



NORTHWEST INSTRUMENT, Inc.

Northwest Instrument is a manufacturer of optical and laser instruments for surveyors, engineers and construction contractors.

NWI products include automatic levels, theodolites, total stations, rotating lasers, tripods, rods and other accessories. For over 20 years, NWI has provided quality, precise, durable and economical products to discerning clients worldwide.



NWI headquarters in
New Jersey, USA

Quality control and
repair facilities

NWI Manufacturing
complex
14,000 Sq. Meters





Mission Statement

NWI's mission is to create value for our customers through durable, innovative products and customized service.

Our state-of-the-art manufacturing facilities, reliable supply chain management system and highest quality standards, all come together to ensure we meet and exceed our customer's every expectation.

On the road to success, we provide our clients with the tools to successfully transform their vision into reality.

Our Strategy

For over 20 years, our strategy starts and ends with our clients' needs in mind. This has been driven by a disciplined **four-step approach** that is designed to promote long lasting partnerships.

1. Establish objectives

We work with client partners to identify avenues of opportunity, whether it be increased productivity through innovative, turnkey solutions; or improved financial performance through competitive pricing

2. Deliver value

We pride ourselves on accountability and the quality of our work. For over 20 years, we have provided quality instruments for discriminating clients who hold the highest standards

3. Continuous support

We follow up diligently post-sale through our industry leading training program, repair process and customer support

4. Enhance relationships

We are much more than just suppliers to our clients; we are valued development partners. Through working closely with our client partners, we strive to meet the new challenges and demands the current economic climate presents

Uncompromising Quality

NWI manufacturing facilities are ISO 14001:2004 and ISO 9001:2008 certified. Starting from the design stage, each product must go through rigorous tests at multiple check points to ensure quality of the highest standard.

Our quality control procedures include:

- ISO 9001 based design procedures
- Clear input / output at every step
- Reviews at each critical milestone
- Electrical & environmental reliability tests
- IPD procedure management





At **NWI** we pride ourselves on our proprietary R&D and software development program based on ISO9001 guidelines.

Always with the client partner in mind, we constantly discover, test and adapt our instruments to better suit our client partner's needs.



Diverse Workforce

We firmly believe the best asset we have is our people, and we integrate our human resources in a synchronized system that combines, focuses and enhances our combined efforts toward a collective goal - meeting and exceeding our client's expectations.

Total Employees: 350 +

Administration	4%
Customer Support	10%
Marketing	10%
Production	36%
R&D	31%
Sales	9%



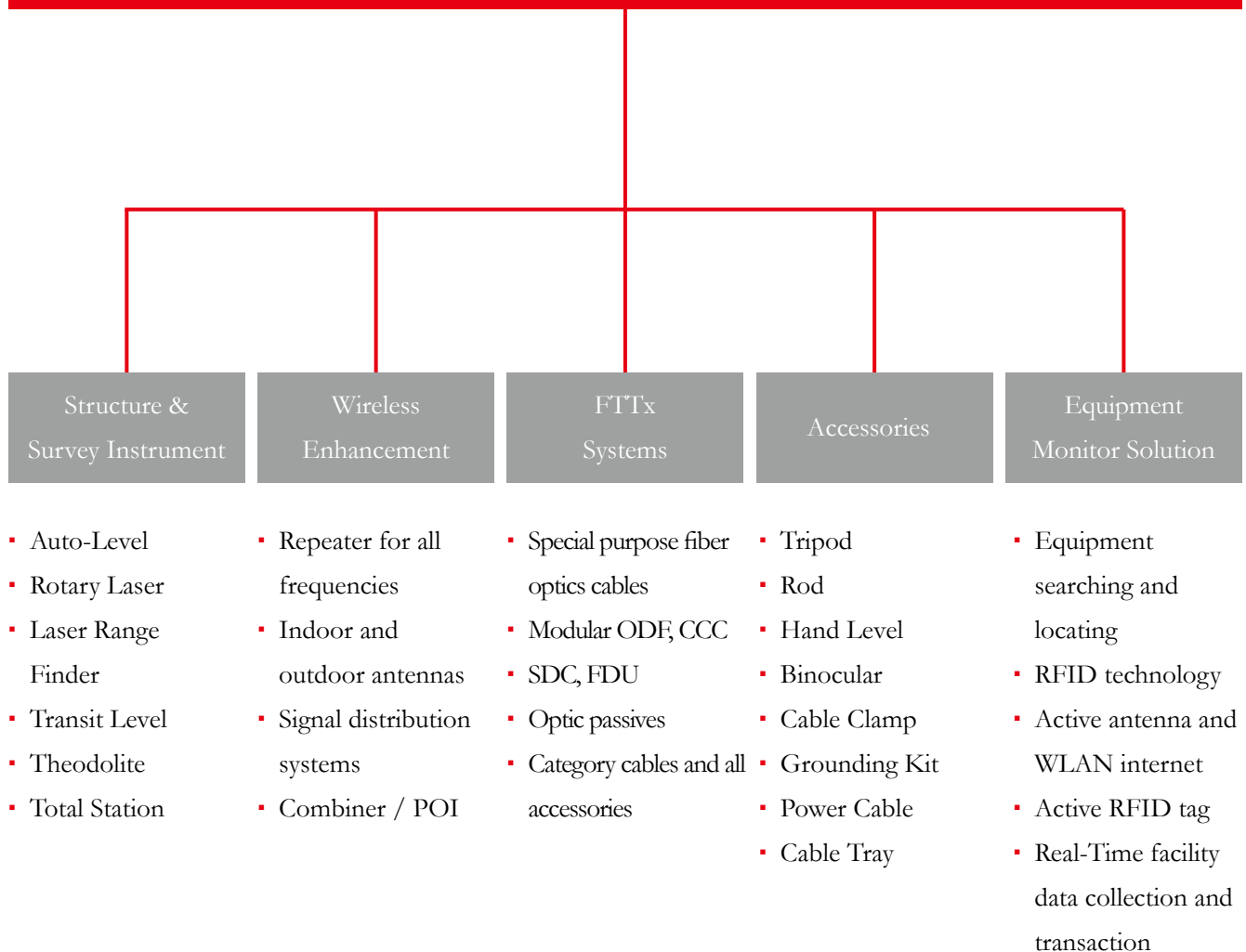
Service and Support



Here at NWI, our aim is to build long lasting partnerships. Our Training and support program include:

- Web, print and personal training
- Multiple language technical support
- Detailed parts list and calibration instructions
- 72 hours turnaround for repairs (from our US Service Center)

Product Portfolio



**Structural and Survey
Instruments**



NSL500B Transit Level

Tripod Adaptor: 5 / 8 x 11 thread

Fits flat & dome tripods

Magnification: 20x, with Stadia ratio (1:100)

Image: Erect

Transit Capability: +/- 45°

Working Range: 200 ft

Leveling Accuracy: 1/4 in @ 100 ft

Minimum Focus: 3.5 ft

Leveling Head: Three leveling screws

Includes: Carrying Case, Plumb Bob

& Manual



NSLP500B Transit Level Package

Includes:

NSL 500B Transit Level

NAT83 Contractor's Tripod

NAR09E 9' Aluminum Rod

Carrying Case

Plumb Bob

Manual



NBL Series Builder's Automatic Level



Image: Erect

Objective Aperture: 1.2"

Field of View: 1°5'

Resolution: 3.5"

Graduation: 1°

Sensitivity of Circular Vial: 8"/2mm

Compensator Type: Steel Cage, Wire Hung

Compensation Range: +/- 15'

Tripod Adaptor: 5 / 8 x 11 thread

Magnification:	20x	24x	32x
Working Range:	150 ft	200 ft	300 ft
Leveling Accuracy:	1/16 in @ 75 ft	1/16 in @ 100 ft	1/16 in @ 200 ft

NBLP Builder's Auto Level Package



Includes:

NBL Series Builder's Automatic Level

NAT83 Contractor's Tripod

NAR09E 9' Aluminum Rod

Carrying Case, Plumb Bob & Manual

NCL Series Contractors Automatic Level



Image: Erect

Objective Aperture: 1.2"

Field of View: 1°5'

Resolution: 3.5"

Graduation: 1°

Sensitivity of Circular Vial: 8"/2mm

Compensator Type: Magnetic Dampen, Steel Cage, Wire Hung, Safety Lock

Compensation Range: +/- 15'

Tripod Adaptor: 5 / 8 x 11 thread

Magnification:	22x	26x	32x
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Working Range:	200 ft	300 ft	400 ft
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Leveling Accuracy:	1/16 in @ 100 ft	1/16 in @ 150 ft	1/16 in @ 250 ft
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NCLP Contractors Auto - Level Package

Includes:

NCL Series Contractors Automatic Level

NAT83 Contractor's Tripod

NAR09E 9' Aluminum Rod

Carrying Case, Plumb Bob & Manual

NRL602 Auto - Level Rotary Laser

Laser Beam: Horizontal, Zenith & Plummet

Wave Length: 635 nm

Operating Range: 2,000 ft with Detector

Leveling Accuracy: 1/16 in @ 100 ft horizontal

1/8 in @ 100 ft vertical

Self Leveling Range: +/- 5°

Slope Function: Manual

Tripod Adaptor: 5 / 8 x 11 thread

Includes: Remote Control, Grid Target, Glasses, Batteries & Charger, Carrying Case & Manual



NRL602 Auto - Level Rotary Laser Packages

Exterior Package

NEXPK602

NRL602 Rotary Laser

Remote Control

Detector w/ Clamp

Grid Target & Laser Glasses

Batteries and Charger

Contractor's Tripod

Aluminum Rod

Carrying Case & Manual

Interior Package

NINPK602

NRL602 Rotary Laser

Remote Control

Batteries and Charger

Universal Ceiling Bracket

Grid Target & Laser Glasses

Carrying Case & Manual





NRL800 Auto - Level Rotary Laser

Laser Beam: Horizontal

Wave Length: 635 nm

Operating Range: 2,000 ft with Detector

Leveling Accuracy: 1/16 in @ 100 ft horizontal

Self Leveling Range: +/- 5°

Self Leveling Method: Electronic Servo Motors

Bumper Sensor: On Board

Weight: 12 lbs.

Tripod Adaptor: 5 / 8 x 11 thread

Includes: Remote Control, Bracket, Rechargeable
Batteries & Charger, Carrying Case &
Manual

NEXPK800 Laser Package

Includes:

NRL800 Rotary Laser

Bracket & Remote Control

Batteries & Charger

Detector with Clamp

NAT83 Contractor's Tripod

NAR09E 9' Aluminum Rod

Carrying Case & Manual

NRL802 General Purpose Interior / Exterior Laser



Laser Beam: Horizontal & Zenith

Wave Length: 635 nm

Operating Range: 2,000 ft with Detector

Leveling Accuracy: 1/16 in @ 100 ft horizontal

1/8 in @ 100 ft vertical

Self Leveling Range: +/- 5°

Tripod Adaptor: 5 / 8 x 11 thread

Includes: Remote Control, Bracket, Grid Target,
Glasses, Batteries & Charger, Carrying
Case & Manual

NRL802 General Purpose Laser Packages

Exterior Package
NEXPK802

NRL802 Rotary Laser

Bracket

Remote Control

Detector w/ Clamp

Grid Target & Glasses

Batteries & Charger

NAT83 Contractor's Tripod

NAR09E 9' Aluminum Rod

Carrying Case & Manual

Interior Package
NINPK802

NRL802 Rotary Laser

Remote Control

Grid Target

Glasses

Universal wall mount / ceiling
bracket

Batteries & Charger

Carrying Case & Manual





NRL800X Grade Laser

Laser Beam: Horizontal & Zenith

Wave Length: 635 nm

Operating Range: 2,000 ft with Detector

Leveling Accuracy: 1/16 in @ 100 ft horizontal

1/8 in @ 100 ft vertical

Grade Setting Method: Dial-in Automatic

Programmable Grade Settings: +/- 8°

Power: Rechargeable Batteries

Tripod Adaptor: 5 / 8 x 11 thread

Includes: Remote Control, Rechargeable Batteries &

Charger, Bracket, Grid Target, Glasses,

Carrying Case & Manual



NEXPK800X Grade Laser Package

Includes:

NRL800X Grade Laser

Bracket

Remote Control

Rechargeable Batteries and Charger

Detector with Clamp

Grid Target & Laser Glasses

NAT83 Contractor's Tripod

NAR09E 9' Aluminum Rod

Carrying Case & Manual





NLG02, Cross laser

NLG02 cross line laser which projects 1 horizontal and 1 vertical line to create a cross line (V:130° / H:130°).

It has a magnetically pendulum for auto levels, and a magnetic pivoting base.

Features:

Laser Output: Class II, <1mW

Laser wavelength: 635nm visible

Accuracy: +/-3 mm per 10 m

Number of beams: 2 visible red, fine lines

Direction of beams: Independent horizontal & vertical

Flashing indicator: battery low

Self-Leveling Range: +/-4 °

Operating Temperature: -10 to +45 deg C

Power Supply: 4.5V - 3 x AA (1.5V) batteries included

Tripod connection: 1/4" thread in base for optional tripod/floor pillar

Weight (excluding batts): 0.5 kg

Dimensions: 57 wide x 90 long x 98 high (mm)



NLP05, 5 point laser

NLP05, 5 point laser which projects 3 horizontal and 2 vertical point to create level and plumb.

It has a magnetically pendulum for auto levels, and a magnetic pivoting base.

Features:

Laser Output: Class II, <1mW

Laser wavelength: 630~650nm visible

Accuracy: +/-2 mm per 10 m

Number of beams: 5 visible red, fine lines

Flashing indicator: battery low

Self-Leveling Range: +/-4 °

Operating Temperature: -10 to +45 deg C

Power Supply: 4.5V - 3 x AA (1.5V) batteries included

Tripod connection: 1/4" thread in base for optional tripod/floor pillar

Weight (excluding batts): 0.7 kg

Dimensions: 68 wide x 105 long x 112 high (mm)



NETH503 5'' Theodolite

Telescope

Image: Erect

Magnification: 30x, Stadia ratio 1:100

Effective Aperture: 45 mm

Resolving Power: 4''

Field of View: 1°20'

Minimum Focus: 3ft

Angle Measurement

Measuring Method: Photoelectric Incremental Encoder

Minimum Reading: 5''

Detection Method: Single, Vertical single

Measuring Unit: 360°

Accuracy: 5''

Sensitivity of Vial

Plate Vial: 30' / 2mm

Circular Vial: 8' / 2mm

Optical Plummet

Magnification: 3x

Field of View: 5°

Instrument

Display: Double sided LCD

Operating Time: 40 working hrs

Rechargeable / Alkaline batteries

Weight: 10 lbs.

NTS02 Reflectorless Total Station



NTS02 is the newest reflectorless series of NWi Total Stations. Its **Key Features** are designed to quickly, reliably and efficiently get the job done in any environment.

Accurate, economical, durable and dependable; the 2" NTS02 Total Station is the complete on-the-site solution for construction and survey professionals.

NTS02 Key Features

Improved Absolute Encoder for smoother readings in fine modes

2" Angular Accuracy

EDM Laser for precise reflectorless measurements

Automatic detection and correction for meteorological, atmospheric refraction and earth curvature

Illuminated Dual Side LCD Display

Built-in Bluetooth for wireless data collection (optional)

Available in English, Portuguese and Spanish

On-board program with 20,000 points of memory

IP55 dust and water resistant

NTS02 Reflectorless Total Station



Telescope

Objective Aperture (EDM): $\varnothing 45\text{mm}$
Magnification: 30x, 1°20' Field of View
Resolving Power: 4.0"
Minimum Sight Distance: 1.2 m (3.94 ft)

Angle Measurement

Measuring Method: Absolute Encoder
Minimum Display: 1"/5"/10", selectable
Detection Method: Level Radial, Vertical Radial
Angle Measurement Accuracy: 2"

Range Finding

Reflectorless/Laser Pointer: Class 3R/IIIa
EDM: Coaxial
Automatic Correction of Input Parameters: Meteorological,
Atmospheric Refraction, Earth Curvature

Measurement Accuracy

Range Finding Mode	Standard Deviation Accuracy	Measuring Time
Precision Measuring Prism	$\pm (2\text{mm} + 2\text{ppm} \cdot D)$	< 1.2 S
Mini Prism	$\pm (5\text{mm} + 2\text{ppm} \cdot D)$	< 0.5 S
Reflector	$\pm (5\text{mm} + 2\text{ppm} \cdot D)$	< 1.2 S
Reflectorless	$\pm (5\text{mm} + 2\text{ppm} \cdot D)$	< 1.2 S

Measurement Distance

Range Finding Mode	Measuring Distance
Normal Conditions w/ Prism	2,000 m (6,561.68 ft)
Reflector	700 m (2,296.59 ft)
Reflectorless	300 m (984 ft)

* Under normal conditions

Instrument

Display: LCD, 6 lines x 12 characters
Illumination: Yes
Internal Memory: 20,000 points
Data Port: I/O, RS-232C, USB, Bluetooth
Optional

Operating Time: 9 hours
Battery: Rechargeable Lithium Ion Battery
Voltage: 7.2V DC

Dimensions: 160x150x330mm (WxDxH)
Weight: 5.2 kg (11.46 lbs)
Weather Proof: IP55 (IEC60529)
Operating Temperature: -20°C to +50°C

Level Vial Sensitivity

Plate Level: 30" / 2mm
Circular Level: 8" / 2mm

Compensation

Method: Electronic automatic
Range: +/- 3'
Resolving Power: 3"

Laser Plummet

Accuracy: +/- 0.8mm / 1.5m
Laser Class: 2/I EC60825-1

Distributed By



NLR60 Laser Range Finder

NLR60 is NWI's newest laser range finder. It is compact, durable, precise and simple to operate. It is also small enough that it can easily fit into a pocket or tool-belt.

The NLR60 can measure units in meters, inches and feet and is also IP 54 dust / water resistant.

The NLR60 notable features include:

- Area and volume calculations
- Indirect measurement using Pythagoras
- Addition and Subtraction
- Continuous movement
- Min / Max distance tracking
- Battery life of up to 4,000 measurements

Laser

Range: 0.16 ft - 164 ft

Typical Accuracy: +/-1.5 mm

Standard Deviation: +/- 0,06 in

Measuring Units: m, in, ft

Laser Class: Class II

Laser Type: 635 nm

Instrument

History Measurement Record: 20

Dust / Splash Protection: IP 54

Operating Temperature: 0°C - 40°C

Batteries: 2x AAA

Dimensions: 115 x 48 x 28 mm

Weight: 135 g

Accessories

Heavy Duty Aluminum Tripods

NAT81 / 82: Heavy Duty, Flat / Dome Head, Quick Clamp
38"/64", 5/8 x 11 Thread

NAT83 / 84: Contractors, Flat / Dome Head, Quick Clamp
38"/62", 5/8 x 11 Thread

NAT86 / 87: Heavy Duty, Flat Head, Quick Clamp or Wing Nut
38"/64", 5/8 x 11 Thread



NAT83

NAT81

Premium Aluminum Tripods

Legs are powder-coated yellow for visibility & protection

NAT91 / 92: Heavy Duty, Flat / Dome Head, Quick Clamp
38"/64", 5/8 x 11 Thread

NAT93 / 94: Contractors, Flat / Dome Head, Quick Clamp
38"/62", 5/8 x 11 Thread

NAT96: Heavy Duty Tripod with Elevator Column (9 ft)

NAT97: Heavy Duty, Flat Head, Wing Nut
38"/64", 5/8 x 11 Thread



NAT91

NAT96

Wood and Fiberglass Tripods

NWFT98A: Heavy Duty, Flat Head, Wing Nut Lock
43"/72", 5/8 x 11 Thread

NWFT99A : Heavy Duty, Flat Head, Quick Clamp
43"/72", 5/8 x 11 Thread

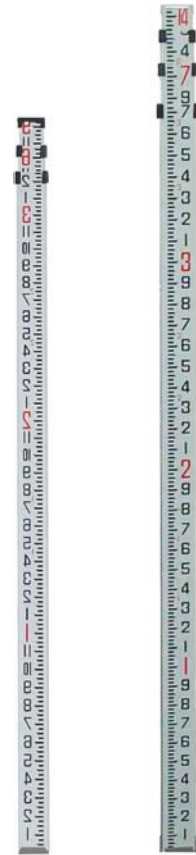
NWFT100A : Heavy Duty, Flat Head, Dual Clamp
43"/72", 5/8 x 11 Thread



NWFT99A

Aluminum Rods

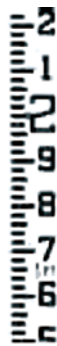
- 8.5' Laser Rods, 10ths, 2 section inserted type, twist lock
- 8.5' Laser Rods, 8ths, 2 section inserted type, twist lock
- 9' Aluminum Rod, 10ths, 3 section telescopic, button lock
- 9' Aluminum Rod, 8ths, 3 section telescopic, button lock
- 3 Meter Aluminum Rod, Metric, 3 section telescopic, button lock
- 14' Aluminum Rod, 10ths, 4 section telescopic, button lock
- 14' Aluminum Rod, 8ths, 4 section telescopic, button lock
- 4 Meter Aluminum Rods, Metric, 4 section telescopic, button lock
- 16' Aluminum Rod, 10ths, 4 section telescopic, button lock
- 16' Aluminum Rod, 8ths, 4 section telescopic, button lock
- 5 Meter Aluminum Rods, Metric, 5 section telescopic, button lock



NAR09E NAR14



Measurements
in Eighths



Measurements
in Tenths



Measurements
in Metric

NFR Series Fiberglass Rods MSRP

14' Rod, 8ths/10ths front/back, Rectangular, 4 section

14' Rod, Metric/10ths front/back, Rectangular, 4 section



NFR
Series

NCR Fiberglass Telescopic Rods

13' Rectangular Fiberglass Rod, 10ths, 3 section

13' Rectangular Fiberglass Rod, 8ths, 3 section

16' Rectangular Fiberglass Rod, 10ths, 4 section

16' Rectangular Fiberglass Rod, 8ths, 4 section

25' Oval Surveyor's Fiberglass Rod, 10ths, 6 section

25' Oval Surveyor's Fiberglass Rod, 8ths, 6 section



NCR
Series

Accessories



Laser Accessories

Heavy Duty Laser Detector, Dual side display

w/ quick-action clamp, 2,000 ft range

Quick action Rod Clamp for NLD5G

Universal Wall/Ceiling Bracket, Adjustable, for NMRL99

Laser Enhancing Glasses (Red or Green)

Red Grid Target, with Magnetic Base

Universal Wall Mount/Ceiling Bracket, Adjustable,
for 200, 602 and 800 series

Remote Control for NRL602 and 800 series

Rechargeable Battery Pack and Charger for NRL602 and 800 series



NLD5G Detector

Rod Accessories

Rod Level Bubble, for 9' Rods

Rod Level Bubble, for 14' and 16' Rods

Nylon Carrying Bag 9'

Nylon Carrying Bag 14' and 16'

Carrying Case for Rods up to 16'

Carrying Case for Rods up to 25'

Theodolite Accessories

Rechargeable Battery Pack

Battery Charger

Alkaline Battery Pack

Diagonal Eyepiece

Total Station Accessories

Rechargeable Battery Pack

Battery Charger

Data Cable

NHL 2.5 Hand Level

2.5 Power Magnification Hand Level, with Stadia

Hand Level packed in POP package, incl nylon carrying pouch



NHL2.5 Hand Level

Prism Packages



Model	Prism System Package
NPA01	Single Prism Package, Pentax Compatible
NTB01	Tribrach without Optical Plummet
NAD01	Tribrach Adapter with Optical Plummet
NCT11	Single Prism Target
NPH31	Single Prism Holder, -30mm Offset, tilt
NSP01	Single Prism in Canister, 64mm
NPB21	Single Prism Package Bag



NPA01

NPA11	Single Prism Package, Topcon Compatible
NTB01	Tribrach without Optical Plummet
NAD01	Tribrach Adapter with Optical Plummet
NCT01	Single Prism Target
NPH21	Single Prism Holder, 0mm Offset, tilt
NSP01	Single Prism in Canister, 64mm
NPB21	Single Prism Package Bag



NPA11

NPA21	Single Prism Package, Sokkia Compatible
NTB01	Tribrach without Optical Plummet
NAD01	Tribrach Adapter with Optical Plummet
NST21	Single Prism Target
NPH41	Single Prism Holder, 0/-30mm, tilt
NSP01	Single Prism in Canister, 64mm
NPB21	Single Prism Package Bag



NPA21

NPA31	Single Prism Package, Nikon Compatible
NTB01	Tribrach without Optical Plummet
NAD01	Tribrach Adapter with Optical Plummet
NCT01	Single Prism Target
NPH21	Single Prism Holder, 0mm Offset, tilt
NSP01	Single Prism in Canister, 64mm
NPB21	Single Prism Package Bag



NPA31

Model	Single Prism In Canister
NSP01	Single Prism in Canister, 64mm, red or yellow
NSP21	Mini Prism, 25.4mm
NDR90	Double Right Angle Prisms

Model	Tribrach
NTB01	Tribrach without Optical Plummet
NTB11	Tribrach with Optical Plummet



NTB11

Prisms and Rods



Model Mini Prism System

- NMP51 Mini Prism Package, Plastic Yoke, Prism Mount, Plumb Bob Point, Prism w/ target, Soft Pack Bag
- NMP52 Mini Prism Package, Metal Yoke, Prism Mount, Plumb Bob Point, Prism w/ target, Soft Pack Bag



Model Prism System For Pole Mounting

- NPA61 Adjustable Prims Assembly, Tilt, 0mm/-30mm Offset
- NSP01 Single Prism in Canister, 64mm, red or yellow
- NPH41 Single Prism Holder, 0/-30mm, tilt
- NST21 Single Prism Target
- NPB24 Single Prism Soft Padded Nylon Bag
- NPA62 Adjustable Prims Assembly, Tilt, -30mm Offset
- NSP01 Single Prism in Canister, 64mm, red or yellow
- NPH31 Single Prism Holder, -30mm Offset, tilt
- NCT11 Single Prism Target
- NPB24 Single Prism Soft Padded Nylon Bag
- NPA63 Adjustable Prims Assembly, Tilt, 0mm/-30mm Offset
- NSP01 Single Prism in Canister, 64mm, red or yellow
- NPH01 Single Prism Holder, 0/-30mm, tilt
- NCT00 Suspended Type, Single Prism Target
- NPB24 Single Prism Soft Padded Nylon Bag



Model Prism Poles, Bipods, Tripods

- NPP01 Aluminum Prism Pole, 2.5m, Compression Lock
- NPP02 Aluminum Prism Pole, 3.6m, Compression Lock
- NPP03 Aluminum Prism Pole, 5m, Compression Lock
- NTP12 Prism Pole Tripod, grip & slide control
- NPP05C Composit GPS Pole, 2 m, 2 sections



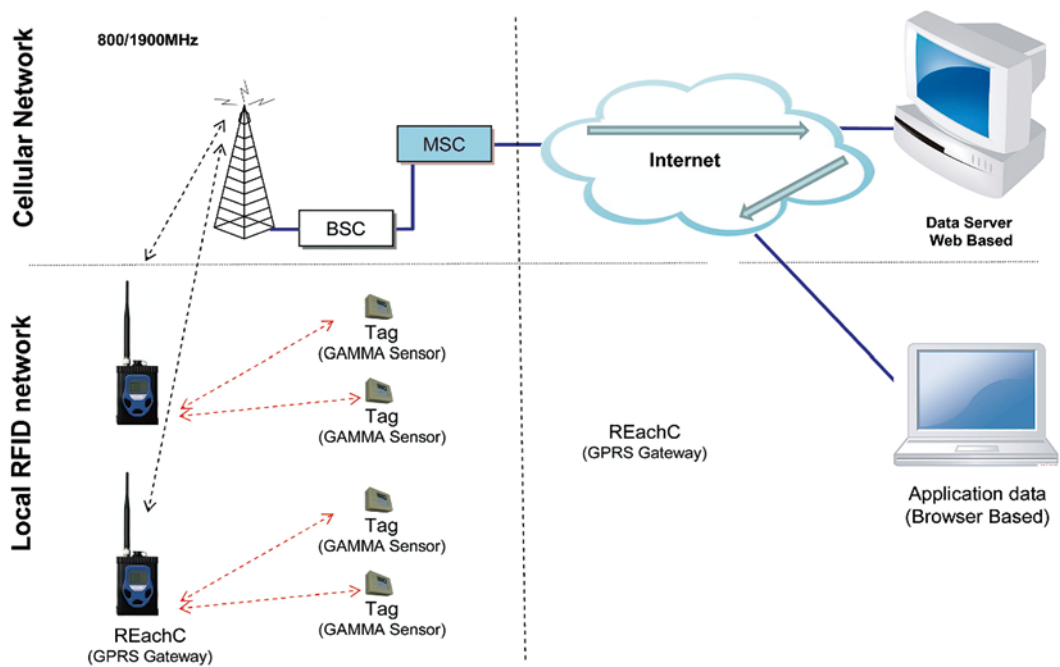
NPP01

NPP02

RFID - Equipment Monitor Solutions

NWI RFID utilizes advanced field-data capture technologies and is the ideal solution for construction and facility and infrastructure management. With NWI RFID, you can be certain that your valuable equipment is **protected** from theft via remote monitoring

- Geographic Information System (GIS) quickly search and locate tagged equipment
- Flexible deployment options via active antenna and WLAN internet
- Active RFID tag for longer reading ranges and large data storage
- Real-Time facility data collection





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