



Test Cable

50Ω 20FT DC to 18 GHz

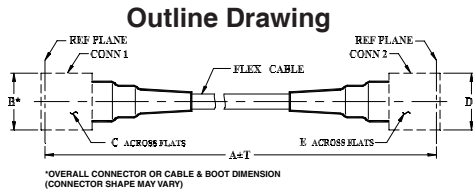
CBL-20FT-NMNM+



Maximum Ratings

| | |
|---|----------------|
| Operating Temperature | -55°C to 105°C |
| Storage Temperature | -55°C to 105°C |
| Permanent damage may occur if any of these limits are exceeded. | |

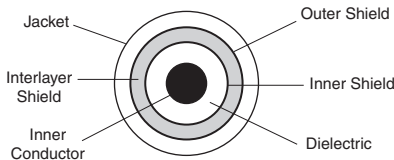
| | |
|-------------------------|----------------------|
| Shielding Effectiveness | >100 dB |
| Power Handling at 25°C | 891W Max. at 0.4 GHz |
| | 539W Max. at 1 GHz |
| | 363W Max. at 2 GHz |
| | 180W Max. at 6 GHz |
| | 117W Max. at 12 GHz |
| 88W Max. at 18 GHz | |
| Jacket | Blue FEP |



Outline Dimensions (inch/mm)

| A | | B | | C | | D | | E | | T | | wt |
|------|--------|-------|--------|-------|--------|------|--------|------|--------|------|--------|-------|
| Feet | Meters | Feet | Meters | Feet | Meters | Feet | Meters | Feet | Meters | Feet | Meters | grams |
| 20 | 6.10 | 22.35 | 19.05 | 22.35 | 19.05 | 0.6 | 0.18 | | | | | 488 |

Cable Cross Section



| Cable Construction | |
|--|---|
| Inner Conductor | Solid Silver Plated Copper Clad Steel |
| Dielectric | Solid PTFE |
| Shield | Silver-Plated Copper Flat Ribbon Braid Aluminum-Polyimide Tape Interlayer 36 GA Silver-Plated Copper Braid (90%k) |
| Jacket | Blue FEP |
| Connectors | |
| <ul style="list-style-type: none"> passivated stainless steel captive contact thick wall interface (SMA) gold plated beryllium copper center contacts PTFE dielectric | |

Product Guarantee*

Mini-Circuits® will repair or replace your test cable at its option if the connector attachment fails within six months of shipment. This guarantee excludes cable or connector interface damage from misuse or abuse.

Notes

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/WCLStore/terms.jsp

Features

- RoHS compliant
- wideband coverage, DC to 18 GHz
- extra rugged construction with strain relief for longer life
- stainless steel N-Male connectors for long mating-cycle life
- useful over temperature range, -55°C to 105°C
- triple shield cable for excellent shielding effectiveness
- flexible for easy connection & bend radius
- superior stability of insertion loss, VSWR & phase vs. flexing
- 6 month guarantee*

Applications

- high volume production test stations
- research & development labs
- environmental & temperature test chambers
- replacement for OEM test port cables
- field RF testing
- cellular infrastructure site testing

CASE STYLE: GM1106-20

| Connectors | Model |
|-----------------|-----------------|
| Conn1 N-MALE | Conn2 N-MALE |
| CBL-20FT-NMNM+ | |

+RoHS Compliant
The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

Electrical Specifications at 25°C

| FREQ. (GHz) | LENGTH (FT) | INSERTION LOSS (dB) | | | | RETURN LOSS (dB) | | | | | | | | | | | |
|-------------|-------------|---------------------|-----------|-----------|-----------|------------------|-----------|-----------|-----------|----|----|----|----|----|----|----|----|
| | | DC-2.5 GHz | 2.5-6 GHz | 6-12 GHz | 12-18 GHz | DC-2.5 GHz | 2.5-6 GHz | 6-12 GHz | 12-18 GHz | | | | | | | | |
| f_L-f_U | | Typ. Max. | Typ. Max. | Typ. Max. | Typ. Max. | Typ. Min. | Typ. Min. | Typ. Min. | Typ. Min. | | | | | | | | |
| DC-18 | 20 | 3.3 | 3.85 | 6.2 | 7.25 | 9.4 | 11.05 | 12.0 | 14.3 | 30 | 23 | 30 | 20 | 27 | 17 | 22 | 17 |

Custom sizes available, consult factory.

Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) | |
|-----------------|---------------------|------------------|--------|
| | | N-MALE | N-MALE |
| 1.00 | 0.05 | 44.30 | 44.11 |
| 100.00 | 0.57 | 44.39 | 43.60 |
| 500.00 | 1.70 | 38.92 | 38.21 |
| 1000.00 | 2.02 | 38.16 | 37.15 |
| 1500.00 | 2.82 | 34.67 | 34.98 |
| 2000.00 | 3.31 | 34.69 | 35.98 |
| 2500.00 | 3.75 | 34.86 | 36.60 |
| 3000.00 | 4.16 | 38.32 | 37.66 |
| 4000.00 | 4.92 | 43.63 | 40.50 |
| 6000.00 | 6.23 | 35.65 | 48.53 |
| 8000.00 | 7.47 | 37.03 | 43.19 |
| 10000.00 | 8.40 | 29.74 | 37.72 |
| 12000.00 | 9.35 | 26.51 | 34.14 |
| 15000.00 | 10.85 | 23.52 | 23.69 |
| 18000.00 | 12.10 | 27.72 | 28.20 |

