

CABLE SPECIFICATIONS

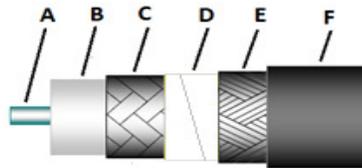
Lab-Flex[®] 200



DATA SHEET PART SERIES: Lab-Flex[®]

SHEET 1 OF 2

Lab-Flex[®] 200 is ideal for low loss replacement of .200 inch size solid dielectric cables. With 80% velocity tape-wrapped dielectric, Lab-Flex 200 cable has 40% lower loss than solid dielectrics of the same size.



1.0 Electrical Data

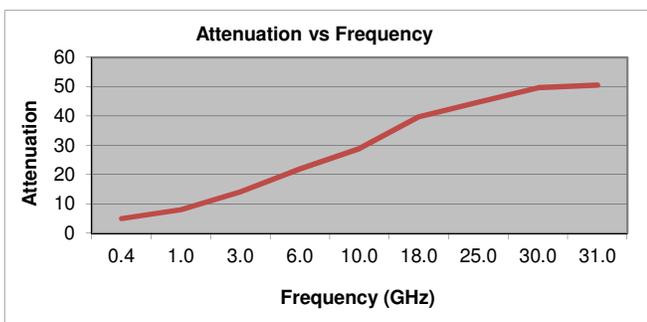
| | | | |
|---|----------|------|---|
| Frequency, Max (GHz) | 31.0 | | |
| Impedance, nominal (Ω) | 50 | | |
| Velocity of Propagation (%) | 80 | | |
| Shielding Effectiveness, 18 GHz (dB/ft) | >-90dB | | |
| Capacitance (pF/ft) | 25.5 | | |
| Delay (ns/ft), (ns/meter) | 1.27 | 4.17 | |
| Attenuation k1 (db/100ft) @ 23 deg C | 0.266 | | Attenuation (Typical) at any Frequency =k1 x SqRt (FMHz) + k2 x (FMHz) |
| Attenuation k2 (db/100ft) @ 23 deg C | 0.000209 | | |

2.0 Mechanical/Environmental Data

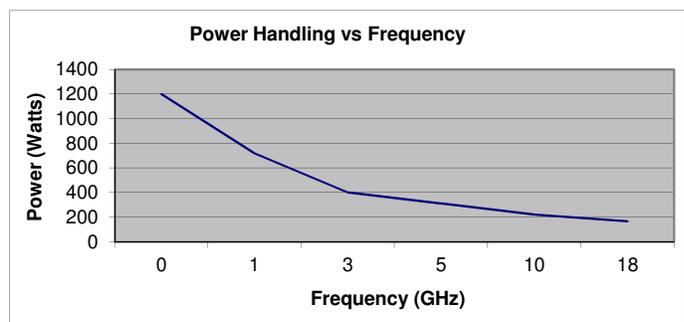
| | | | |
|----------------------------------|---------------|-------|--|
| Weight (lbs/100ft), (Kg/100m) | 4.80 | 7.22 | |
| Temperature Range (°C) | -55 to +200 C | | |
| Minimum Bend Radius (inch), (mm) | 1.00 | 25.40 | |

3.0 Construction Data

| | | | |
|----------------------------|---|-------|---------------------|
| Inner Conductor (inch) | A | - | Solid SC |
| Dielectric (inch) | B | - | Expanded PTFE |
| First Outer Shield (inch) | C | - | Flat Braid SC |
| Second Outer Shield (inch) | D | - | Metalized Tape wrap |
| Third Outer Shield (inch) | E | - | Round Braid SC |
| Jacket (inch O.D.) | F | 0.200 | FEP |



(dB per 100 feet)



*CW Power in watts at sea level and 23°C

| | | | | | | |
|-----------------------|-----|------|------|------|------|------|
| Frequency GHz | 0.4 | 5.0 | 10.0 | 18.0 | 26.5 | 31.0 |
| Typical Loss dB/100ft | 5.0 | 19.9 | 26.7 | 39.8 | 46.2 | 50.5 |

| | | | | | | |
|-------------------|--------|-------|-------|-------|-------|-------|
| Frequency GHz | 0.4 | 1.0 | 3.0 | 5.0 | 10.0 | 18.0 |
| CW Power in Watts | 1200.0 | 720.0 | 400.0 | 310.0 | 220.0 | 165.0 |

CABLE SPECIFICATIONS

Lab-Flex[®] 200



DATA SHEET PART SERIES: Lab-Flex[®]

SHEET 2 OF 2

Standard Connectors:

| Cable Code | Connector Code | Series | Gender | Type | C-Nut Style* | Body Material* | Body Finish* | Loss per GHz | Frequency Max GHz |
|------------|----------------|--------|-------------------|----------|--------------|----------------|--------------|--------------|-------------------|
| 200 | KMS | 2.9mm | (Male) Plug | Straight | H | SS | P | 0.01 | 31 |
| 200 | SMS | SMA | (Male) Plug | Straight | H | SS | P | 0.01 | 18 |
| 200 | SFS | SMA | (Female) Jack | Straight | N/A | SS | P | 0.015 | 18 |
| 200 | SFBS | SMA | (Female) Bulkhead | Straight | N/A | SS | P | 0.015 | 18 |
| 200 | SMR | SMA | (Male) Plug | R/A | H | SS | P | 0.02 | 18 |
| 200 | NMS | Type N | (Male) Plug | Straight | HK | SS | P | 0.01 | 18 |
| 200 | NFS | Type N | (Female) Jack | Straight | HK | SS | P | 0.015 | 18 |
| 200 | NFBS | Type N | (Female) Bulkhead | Straight | N/A | SS | P | 0.015 | 18 |
| 200 | NMR | Type N | (Male) Plug | R/A | HK | SS | P | 0.02 | 18 |
| 200 | TMS | TNC | (Male) Plug | Straight | H | SS | P | 0.01 | 18 |
| 200 | TFS | TNC | (Female) Jack | Straight | N/A | SS | P | 0.015 | 18 |
| 200 | TFBS | TNC | (Female) Bulkhead | Straight | N/A | SS | P | 0.015 | 18 |
| 200 | TMR | TNC | (Male) Plug | R/A | H | SS | P | 0.02 | 18 |

* C-nut Style: H= Hex, K=Knurled, HK= Hex Nut & Knurled

*Body Materials: B=Brass, SS=Stainless Steel, Be= Beryllium Copper

*Body Finish: N= Nickel, S=Silver, G=Gold, P= Passivated, T= Tri-metal

Sex of connector is determined by center pin

Standard Options:

| Cable Code | Option Code | Option Description | Option Details |
|------------|-------------|--------------------------------|---|
| 200 | A | Armorized Protective Coating | SS Interlock Armor |
| 200 | W | Weatherized | Extruded PVC cover |
| 200 | MC | Armorized/Weatherized Covering | SS Monocoil Armor with Extruded Silicone Cover |
| 200 | MP | Armorized/Weatherized Covering | SS Monocoil Armor with Polyolefin Cover |
| 200 | Z | Water Tight | Cable to Connector Junction "Sealed" |
| 200 | D | Dustcaps | Dustcaps with Tether |
| 200 | +/-2.8PS | Phase Match | Standard Tolerance of +/- 2.8PS |
| 200 | EE | Extended Boots | Layered Adhesive Lined Polyolefin Shrink Tubing |
| 200 | AW | Armorized/Weatherized Covering | SS Interlock Armor with Extruded PVC Cover |
| 200 | RoHS | RoHS compliant | Per EU Directive 2002/95/EC |

*for RoHS complaint assemblies (-ROHS) is required to be added to end of standard part number
ex. NMS-200-120.0-NMS-ROHS

*for phase matched assemblies (+/-2.8PS) is require to be added to the end of standard part number
ex. NMS-200-120.0-NMS+/-2.8PS

Custom Options:

The above connectors and options the most common types used. Florida RF Labs offers a wide range of cables, connectors and options. If you do not see an option you require please consult the sales department.