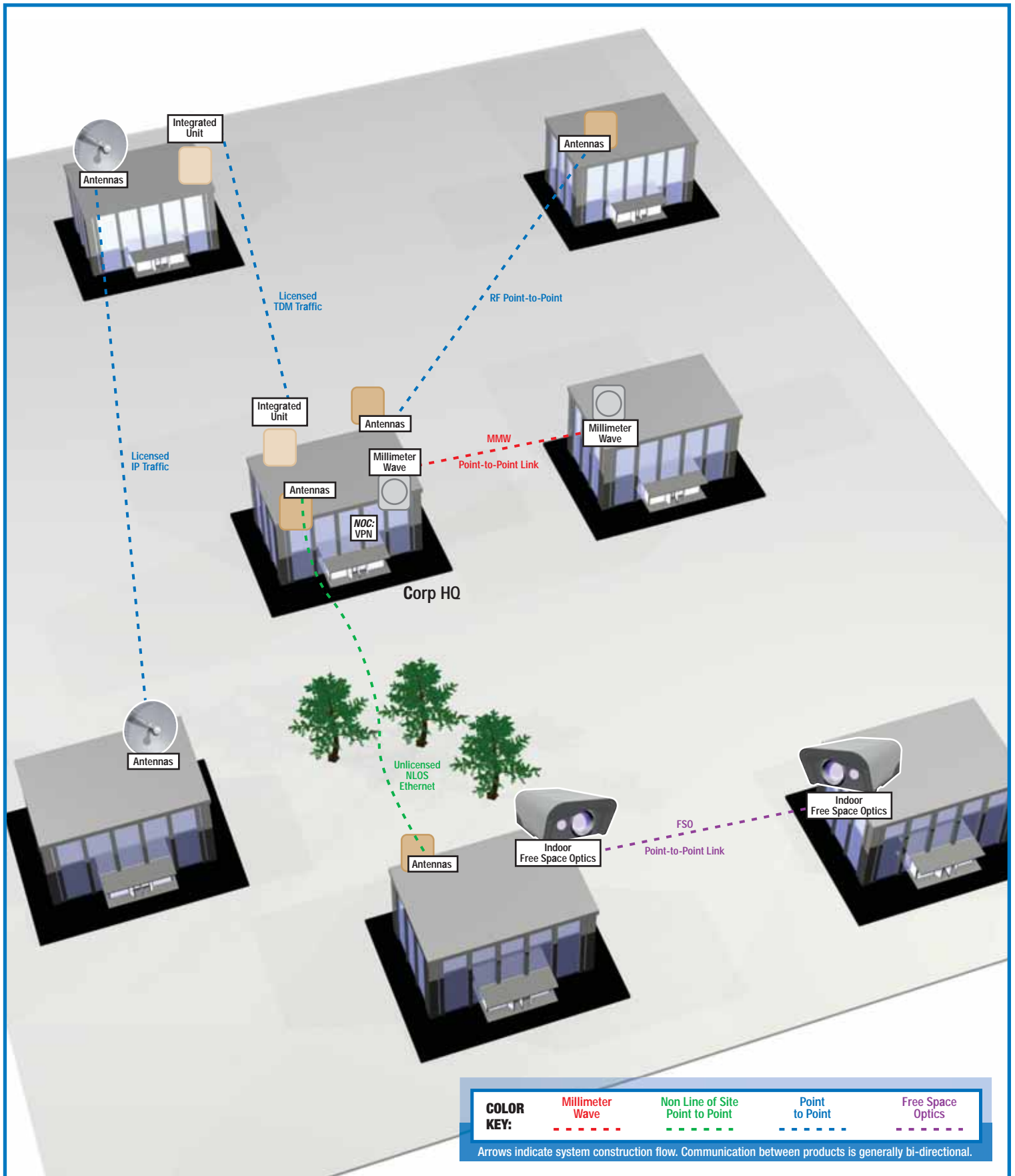


TerraWave Totally Loaded  
Site Survey Kit  
TESSCO # 381038



Engenius USB Client  
TESSCO # 372944

# WWAN Wide Area Network Solutions



## WWAN Wide Area Network Solutions

### MARKETS

Internet service providers (ISP), enterprise, education, healthcare, government, public safety, utilities

### USES

- Connectivity between multiple buildings
  - > LANs
  - > PBXs
  - > Data, voice, video
- Leased line replacement
- Alternative to fiber
  - > When fiber is not an option (e.g., railroad tracks, river, etc.)
  - > Better return on investment (ROI)
  - > Quicker installation
- Temporary network
- Network redundancy

### FEATURES

- Speeds ranging from 10 Mbps to 16 ps
- Distances ranging from a few meters to 12 miles
- Integrated and/or external antennas
- Licensed spectrum from 4.9 GHz to 80 GHz
- Unlicensed spectrum of 900 MHz, 2.4 GHz, 5.3 GHz, 5.4 GHz, 5.8 GHz and 24 GHz
- Line-of-sight (LOS), near line-of-sight (NLOS) and non-line-of-sight (N-LOS) paths

### BENEFITS

- Quick deployment time
- Portability
- Scalability
- Quick ROI
- Versatile network connections
- Carrier-grade reliability

### INFORMATION NEEDED

- Link distances
- Recommended frequencies
- Bandwidth requirements
- Path characteristics (LOS, NLOS or N-LOS)
- Security requirements
- Reliability requirements
- Antenna height requirements
- Environmental characteristics
- Link budget

### CRITICAL CONCERNS

- Grounding and lightning protection
- Network interface requirements
- Fresnel zone clearance

### OTHER EQUIPMENT OPTIONS

- Cable and connectors
- Grounding and lightning arrestors
- Antennas
- Network routers and switches
- Towers and mounting hardware
- Enclosures
- Power solutions
- Test equipment
- Installation tools

Visit [www.tessco.com/go/wsn\\_ws05](http://www.tessco.com/go/wsn_ws05)
✕

Log on to [TESSCO.com](http://TESSCO.com) to create your customized worksheet to suit your project's buildout.

### Sample Bill of Materials

TESSCO No.	Descriptions	QTY.
413895	PTP600 Lite Integrated 150Mbps Link	1
457391	RadioWaves 3' Dual Pole Antenna	2
83497	RadioWaves 3' Radome	2
484712	1000' CAT5E Shielded UV Cable	1
441602	Shielded RJ45 Connectors	30
419899	Transtector CAT5 Surge Arrestor	4
487559	RF Surge Arrestor	4
479950	6' LMR-400 Jumper	4
301229	DragonWave Horizon Compact 100Mbps Link w/ 3' Antenna	1
361708	AC Installation Kit with Connectors	1
391066	60 Meter Cable Kit	2
70805	CaT5 Cable Ties	1
311939	NERA Evolution 100Mbps Link	1
301604	1.8 Meter Antenna with Radome	2
301368	NERA Evolution Installation Kit	2
59520	LMR-400 Cable	400
361706	T1 Interface Cable	2
391526	8 x T1 Line Interface Card	2
300700	Cannon DT110 FSO head	2
300700	DT-100 Type SFP MM	2
458962	FAA Mount	2
22079	Rohn Non-Penetrating Mount	2
444861	Inline CAT5 Surge Arrestor	2
381612	Alpha Outdoor DC UPS	2



RadioWaves 3' Dual Pole Antenna  
TESSCO # 457391



GPS Antenna Kits  
TESSCO # 300724



1000' CAT5E Shielded UV Cable  
TESSCO # 484712



Shielded RJ45 Connectors  
TESSCO # 441602



Transtector CAT5 Surge Arrestor  
TESSCO # 419899



2.0-6.0 Ghz Lightning Arrestor  
TESSCO # 462601

**FEATURED PRODUCT:** Motorola PTP600 Integrated Lite Light TESSCO # 413895



These high-performance Ethernet bridges offer more range, more capacity, and more ways to use the unlicensed spectrum.




Horizon Compact is a highly integrated, carrier-grade solution for Ethernet backhaul using licensed or unlicensed spectrum.

**FEATURED PRODUCT:** DragonWave Horizon Compact TESSCO # 301229



TerraWave TWS-400 Series Cable  
TESSCO # 380348



DragonWave Installation Kit with Connectors  
TESSCO # 361708



Wireless Ethernet Millimeter Wave  
TESSCO # 301538



Master Cable Tie Kit  
TESSCO # 412555



DragonWave 8 x T1 Multiplexer  
TESSCO # 416909



X-Mark Wall-Mount Cabinet  
TESSCO # 446157



Universal Weatherproofing Kit  
TESSCO # 18264



1.8 Meter Antenna with Radome  
TESSCO # 301604



NERA 4 Port Alarm and Control Interface  
TESSCO # 361806



FEATURED PRODUCT: NERA Evolution TESSCO # 311939

NERA's NetMaster is managed by a standard Web-browser. One platform for all needs simplifies logistics and reduces life cycle cost dramatically.



Times LMR-600 Cable  
TESSCO # 86672



80' Tylon Super Titan Tower  
TESSCO # 417789



8xT1 Interface Card  
TESSCO # 391526

## Canon

The CANOBEAM DT-100 Series optical transceivers feature a compact optical module which integrates key optical components in one tidy unit.

FEATURED PRODUCT: Canon DT-110 TESSCO # 300700



Adtran Layer II POE Switch  
TESSCO # 482950



Alpha Outdoor DC UPS  
TESSCO # 381612



Rohn 60", 2 3/8 OD Non-Penetrating Tripod Mount  
TESSCO # 22079



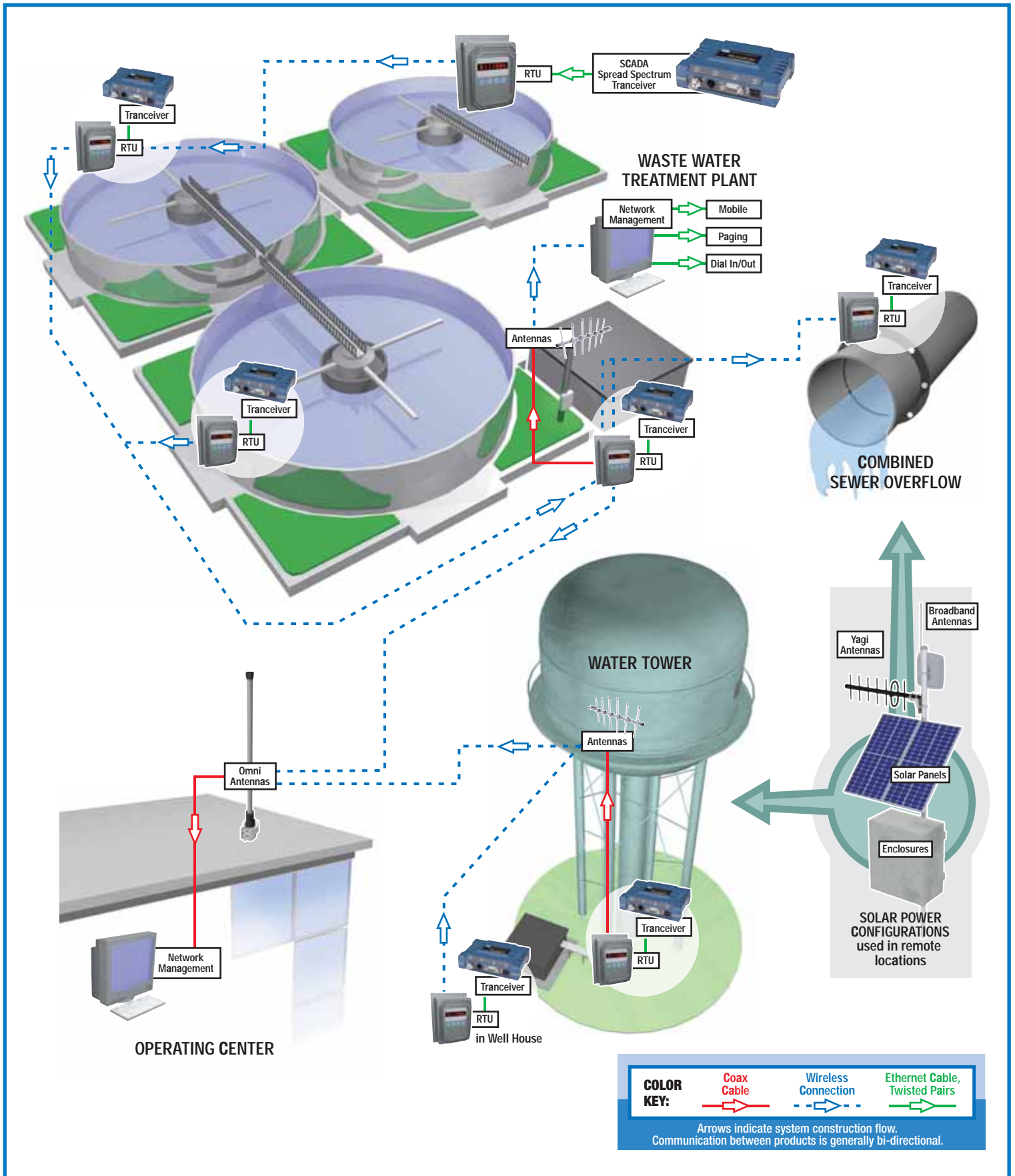
Inline CAT5 Surge Arrestor  
TESSCO # 444861



DragonWave AirPair 100 Series  
TESSCO # 370726



NERA EtherLink-T  
TESSCO # 371582



## SCADA Solutions

### MARKETS

Oil and gas pipeline, electric utilities and co-ops, fresh- and waste-water utilities, railroads

### USES

- To monitor systems, control equipment, gather information and generate reports that are critical to core business:
  - > Monitor the flow of natural gas at distinct points (meter stations) along a pipeline and bill customers for the amount of gas transported to their delivery points
  - > Control switches used by electric utilities and determine the desired flow and routing of electricity distributed to businesses and homes
  - > Monitor, analyze and generate run time, rainfall, peak demand, entry intrusion and other customized reports for water utilities

### FEATURES

- Non-line-of-site (NLOS) frequency bands
- Low bandwidth requirements
- Broadband data speeds
- Point-to-multipoint network
- Distances in excess of 20 miles
- Master stations (including self-supporting towers or pole mounts, omnidirectional antennas, lighting protection, grounding kits, cable, cable hangers, jumpers)
- Remote sites (including pole mount, yagi antenna, jumpers, solar and grounding equipment)
- User-configurable software

### BENEFITS

- Reduction in operating and maintenance costs
- Elimination of system false alarms
- Remote real-time data and monitoring capabilities
- Control, alarm and trend analysis

### INFORMATION NEEDED

- Number of master and remote sites
- Heights of proposed towers and antennas (for master site and remote site)
- Site coordinates
- Locations to be monitored or controlled

### CRITICAL CONCERNS

- Competing frequencies (interference)
- Grounding needs
- Other equipment options
- External antennas
- Secure enclosures for protection against theft and vandalism
- Cable

Visit [www.tessco.com/go/wsn\\_ws06](http://www.tessco.com/go/wsn_ws06)
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Log on to [TESSCO.com](http://www.tessco.com) to create your customized worksheet to suit your project's buildout.

### Sample Bill of Materials

TESSCO No.	MDS Ethernet Access Point Solution Descriptions	QTY.
456322	MDS 512 Kbps, 902-928 MHz FHSS, 1W, 10BaseT, ethernet AP	1
50849	SCALA 890-960 MHz Fiberglass Antenna. 6 dB gain, omni.	1
486300	MDS 512 Kbps, 902-928 MHz FHSS, 1W, 10BaseT, Remote Bridge	4
15124	SCALA 890-960 MHz 10 dB Ruggedized Yagi Antenna. 100 Watts.	4
427851	Wireless Solutions AirStream Short Range PtP kit	1
380348	TerraWave TWS-400 Series Cable. 3/8" O.D. 50 Ohms.	50
415903	TerraWave TNC Plug Connector for TWS-400 Series Cable	5
481930	TerraWave N Plug Connector for TWS-400 Series Cable	5
444861	PolyPhaser NetGuard Lighting Protector	5
440966	TerraWave 18"x16"x10" Polycarbonate Enclosure	1
380161	TerraWave TWS-600 100' Cable Assembly	3
372317	TerraWave TWS-400 Series Coaxial Cable Took Kit	1
341392	SCADA-Anywhere 12 VDC Solar Power System	1

TESSCO No.	MDS iNET Gateway Solution Descriptions	QTY.
441302	MDS iNET 900 Remote Dual Gateway	1
372395	RS-232/422/485 to 10/100BaseTX device server	4
59703	Decibel 900MHz Omnidirectional Antenna	1
474521	Outdoor Cat5E 1000'	1
441602	RJ45 Connectors	50
390829	70' Access Point Self Supporting Tower	1
493723	iNET 900 Remote Unit	4
427529	Adtran 24 Port Managed Layer 2 Switch	1
415903	TerraWave TNC Plug Connector for TWS-400 Series Cable	5
380348	TerraWave TWS-400 Series Cable. 3/8" O.D. 50 Ohms.	200
340033	TerraWave 12"x10"x6" Polycarbonate Enclosure	5
51404	Andrew 7 Element Yagi	4
462958	TerraWave N Plug Connector for TWS-400 Series Cable	5



SCALA 890-960 MHz  
Fiberglass Antenna. 6 dB  
Gain, Omni. 500 Watts  
TESSCO # 50849



RF Neulink NL5000  
Spread Spectrum Transceiver  
TESSCO # 322874



SCALA 890-960 MHz 10  
dB Ruggedized Yagi  
Antenna. 100 Watts.  
TESSCO # 15124



Wireless Solutions  
AirStream Short Range  
PIP Kit  
TESSCO # 427851



Motorola Canopy  
900 MHz Subscriber Unit  
TESSCO # 499667



Low-Loss RG8/U Cable  
TESSCO # 59520



N Male RG8/LMR400 Size  
Crimp Connector  
TESSCO # 380078



PolyPhaser NetGuard  
Lighting Protector  
TESSCO # 444861



Solar Power for SCADA has never been easier with TESSCO's new in stock solar power solutions.

**FEATURED PRODUCT:** SCADA-Anywhere 12 VDC Solar Power System  
TESSCO # 341392



TerraWave 18"x16"x10"  
Polycarbonate Enclosure,  
Solid Door & Locking  
Latches  
TESSCO # 440966



WBC600 Coaxial Cable  
TESSCO # 84226



TerraWave Coaxial Cable  
Tool Kit  
TESSCO # 372317



Non-penetration mount  
with Water Ballast  
TESSCO # 430664



RS-232/422/485 to  
10/100BaseTX device  
Server  
TESSCO # 372395



Andrew 900 MHz  
Omnidirectional Antenna  
TESSCO # 59703



TerraWave TWS-400  
Series Cable. 3/8" O.D. 50  
Ohms. Stranded Outer  
Conductor  
TESSCO # 380348



Trylon Super Titan Tower  
TESSCO # 433731

**FEATURED PRODUCT:** MDS 115 Kbps. 902-928 MHz ISM Band, 10BaseT AP TESSCO # 462303

A long-range, high-speed, industrial wireless IP/Ethernet solution. It allows customers to bring business information over Ethernet or a serial gateway and onto IP based networks.



TerraWave 12"x10"x6"  
Polycarbonate Enclosure  
with Solid Door & Latch  
Locks  
TESSCO # 497953



Adtran 24 Port Managed  
Layer 2 Switch  
TESSCO # 427529



Outdoor Cat5E 1000'  
TESSCO # 474521



iNET 900 Remote Bridge  
TESSCO # 340078



Andrew 7 Element Yagi  
TESSCO # 51404



410 W UPS  
Battery Backup  
TESSCO # 412563

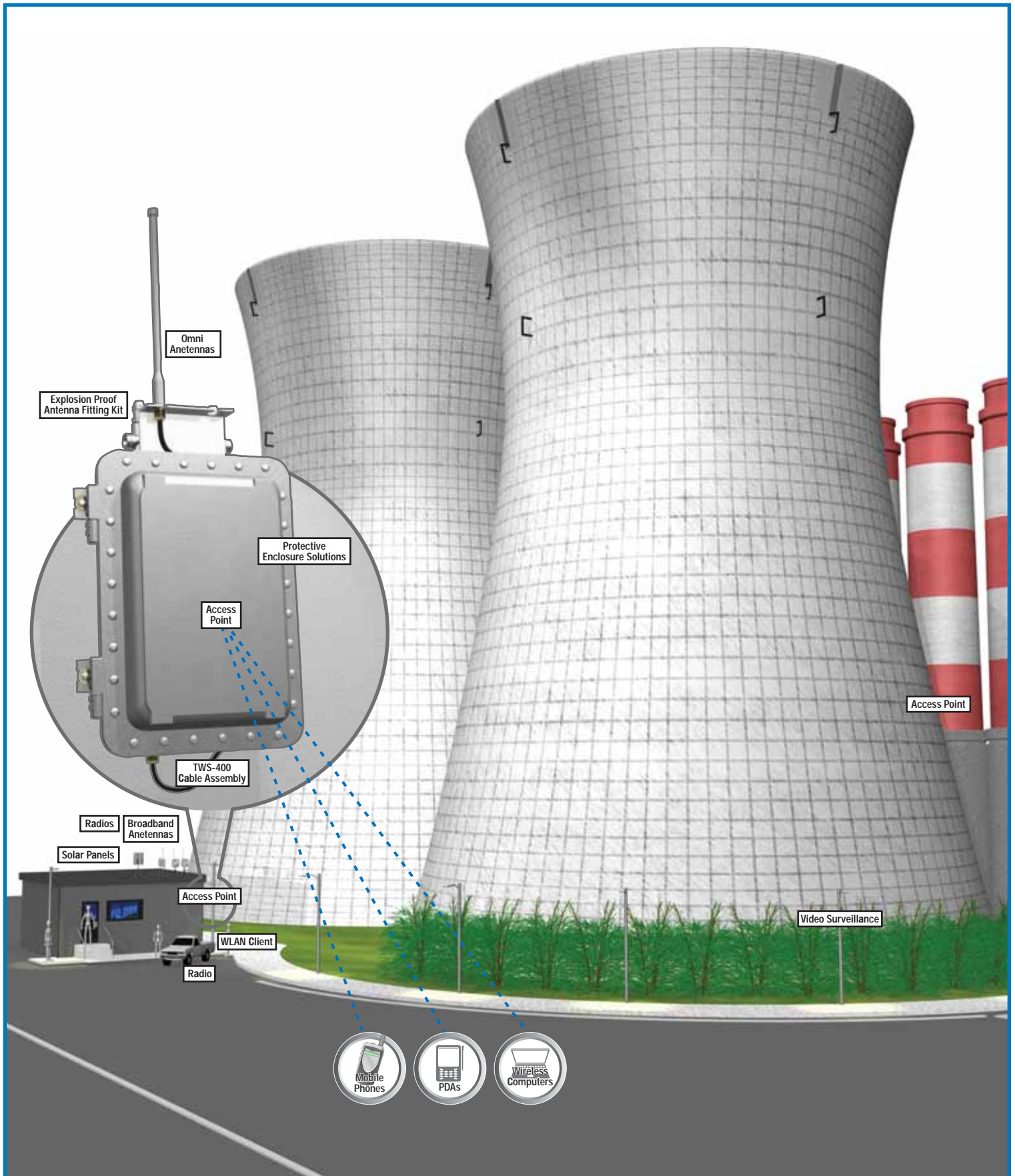


Cantilever Antenna  
Wall-Mount bracket  
TESSCO # 67467



Signamax Cat5 Patch  
Panel  
TESSCO # 415311

# Hazardous Environment Solutions





# Hazardous Environment Solutions



TerraWave 18"x12"x8"  
Protective Enclosure  
TESSCO # 331503



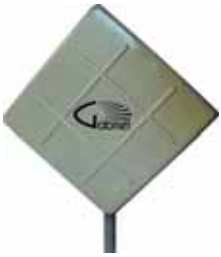
TerraWave Antenna Fitting  
for Enclosure  
TESSCO # 311786



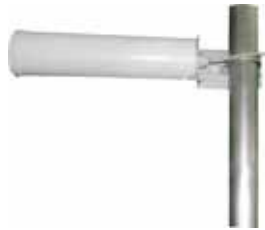
TerraWave 2.4 GHz 8 dBi  
Fiberglass  
Omnidirectional Antenna  
TESSCO # 426970



TNC Male Reverse  
Polarity Connectors  
TESSCO # 416952



4.90-5.2 GHz Flat  
Panel Antenna  
TESSCO # 445704



TerraWave 5.8 GHz 15 dBi  
Yagi Antenna  
TESSCO # 484982



Commscope Wireless  
Broadband Cable  
TESSCO # 84204



TerraWave TWS-400  
Series Bulk Coaxial Cable  
TESSCO # 380348



Delivers high system capacity through pico-cellular designs and support for real-time applications delivered by the mobility services of the Cisco Unified Wireless Network.

**FEATURED PRODUCT:** Cisco 1522 Outdoor Mesh Access Point  
TESSCO # 332682



*Must Be Purchased  
as a Complete Solution*



RFI Reverse Gender TNC  
Male for 400 Series Cable  
TESSCO # 423199



AirMagnet Laptop Pro  
TESSCO # 340191



Rooftop Tripod  
TESSCO # 360604



Outdoor Wi-Fi Battery  
Back Up (UPS)  
TESSCO # 351664



Cisco 1242  
Access Point  
TESSCO # 424925  
*Must Be Purchased  
as a Complete Solution*



TerraWave TWS-400  
Series Cable Assembly  
TESSCO # 390912



MAXRAD 2.4 GHz 15 dBi  
Yagi Antenna  
TESSCO # 411321



Pac Wireless 5.85 GHz  
26 dBi Parabolic Grid  
Antenna  
TESSCO # 493970

FEATURED PRODUCT: TerraWave 18" x 12" x 8" Protective Enclosure with Cisco 1242 AP TESSCO # 367100

Enclosure is designed to house the Cisco 1242 access points for extreme applications in hazardous locations where critical safety standards apply.



RadioWaves 5.2 GHz  
Parabolic Grid Antenna  
TESSCO # 441048



TerraWave Lightning  
Arrestor  
TESSCO # 468949



Times Microwave  
LMR-195 Coax Cable  
TESSCO # 40924



Kyocera CellPak  
Solar System  
TESSCO # 350685



TerraWave 2.4 GHz 15 dBi  
90-Degree Sector Panel  
Antenna  
TESSCO # 362302



TerraWave TWS-600  
Series Cable. 1/2" O.D. 50  
Ohms  
TESSCO # 380359



TerraWave N-Style  
Jack Connector  
TESSCO # 471981



Trylon Rooftop  
30' tower  
TESSCO # 390698





# Office and Warehouse Solutions



Cisco 802.11 a/g 1242  
Access Point  
TESSCO # 424925  
*Must Be Purchased  
as a Complete Solution*



2.4 GHz 2 dBi Rubber  
Duck Antenna  
TESSCO # 380085



TerraWave 4.9-5.85 GHz  
2 dBi Surface Mount  
Omnidirectional Antenna  
TESSCO # 450970



Adtran 24+2  
Managed Switch  
TESSCO # 490536

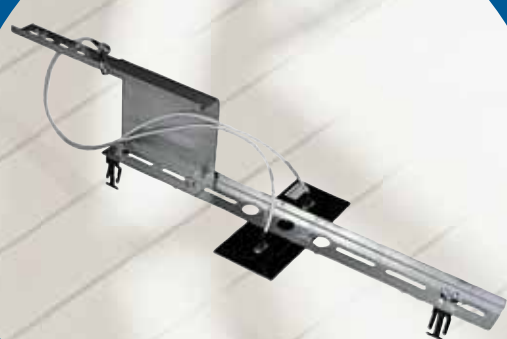


Rack mounted battery  
backup  
TESSCO # 469673



APC Smart-UPS XL Tower  
Battery Backup  
TESSCO # 444385

**FEATURED PRODUCT:** PCTEL Maxrad 2.4-2.5 Flat Omni with Bracket TESSCO # 438674



The model UFODAP1200 includes the UFOD24003PT antenna and the MACMAP CISCO AP1200 access point mounting bracket.

**MAXRAD**  
STATE OF THE ART ANTENNAS



Thermoplastic NEMA 4X-rated enclosure is intended for outdoor or indoor use to protect the Cisco 1242 AP and is the lightest weight enclosure TerraWave offers.

**FEATURED PRODUCT:** TerraWave 12"x10"x6" Polycarbonate Enclosure TESSCO # 428931




TWS-100 Series 18" Cable  
Assembly  
TESSCO # 416923



2.4 GHz 5 dBi Ceiling  
Mount Omnidirectional  
Antenna  
TESSCO # 443765



2.4 GHz 6.5 dBi Diversity  
Patch Antenna  
TESSCO # 462600



Netlink 16 Port  
Telephony Gateway  
TESSCO # 445142



Spectralink 802.b  
Wi-Fi phone  
TESSCO # 411983



6020 Battery  
TESSCO # 480985



12"x10"x6" Steel Enclosure  
TESSCO # 452994



14"x12"x6" Heated and Cooled Polycarbonate Enclosure  
TESSCO # 310530



**FEATURED PRODUCT:** Motorola 802.11 a/g 5131 Access Point TESSCO # 382097

Delivers convenient, flexible, scalable and cost-effective enterprise-level wired and wireless networking for a variety of business applications — both indoors and outdoors.



**MOTOROLA**



2.4 / 5 GHz 2 / 4.5 dBi Dual Band Diversity Antenna  
TESSCO # 321203



24 Port Rack-Mounted Patch Panel  
TESSCO # 498506



TWS-100 Series 18" Cable Assembly  
TESSCO # 42661



2.4 / 4.9-5.85 GHz 3 dBi Dual-Band Rubber Duck Antenna  
TESSCO # 465997



2.4 GHz 6.5 dBi Diversity Patch Antenna  
TESSCO # 456947



5 GHz 7 dBi Diversity Patch Antenna  
TESSCO # 484900



AirMagnet Survey PRO  
TESSCO # 416939



801 pc. Cable Tie Kit  
TESSCO # 412555



Wall Mount Enclosure  
TESSCO # 446157



Patch Cable  
TESSCO # 467573

# Healthcare and Hospitality Solutions



## Healthcare and Hospitality Solutions

### MARKETS

Healthcare, hospitality, office building, education, retail, government

### USES

- Real-time wireless access to patient information
- Wireless connectivity for patient care
- Wireless Internet access throughout the facility for any Wi-Fi-enabled device for both public and private use
- Increased productivity
- Efficient communication within a facility

### BENEFITS

- Real-time information
- Mobility
- Increased productivity
- Reduced operational costs
- Easy access for multiple users (employees and guests)

### INFORMATION NEEDED

- Number of users
- Coverage areas
- Access point locations
- Interference sources
- Bandwidth requirements
- Security requirements
- Aesthetic requirements

### CRITICAL CONCERN

- WLAN site survey highly recommended

### OTHER EQUIPMENT

- Cables
- IP telephony
- IP cameras
- Mounting hardware
- WLAN site survey services
- WLAN test equipment/software

Visit [www.tessco.com/go/wsn\\_ws09](http://www.tessco.com/go/wsn_ws09)
X

Log on to [TESSCO.com](http://TESSCO.com) to create your customized worksheet to suit your project's buildout.

### Sample Bill of Materials

TESSCO No.	Descriptions	QTY.
424925	Cisco 802.11 a/g 1242 Access Point	9
437949	TerraWave 12"x12"x4" Ceiling Tile Enclosure w/ Cisco 1242 AP	15
438934	TerraWave 2.4 GHz 2 dBi Diversity Omnidirectional Antenna	8
416998	TerraWave 5.1-5.85 GHz 4.5 dBi Diversity Omnidirectional Antenna	8
479980	TerraWave 2.4 GHz 2 dBi Rubber Duck Antenna	14
476985	TerraWave 5 GHz 5 dBi Rubber Duck Antenna	14
429912	12"x10"x6" Polycarbonate Enclosure and Cisco 1242 AP	10
466978	TerraWave 2.4/5 GHz 2/3 dBi Dual Band Rubber Duck Antenna	16
448915	TerraWave 2.4/5 GHz 2/4.5 dBi Dual Band Diversity Omnidirectional Antenna	6
340387	TerraWave TWS-400 20' Cable Assembly	24
470908	TerraWave 16"x12"x8" Steel Heated & Cooled Enclosure w/ Cisco 1242 AP	5
459961	TerraWave Lightning Arrestor - 0-6 GHz	10
321677	TerraWave 2.4 GHz 6 dBi Patch Antenna	5
380170	TerraWave 4.9-5.85 GHz 7 dBi Patch Antenna	5
370441	TerraWave TWS-400 50' Cable Assembly	6
416928	BridgeWave AR 80GHz Point to Point Link	1
432850	Non-Penetrating Tripod	2
453497	Ruber Mats for Non-Penetrating Tripod	2
28981	14 Gauge Power Cable (125m or 410' run length)	2
301593	150' Jumpers of MM OFNR Fiber with LC to LC Connectors	2
416077	Building Entrance Surge Suppressors	2
484712	Outdoor Rated, Shiled, UV Resistant CAT5 Cable	1
441602	Outdoor Rated Shielded RJ-45 Connectors	20
419899	CAT5 Surge Arrestor	2
381612	Alpha Outdoor DC UPS	9

# Healthcare and Hospitality Solutions



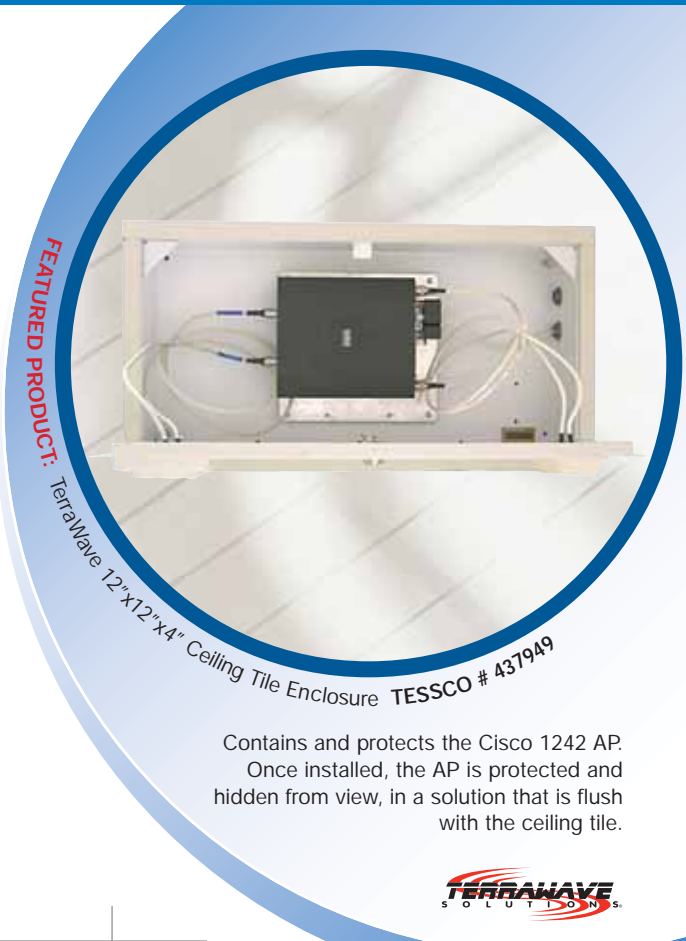
Cisco 802.11 a/g 1242 Access Point  
**TESSCO # 424925**  
*Must Be Purchased as a Complete Solution*



Cushcraft 2.4 GHz 2 dBi Diversity Omnidirectional Antenna  
**TESSCO # 432476**



TerraWave 5.1-5.85 GHz 4.5 dBi Diversity Omnidirectional Antenna  
**TESSCO # 416998**



**FEATURED PRODUCT:** TerraWave 12"x12"x4" Ceiling Tile Enclosure **TESSCO # 437949**

Contains and protects the Cisco 1242 AP. Once installed, the AP is protected and hidden from view, in a solution that is flush with the ceiling tile.



TerraWave 2.4 GHz 2 dBi Rubber Duck Antenna  
**TESSCO # 479980**



Netlink 16-Port Analog Interface Gateway  
**TESSCO # 445142**

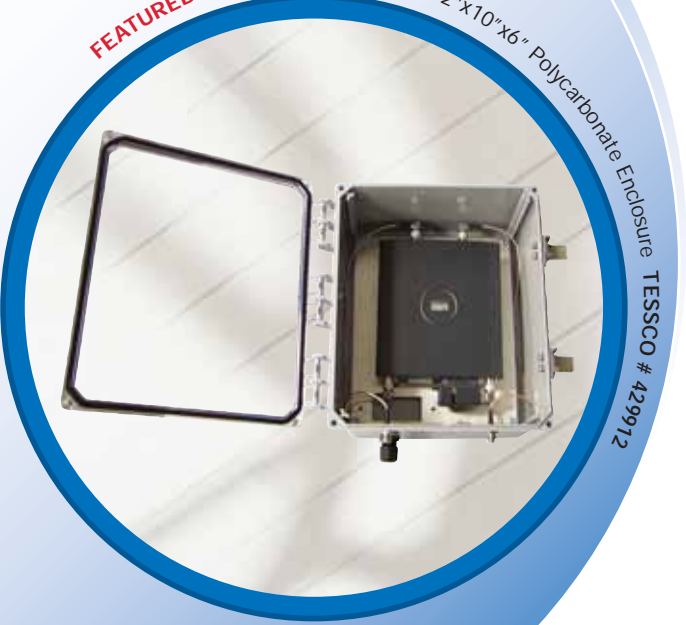


SpectraLink h340 Cisco Compatible Wireless Phone  
**TESSCO # 473867**



With clear door, locking latches and Cisco 1242 access point. Thermoplastic NEMA-4X rated enclosure is intended for outdoor or indoor use to protect the Cisco 1242 AP.

**FEATURED PRODUCT:** Terrawave 12"x10"x6" Polycarbonate Enclosure **TESSCO # 429912**



Master Telecom Installer's Tool Kit  
**TESSCO # 391521**



Cushcraft 2.4/5 GHz 2/4.5 dBi Dual-Band Diversity Omnidirectional Antenna  
**TESSCO # 446716**



TerraWave TWS-400 50' Cable Assembly Antenna Extension  
**TESSCO # 370441**



TerraWave TWS-400 50 Ohm Braided Coaxial Bulk Cable  
**TESSCO # 380348**



Wireless Solutions 2.4 GHz 3 way Splitter  
**TESSCO # 429806**



TrippLite Mission Critical UPS  
**TESSCO # 450600**



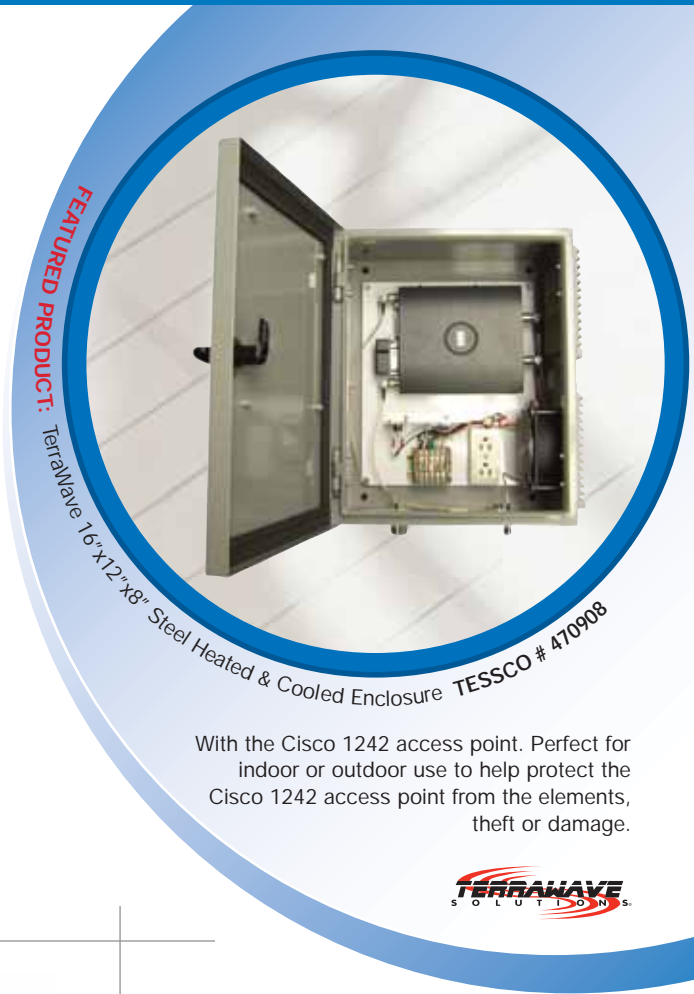
TerraWave 16"x12"x8"  
Steel Heated & Cooled  
Enclosure  
TESSCO # 490999



TerraWave Lightning  
Arrestor  
TESSCO # 459961



MAXRAD 2.4 GHz 6 dBi  
Patch Antenna  
TESSCO # 451373



**FEATURED PRODUCT:** TerraWave 16"x12"x8" Steel Heated & Cooled Enclosure TESSCO # 470908

With the Cisco 1242 access point. Perfect for indoor or outdoor use to help protect the Cisco 1242 access point from the elements, theft or damage.



Cushcraft 2.4 & 5.8  
Diversity Panel Antenna  
TESSCO # 446716



AirMagnet  
Survey PRO  
TESSCO # 416939



CAT5 Surge arrestor  
TESSCO # 419899



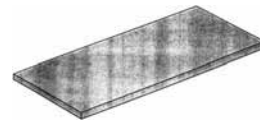
**BridgeWave**  
COMMUNICATIONS

With Adaptive Rate technology. Delivers 1.25 Gbps of reliable and secure connectivity up to 5 miles.

**FEATURED PRODUCT:** BridgeWave AR80X 80 GHz Gigabit Ethernet Link TESSCO # 360906



8", 4.5" OD Non-penetrating  
Rooftop Tripod  
TESSCO # 488600



Rubber Mats  
for Tripod  
TESSCO # 453497



SMC Layer 2, 24-Port  
Managed Gig-E Switch  
TESSCO # 450958



150' Jumpers of MM  
OFNR Fiber Jumper  
TESSCO # 301593

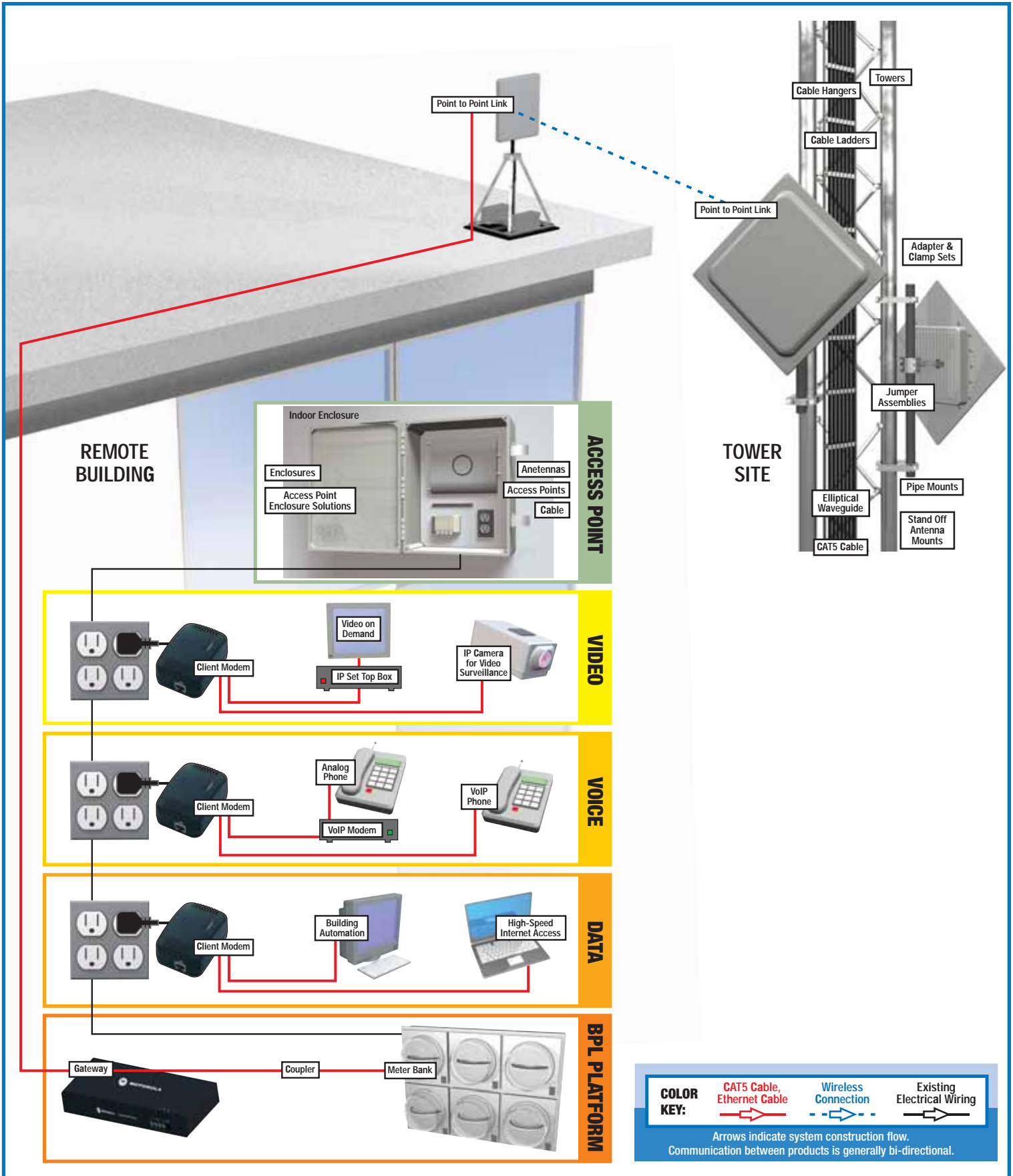


Building Entrance Surge  
Suppressors  
TESSCO # 416077



Outdoor-Rated UV  
resistance CAT5 Cable  
TESSCO # 484712

# Broadband Over Power Line Solutions



## Broadband Over Power Line Solutions

### MARKETS

Carriers, service providers, ISPs, WISPs, CLECs, hospitality, healthcare, education, campus environments, government and military, public safety

### USES

- Transforms a building's internal electrical wiring into an intelligent high-speed network platform
- Supports multiple data solutions and voice/video from every existing electrical outlet
- Combines with wire-line and/or wireless last-mile networks to distribute bandwidth within a variety of large structures:
  - > Office buildings
  - > Hotels
  - > Multidwelling residences
- Provides a superior alternative to installing new high-speed network cables in old or historic buildings

### FEATURES AVAILABLE

- Provides a true voice, video, and data backbone
- Supports a variety of broadband applications:
  - > LAN
  - > High-speed Internet
  - > Splash pages
  - > Video surveillance
  - > Digital signage
  - > Two-way video conferencing
  - > VoIP telephony
  - > Point-of-sale systems
  - > Energy and building management
- One system can support multiple buildings
- Raw data rates of up to 14 Mbps
- Supports 10 Base T Ethernet interface
- 56-bit DES encryption provides a secure wired connection
- Supports up to 300 users per gateway
- PLC network management
- VLAN support
- Improves wireless coverage by adding Wi-Fi access points

### BENEFITS

- Significant cost savings
- Rapid installation without construction or disruption
- Secure connections with encrypted, protected data
- Easy scalability to accommodate new users
- Flexible PLC platform to support any device/application using standard Internet protocol
- Remote monitoring and management capability
- No truck role needed to add customers

- System works with any broadband signal including DSL, T1, E1, cable, satellite and wireless

### INFORMATION NEEDED

- Site survey prior to system design
- Floor plan (walls, hallways, floor levels)
- Building electrical diagrams
- Bandwidth requirements per user
- Connection to electrical infrastructure requires licensed electrician to conform with national and local code standards
- Number of buildings to be served

### CRITICAL CONCERNS

- Building electrical system
- Number of simultaneous users
- Local electrical codes
- Local electrician advised

### OTHER EQUIPMENT OPTIONS

- Wireless broadband radios
- Antennas
- Cable
- Network and bandwidth management
- Multimeter
- Circuit test equipment
- Tone and probe tool

Visit [www.tessco.com/go/wsn\\_ws10](http://www.tessco.com/go/wsn_ws10)

Log on to [TESSCO.com](http://TESSCO.com) to create your customized worksheet to suit your project's buildout.

### Sample Bill of Materials

TESSCO No.	Descriptions	QTY.
494894	Airstream Mid Range PTP Link	1
22079	60" Non-Penetrating Roof Mount	1
484712	1000' Outdoor Rated CAT5 Cable	1
441602	Shielded RJ-45 Connectors	14
444861	Inline CAT5 Surge Arrestors	2
70805	CAT5 Assorted Cable Ties	1
370867	Motorola Power Line Gateway	1
332663	Motorola Coupler	3
350745	Motorola Panel Extender	2
370867	Motorola Powerline MU Modem Kit (30 Pk)	1
382713	Ruckus 5 Port 802.11 b/g Router	10
330162	EnGenius 802.11 b/g 400mW Access Point	20
302235	EnGenius Enque eX VoIP Gateway	1
332449	EnGenius VoIP Desktop Phone	15
302455	EnGenius WiFi SIP Phone	15
330075	EnGenius Outdoor 802.11 b/g Bridge / AP	4
435715	Sony Z25 IP Camera	4
322640	Outdoor Rated Power Supply	4
418955	Outdoor Rated Pendant Housing	4
442976	Goose Neck Wall Mount Enclosure	4
486986	Pole Mount Adapter	4
350426	Sony Realshot 4 Camera Recorder	1
381612	Alpha Outdoor DC UPS	1

# Broadband Over Power Line Solutions



Airstream 5.8 GHz  
Base Station  
TESSCO # 455851



Coax R6-6  
750 Ohm  
TESSCO # 350345



Firetide 6202  
Dual Radio  
TESSCO # 360212



60", 2-3/8" OD  
Non-Penetrating Roof Mount  
TESSCO # 22079



Outdoor-Rated  
CAT5E Cable  
TESSCO # 484712



Horizon Compact 18 GHz  
System with 30" Antenna  
TESSCO # 341600

FEATURED PRODUCT:



Motorola BPL Gateway TESSCO # 370867

Head End controller for the Powerline network. Full featured powerline router with three phase interface. Four Ethernet LAN and 1 Ethernet WAN interfaces.



AirStream Point-to-Point links are designed for reliable operation and simple installation.

FEATURED PRODUCT:



AirStream Mid-Range PTP Link  
TESSCO # 494894



Inline CAT5  
Surge Arrestors  
TESSCO # 444861



Alcatel Layer 2 10/100  
Switch  
TESSCO # 330309



Motorola  
Coupler  
TESSCO # 332663



Motorola Powerline MU  
Panel Extender  
TESSCO # 350745



Ruckus 5 Port 802.11  
b/g Router  
TESSCO # 382713



EnGenius 802.11 b/g  
400 mW Access Point  
TESSCO # 330162



EnGenius  
PBX22 Gateway  
TESSCO # 302896



EnGenius  
VoIP Desktop Phone  
TESSCO # 332449



Nera  
18 GHz System  
TESSCO # 381348



EnGenius Outdoor 802.11  
b/g Bridge / AP  
TESSCO # 330075



Sony Z25  
IP Camera  
TESSCO # 435715



RAD AirMux  
Ethernet + 4TI  
TESSCO # 448879

**FEATURED PRODUCT:** Motorola BPL Modem TESSCO # 370867



Head End controller for the Powerline network. Full featured powerline router with three phase interface. 4 Ethernet LAN and 1 Ethernet WAN interfaces.



**MOTOROLA**

## EnGenius™

Features: call holding, call waiting, 3-way call conference, in-line call transfer, group-based call pick-up, extension status display, network time protocol synchronization.

**FEATURED PRODUCT:** EnGenius VoIP Gateway TESSCO # 302235



Adtran NetVanta  
3200 Router  
TESSCO # 450594



Deep Wall-Mount  
Enclosure  
TESSCO # 446157



TrippLite 1050 W  
UPS System  
TESSCO # 14264



EnGenius  
Wi-Fi Phone  
TESSCO # 302455



SMC 802.11 g  
Wireless Router  
TESSCO # 497893



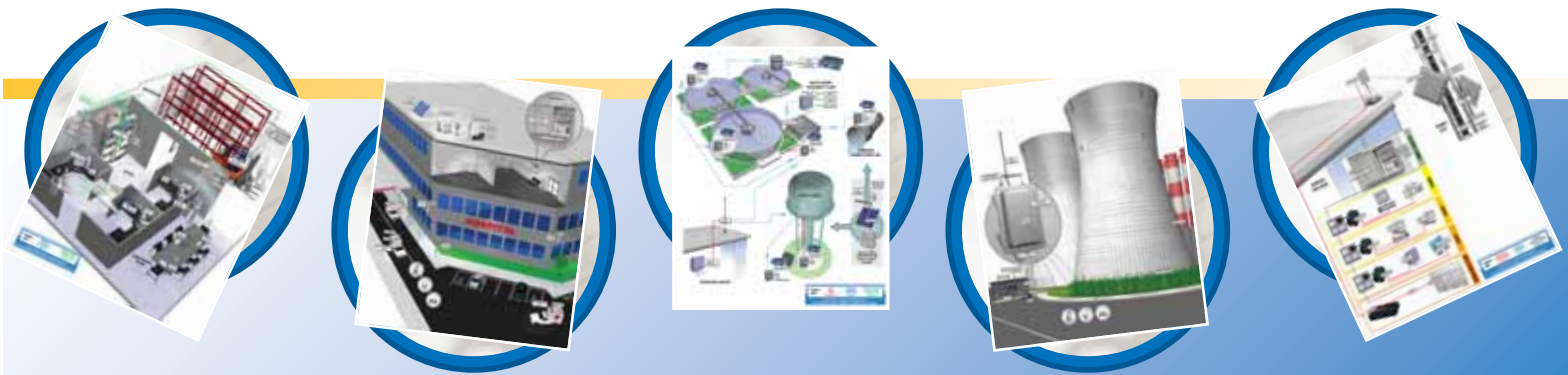
RJ-45  
Crimp Kit  
TESSCO # 454804

# Product Alternatives by Application



## Product Alternatives by Application

Application	Antennas	Cable	Connectors	Cable Assemblies	Lightning Arrestors
<b>Video Surveillance Solutions</b>	310328 445692	462958 59520	380348 71522	390920 79480	351689 417383
<b>Campus Coverage Solutions</b>	462907 19585	380348 59520	416952 71522	370441 465959	459961 414436
<b>Disaster Recovery Solutions</b>	371218 350133	380359 86672	474949 443392	380161 482123	351689 417783
<b>WWAN Wide Area Network Solutions</b>	370676 491885	380348 84204	430967 73565	330353 428950	468949 70924
<b>In-Building Coverage Solutions</b>	301357 446716	320857 35065	488984 413544	321756 467986	---
<b>Office and Warehouse Solutions</b>	351919 340990	340638 484161	487998 452988	321756	---
<b>Healthcare and Hospitality Solutions</b>	301552 416574	340638 448066	464918 486060	341913 467986	468949 330871
<b>SCADA Solutions</b>	312038 73435	380359 27046	462958 98836	390912 79480	---
<b>Hazardous Environment Solutions</b>	381074 451879	340638 484161	462958 452988	390912	---
<b>Broadband Over Powerline Solutions</b>	---	---	---	---	---





# IF TESSCO DELIVERS IT TESSCO trains on it!

TESSCO delivers world-class training on every product and solution we offer, and beyond

TESSCO brings you the best, most comprehensive and in-depth training in the wireless industry. We have programs for technicians, engineers, executives, and sales people. Our training helps companies stay competitive, improve quality, increase productivity, enhance employee morale, and retain key staff. Contact us to build a program for your team.



800-472-7373

[www.tessco.com/go/training](http://www.tessco.com/go/training)



# Problems with Your WiFi or VoWiFi Solution?



AirMagnet has enabled hundreds of medical facilities to confidently deploy, secure and centrally manage their wireless deployments through innovative planning, troubleshooting and monitoring solutions. AirMagnet can:

- Proactively detect or stop hundreds of WLAN problems and security issues
- Diagnose 60+ types of wireless call problems to identify sources of voice issues
- Ensure high user satisfaction with reliable, manageable voice-over-WLAN deployments
- Design and deliver WLANs to meet the unique physical, RF and application needs of your facility
- Identify sources of interference that degrade network performance and reliability
- Automatically generate detailed HIPAA compliance reports for all devices and sites

## Get AirMagnet Now and Clear the Air.

Download Whitepaper: *Wi-Fi, Health Care, and HIPAA: WLAN Management in the Modern Hospital* at [www.tessco.com/go/airmagnet](http://www.tessco.com/go/airmagnet)

### AirMagnet SurveyPRO



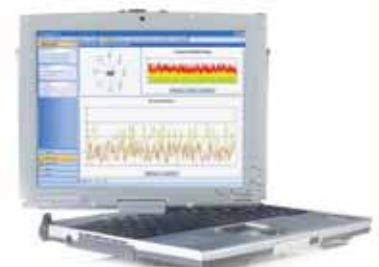
"Must have" tool for planning and designing WLANs

### AirMagnet Laptop AnalyzerPRO



"De facto" tool for WLAN troubleshooting and analysis

### AirMagnet VoFi AnalyzerPRO



Only solution for troubleshooting voice-over-WLAN

### AirMagnet Spectrum Analyzer

Proactively identifies, classifies, and finds sources of RF interferences that impact the performance of Wi-Fi networks  
Available as an integrated part of AirMagnet SurveyPRO and AirMagnet Laptop AnalyzerPRO



***For all your flexible Coax needs  
from **TIMES MICROWAVE.*****

- LMR® Coax Cable
- LMR-DB Watertight Cable
- LMR-Ultraflex Cable
- LMR-FR Fire Retardant Cable
- LMR-LLPL Plenum Cable
- LMR® Bundled Cable
- "EZ" Non-solder Advantage Connectors
- Jumpers and Cable Assemblies
- Easy Installation Tools
- Grounding Kits and Installation Accessories
- Field Training and Technical Seminars

Our quality components, engineered to work together, provide unmatched performance, dependability and ease of installation. For the system reliability you need, count on the engineering and technical resources of Times Microwave Systems.



[www.tessco.com/go/times](http://www.tessco.com/go/times)

LAN extension Leased line replacement Disaster recovery Gigabit wireless backbone  
recovery Gigabit wireless backbone Fiber extension LAN extension Leased line re  
n Leased line replacement Disaster recovery Gigabit wireless backbone Fiber extension Leas  
gabit wireless backbone Fiber extension LAN extension Leased line replacement Disaster recov



**BridgeWave**

Gigabit Wireless Solutions

[www.tessco.com/go/bridgewave](http://www.tessco.com/go/bridgewave)



A DIVISION OF TESSCO TECHNOLOGIES

## Innovative Solutions to Optimize Any Wi-Fi Network

# Wireless LAN Infrastructure & Accessory Products



Antennas



Bulk Cable



Connectors



Lightning Protection



Site Survey Tools



Wi-Fi Enclosures

One source for all your 802.11 and wireless data accessory needs. Simplify wireless LAN deployment with a vast offering of products that are compatible with most manufacturers' RF technologies and address every aspect of wireless LAN deployment in the enterprise.

### A complete suite of Wi-Fi accessory solutions

- 900 MHz, 2.4 GHz, 4.9 GHz and 5 GHz Antennas
- 800-2500 MHz, 2.4/5 GHz, and 4.9-5.85 GHz Dual Band Antennas
- Enclosure Solutions for Environmental and Security Applications
- Certified Enclosures and Cisco APs for Hazardous Environments
- Enclosure Solutions for Cisco WLAN Deployments
- Integrated Antenna & Cisco 1242 Solutions
- Attenuators
- Bulk Cable
- Cable Assemblies
- Connectors
- Lightning & Surge Protection
- Mounting Solutions
- Site Survey Tools
- Splitters
- Value Added Tech Support & Consulting
- And more...

### Download TerraWave's Wi-Fi Product Portfolio

#### Custom Solutions for Mission-Critical WLAN Communications:

- 150+ pages of wireless networking products
- Product descriptions, technical specs, photos and more...

[www.terra-wave.com/portfolio-form.html](http://www.terra-wave.com/portfolio-form.html)



Browse or buy Wi-Fi online at  
[www.tessco.com/go/terrawave](http://www.tessco.com/go/terrawave)

Call us at **800-472-7373**

Or e-mail [sales@terrawave.com](mailto:sales@terrawave.com)

# Need wireless video surveillance?



**Public Safety • Commercial Security • Transportation • Industrial**

Do your security initiatives require

- Real-time response to incidents?
- Temporary or remote monitoring?
- Mobile surveillance from vehicles?

Think wireless—Firetide wireless mesh networks. Faster to deploy, cost less, greater flexibility—and *real-time video equal in quality to wired!*

*When safety and security depend on wireless—depend on Firetide!*

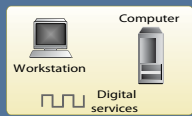


Reliable connectivity anywhere™

800-472-7373 | [www.tessco.com/go/firetide](http://www.tessco.com/go/firetide)

# Transport Any Service Over Wireless Ethernet

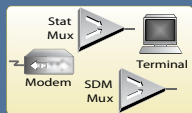
## Input/Output



High Speed Data



Voice/fax  
FXS/FXO/E&M  
ISDN



RS-232/V.24  
Low Speed Data



T1/E1



SHDSL

## Core Capabilities

Time Division Mux Technology

Drop-and-Insert and Bypass

Cross Connect

Pseudowire/Circuit Emulation

In-band Management

Alarms and Diagnostics

Redundancy

## Aggregators

MP-2100/2200

IPmux-1E

IPmux-116

IPmux-14

## Wireless Transport

Eth/IP and/or T1

Airmux-200

RAD Data Communications is the Access Company. For more than 25 years, RAD has designed products to help customers transition to new communications infrastructures while preserving their investment in existing networks and devices.

RAD's Megaplex and IPmux family of aggregators are ideal front-ends to any wireless transport, including our industry-leading Airmux-200. These devices allow virtually any type of communications device or service to be transported over Ethernet or IP transports.

**No matter what your need, RAD has an access solution.**

Now available at

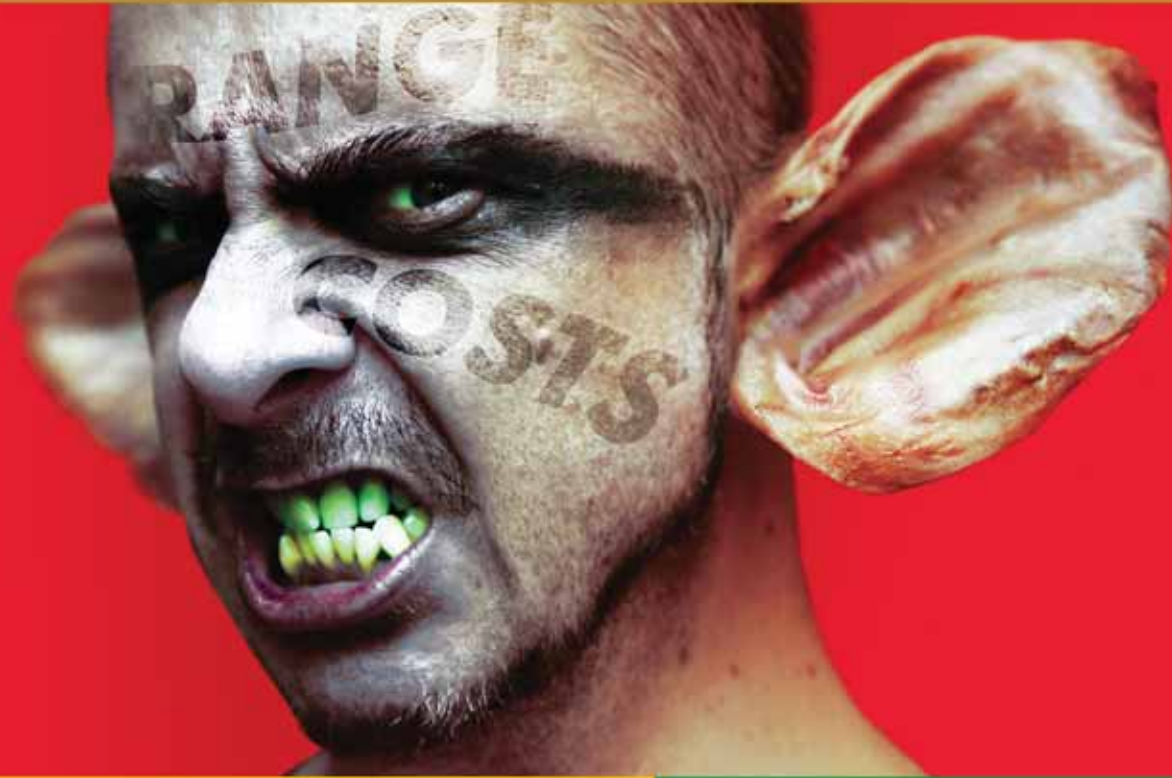
**TESSCO**

Call TESSCO Today! 800-472-7373 or [www.tessco.com/go/rad](http://www.tessco.com/go/rad)

**RAD**

**data communications**

# Face Your Wireless Fears.



## Wireless VoIP

## Wireless Datacom

Losing opportunities to cost and performance? Time to face your wireless fears and get the coverage you need at the price you want. EnGenius Technologies will open new opportunities by removing major obstacles such as cost and distance with wireless solutions that compete.

EnGenius Technologies is the leader in Business Class wireless voice and data communication equipment. As an award-winning designer and manufacturer of "Extreme-Range" wireless data solutions with 30 years of wireless voice manufacturing experience, EnGenius provides high quality and affordable wireless solutions.

EnGenius' EnQue and PowerGear brands offer solutions for Wireless Internet Providers (WISPs), Enterprise, Small and Medium Businesses (SMBs), to SOHO environments. Visit the website for more information: [www.tessco.com/go/engeniust](http://www.tessco.com/go/engeniust)



EnGenius<sup>®</sup>

ETI - Brands that communicate<sup>™</sup>

# WISP & Broadband Tower Kits

## 70' Access Point Tower Kits

(self-support)

70 mph wind capacity (EIA 222-F)

Kit includes:

- Capacity for  
(3) Canopy-type panels,  
(1) 5.8 Ghz grid,  
(2) radios (fig. 1)
- 70' SuperTITAN tower  
with foundation (S200)
- All steel antenna mounts  
(figs. 2, 3, and 4)
- Climbing step-bolt  
kit on one leg
- Site-specific engineering  
drawing of tower and  
foundation

List price: **\$5,412.00**

TESSCO No. 390829



fig. 1



fig. 2



fig. 3



fig. 4

Note: Capacity is based on specific antenna sizes. Call for details.

Above is just a sampling of Trylon infrastructure solutions.

Multiple height and strength combinations are available.





## Complete Solar Power Systems for Wireless Broadband. **Just Add Sun!**

TESSCO makes it easy to harness and utilize the power of the sun for your broadband applications. The off-the-shelf, turnkey solutions are pre-sized for the most common broadband equipment, making product selection easier and system installation faster than any other power source.

Systems support **Motorola Canopy**, **SkyPilot** and **MDS** radio equipment for complete remote power solutions for point-to-point, point-to-multipoint, mesh and SCADA networks.

TESSCO Broadband Solar Power Systems:

- Pre-sized for quick selection
- In-stock for same day shipment
- PoE (Power over Ethernet) built in

**Your Total Source For Wireless**

**800.472.7373 | [www.tessco.com/go/solar](http://www.tessco.com/go/solar)**

**MOTOWI**<sup>4</sup>

**CANOPY**  
Motorola Wireless Internet Platform

**SkyPilot**<sup>™</sup>  
NETWORKS





***COMPLETE PORTFOLIO OF LICENSED AND UNLICENSED  
ANTENNAS AVAILABLE INCLUDING 4.9 GHz***



- ✓ Superior performance
- ✓ Superior delivery
- ✓ Superior support
- ✓ Superior reliability

## **Why buy any other brand?**

When your network requires the best in microwave antenna performance, make Radio Waves your first choice.

*THE LEADER IN MICROWAVE ANTENNA INNOVATION®*



Engineering you can trust. Products you can depend on.

## 18 GHz Attenuators and Terminations

Bird® Technologies Group introduces a new line of fixed attenuators and terminations rated from DC-18 GHz.

Available in 2, 5 and 10 Watts, these products are built with precision stainless steel connectors and bodies which offer superior durability, lower VSWR and better accuracies at all frequencies up to 18 GHz. The standard dB values available are 3, 6, 10, 20 and 30dB for the attenuators and they are offered with N or SMA connectors depending upon the power selected.

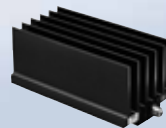
Both the attenuators and terminations are convective-air cooled and require no additional heat sink for proper cooling. Deliveries are typically stock from either the factory or an authorized Bird Distributors worldwide. Special dB values or connector types are available on special order.

**Also Available:**  
**High Power Attenuator & Terminations**  
 up to 2.4GHz

### Attenuators

Freq: DC to 2.4 GHz  
 Power: Up to 1,500W

- A variety of dB values and connector options



### Terminations (Loads)

Freq: DC to 2.4 GHz  
 Power: Up to 1,500W

- Plus calibrated mismatch loads
- A variety of connector options are available



RF Measurement and Management in Your World





## The **Power and Reliability** to Keep Your Response Units Connected

AirStream is a full-featured 108 Mbps OFDM enterprise radio with best-in-class 400-milliwatt power. It's backed with a performance guarantee that's the best in the business. To keep your costs in line with project projections, short-, medium- or long-range models are ready for immediate delivery.

- AES encryption provides best commercially available security
- Alignment tools allow easy installation and configuration
- High power and integrated antennas eliminate need for separate mounts
- Available in 5.8 GHz for commercial applications



**Your Total Source For Wireless**  
800.472.7373 | [www.tessco.com/go/airstream](http://www.tessco.com/go/airstream)



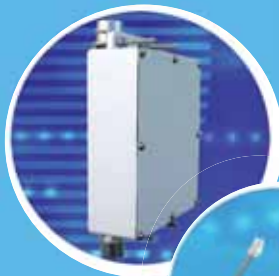
global solutions :  
local support™

### Two premier 5 GHz wide band options: HD Series High Performance Dish and Vertically Polarized Sector antennas

Laird Technologies offers the system engineer the best performance dish and sector antennas available on the market. The HD Series Dish antennas meet ETSI EN 302 085 TS4/TS5 and EN 300 833 Class 1 specs and feature a single feed system that can be mounted for either vertical or horizontal polarization. There is also a dual polarized version available to increase bandwidth or implement diversity.

The vertically polarized ultra wide band 5GHz sector antenna systems are constructed of UV stable ASA plastic radomes and galvanized steel brackets with stainless steel hardware for long service life in the most demanding conditions. The ultra wide band operation allows a single antenna to cover a wide frequency range thereby allowing the operator maximum flexibility in the network.

Accessories:  
DCE Die Cast Enclosure  
RJ45 Outdoor Ethernet Connector  
POE Power Over Ethernet Supply/Inverter



*Motorola wi4 Fixed : Point-to-Multipoint*

## **CONNECT YOUR EVERYWHERE**

The world is getting smaller while demand for connectivity is growing exponentially. Operators globally are searching for new ways to extend their networks connecting new locations, new people and new markets everyday. Motorola's field-proven wi4 Fixed Point-to-Multipoint wireless broadband portfolio complements practically any network and supports the services your customers expect like high-speed broadband access, video surveillance, and VoIP. Your business demands a secure, reliable, and cost-effective solution with a solid business case - Motorola's Canopy® Wireless Broadband System. Connect your everywhere. It's just another way Motorola puts Seamless Mobility in the palm of your hand. HELLOMOTO™

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We Stand For Your Wireless

# SUCCESS

**Expertise**—by providing access to the most comprehensive information, products and solutions in the wireless industry.

- You can make the right system design, product selection and inventory decisions.
- You have the knowledge and tools to maximize sales—fast, and when needed. This allows entrance to new markets and the ability to pursue new opportunities with your customers.

**Operations**—by providing access to a supply chain that assures complete, configured products when and where they are needed.

- You can build and maintain your systems to be totally reliable, on-time, and functional.
- You can deliver to your customers the solutions in wireless that are required to build, operate, or use most effectively and efficiently.

**Finance**—by providing an assortment of payment options.

- You have the available credit facilities to operate and grow.
- You can make the decisions that maximize revenues, ROI, and bottom-line profits.



## TESSCO Technologies Incorporated

Corporate Headquarters  
11126 McCormick Road  
Hunt Valley, Maryland USA  
21031-1494

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Worldwide 1-410-229-1200  
[www.tessco.com](http://www.tessco.com)

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Your ACCOUNT NUMBER is