

F4A-PDFDR-5M



FSJ4-50B SureFlex® Jumper with interface types 7-16 DIN Female and 7-16 DIN Male Right Angle, 5 m

Product Classification

| | |
|----------------|---------------------|
| Product Type | SureFlex® standard |
| Product Brand | HELIAX® SureFlex® |
| Product Series | FSJ4-50B |

General Specifications

| | |
|------------------------------------|-----------------|
| Body Style, Connector A | Straight |
| Body Style, Connector B | Right angle |
| Interface, Connector A | 7-16 DIN Female |
| Interface, Connector B | 7-16 DIN Male |
| Specification Sheet Revision Level | A |

Dimensions

| | |
|--------------|-----------------|
| Length | 5 m 16.404 ft |
| Nominal Size | 1/2 in |

Electrical Specifications

| | |
|------------------|--------|
| DTF, Connector A | -32 dB |
| DTF, Connector B | -32 dB |

Jumper Assembly Sample Label

F4A-PDFDR-5M



Environmental Specifications

Immersion Test Method Meets IEC 60529:2001, IP68 in mated condition

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

Included Products

| | |
|---------|--|
| F4DR-C | - 7-16 DIN Male Right Angle for 1/2 in FSJ4-50B cable |
| F4NR-HC | - Type N Male Right Angle for 1/2 in FSJ4-50B cable |
| L4DR-PS | - 7-16 DIN Male Right Angle Positive Stop™ for 1/2 in LDF4-50A cable |
| L4NR-PS | - Type N Male Right Angle Positive Stop™ for 1/2 in LDF4-50A cable |

F4DR-C



7-16 DIN Male Right Angle for 1/2 in FSJ4-50B cable

Product Classification

| | |
|----------------|-----------------------------------|
| Product Type | Wireless and radiating connector |
| Product Brand | HELIAX® |
| Product Series | FSJ4-50B FSJ4RK-50B |
| Ordering Note | ANDREW® standard product (Global) |

General Specifications

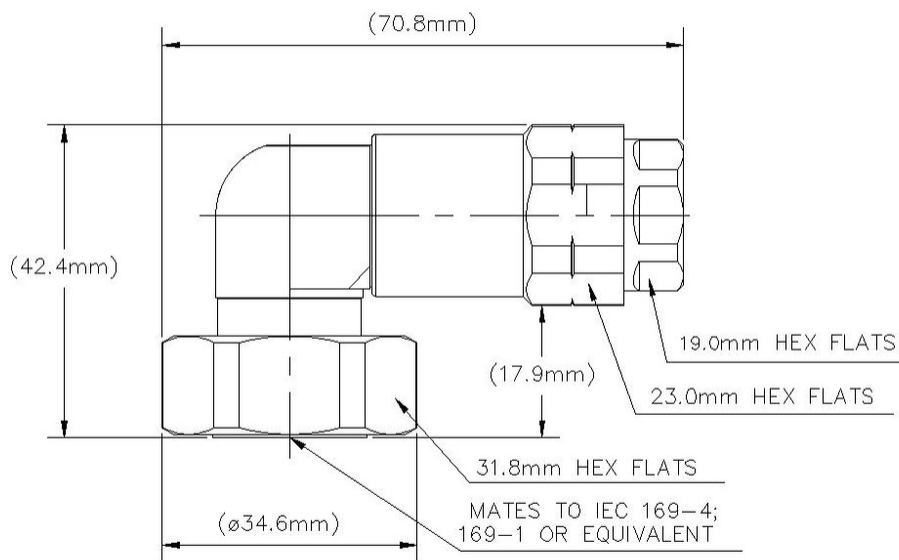
| | |
|---------------------------------|---------------|
| Body Style | Right angle |
| Cable Family | FSJ4-50B |
| Inner Contact Attachment Method | Captivated |
| Inner Contact Plating | Gold Silver |
| Interface | 7-16 DIN Male |
| Mounting Angle | Right angle |
| Outer Contact Attachment Method | Self-flare |
| Outer Contact Plating | Trimetal |
| Pressurizable | No |

Dimensions

| | |
|--------------------|--------------------|
| Height | 42.42 mm 1.67 in |
| Width | 34.54 mm 1.36 in |
| Length | 70.87 mm 2.79 in |
| Right Angle Length | 18.03 mm 0.71 in |
| Nominal Size | 1/2 in |

Outline Drawing

F4DR-C



Electrical Specifications

| | |
|--------------------------------------|----------------------|
| 3rd Order IMD at Frequency | -120 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss Coefficient, typical | 0.05 |
| Average Power at Frequency | 1.0 kW @ 900 MHz |
| Cable Impedance | 50 ohm |
| Connector Impedance | 50 ohm |
| dc Test Voltage | 2500 V |
| Inner Contact Resistance, maximum | 0.8 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Operating Frequency Band | 0 – 7500 MHz |
| Outer Contact Resistance, maximum | 1.5 mOhm |
| Peak Power, maximum | 15.6 kW |
| RF Operating Voltage, maximum (vrms) | 884 V |
| Shielding Effectiveness | -110 dB |

VSWR/Return Loss

F4DR-C

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 50–1000 MHz | 1.04 | 34.16 |
| 1000–1900 MHz | 1.04 | 34.16 |
| 1900–2200 MHz | 1.07 | 29.42 |
| 2200–2700 MHz | 1.1 | 26.45 |
| 2700–3600 MHz | 1.13 | 24.29 |
| 3600–6000 MHz | 1.25 | 19.09 |
| 6000–8800 MHz | 1.67 | 12.01 |
| 8000–10200 MHz | 1.67 | 12.01 |

Mechanical Specifications

| | |
|-------------------------------------|---|
| Connector Retention Tensile Force | 444.82 N 100 lbf |
| Connector Retention Torque | 5.42 N-m 47.998 in lb |
| Coupling Nut Proof Torque | 24.86 N-m 220.003 in lb |
| Coupling Nut Retention Force | 1,000.85 N 225 lbf |
| Coupling Nut Retention Force Method | MIL-C-39012C-3.25, 4.6.22 |
| Interface Durability | 500 cycles |
| Interface Durability Method | IEC 61169-4:9.5 |
| Mechanical Shock Test Method | MIL-STD-202F, Method 213B, Test Condition C |

Environmental Specifications

| | |
|------------------------------------|---|
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Attenuation, Ambient Temperature | 20 °C 68 °F |
| Average Power, Ambient Temperature | 40 °C 104 °F |
| Corrosion Test Method | MIL-STD-1344A, Method 1001.1, Test Condition A |
| Immersion Depth | 1 m |
| Immersion Test Mating | Unmated |
| Immersion Test Method | IEC 60529:2001, IP68 |
| Moisture Resistance Test Method | MIL-STD-202F, Method 106F |
| Thermal Shock Test Method | MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C |
| Vibration Test Method | MIL-STD-202F, Method 204D, Test Condition B |
| Water Jetting Test Mating | Unmated |

F4DR-C

Water Jetting Test Method

IEC 60529:2001, IP66

Packaging and Weights

Weight, net

197.2 g | 0.435 lb

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CHINA-ROHS | Below maximum concentration value |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| ROHS | Compliant |
| UK-ROHS | Compliant |



* Footnotes

Insertion Loss Coefficient, typical

0.05√~freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth

Immersion at specified depth for 24 hours

F4NR-HC



Type N Male Right Angle for 1/2 in FSJ4-50B cable

Product Classification

| | |
|----------------|--|
| Product Type | Wireless and radiating connector |
| Product Brand | HELIAX® |
| Product Series | FSJ4-50B FSJ4RK-50B |
| Ordering Note | ANDREW® standard product in Asia Pacific ANDREW® standard product in Europe, the Middle East, and Africa |

General Specifications

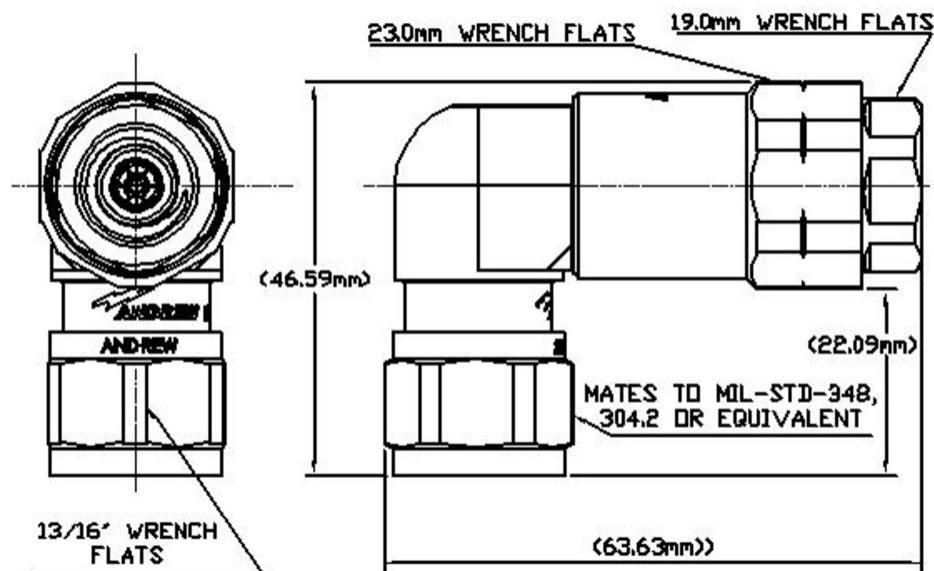
| | |
|---------------------------------|---------------|
| Body Style | Right angle |
| Cable Family | FSJ4-50B |
| Inner Contact Attachment Method | Captivated |
| Inner Contact Plating | Gold Silver |
| Interface | N Male |
| Mounting Angle | Right angle |
| Outer Contact Attachment Method | Self-flare |
| Outer Contact Plating | Trimetal |
| Pressurizable | No |

Dimensions

| | |
|--------------------|--------------------|
| Height | 46.48 mm 1.83 in |
| Width | 24.38 mm 0.96 in |
| Length | 63.75 mm 2.51 in |
| Right Angle Length | 22.1 mm 0.87 in |
| Nominal Size | 1/2 in |

Outline Drawing

F4NR-HC



Electrical Specifications

| | |
|--------------------------------------|----------------------|
| 3rd Order IMD at Frequency | -116 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss Coefficient, typical | 0.05 |
| Average Power at Frequency | 0.6 kW @ 900 MHz |
| Cable Impedance | 50 ohm |
| Connector Impedance | 50 ohm |
| dc Test Voltage | 2000 V |
| Inner Contact Resistance, maximum | 2 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Operating Frequency Band | 0 – 10200 MHz |
| Outer Contact Resistance, maximum | 0.3 mOhm |
| Peak Power, maximum | 10 kW |
| RF Operating Voltage, maximum (vrms) | 707 V |
| Shielding Effectiveness | -110 dB |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 50–1000 MHz | 1.05 | 32.26 |

F4NR-HC

| | | |
|----------------|------|-------|
| 1000–1900 MHz | 1.06 | 30.72 |
| 1900–2200 MHz | 1.06 | 30.72 |
| 2200–2700 MHz | 1.08 | 28.3 |
| 2700–3600 MHz | 1.19 | 21.24 |
| 3600–6000 MHz | 1.19 | 21.24 |
| 6000–8800 MHz | 1.25 | 19.09 |
| 8800–10200 MHz | 1.29 | -18 |

Mechanical Specifications

| | |
|-------------------------------------|---|
| Connector Retention Tensile Force | 444.82 N 100 lbf |
| Connector Retention Torque | 5.42 N-m 47.998 in lb |
| Coupling Nut Proof Torque | 4.52 N-m 39.997 in lb |
| Coupling Nut Retention Force | 444.82 N 100 lbf |
| Coupling Nut Retention Force Method | MIL-C-39012C-3.23, 4.6.22 |
| Interface Durability | 500 cycles |
| Interface Durability Method | IEC 61169-4:9.5 |
| Mechanical Shock Test Method | MIL-STD-202F, Method 213B, Test Condition C |

Environmental Specifications

| | |
|------------------------------------|---|
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Attenuation, Ambient Temperature | 20 °C 68 °F |
| Average Power, Ambient Temperature | 40 °C 104 °F |
| Corrosion Test Method | MIL-STD-1344A, Method 1001.1, Test Condition A |
| Immersion Depth | 1 m |
| Immersion Test Mating | Unmated |
| Immersion Test Method | IEC 60529:2001, IP68 |
| Moisture Resistance Test Method | MIL-STD-202F, Method 106F |
| Thermal Shock Test Method | MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C |
| Vibration Test Method | MIL-STD-202F, Method 204D, Test Condition B |
| Water Jetting Test Mating | Unmated |
| Water Jetting Test Method | IEC 60529:2001, IP66 |

Packaging and Weights

F4NR-HC

Weight, net 160.9 g | 0.355 lb

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CHINA-ROHS | Above maximum concentration value |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| ROHS | Compliant/Exempted |
| UK-ROHS | Compliant/Exempted |



* Footnotes

| | |
|--|--|
| Insertion Loss Coefficient, typical | 0.05√~freq (GHz) (not applicable for elliptical waveguide) |
| Immersion Depth | Immersion at specified depth for 24 hours |

L4DR-PS

7-16 DIN Male Right Angle Positive Stop™ for 1/2 in LDF4-50A cable



Product Classification

| | |
|----------------|-----------------------------------|
| Product Type | Wireless and radiating connector |
| Product Brand | HELIAX® |
| Product Series | LDF4-50A |
| Ordering Note | ANDREW® standard product (Global) |

General Specifications

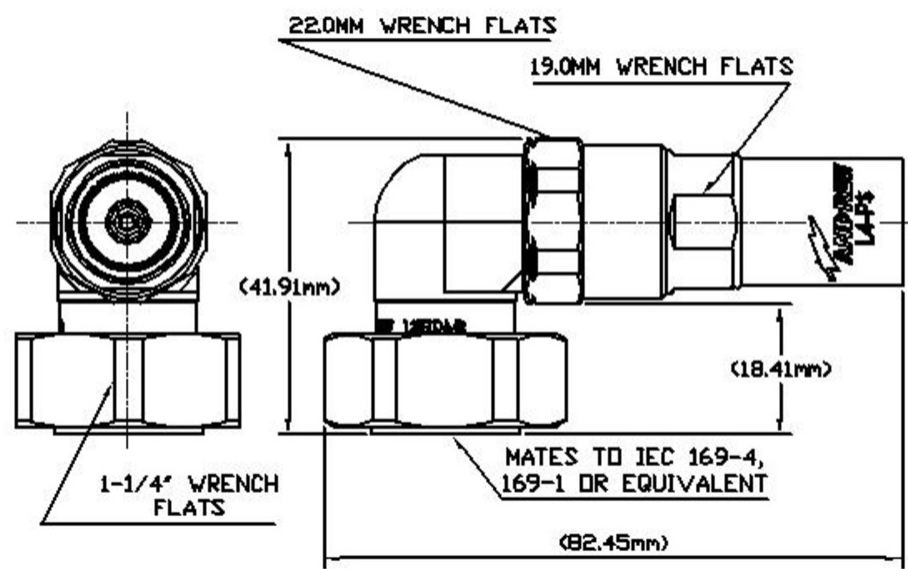
| | |
|---------------------------------|---------------|
| Body Style | Right angle |
| Cable Family | LDF4-50A |
| Inner Contact Attachment Method | Captivated |
| Inner Contact Plating | Gold Silver |
| Interface | 7-16 DIN Male |
| Mounting Angle | Right angle |
| Outer Contact Attachment Method | Self-flare |
| Outer Contact Plating | Trimetal |
| Pressurizable | No |

Dimensions

| | |
|--------------------|--------------------|
| Height | 41.91 mm 1.65 in |
| Width | 34.54 mm 1.36 in |
| Length | 82.55 mm 3.25 in |
| Right Angle Length | 18.29 mm 0.72 in |
| Nominal Size | 1/2 in |

Outline Drawing

L4DR-PS



Electrical Specifications

| | |
|--------------------------------------|----------------------|
| 3rd Order IMD at Frequency | -120 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss Coefficient, typical | 0.05 |
| Average Power at Frequency | 1.0 kW @ 900 MHz |
| Cable Impedance | 50 ohm |
| Connector Impedance | 50 ohm |
| dc Test Voltage | 2500 V |
| Inner Contact Resistance, maximum | 0.8 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Operating Frequency Band | 0 – 7500 MHz |
| Outer Contact Resistance, maximum | 1.5 mOhm |
| Peak Power, maximum | 15.6 kW |
| RF Operating Voltage, maximum (vrms) | 884 V |
| Shielding Effectiveness | -110 dB |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|-------|------------------|
| 50–1000 MHz | 1.018 | 41 |

L4DR-PS

| | | |
|---------------|-------|-------|
| 1000–1900 MHz | 1.03 | 36.61 |
| 1900–2200 MHz | 1.058 | 31 |
| 2200–2700 MHz | 1.07 | 29.42 |
| 2700–3600 MHz | 1.09 | 27.32 |
| 3600–6000 MHz | 1.19 | 21.24 |
| 6000–8800 MHz | 1.671 | 12 |

Mechanical Specifications

| | |
|-------------------------------------|---|
| Connector Retention Tensile Force | 889.64 N 200 lbf |
| Connector Retention Torque | 5.42 N-m 47.998 in lb |
| Coupling Nut Proof Torque | 24.86 N-m 220.003 in lb |
| Coupling Nut Retention Force | 1,000.85 N 225 lbf |
| Coupling Nut Retention Force Method | MIL-C-39012C-3.25, 4.6.22 |
| Interface Durability | 500 cycles |
| Interface Durability Method | IEC 61169-4:9.5 |
| Mechanical Shock Test Method | MIL-STD-202F, Method 213B, Test Condition C |

Environmental Specifications

| | |
|------------------------------------|---|
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Attenuation, Ambient Temperature | 20 °C 68 °F |
| Average Power, Ambient Temperature | 40 °C 104 °F |
| Corrosion Test Method | MIL-STD-1344A, Method 1001.1, Test Condition A |
| Immersion Depth | 1 m |
| Immersion Test Mating | Unmated |
| Immersion Test Method | IEC 60529:2001, IP68 |
| Moisture Resistance Test Method | MIL-STD-202F, Method 106F |
| Thermal Shock Test Method | MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C |
| Vibration Test Method | MIL-STD-202F, Method 204D, Test Condition B |
| Water Jetting Test Mating | Unmated |
| Water Jetting Test Method | IEC 60529:2001, IP66 |

Packaging and Weights

L4DR-PS

Weight, net 166.9 g | 0.368 lb

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| CHINA-ROHS | Above maximum concentration value |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| ROHS | Compliant/Exempted |
| UK-ROHS | Compliant/Exempted |



* Footnotes

Insertion Loss Coefficient, typical 0.05√freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours

L4NR-PS



Type N Male Right Angle Positive Stop™ for 1/2 in LDF4-50A cable

Product Classification

| | |
|----------------|-----------------------------------|
| Product Type | Wireless and radiating connector |
| Product Brand | HELIAX® Positive Stop™ |
| Product Series | LDF4-50A |
| Ordering Note | ANDREW® standard product (Global) |

General Specifications

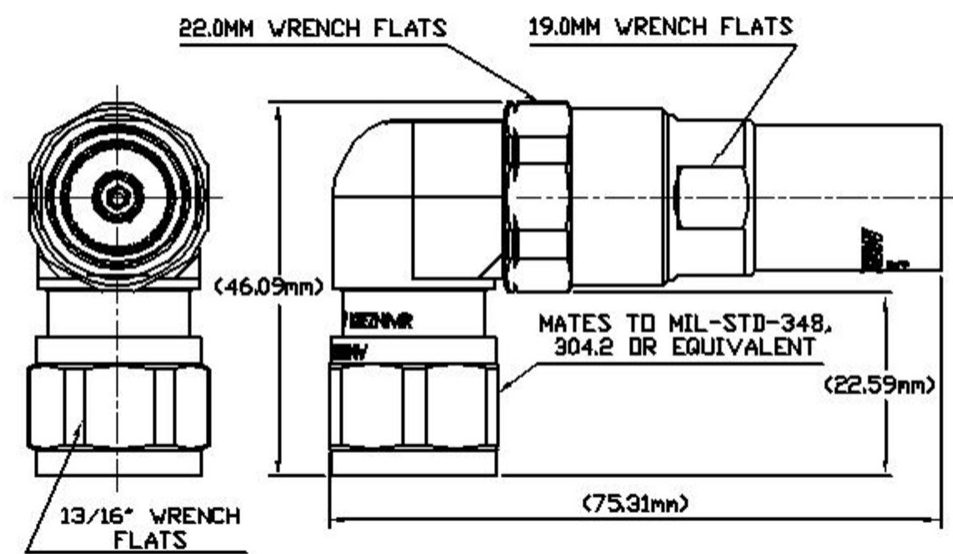
| | |
|---------------------------------|---------------|
| Body Style | Right angle |
| Cable Family | LDF4-50A |
| Inner Contact Attachment Method | Captivated |
| Inner Contact Plating | Gold Silver |
| Interface | N Male |
| Mounting Angle | Right angle |
| Outer Contact Attachment Method | Self-flare |
| Outer Contact Plating | Trimetal |
| Pressurizable | No |

Dimensions

| | |
|--------------------|--------------------|
| Height | 45.97 mm 1.81 in |
| Width | 23.62 mm 0.93 in |
| Length | 75.18 mm 2.96 in |
| Right Angle Length | 22.61 mm 0.89 in |
| Nominal Size | 1/2 in |

Outline Drawing

L4NR-PS



Electrical Specifications

| | |
|--------------------------------------|----------------------|
| 3rd Order IMD at Frequency | -116 dBm @ 910 MHz |
| 3rd Order IMD Test Method | Two +43 dBm carriers |
| Insertion Loss Coefficient, typical | 0.05 |
| Average Power at Frequency | 0.6 kW @ 900 MHz |
| Cable Impedance | 50 ohm |
| Connector Impedance | 50 ohm |
| dc Test Voltage | 2000 V |
| Inner Contact Resistance, maximum | 2 mOhm |
| Insulation Resistance, minimum | 5000 MOhm |
| Operating Frequency Band | 0 – 8800 MHz |
| Outer Contact Resistance, maximum | 0.3 mOhm |
| Peak Power, maximum | 10 kW |
| RF Operating Voltage, maximum (vrms) | 707 V |
| Shielding Effectiveness | -110 dB |

VSWR/Return Loss

| Frequency Band | VSWR | Return Loss (dB) |
|----------------|------|------------------|
| 50–1000 MHz | 1.02 | 40.09 |

L4NR-PS

| | | |
|---------------|-------|-------|
| 1000–1900 MHz | 1.04 | 34.16 |
| 1900–2200 MHz | 1.05 | 32.26 |
| 2200–2700 MHz | 1.08 | 28.3 |
| 2700–3600 MHz | 1.1 | 26.45 |
| 3600–6000 MHz | 1.119 | 25.01 |
| 6000–8800 MHz | 1.29 | -18 |

Mechanical Specifications

| | |
|-------------------------------------|---|
| Connector Retention Tensile Force | 889.64 N 200 lbf |
| Connector Retention Torque | 5.42 N-m 47.998 in lb |
| Coupling Nut Proof Torque | 4.52 N-m 39.997 in lb |
| Coupling Nut Retention Force | 444.82 N 100 lbf |
| Coupling Nut Retention Force Method | MIL-C-39012C-3.23, 4.6.22 |
| Interface Durability | 500 cycles |
| Interface Durability Method | IEC 61169-4:9.5 |
| Mechanical Shock Test Method | MIL-STD-202F, Method 213B, Test Condition C |

Environmental Specifications

| | |
|------------------------------------|---|
| Operating Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Storage Temperature | -55 °C to +85 °C (-67 °F to +185 °F) |
| Attenuation, Ambient Temperature | 20 °C 68 °F |
| Average Power, Ambient Temperature | 40 °C 104 °F |
| Corrosion Test Method | MIL-STD-1344A, Method 1001.1, Test Condition A |
| Immersion Depth | 1 m |
| Immersion Test Mating | Unmated |
| Immersion Test Method | IEC 60529:2001, IP68 |
| Moisture Resistance Test Method | MIL-STD-202F, Method 106F |
| Thermal Shock Test Method | MIL-STD-202F, Method 107G, Test Condition A-1, Low Temperature -55 °C |
| Vibration Test Method | MIL-STD-202F, Method 204D, Test Condition B |
| Water Jetting Test Mating | Unmated |
| Water Jetting Test Method | IEC 60529:2001, IP66 |

Packaging and Weights

L4NR-PS

Weight, net 133.1 g | 0.293 lb

Regulatory Compliance/Certifications

| Agency | Classification |
|---------------|--|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |
| REACH-SVHC | Compliant as per SVHC revision on www.andrew.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |

* Footnotes

Insertion Loss Coefficient, typical 0.05√freq (GHz) (not applicable for elliptical waveguide)

Immersion Depth Immersion at specified depth for 24 hours