

dB MISER™

NEW PRODUCT!



ULTRA LOW LOSS CABLE ASSEMBLIES



Are you a design or test engineer fighting a challenging loss budget?

Consider **dB Miser™** ultra low loss cable assemblies.

High performance materials, careful attention to design detail, and stringent process control yields:

- Ultra low insertion loss over the specified frequency range
- Excellent amplitude stability with flexure
- Stable performance over operating temperature range
- Increased shielding effectiveness
- Greater connector retention

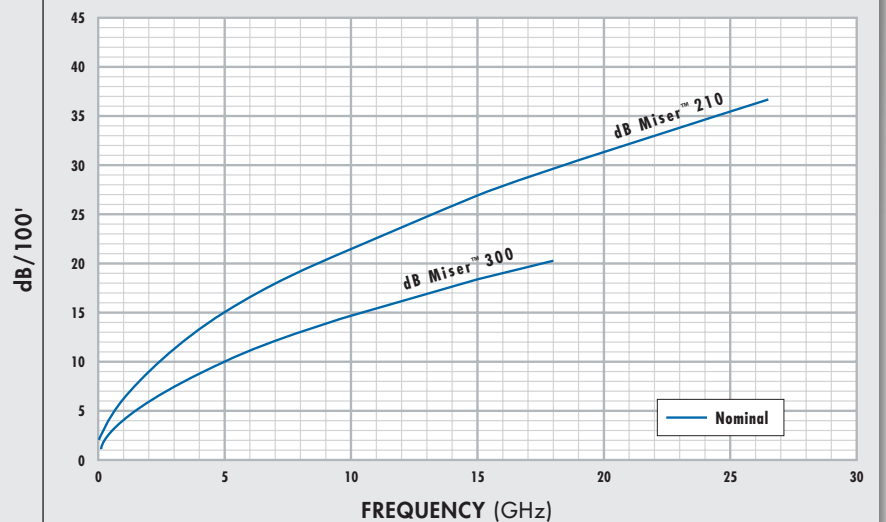
dB Miser™ 300

0.205 dB/ft nom @ 18 GHz

dB Miser™ 210

0.367 dB/ft nom @ 26.5 GHz

Cable Attenuation



**TELEDYNE
STORM PRODUCTS**
A Teledyne Technologies Company

High value microwave and
electronic interconnect solutions

www.teledynestorm.com/microwave

| SPECIFICATIONS | dB MISER® | |
|--|-------------------------------------|-------------------------------------|
| | 210 | 300 |
| Cable Designator | 82 | 81 |
| Diameter (in/mm) | 0.210/5.33 | 0.299 / 7.59 |
| Operating Frequency (Max, GHz) | 26.5 | 18 |
| Attenuation–Max @ 2 GHz (dB/ft) | 0.099 | 0.0686 |
| Attenuation–Max @ 10 GHz (dB/ft) | 0.232 | 0.162 |
| Attenuation–Max @ 18 GHz (dB/ft) | 0.320 | 0.225 |
| Attenuation–Max @ 26.5 GHz (dB/ft) | 0.396 | – |
| Power Handling Average Power in Watts @ 1 GHz | 637 | 1065 |
| Phase Stability vs. Temperature (ppm) | <700 from –55 to +85°C* | <700 from –55 to +85°C* |
| Phase Stability vs. Flexure† (degrees @ 18 GHz, nom) | ±10 | ±10 |
| Shielding Effectiveness–Minimum‡ (dB @ 1 GHz) | >90 | >90 |
| Typical VSWR (2 straight connectors) | 1.22 up to 26.5 GHz | 1.22 up to 18 GHz |
| Min Bend Radius (in/mm) | 1.0/25.4 static 2.0/50.8 dynamic | 1.5/38.1 static 3.0/76.2 dynamic |
| Connector Retention up to 18 GHz, straight pull (lbs/kg) | 50/22.68 | 75/34.02 |
| Weight (grams/ft) | 15.1 | 39 |
| Velocity of Propagation (%) | 84.0 | 84.6 |
| Operating Temperature Range (°C) | –55 to +125 | –55 to +125 |

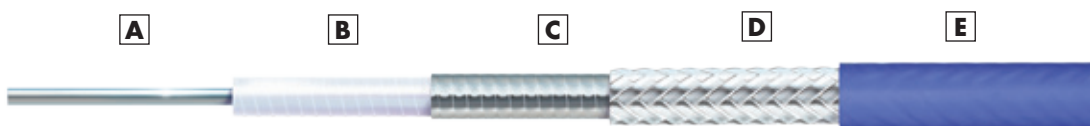
* <1100 ppm up to 125°C

Specifications subject to change without notice.

† ± 360 degree bends around a 4" mandrel (dBM 210) and 6" mandrel (dBM 300)

‡ Subject to connector choice

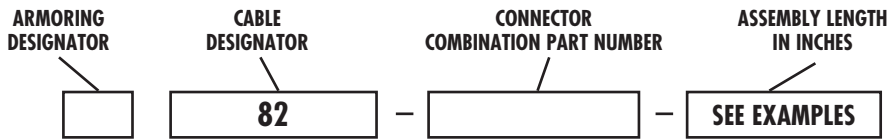
CABLE CONSTRUCTION



- A** Silver-plated copper center conductor
- B** Expanded PTFE dielectric
- C** Helically wrapped SPC flat wire shield
- D** Silver-plated copper braid
- E** Extruded blue FEP jacket

■ **ORDERING INFORMATION: Part Number Designation**

dB Miser™ 210



Armoring Designator

O - Unarmored **A** - Hard Armored **R** - Ruggedized (polyurethane jacket)

EXAMPLES:

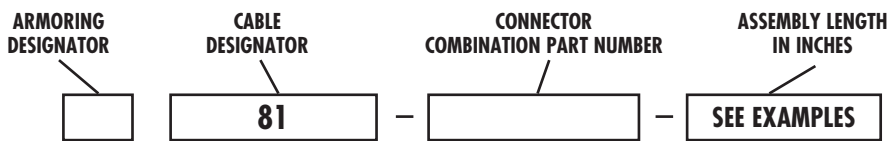
082-0404-048 = Unarmored dB Miser 210, 3.5 mm SP to 3.5 mm SP (assembly operates to 26.5 GHz), **48 inches**
 R82-0101-120 = Ruggedized dB Miser 210, SMA SP to SMA SP (assembly operates to 18 GHz), **120 inches**

■ **CONNECTOR COMBINATION PART NUMBERS***

| | | CONNECTOR OPERATING FREQUENCY | | | |
|----------|-----------|-------------------------------|--------|----------|-----------|
| | | 18 GHz | | 26.5 GHz | |
| | | SMA SP | TNC SP | N SP | 3.5 mm SP |
| 18 GHz | SMA SP | 0101 | 0102 | 0103 | 0104 |
| | TNC SP | 0102 | 0202 | 0203 | 0204 |
| | N SP | 0103 | 0203 | 0303 | 0304 |
| 26.5 GHz | 3.5 mm SP | 0104 | 0204 | 0304 | 0404 |

* Other connector styles available; consult Storm

dB Miser™ 300



Armoring Designator

O - Unarmored **A** - Hard Armored

EXAMPLES:

081-0303-036 = Unarmored dB Miser 300, N SP to N SP (assembly operates to 18 GHz), **36 inches**
 A81-0101-108 = Hard Armored dB Miser 300, SMA SP to SMA SP (assembly operates to 18 GHz), **108 inches**

■ **CONNECTOR COMBINATION PART NUMBERS***

| | | CONNECTOR OPERATING FREQUENCY | | |
|--------|--------|-------------------------------|--------|------|
| | | 18 GHz | | |
| | | SMA SP | TNC SP | N SP |
| 18 GHz | SMA SP | 0101 | 0102 | 0103 |
| | TNC SP | 0102 | 0202 | 0203 |
| | N SP | 0103 | 0203 | 0303 |

* Other connector styles available; consult Storm

| CONNECTOR CODES | |
|-----------------|---------------|
| SP | Straight Plug |

ARMORING & RUGGEDIZING OPTIONS

The Hard Armored option (with polyolefin jacket) is available for both dB Miser™ 210 and 300

The Ruggedized option (with polyurethane jacket) is available only for dB Miser™ 210

HARD ARMORED

Armoring Designator: **A**



Designed for both inside and outside environments where flexibility and weight are not as critical, but where the application requires the ultimate in cut and crush resistance (500 lbs/in). The cable is covered with a stainless steel interlocked armor; an additional cross-linked polyolefin jacket is standard on lengths up to 50 feet.

Temperature: -54° C thru +135° C

Diameter: dB Miser™ 210 – 0.420"/10.67 mm
dB Miser™ 300 – 0.530"/13.46 mm

RUGGEDIZED – Polyurethane jacket

Armoring Designator: **R**



For applications similar to the above, where weight, flexibility, and moderate compression resistance (300 lbs/in) are important, but where abrasion resistance is also critical. The cable is covered with a flexible wound helix of passivated stainless steel wire and an extruded polyurethane jacket.

Temperature: -54° C thru +100° C

Diameter: dB Miser™ 210 – 0.360"/9.14 mm



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