



RF/Microwave cable assemblies, with a range of connectors, are available from Molex, using our Temp-Flex low loss and ultra low loss cables with outer jacket diameters of .056", .101" and .158".

Molex's RF/Microwave cable assemblies include high performance flexible coaxial cable from our Temp-Flex operation. A wide range of connectors are utilized to provide assemblies for many different markets and applications.

The cable comes standard with silver plated conductors, FEP Dielectric, double shields and FEP jacket. The standard, Low Loss cables use solid, proprietary low loss FEP dielectric with 70% Velocity of Propagation. The Ultra Low Loss cables use a unique air core design with up to 87% Velocity of Propagation. The diameter over the shield is comparable to standard semi-rigid sizes making these cables an ideal flexible alternative.

Connector options include SMA, 2.92mm, SMP, SMPM and many others.

For more information, visit us at www.molex.com.

Features and Benefits

| | |
|--|--|
| Shielding Effectiveness 100 dB or better | Flexible alternative to semi-rigid coaxial assemblies |
| FEP Insulation and Jacket | Wide Operating Temperature Range |
| Low loss, solid core cable fits standard semi-rigid connectors | Wide range of connector styles for standard assemblies |

RF/Microwave Cable Assemblies
89762 Cable Assemblies with Temp-Flex Low Loss & Ultra Low Loss Cable



Connector Availability Matrix

| | Low Loss | | | Ultra Low Loss (assemblies) | | |
|-----------------------|------------|------------|------------|-----------------------------|----------|----------|
| | 047SC-2901 | 086SC-2401 | 141SC-1901 | 047-2801 | 086-2201 | 141-1701 |
| SMPM Jack Straight | X | X | | X | X | |
| SMPM Jack Right Angle | X | X | | X | X | |
| SMP Jack Straight | X | X | X | X | X | X |
| SMP Jack Right Angle | X | X | X | X | X | X |
| SMA Plug Straight | X | X | X | X | X | X |
| SMA Plug Right Angle | X | X | X | X | X | X |
| SMA Jack Straight | X | X | X | X | X | X |
| 2.92mm Plug Straight | X | X | X | X | X | X |
| 2.4mm Plug Straight | X | X | | X | X | |
| Type N Plug Straight | | X | X | | X | X |
| TNC Jack Straight | X | X | | | | |

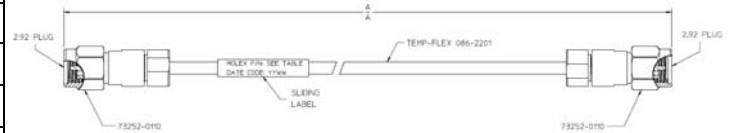
Temp-Flex Cable Performance Characteristics

| Cable P/N | Impedance (Ohms) | VOP | Capacitance | Min Static Bend Radius | Center Conductor | Insulation | Jacket | OD | Cut Off Freq. |
|------------|------------------|-------|-------------|------------------------|------------------|------------|--------|-------|---------------|
| 047SC-2901 | 50±1 | 70% | 29 pF/ft | 0.20" | 0.0113" | FEP | FEP | .056" | 112 GHz |
| 086SC-2401 | 50±1 | 70% | 29 pF/ft | 0.30" | 0.0201" | FEP | FEP | .101" | 62 GHz |
| 141SC-1901 | 50±1 | 70% | 29 pF/ft | 0.50" | 0.036" | FEP | FEP | .157" | 41 GHz |
| 047-2801 | 50±1 | 87% | 23.3 pF/ft | 0.20" | 0.0126" | FEP | FEP | .055" | 143 GHz |
| 086-2201 | 50±1 | 86.4% | 23.6 pF/ft | 0.38" | 0.0253" | FEP | FEP | .101" | 72 GHz |
| 141-1701 | 50±1 | 87% | 23.3 pF/ft | 0.75" | 0.0453" | FEP | FEP | .158" | 42 GHz |

Ultra Low Loss (Monofilament) Assemblies

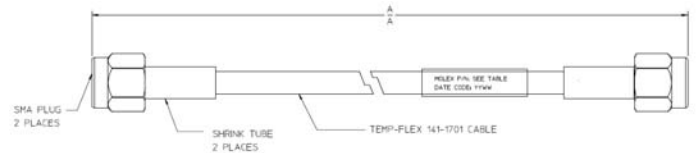
2.92mm Plug to Plug, 086 Ultra Low Loss cable assemblies

| Part Number | Length (inches) | Insertion Loss | VSWR |
|-------------|-----------------|----------------|--------------------|
| 89762-1320 | 6.0 | 0.8 dB | 1.40 max to 40 GHz |
| 89762-1321 | 9.0 | 1.2 dB | 1.40 max to 40 GHz |
| 89762-1322 | 12.0 | 1.6 dB | 1.40 max to 40 GHz |
| 89762-1323 | 15.0 | 2.0 dB | 1.40 max to 40 GHz |
| 89762-1324 | 18.0 | 2.4 dB | 1.40 max to 40 GHz |
| 89762-1325 | 120.0 | 16.0 dB | 1.40 max to 40 GHz |



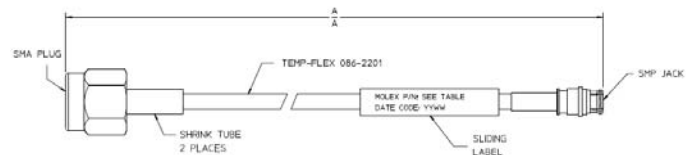
SMA Plug to SMA Plug, 141 Ultra Low Loss cable assemblies

| Part Number | Length | Insertion Loss | VSWR |
|-------------|--------|----------------|--------------------|
| 89762-1370 | 6.0 | 0.35 dB | 1.35 max to 26 GHz |
| 89762-1371 | 12.0 | 0.70 dB | 1.35 max to 26 GHz |
| 89762-1372 | 120.0 | 7.00 dB | 1.35 max to 26 GHz |



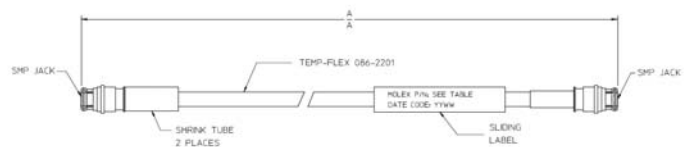
SMA Plug to SMP Jack, 086 Ultra Low Loss cable assemblies

| Part Number | Length | Insertion Loss | VSWR |
|-------------|--------|----------------|--------------------|
| 89762-1400 | 6.0 | 0.70 dB | 1.50 max to 26 GHz |
| 89762-1401 | 9.0 | 1.05 dB | 1.50 max to 26 GHz |
| 89762-1402 | 12.0 | 1.40 dB | 1.50 max to 26 GHz |
| 89762-1403 | 120.0 | 14.0 dB | 1.50 max to 26 GHz |

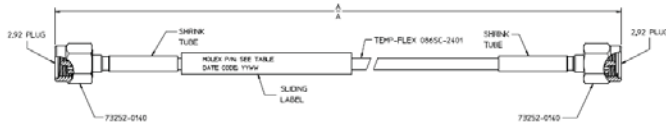


SMP Jack to SMP Jack, 086 Ultra Low Loss cable assemblies

| Part Number | Length | Insertion Loss | VSWR |
|-------------|--------|----------------|--------------------|
| 89762-1420 | 6.0 | 0.75 dB | 1.70 max to 26 GHz |
| 89762-1421 | 9.0 | 1.12 dB | 1.70 max to 26 GHz |
| 89762-1422 | 12.0 | 1.50 dB | 1.70 max to 26 GHz |
| 89762-1423 | 120.0 | 15.0 dB | 1.70 max to 26 GHz |

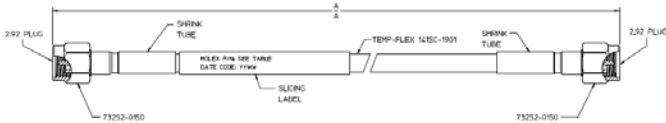


2.92mm Plug to Plug, 086 Low Loss cable assemblies



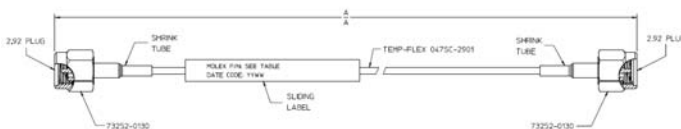
| Part Number | Length (inches) | Insertion Loss | VSWR |
|-------------|-----------------|----------------|--------------------|
| 89762-1540 | 6.0 | 0.92 dB | 1.50 max to 40 GHz |
| 89762-1541 | 9.0 | 1.33 dB | 1.50 max to 40 GHz |
| 89762-1542 | 12.0 | 1.74 dB | 1.50 max to 40 GHz |
| 89762-1543 | 15.0 | 2.15 dB | 1.50 max to 40 GHz |
| 89762-1544 | 18.0 | 2.56 dB | 1.50 max to 40 GHz |
| 89762-1545 | 120.0 | 16.5 dB | 1.50 max to 40 GHz |

2.92mm Plug to 2.92mm Plug, 141 Low Loss cable assemblies



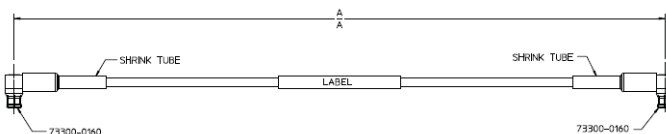
| Part Number | Length | Insertion Loss | VSWR |
|-------------|--------|----------------|--------------------|
| 89762-1620 | 6.0 | 0.59 dB | 1.45 max to 40 GHz |
| 89762-1621 | 9.0 | 0.84 dB | 1.45 max to 40 GHz |
| 89762-1622 | 12.0 | 1.08 dB | 1.45 max to 40 GHz |
| 89762-1623 | 15.0 | 1.33 dB | 1.45 max to 40 GHz |
| 89762-1624 | 18.0 | 1.57 dB | 1.45 max to 40 GHz |
| 89762-1625 | 120.0 | 9.9 dB | 1.45 max to 40 GHz |

2.92mm Plug to 2.92mm Plug, 047 Low Loss cable assemblies



| Part Number | Length | Insertion Loss | VSWR |
|-------------|--------|----------------|--------------------|
| 89762-1580 | 6.0 | 1.40 dB | 1.50 max to 40 GHz |
| 89762-1581 | 9.0 | 2.05 dB | 1.50 max to 40 GHz |
| 89762-1582 | 12.0 | 2.72 dB | 1.50 max to 40 GHz |
| 89762-1583 | 15.0 | 3.36 dB | 1.50 max to 40 GHz |
| 89762-1584 | 18.0 | 4.01 dB | 1.50 max to 40 GHz |
| 89762-1585 | 120.0 | 26.2 dB | 1.50 max to 40 GHz |

SMPM R/A Jack to R/A SMPM Jack, 047 Low Loss cable assemblies



| Part Number | Length | Insertion Loss | VSWR |
|-------------|--------|----------------|--------------------|
| 89762-2740 | 2.0 | 1.05 dB | 1.45 max to 18 GHz |
| 89762-2741 | 4.0 | 1.17 dB | 1.45 max to 18 GHz |
| 89762-2742 | 6.0 | 1.41 dB | 1.45 max to 18 GHz |
| 89762-2743 | 12.0 | 2.73 dB | 1.45 max to 18 GHz |
| 89762-2744 | 18.0 | 4.02 dB | 1.45 max to 18 GHz |
| 89762-2745 | 24.0 | 26.3 dB | 1.45 max to 18 GHz |



