

Interconnect Cable

50Ω 6FT DC to 18 GHz

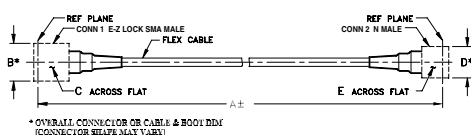
QBL6SMQ-NM+

Maximum Ratings

| | | | |
|-----------------------------------|----------------|--|--|
| Operating Temperature | -55°C to 105°C | | |
| Storage Temperature | -55°C to 105°C | | |
| Power Handling at 25°C, Sea Level | 270W at 1 GHz | | |
| | 180W at 2 GHz | | |
| | 120W at 4 GHz | | |
| | 62W at 12 GHz | | |
| | 47W at 18 GHz | | |

Permanent damage may occur if any of these limits are exceeded.

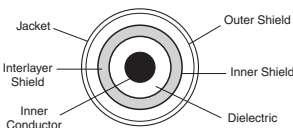
Outline Drawing



Outline Dimensions (inch/mm)

| | A | B | C | D | E | T | wt |
|--------|------|------|-------|------|-------|--------|-----------------------|
| Feet | | 0.43 | — | 0.85 | 0.787 | Inches | mm |
| Meters | 6.00 | 1.83 | 10.92 | — | 21.59 | 19.99 | +1.44/-0 +36.6/-0 122 |

Cable Cross Section



Cable Construction

| | |
|-----------------|--|
| Inner Conductor | Solid Silver Plated Copper |
| Dielectric | Solid PTFE |
| Shield | Silver-Plated Copper tape under Silver-Plated Copper Braid |
| Jacket | Blue FEP |

Connectors (N)

- passivated stainless steel (coupling nut)
- captive contact
- gold plated brass center contacts
- PTFE dielectric

E-Z Lock SMA

- body & outer contact: gold-plated brass
- center contact: gold-plated CuBe
- PTFE dielectric
- clamping piece: white bronze plated brass
- sleeve: POM

sliding locking sleeve, retracted to the open position



locking sleeve closed and in locked position, securing the SMA connection



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/MCLStore/terms.jsp

Features

- E-Z Lock connector on one end for easy mating & demating
- extra rugged construction with strain relief for longer life
- stainless steel N connector for long mating-cycle life
- useful over temperature range, -55°C to 105°C
- double shield cable for excellent shielding effectiveness
- flexible for easy connection & bend
- excellent stability of insertion loss, VSWR & phase after thousands of flex cycles
- 6 month guarantee*

Applications

- dense RF connect
- commercial and military systems to 18 GHz
- multi-port telecom systems



CASE STYLE: GM1530-6

| Connectors | Model | Price | Qty. |
|----------------------------|-----------------|-------------|---------------------|
| Conn1 SMA-Male E-Z Lock | Conn2 N-Male | QBL6SMQ-NM+ | Contact Sales Dept. |

+RoHS Compliant

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

Electrical Specifications at 25°C

| Parameter | Condition (GHz) | Min. | Typ. | Max. | Units |
|-----------------|-----------------|------|------|------|-------|
| Frequency Range | | DC | | 18 | GHz |
| Length | | | 6 | | Ft |
| Insertion Loss | DC - 2 | — | 0.8 | 1.5 | dB |
| | 2 - 6 | — | 1.5 | 2.9 | |
| | 6 - 12 | — | 2.5 | 4.2 | |
| Return Loss | 12 - 18 | — | 3.2 | 4.8 | dB |
| | DC - 2 | 20 | 33 | — | |
| | 2 - 6 | 20 | 31 | — | |
| | 6 - 12 | 13.5 | 32 | — | dB |
| | 12 - 18 | 13.5 | 28 | — | |

Custom sizes available, consult factory.

Typical Performance Data

| Frequency (MHz) | Insertion Loss (dB) | Return Loss (dB) | |
|-----------------|---------------------|------------------|--------|
| | | E-Z Lock SMA-M | N-MALE |
| 10.0 | 0.07 | 35.8 | 36.2 |
| 1000.0 | 0.79 | 27.6 | 27.1 |
| 1750.0 | 1.06 | 27.3 | 27.3 |
| 2500.0 | 1.28 | 35.0 | 42.4 |
| 4000.0 | 1.64 | 33.7 | 36.8 |
| 5000.0 | 1.90 | 28.7 | 34.6 |
| 6000.0 | 2.11 | 31.8 | 37.1 |
| 7000.0 | 2.32 | 37.3 | 36.6 |
| 8000.0 | 2.63 | 33.3 | 28.5 |
| 9000.0 | 2.68 | 24.7 | 24.2 |
| 10000.0 | 2.83 | 23.4 | 22.7 |
| 12000.0 | 3.55 | 24.7 | 23.5 |
| 14000.0 | 3.40 | 30.7 | 21.2 |
| 16000.0 | 3.73 | 30.9 | 28.8 |
| 18000.0 | 4.02 | 27.0 | 33.9 |

