Surface Mount
Power Splitter/Combiner

QBA-07+

CASE STYLE: SM1L

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

2 Way-90°  50Ω  340 to 680 MHz

Maximum Ratings
Operating Temperature: -55°C to 100°C
Storage Temperature: -55°C to 100°C
Permanent damage may occur if any of these limits are exceeded.

Pin Connections
SUM PORT 1
PORT 1 (+90°)  10
PORT 2 (0°)  6
GROUND  2,3,4,7,8,9
50 OHM TERM EXTERNAL  5

Outline Dimensions (inch, mm)

Features
- low insertion loss, 0.5 dB typ.
- high power capability, 27W
- hermetically sealed
- low variation with temperature
- low profile, 0.07" height
- aqueous washable
- protected by U.S. Patent 5,534,830

Applications
- NMT
- land mobile radio
- broadcasting

Electrical Specifications

FREQ. RANGE (MHz)  ISOLATION (dB)  INSERTION LOSS (dB)  PHASE UNBALANCE (Degrees)  AMPLITUDE UNBALANCE (dB)  THERMAL RESISTANCE (°C/W)  POWER (W)

340-680  22  16  0.8  0.1  3.0  7.0  0.7  2.0  20  21*
340-530  23  18  0.5  0.1  1.7  4.0  0.7  2.0  20  27**

1. Total Loss = Insertion Loss + 3dB splitter loss.
2. Derate linearly to 9W at 100°C

Typical Performance Data

Notes:
A. 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.
B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit’s applicable established test performance criteria and measurement instructions.
C. The parts covered by this specification document are subject to Mini-Circuit’s 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-Circuit’s website at www.minicircuits.com/MCLStore/terms.jsp

Demo Board MCL P/N: TB-115+
Suggested PCB Layout (PL-004)

Tolerance to be within ±0.002
ADJACENCY GROUND PIN IS CONNECTED TO GROUND PAD

Outline Drawing

PCB Land Pattern

VSWR

QBA-07 TOTAL LOSS

at RF level of -10 dBm

at RF level of -10 dBm

QBA-07 ISOLATION

electrical schematic

PORT 2  SUM PORT

PORT 1

60 Ohm

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