# Tight-Bend Low Profile Flexible Cables to 50 GHz MB260L

As alternatives to Minibend-L cables, MB260L from RF ONE excels in 5mm tight bend radius and bendability from connector-end, with additional features in superior mechanical phase stability, high pull force and low loss. MB260L operates to 50 GHz, available in SMP, 2.4mm, 2.92mm and SMA connectors.

## Features

● Allowing bend from connector end and can be repeatedly 90° bent
● Cost and space saving by eliminating use of right angle connectors
● Very tight bend radius 5mm 180°
● Guaranteed 10 kg pull force with stainless steel wire braid
● Micro porous dielectric with lower loss, better phase stability
● Direct replacement of 086 semi-rigid cables
● Operating to 50 GHz
● Alternative to Minibend-L
● Stock or 1 week delivery

## Advantages of MB260L VS. Semi-rigid & Semi-flexible Cables

● Eliminates CAD drawing and complicated fixture design for bending
● Allows multiple bend over the minimum bend radius with no degradation in VSWR and IL
● Lighter weight, space & cost saving
● Lower loss and higher phase stability

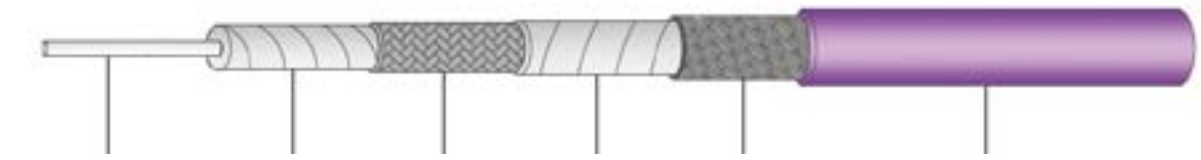
## Advantages of MB260L VS. Conventional Flexible Cables

● Bend-to-the-end, no need for costly right angle connectors
● 5 mm bend radius (180 degree) and shorter connector design for low profile interconnection
● Enhanced cable retention withstanding 10 kg pull force

Replacing right angle connector

# MB260L

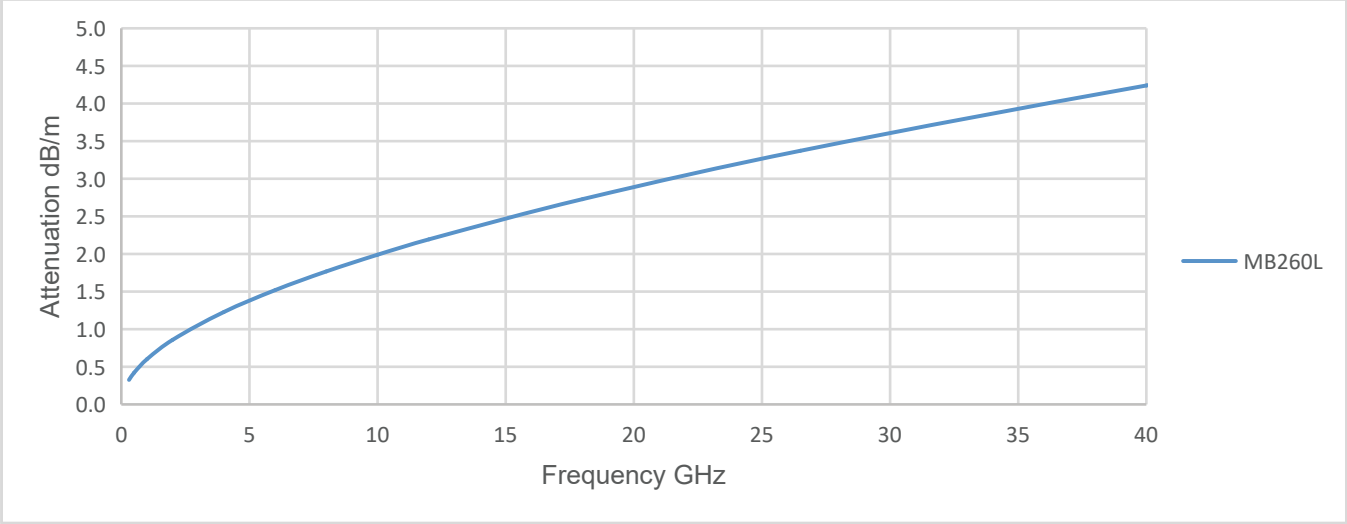
## Tight Bend Triple-shielding Flexible Cable



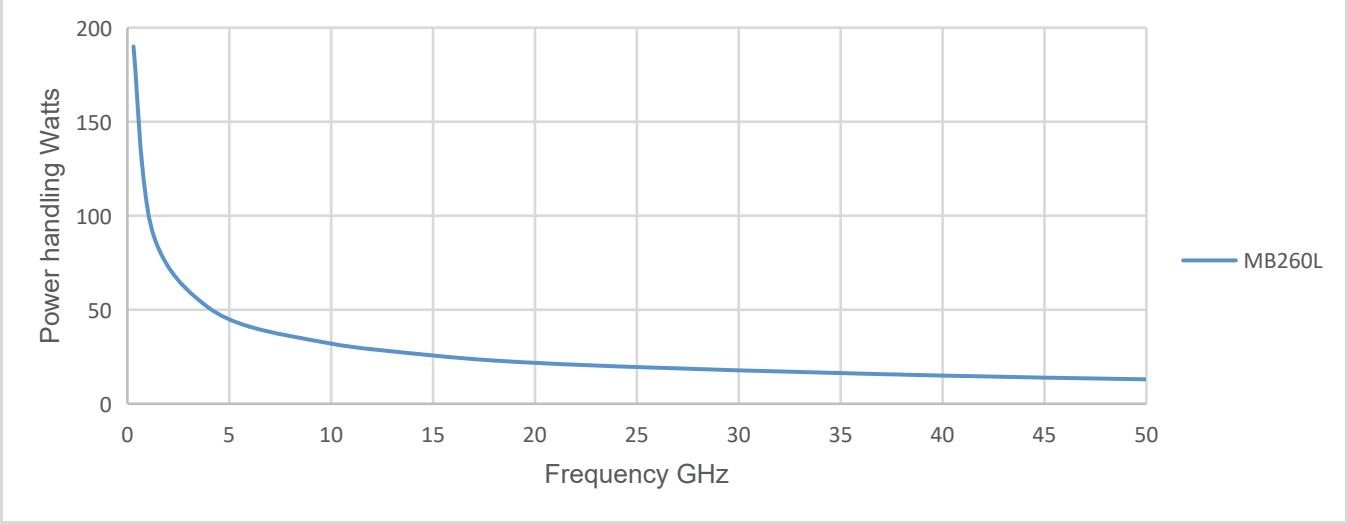

| | MB260L |
|---|---|
| **Cable Construction**(Diameter in mm) | |
| Center Conductor | 0.56 |
| Dielectric | 1.70 |
| Outer Conductor | 1.85 |
| Interlayer | 1.98 |
| Outer Shield | 2.24 |
| Jacket | 2.64 |
| **Mechanical** | |
| Min.Bending Radius Static 360° | 10.5mm |
| Min. Bending Radius Repeated 360° | 26mm |
| Weight | 17g/m |
| Temperature range | --50℃ to +125℃ (cable assembly) |
| **Electrical** | |
| Operating Frequency | DC-50 GHz |
| Impedance | 50 Ω |
| Velocity of Propagation | 75% |
| Shielding Effectiveness | >90 dB |
| Withstanding Voltage | 500 V |
| *Mechanical Phase Stability | <±6º @ 40GHz<br><±8º @ 50GHz |
| **Amplitude Stability vs Shaking | <±0.2dB |
| Cable attenuation at 25℃ | see graph |
| Power handling | see graph |

* Wrap the cable 360 degree around a mandrel whose diameter is ten times of cable outer diameter.
** Shake the cable assembly at a rate of 90 times per minute at a height of 10 cm.

## Attenuation (nominal values at +25 °C ambient temperature)




## Power handling (maximum values at 40 °C ambient temperature and sea level)




## Available Connectors

| Cable P/N | Connectors | Gender | Orientation | Mounting | Max Freq (GHz) | VSWR Max |
|---|---|---|---|---|---|---|
| MB260L | SMA | Male | Straight | Standard | 26.5 | 1.35 |
| | 2.92mm | Male | Straight | Standard | 40 | 1.4 |
| | 2.4mm | Male | Straight | Standard | 50 | 1.45 |
| | 2.4mm | Female | Straight | Standard | 50 | 1.45 |

Note:Other connectors available upon request.

# Frequently Asked Questions

### How many times can MB260L be bent?

MB260L can be repeatedly (min 30 times) bent along the length of the cable without degradation in VSWR and insertion loss. To ensure its optimized performance, bend 90 degree immediately behind from the cable/connection junction should be limited to 10 cycles.

### What connectors are offered for MB260L?

RF ONE now offers 2.4mm, 2.92mm, SMA, SMP for MB260L, and you can order mixed connectors for the cable assemblies. We are continuing to develop new connector options.

### What is lead time for MB260L?

MB260L bulk cables are in stock, typical lead time for any custom length MB260L with our existing connectors is in 1 week for 1-50 pcs.

### What is shortest length available for MB260L?

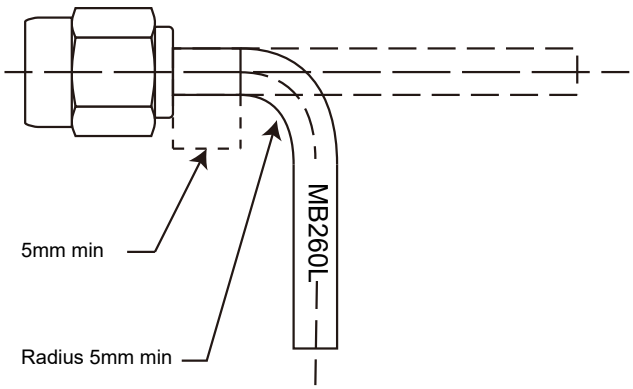
Shortest length available for MB260L is 4 cm including two connectors, with length tolerance ±5mm. Since this cable is designed for low-profile, point-to-point use, typically in short length such as 6 inch, 18 inch etc. But MB260L is practically available in any custom length including 1 meter.

### Can MB260L be phased matched?

Yes, phase matching available, for example MB260L can be matched ±5 degree to 18GHz, please contact our sales for your specific requirements.

### How far back from the connector can the MB260L cables be bent?

It is suggested to bend MB260L 5 mm away from the connector end, illustrated in below diagram. If MB260L has to be bent just behind the cable/ connector junction due to space restriction, such bending should be less than ten times so as to avoid performance degradation.




### What is the pull force of MB260L?

Guaranteed pull force is 10 kg. The cable is loaded with a 10 kg weight and pulled from its connector/ cable junction, with no degradation in VSWR and insertion loss. Pull force test is illustrated in below diagram.