

Waterproof IP68 N Male Right Angle to TNC Male  
Low Loss Cable 36 Inch Length Using LMR-400 Coax  
with Times Microwave Components



**PE3W01954/WP-36**

**Configuration**

- Connector 1: N Male Right Angle
- Connector 2: TNC Male
- Cable Type: LMR-400
- Coax Flex Type: Flexible

**Features**

- Max Frequency 6 GHz
- Shielding Effectivity > 90 dB
- 85% Phase Velocity
- Double Shielded
- PE Jacket
- Silicone Connector Boot
- IP68 Rated

**Applications**

- General Purpose
- Laboratory Use

**Description**

Pasternack's PE3W01954/WP-36 type N male right angle to TNC male 36 inch cable using LMR-400 coax is part of our full line of RF components available for same-day shipping. Pasternack's flexible RF cable assemblies are ideal for applications where tight bends and flexure are required. This Pasternack type N to TNC cable assembly has a male to male gender configuration with 50 ohm flexible LMR-400 coax. The PE3W01954/WP-36 type N male to TNC male cable assembly operates to 6 GHz. The right angle type N interface on the LMR-400 cable allows for easier connections in tight spaces. The double shielding of this Pasternack cable assembly provides excellent shielding effectiveness of better than 90 dB.

Custom versions of most RF cable assemblies can be built and shipped same day. Custom cable assembly lengths can be obtained by specifying the desired length on the web site at time of order or by contacting a sales representative. Other available RF cable assembly value added services include connector orientation or clocking, heat shrink booting and custom labeling. RF testing can also be performed to document the electrical performance of your cable assembly.

**Electrical Specifications**

| Description                          | Minimum | Typical      | Maximum | Units                 |
|--------------------------------------|---------|--------------|---------|-----------------------|
| Frequency Range                      | DC      |              | 6       | GHz                   |
| VSWR                                 |         |              | 1.4:1   |                       |
| Velocity of Propagation              |         | 85           |         | %                     |
| RF Shielding                         | 90      |              |         | dB                    |
| Capacitance                          |         | 23.9 [78.41] |         | pF/ft [pF/m]          |
| Inductance                           |         | 0.06 [0.2]   |         | uH/ft [uH/m]          |
| DC Resistance Inner Conductor        |         | 1.39 [4.56]  |         | Ohms/1000ft [Ohms/Km] |
| DC Resistance Outer Conductor        |         | 1.65 [5.41]  |         | Ohms/1000ft [Ohms/Km] |
| Dielectric Withstanding Voltage (DC) |         |              | 2,500   | Vdc                   |

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### Electrical Specifications

| Description  | Minimum | Typical | Maximum | Units |
|--------------|---------|---------|---------|-------|
| Jacket Spark |         |         | 8,000   | Vrms  |

### Specifications by Frequency

| Part Number     | Length                   | Description           | F1        | F2    | F3    | F4    | F5    | Units | Weight (lbs) |
|-----------------|--------------------------|-----------------------|-----------|-------|-------|-------|-------|-------|--------------|
|                 |                          |                       | Frequency |       |       |       |       | MHz   |              |
| PE3W01954/WP    | Custom Lengths Available | Insertion Loss (Typ.) | 0.02      | 0.028 | 0.041 | 0.068 | 0.108 | dB/ft |              |
|                 |                          |                       | 0.07      | 0.1   | 0.14  | 0.23  | 0.36  | dB/m  |              |
| PE3W01954/WP-24 | 24 Inch                  | Insertion Loss (Typ.) | 0.34      | 0.36  | 0.39  | 0.44  | 0.52  | dB    | 0.861        |
| PE3W01954/WP-36 | 36 Inch                  | Insertion Loss (Typ.) | 0.36      | 0.39  | 0.43  | 0.51  | 0.63  | dB    | 0.928        |
| PE3W01954/WP-48 | 48 Inch                  | Insertion Loss (Typ.) | 0.38      | 0.42  | 0.47  | 0.58  | 0.74  | dB    | 0.995        |
| PE3W01954/WP-60 | 60 Inch                  | Insertion Loss (Typ.) | 0.4       | 0.44  | 0.51  | 0.64  | 0.84  | dB    | 1.062        |

The insertion loss data for the base model does not include loss due to the connectors. Each length includes insertion loss due to the connectors.

|                             |                |
|-----------------------------|----------------|
| Loss due to Connector 1:    | 0.2 dB         |
| Loss due to Connector 2:    | 0.1 dB         |
| Base Weight:                | 0.794 pounds   |
| Additional Weight per Inch: | 0.00558 pounds |

### Mechanical Specifications

#### Cable Assembly

|                |                      |
|----------------|----------------------|
| Length         | 36 in [914.4 mm]     |
| Width/Diameter | .5 in [12.7 mm]      |
| Weight         | 0.928 lbs [420.93 g] |

#### Cable

|                                      |                        |
|--------------------------------------|------------------------|
| Cable Type                           | LMR-400                |
| Impedance                            | 50 Ohms                |
| Inner Conductor Type                 | Solid                  |
| Inner Conductor Material and Plating | Copper Clad Aluminum   |
| Dielectric Type                      | PE (F)                 |
| Number of Shields                    | 2                      |
| Shield Layer 1                       | Aluminum Tape          |
| Shield Layer 2                       | Tinned Copper Braid    |
| Jacket Material                      | PE                     |
| Jacket Diameter                      | 0.405 in [10.29 mm]    |
| One Time Minimum Bend Radius         | 1 in [25.4 mm]         |
| Repeated Minimum Bend Radius         | 4 in [101.6 mm]        |
| Bending Moment                       | 0.5 lbs-ft [0.68 N-m]  |
| Flat Plate Crush                     | 40 lbs/in [0.71 Kg/mm] |
| Tensile Strength                     | 160 lbs [72.57 Kg]     |

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### Connectors

| Description                        | Connector 1        | Connector 2       |
|------------------------------------|--------------------|-------------------|
| Type                               | N Male Right Angle | TNC Male          |
| Option                             |                    | Weatherproof Boot |
| Impedance                          | 50 Ohms            | 50 Ohms           |
| Configuration                      | Right Angle        | Straight          |
| Contact Material and Plating       | Brass, Gold        | Brass, Gold       |
| Contact Plating Specification      |                    | 50 µin minimum    |
| Dielectric Type                    | Teflon             |                   |
| Body Material and Plating          | Brass, Tri-Metal   | Brass, Tri-Metal  |
| Body Plating Specification         |                    | 80 µin minimum    |
| Coupling Nut Material and Plating  | Brass, Tri-Metal   | Brass, Tri-Metal  |
| Coupling Nut Plating Specification |                    | 80 µin minimum    |
| Boot Material                      | Silicone           | Silicone          |

### Environmental Specifications

|                                |                  |
|--------------------------------|------------------|
| Operating Range Temperature    | -40 to +85 deg C |
| Ingress Protection (IP) Rating | IP68             |

**Compliance Certifications** (see [product page](#) for current document)

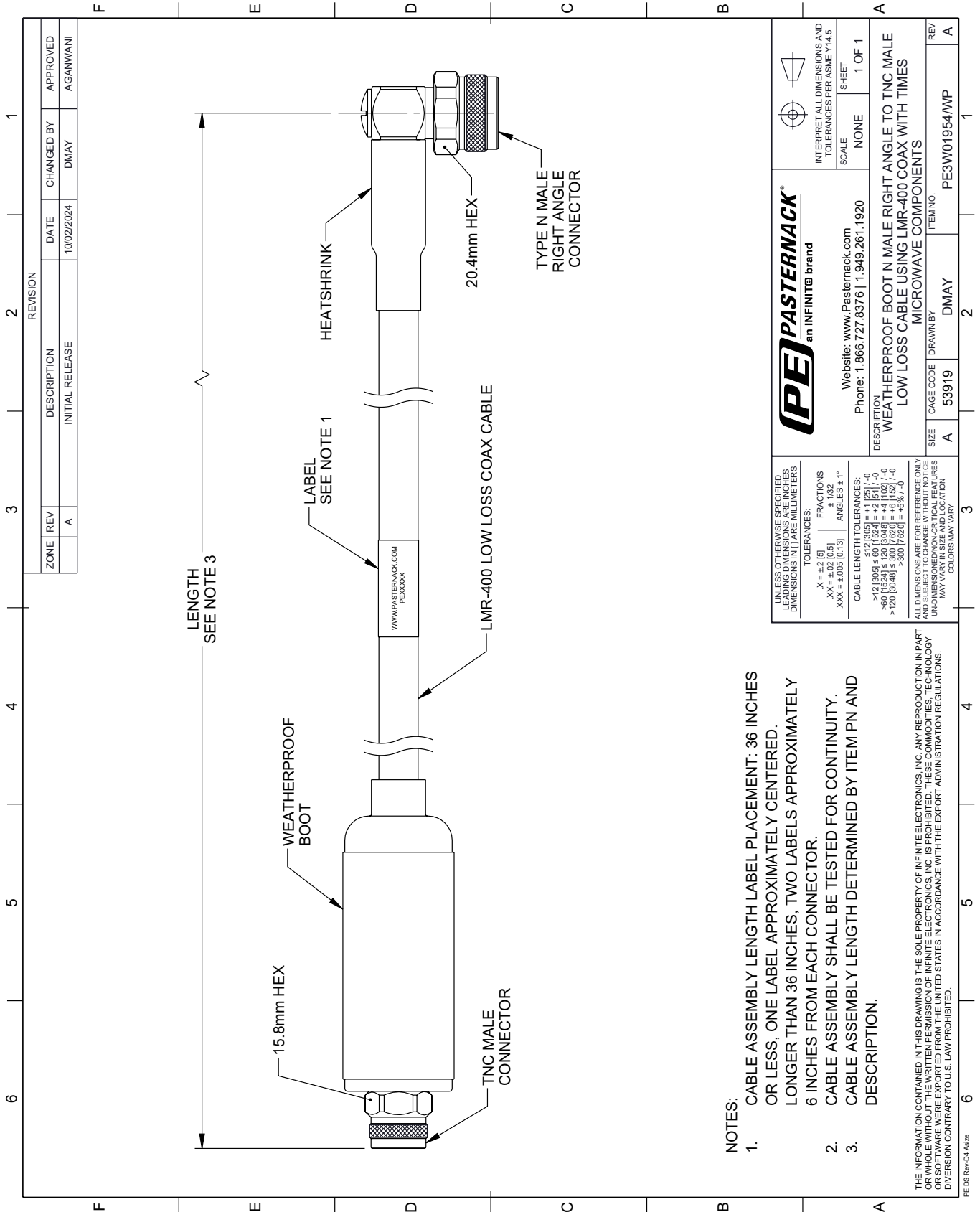
### Plotted and Other Data

Notes:  
Values at 25°C, sea level.



# PE3W01954/WP-36 CAD Drawing

Waterproof IP68 N Male Right Angle to TNC Male Low Loss Cable 36 Inch Length Using LMR-400 Coax with Times Microwave Components



**NOTES:**

1. CABLE ASSEMBLY LENGTH LABEL PLACEMENT: 36 INCHES OR LESS, ONE LABEL APPROXIMATELY CENTERED. LONGER THAN 36 INCHES, TWO LABELS APPROXIMATELY 6 INCHES FROM EACH CONNECTOR.
2. CABLE ASSEMBLY SHALL BE TESTED FOR CONTINUITY.
3. CABLE ASSEMBLY LENGTH DETERMINED BY ITEM PN AND DESCRIPTION.

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|   | <p>DESCRIPTION: WEATHERPROOF BOOT N MALE RIGHT ANGLE TO TNC MALE LOW LOSS CABLE USING LMR-400 COAX WITH TIMES MICROWAVE COMPONENTS</p> <p>SIZE: A</p> <p>CAGE CODE: 53919</p> <p>DRAWN BY: DMAY</p> <p>ITEM NO.: PE3W01954/WP</p> |

UNLESS OTHERWISE SPECIFIED, LEADING DIMENSIONS ARE IN INCHES, DIMENSIONS IN [ ] ARE IN MILLIMETERS.

TOLERANCES:

|                     |             |
|---------------------|-------------|
| X = ±.2 [5]         | FRACTIONS   |
| .XX = ±.02 [0.5]    | ± 1/32      |
| .XXX = ±.005 [0.13] | ANGLES ± 1° |

CABLE LENGTH TOLERANCES:

|  |
|--|
| >12 [305] ≤ 60 [1524] = ±.125 [-0]       |
| >60 [1524] ≤ 120 [3048] = ±.1 [2.5] [-0] |
| >120 [3048] ≤ 300 [7620] = ±.5% [-0]     |

ALL DIMENSIONS ARE FOR REFERENCE ONLY. UNDIMENSIONED NON-CRITICAL FEATURES MAY VARY IN SIZE AND LOCATION. COLORS MAY VARY.