



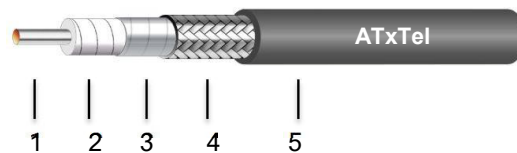
Product Selection Guide

Bulk RF Cable

A Series

## Features

- Ultra-low loss
- Amplitude stability
- Mechanical phase stability
- Good power handling capability
- Low passive intermodulation (PIM)
- Light weight
- Good bending performance
- Excellent shielding performance



| Construction        | Materials                     |
|---------------------|-------------------------------|
| 1. Center Conductor | Silvered Copper               |
| 2. Dielectric       | Low Density PTFE              |
| 3. Inner Shield     | Silvered Copper Tape Wrapping |
| 4. Outer Shield     | Braided Silvered Copper Wire  |
| 5. Jacket           | Grey PFA                      |

| Model | Outer Diameter (mm) | Frequency (GHz) | Impedance (Ohms) | Velocity | Amplitude Stability (dB) | Phase Stability | Attenuation(dB/100m, Typical Value @25°C & VSWR=1.0) |         |        |       |         |         |
|-------|---------------------|-----------------|------------------|----------|--------------------------|-----------------|------------------------------------------------------|---------|--------|-------|---------|---------|
|       |                     |                 |                  |          |                          |                 | 18GHz                                                | 26.5GHz | 40GHz  | 50GHz | 67GHz   | 110GHz  |
| A150  | 1.50                | 110             | 50               | 80%      | ±0.1                     | ±5°             | 499.31                                               | 611.52  | 760.4  | 856.6 | 1002.71 | 1314.28 |
| A220  | 2.20                | 67              | 50               | 81%      | ±0.1                     | ±5°             | 287.1                                                | 354     | 444    | 503.1 | 593.2   |         |
| A300  | 3.10                | 50              | 50               | 82%      | ±0.1                     | ±5°             | 207.9                                                | 255.4   | 318.9  | 360.1 |         |         |
| A360  | 3.60                | 40              | 50               | 82%      | ±0.1                     | ±5°             | 166.67                                               | 204.79  | 255.69 |       |         |         |
| A400  | 4.00                | 40              | 50               | 82%      | ±0.1                     | ±5°             | 151.79                                               | 185.01  | 228.64 |       |         |         |
| A480  | 4.80                | 26.5            | 50               | 83%      | ±0.1                     | ±5°             | 106.58                                               | 130.85  |        |       |         |         |
| A500  | 5.20                | 26.5            | 50               | 83%      | ±0.1                     | ±5°             | 103.84                                               | 127.53  |        |       |         |         |
| A550  | 5.60                | 18              | 50               | 83%      | ±0.1                     | ±5°             | 96.1                                                 |         |        |       |         |         |
| A750  | 7.40                | 18              | 50               | 83%      | ±0.1                     | ±5°             | 68.48                                                |         |        |       |         |         |
| A760S | 7.65                | 18              | 50               | 83%      | ±0.1                     | ±5°             | 80.86                                                |         |        |       |         |         |
| A800  | 7.90                | 18              | 50               | 83%      | ±0.1                     | ±5°             | 66.98                                                |         |        |       |         |         |
| A810  | 8.10                | 18              | 50               | 83%      | ±0.1                     | ±5°             | 62.12                                                |         |        |       |         |         |
| A830  | 8.30                | 18              | 50               | 83%      | ±0.1                     | ±5°             | 60.63                                                |         |        |       |         |         |

## Product Specifications

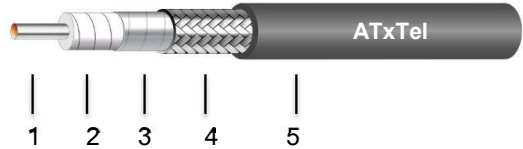


### Model: A150

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 0.30                |
| 2. Dielectric       | Low Density PTFE              | 0.88                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 1.00                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 1.23                |
| 5. Jacket           | Grey PFA                      | 1.50                |

### Electrical Specifications

|                                |                |
|--------------------------------|----------------|
| Cable Impedance                | 50 $\Omega$    |
| Velocity                       | 80%            |
| Shielding Effectiveness        | >90 dB         |
| Voltage Withstanding           | 400 V DC       |
| Operating Frequency            | DC-67 GHz      |
| Amplitude Stability vs Flexure | < $\pm$ 0.1 dB |
| Mechanical Phase Stability     | < $\pm$ 5°     |

### Mechanical & Environmental Specifications

|                      |               |
|----------------------|---------------|
| Weight               | 6 g/m         |
| Bend Radius, static  | 8 mm          |
| Bend Radius, dynamic | 15 mm         |
| Temperature Range    | -55 ~ +125 °C |

### Attenuation (Typical Value @ 25°C & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 189       | 0.62               |
| 1000            | 103       | 1.14               |
| 3000            | 59        | 1.99               |
| 6000            | 42        | 2.83               |
| 8500            | 35        | 3.38               |
| 12400           | 29        | 4.11               |
| 18000           | 24        | 4.99               |
| 26500           | 19        | 6.12               |
| 40000           | 15        | 7.60               |
| 50000           | 14        | 8.57               |
| 67000           | 12        | 10.03              |
| 110000          | 9         | 13.14              |

## Product Specifications

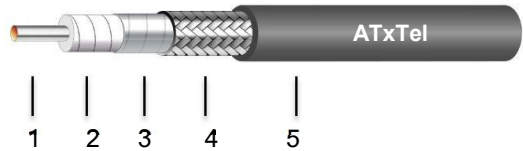


### Model: A220

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 0.50                |
| 2. Dielectric       | Low Density PTFE              | 1.38                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 1.54                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 1.95                |
| 5. Jacket           | Grey PFA                      | 2.20                |

### Electrical Specifications

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 81%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 400 V DC        |
| Operating Frequency            | DC-67 GHz       |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 16 g/m                      |
| Bend Radius, static  | 8.8 mm                      |
| Bend Radius, dynamic | 22 mm                       |
| Temperature Range    | -55 ~ +125 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 179       | 0.35               |
| 1000            | 97        | 0.64               |
| 3000            | 55        | 1.12               |
| 6000            | 39        | 1.60               |
| 8500            | 32        | 1.93               |
| 12400           | 26        | 2.35               |
| 18000           | 22        | 2.87               |
| 26500           | 17        | 3.54               |
| 40000           | 14        | 4.44               |
| 50000           | 12        | 5.03               |
| 67000           | 10        | 5.93               |

## Product Specifications

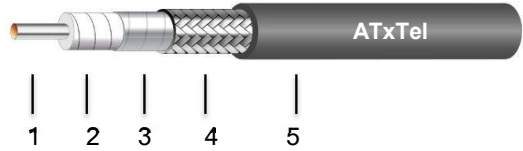


### Model: A300

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 0.70                |
| 2. Dielectric       | Low Density PTFE              | 1.93                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 2.09                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 2.66                |
| 5. Jacket           | Grey PFA                      | 3.10                |

### Electrical Specifications

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 82%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 500 V DC        |
| Operating Frequency            | DC-50 GHz       |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 27 g/m                      |
| Bend Radius, static  | 15 mm                       |
| Bend Radius, dynamic | 31 mm                       |
| Temperature Range    | -55 ~ +165 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 749       | 0.26               |
| 1000            | 407       | 0.47               |
| 3000            | 233       | 0.82               |
| 6000            | 163       | 1.17               |
| 8500            | 136       | 1.40               |
| 12400           | 111       | 1.71               |
| 18000           | 92        | 2.08               |
| 26500           | 75        | 2.55               |
| 40000           | 60        | 3.19               |
| 50000           | 53        | 3.60               |

## Product Specifications

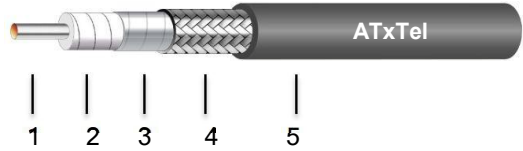


### Model: A360

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 0.91                |
| 2. Dielectric       | Low Density PTFE              | 2.50                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 2.66                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 3.11                |
| 5. Jacket           | Grey PFA                      | 3.60                |

### Electrical Specifications

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 82%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 500 V DC        |
| Operating Frequency            | DC-40 GHz       |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 33 g/m                      |
| Bend Radius, static  | 18 mm                       |
| Bend Radius, dynamic | 36 mm                       |
| Temperature Range    | -55 ~ +165 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 936       | 0.20               |
| 1000            | 509       | 0.38               |
| 3000            | 291       | 0.66               |
| 6000            | 203       | 0.94               |
| 8500            | 170       | 1.12               |
| 12400           | 139       | 1.37               |
| 18000           | 115       | 1.67               |
| 26500           | 93        | 2.05               |
| 40000           | 75        | 2.56               |

## Product Specifications

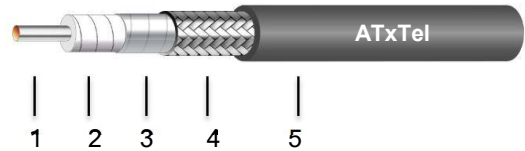


### Model: A400

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 1.05                |
| 2. Dielectric       | Low Density PTFE              | 2.85                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 3.05                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 3.40                |
| 5. Jacket           | Grey PFA                      | 4.00                |

### Electrical Specifications

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 82%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 1500 V DC       |
| Operating Frequency            | DC-40 GHz       |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 36 g/m                      |
| Bend Radius, static  | 20 mm                       |
| Bend Radius, dynamic | 40 mm                       |
| Temperature Range    | -55 ~ +165 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 1160      | 0.20               |
| 1000            | 634       | 0.36               |
| 3000            | 365       | 0.63               |
| 6000            | 257       | 0.89               |
| 8500            | 215       | 1.07               |
| 12400           | 178       | 1.29               |
| 18000           | 147       | 1.56               |
| 26500           | 121       | 1.90               |
| 40000           | 98        | 2.35               |

## Product Specifications

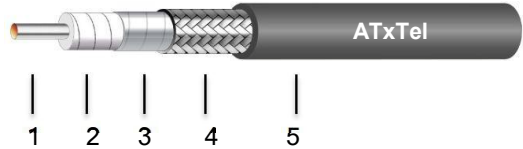


### Model: A480

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 1.40                |
| 2. Dielectric       | Low Density PTFE              | 3.80                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 3.95                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 4.35                |
| 5. Jacket           | Grey PFA                      | 4.80                |

### Electrical Specifications

|                                |                |
|--------------------------------|----------------|
| Cable Impedance                | 50 $\Omega$    |
| Velocity                       | 83%            |
| Shielding Effectiveness        | >90 dB         |
| Voltage Withstanding           | 1500 V DC      |
| Operating Frequency            | DC-26.5 GHz    |
| Amplitude Stability vs Flexure | < $\pm$ 0.1 dB |
| Mechanical Phase Stability     | < $\pm$ 5°     |

### Mechanical & Environmental Specifications

|                      |               |
|----------------------|---------------|
| Weight               | 55 g/m        |
| Bend Radius, static  | 24 mm         |
| Bend Radius, dynamic | 48 mm         |
| Temperature Range    | -55 ~ +165 °C |

### Attenuation (Typical Value @ 25°C & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 1688      | 0.13               |
| 1000            | 919       | 0.24               |
| 3000            | 525       | 0.42               |
| 6000            | 368       | 0.60               |
| 8500            | 307       | 0.72               |
| 12400           | 252       | 0.88               |
| 18000           | 207       | 1.07               |
| 26500           | 169       | 1.31               |



## Product Specifications

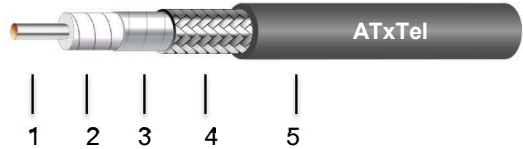


### Model: A500

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 1.45                |
| 2. Dielectric       | Low Density PTFE              | 3.99                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 4.19                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 4.60                |
| 5. Jacket           | Grey PFA                      | 5.20                |

### Electrical Specifications

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 83%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 1500 V DC       |
| Operating Frequency            | DC-26.5 GHz     |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 60 g/m                      |
| Bend Radius, static  | 26 mm                       |
| Bend Radius, dynamic | 52 mm                       |
| Temperature Range    | -55 ~ +165 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 1688      | 0.13               |
| 1000            | 919       | 0.23               |
| 3000            | 525       | 0.41               |
| 6000            | 368       | 0.59               |
| 8500            | 307       | 0.70               |
| 12400           | 252       | 0.85               |
| 18000           | 207       | 1.04               |
| 26500           | 169       | 1.28               |

## Product Specifications

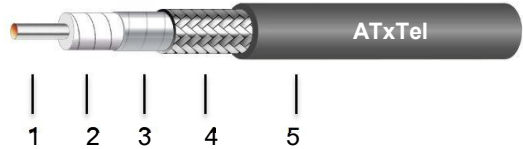


### Model: A550

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 1.60                |
| 2. Dielectric       | Low Density PTFE              | 4.30                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 4.50                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 5.10                |
| 5. Jacket           | Grey PFA                      | 5.60                |

### Electrical Specificationsa

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 83%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 2000 V DC       |
| Operating Frequency            | DC-18 GHz       |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 75 g/m                      |
| Bend Radius, static  | 28 mm                       |
| Bend Radius, dynamic | 56 mm                       |
| Temperature Range    | -55 ~ +165 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 1874      | 0.12               |
| 1000            | 1024      | 0.22               |
| 3000            | 589       | 0.39               |
| 6000            | 415       | 0.55               |
| 8500            | 348       | 0.66               |
| 12400           | 287       | 0.80               |
| 18000           | 238       | 0.96               |

## Product Specifications

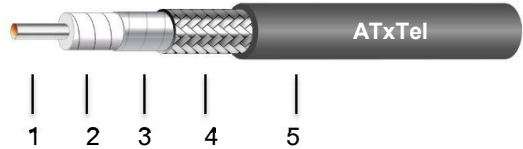


### Model: A750

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 2.10                |
| 2. Dielectric       | Low Density PTFE              | 5.70                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 5.95                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 6.60                |
| 5. Jacket           | Grey PFA                      | 7.40                |

### Electrical Specifications

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 83%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 2500 V DC       |
| Operating Frequency            | DC-18 GHz       |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 116 g/m                     |
| Bend Radius, static  | 37 mm                       |
| Bend Radius, dynamic | 74 mm                       |
| Temperature Range    | -55 ~ +165 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 3186      | 0.09               |
| 1000            | 1740      | 0.16               |
| 3000            | 1000      | 0.28               |
| 6000            | 704       | 0.39               |
| 8500            | 589       | 0.47               |
| 12400           | 486       | 0.57               |
| 18000           | 402       | 0.69               |

## Product Specifications

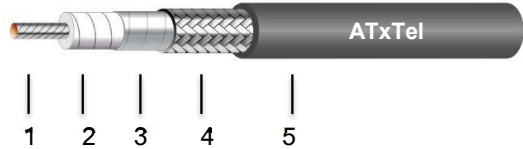


### Model: A760S

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Stranded Silvered Copper      | 2.39                |
| 2. Dielectric       | Low Density PTFE              | 6.25                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 6.49                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 7.06                |
| 5. Jacket           | Grey PFA                      | 7.65                |

### Electrical Specifications

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 83%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 2500 V DC       |
| Operating Frequency            | DC-18 GHz       |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 120 g/m                     |
| Bend Radius, static  | 38 mm                       |
| Bend Radius, dynamic | 76 mm                       |
| Temperature Range    | -55 ~ +165 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 2952      | 0.09               |
| 1000            | 1604      | 0.17               |
| 3000            | 914       | 0.29               |
| 6000            | 638       | 0.42               |
| 8500            | 532       | 0.51               |
| 12400           | 436       | 0.62               |
| 18000           | 357       | 0.75               |

## Product Specifications

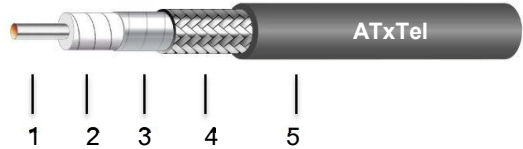


### Model: A800

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 2.30                |
| 2. Dielectric       | Low Density PTFE              | 6.20                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 6.44                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 7.05/7.20           |
| 5. Jacket           | Grey PFA                      | 7.90                |

### Electrical Specifications

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 83%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 2500 V DC       |
| Operating Frequency            | DC-18 GHz       |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 130 g/m                     |
| Bend Radius, static  | 39 mm                       |
| Bend Radius, dynamic | 79 mm                       |
| Temperature Range    | -55 ~ +165 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 3341      | 0.08               |
| 1000            | 1812      | 0.15               |
| 3000            | 1030      | 0.26               |
| 6000            | 717       | 0.37               |
| 8500            | 597       | 0.45               |
| 12400           | 488       | 0.55               |
| 18000           | 399       | 0.67               |

## Product Specifications

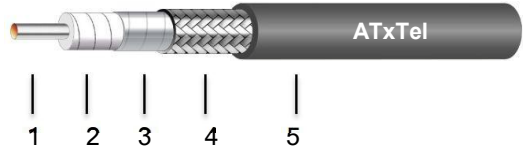


### Model: A810

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 2.40                |
| 2. Dielectric       | Low Density PTFE              | 6.36                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 6.60                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 7.10                |
| 5. Jacket           | Grey PFA                      | 8.10                |

### Electrical Specifications

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 83%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 2500 V DC       |
| Operating Frequency            | DC-18 GHz       |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 140 g/m                     |
| Bend Radius, static  | 40 mm                       |
| Bend Radius, dynamic | 81 mm                       |
| Temperature Range    | -55 ~ +165 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 3503      | 0.07               |
| 1000            | 1897      | 0.14               |
| 3000            | 1071      | 0.24               |
| 6000            | 743       | 0.35               |
| 8500            | 616       | 0.42               |
| 12400           | 502       | 0.52               |
| 18000           | 409       | 0.63               |

## Product Specifications

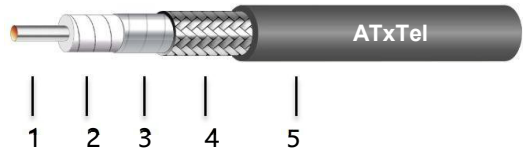


### Model: A830

Ultra-low Loss

Amplitude Stable

Phase Stable



| Construction        | Materials                     | Outer Diameter (mm) |
|---------------------|-------------------------------|---------------------|
| 1. Center Conductor | Silvered Copper               | 2.44                |
| 2. Dielectric       | Low Density PTFE              | 6.50                |
| 3. Inner Shield     | Silvered Copper Tape Wrapping | 6.90                |
| 4. Outer Shield     | Braided Silvered Copper Wire  | 7.65                |
| 5. Jacket           | Grey PFA                      | 8.30                |

### Electrical Specifications

|                                |                 |
|--------------------------------|-----------------|
| Cable Impedance                | 50 $\Omega$     |
| Velocity                       | 83%             |
| Shielding Effectiveness        | >90 dB          |
| Voltage Withstanding           | 2500 V DC       |
| Operating Frequency            | DC-18 GHz       |
| Amplitude Stability vs Flexure | < $\pm 0.1$ dB  |
| Mechanical Phase Stability     | < $\pm 5^\circ$ |

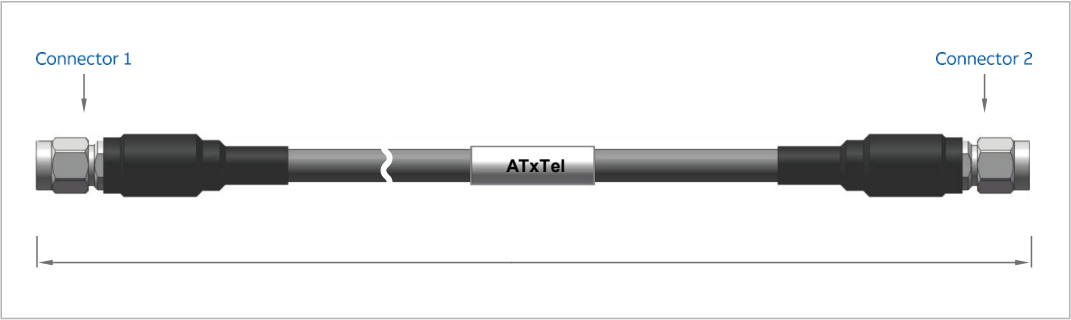
### Mechanical & Environmental Specifications

|                      |                             |
|----------------------|-----------------------------|
| Weight               | 162 g/m                     |
| Bend Radius, static  | 41 mm                       |
| Bend Radius, dynamic | 83 mm                       |
| Temperature Range    | -55 ~ +165 $^\circ\text{C}$ |

### Attenuation (Typical Value @ 25 $^\circ\text{C}$ & Sea Level)

| Frequency (MHz) | Power (W) | Attenuation (dB/m) |
|-----------------|-----------|--------------------|
| 300             | 3496      | 0.07               |
| 1000            | 1894      | 0.13               |
| 3000            | 1075      | 0.23               |
| 6000            | 747       | 0.34               |
| 8500            | 621       | 0.40               |
| 12400           | 507       | 0.50               |
| 18000           | 414       | 0.61               |

| Matching Cables | Matching Connectors |     |      |     |      |     |      |     |     |   |     |      |
|-----------------|---------------------|-----|------|-----|------|-----|------|-----|-----|---|-----|------|
|                 | SSMP                | SMP | SSMA | 1.0 | 1.85 | 2.4 | 2.92 | 3.5 | SMA | N | TNC | 7/16 |
| A150            | ●                   | ●   | ●    | ●   | ●    | ●   | ●    | ●   | ●   |   |     |      |
| A220            | ●                   | ●   | ●    |     | ●    | ●   | ●    | ●   | ●   | ● | ●   |      |
| A300            |                     | ●   |      |     |      | ●   | ●    | ●   | ●   | ● | ●   |      |
| A360            |                     |     |      |     |      | ●   | ●    | ●   | ●   | ● | ●   |      |
| A400            |                     |     |      |     |      |     | ●    | ●   | ●   | ● | ●   |      |
| A480            |                     |     |      |     |      |     | ●    | ●   | ●   | ● | ●   |      |
| A500            |                     |     |      |     |      |     | ●    | ●   | ●   | ● | ●   |      |
| A550            |                     |     |      |     |      |     |      | ●   | ●   | ● | ●   |      |
| A750            |                     |     |      |     |      |     |      | ●   | ●   | ● | ●   |      |
| A760S           |                     |     |      |     |      |     |      | ●   | ●   | ● | ●   |      |
| A800            |                     |     |      |     |      |     |      | ●   | ●   | ● | ●   | ●    |
| A810            |                     |     |      |     |      |     |      |     | ●   | ● | ●   | ●    |
| A830            |                     |     |      |     |      |     |      |     | ●   | ● | ●   | ●    |



Part Number

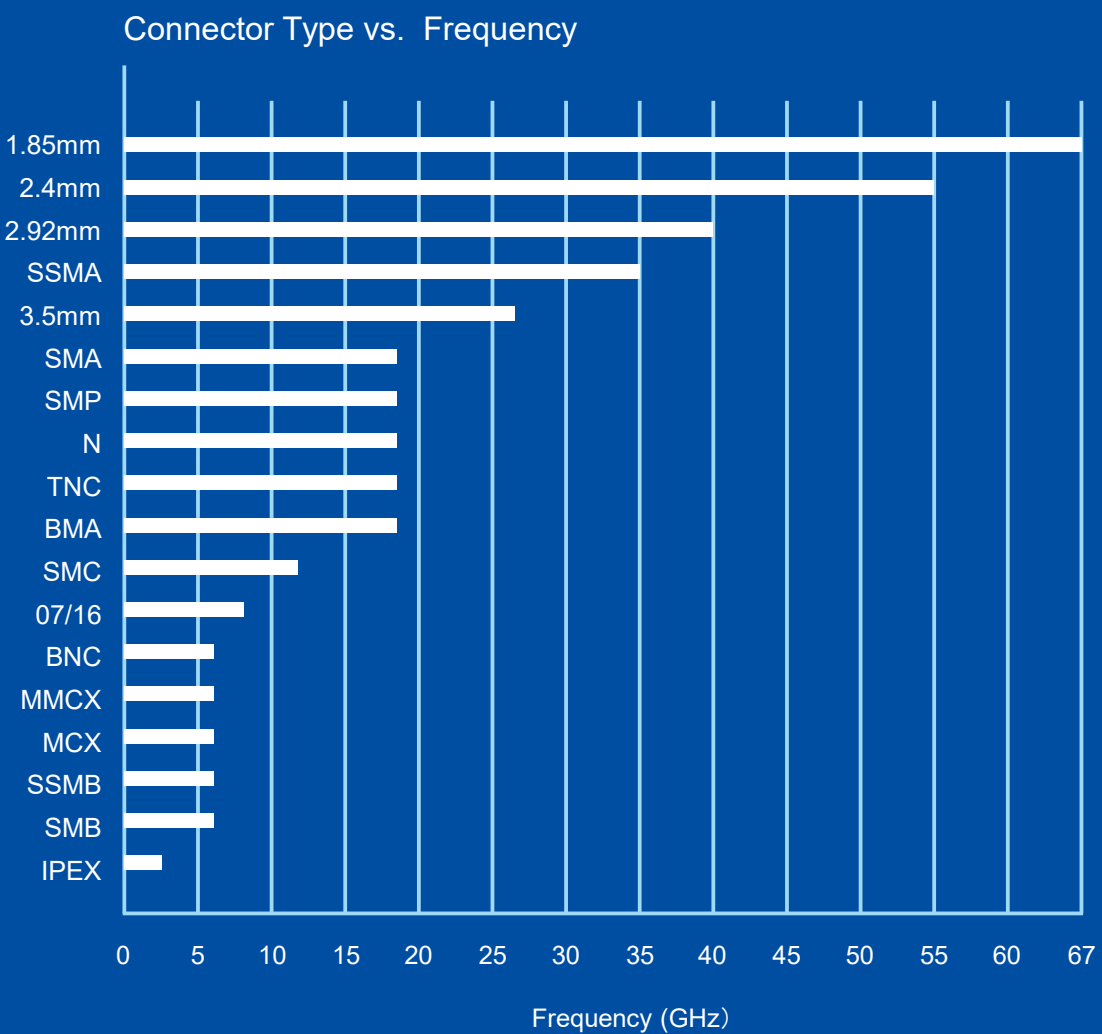
ATX-LM-CBL- A220 - 29 M 29 M - 1 M - K J

| Cable Model | Connector Model   |                                | Length    | Blank-No Armor<br>KJ- With Armor |
|-------------|-------------------|--------------------------------|-----------|----------------------------------|
| A150        | NM → N Male       | NF → N Female                  | 1M=1Meter |                                  |
| A220        | SM → SMA Male     | SF → SMA Female                |           |                                  |
| A300        | 35M → 3.5mm Male  | SPM → SMP Male                 |           |                                  |
| A360        | 29M → 2.92mm Male | BM → BNC Male                  |           |                                  |
| • • • • •   | 24M → 2.4mm Male  | TM → TNC Male                  |           |                                  |
|             | 18M → 1.85mm Male | DM → 7/16 Male                 |           |                                  |
|             | 10M → 1.0mm male  | SPRAF → SMP Female Right Angle |           |                                  |
|             | 25M → SSMA male   | SRAM → SMA Male Right Angle    |           |                                  |
|             | 2SPM → SSMP male  |                                |           |                                  |

**Note:** Different connector types and cable assembly lengths are available. In the continuous effort to improve our products, ATxTel reserves the right to make changes without notice.



# Reference



## Frequently used information

### Insulation Material Characteristics

| Material           | Dielectric constant | Capacitance     | Temperature(°C) |
|--------------------|---------------------|-----------------|-----------------|
| PTFE               | 2.07                | 95.9            | -75 to +250     |
| Polyethylene       | 2.3                 | 101.1           | -65 to +80      |
| Foam Polyethylene  | 1.29-1.64           | 75.72 - 85.38   | -65 to +100     |
| Polyvinylchloride  | 3.0-8.0             | 115.47 - 188.56 | -50 to +105     |
| Polyamide          | 3.5-4.6             | 124.72 - 254.73 | -60 to +120     |
| Silicone Rubber    | 2.1-3.5             | 99.61 - 124.72  | -70 to +250     |
| Ethylene Propylene | 2.24                | 99.8            | -40 to +105     |
| FEP                | 2.1                 | 96.6            | -70 to +200     |
| Low Density PTFE   | 1.38-1.73           | 78.3 - 87.7     | -75 to +250     |
| Foam FEP           | 1.45                | 80.3            | -75 to +200     |
| Polyimide          | 3.0-3.5             | 115.5 - 124.7   | -75 to +300     |
| PFA                | 2.1                 | 96.6            | -75 to +260     |
| ETFE               | 2.6                 | 107.5           | -75 to +150     |
| ECTFE              | 2.5                 | 105.4           | -65 to +150     |
| PVDF               | 7.8                 | 186.2           | -75 to +125     |
| —                  | —                   | —               | —               |
| —                  | —                   | —               | —               |

### Cable outer jacket material working temperature

| Material Name   | Working temperature (°C) |
|-----------------|--------------------------|
| PTFE            | -75 to +250              |
| FEP             | -70 to +200              |
| Silicone Rubber | -70 to +200              |
| ETFE            | -65 to +150              |
| Nylon           | -40 to +105              |
| PUR             | -55 to +85               |
| PVC             | -50 to +85               |
| PE              | -65 to +80               |
| —               | —                        |
| —               | —                        |



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