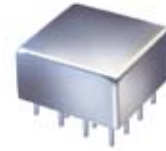


Non-Catalog Model

Modulator

Plug-In

QMC-100



CASE STYLE: C07

Important Note

This is a non-catalog model and can be manufactured on specific request. Pricing and delivery information can be supplied upon request.

Please click "Back", and then click "Contact Us" for Applications support.

ELECTRICAL SPECIFICATIONS 50Ω @ +25°C

Parameter	Min.	Typ.	Max.	Units
Frequency	50		100	MHz
Insertion Loss		5.6	7.5	dB
Amplitude Unbalance		0.2	0.8	dB
Phase Unbalance		±3	±6	Degrees
1dB Compression		4		dBm
VSWR (IN)		1.5:1		(:1)
VSWR (OUT)		1.9:1		(:1)

MAXIMUM RATINGS

Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
Input power	100mW
Control current	40mA

PIN CONNECTIONS

RF IN	13
RF OUT	1
Control-1	5
Control-2	8
Isolate (do not use)	2
GND EXT	3,4,6,7,9,10,11,12,14,15,16
Case GND	3,4,6,7,10,11,14,15



P.O. Box 350166, Brooklyn, New York 11235-0003 (718) 934-4500 Fax (718) 332-4661 For detailed performance specs & shopping online see Mini-Circuits web site



The Design Engineers Search Engine Provides ACTUAL Data Instantly From MINI-CIRCUITS At: www.minicircuits.com

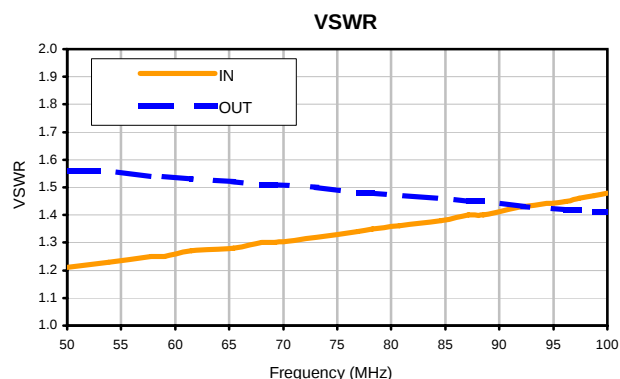
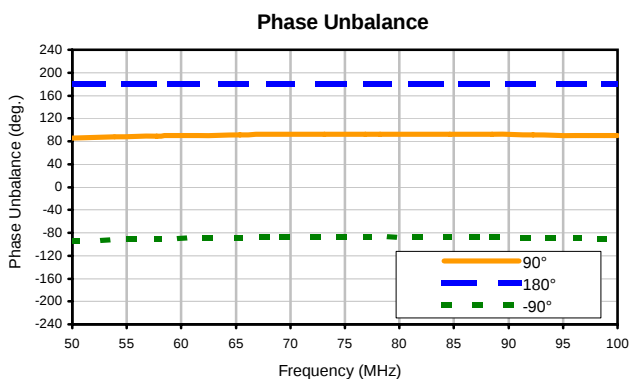
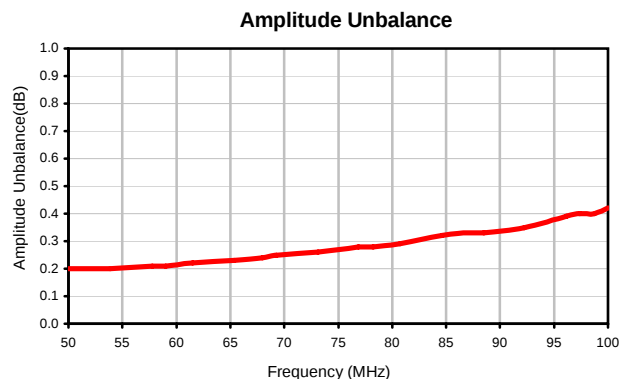
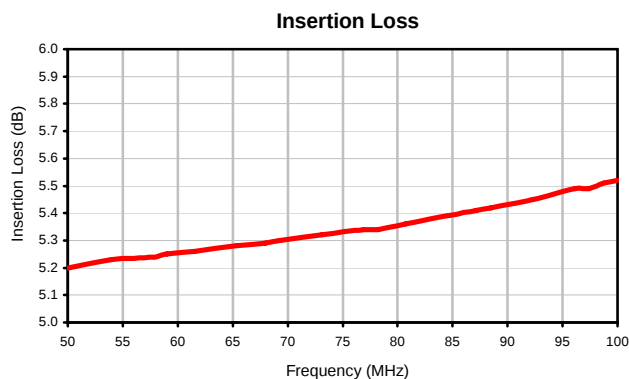
RF/IF MICROWAVE COMPONENTS

REV. OR
M119294
QMC-100
080829

Typical Performance Data

FREQUENCY	INSERTION LOSS		AMPLITUDE UNBALANCE	PHASE UNBALANCE			VSWR (:1)	
(MHz)	(dB)		(dB)	90 (deg)	180 (deg)	-90 (deg)	IN	OUT
	MEAN	SIGMA	MEAN	MEAN	MEAN	MEAN	MEAN	MEAN
50.00	5.20	0.06	0.20	85.71	179.87	-94.13	1.21	1.56
53.88	5.23	0.06	0.20	87.69	179.89	-92.10	1.23	1.56
57.75	5.24	0.06	0.21	89.23	179.81	-90.55	1.25	1.54
59.00	5.25	0.06	0.21	89.67	179.83	-90.09	1.25	1.54
61.50	5.26	0.06	0.22	90.39	179.77	-89.41	1.27	1.53
65.38	5.28	0.07	0.23	91.32	179.78	-88.44	1.28	1.52
68.00	5.29	0.08	0.24	91.77	179.74	-88.02	1.30	1.51
69.25	5.30	0.07	0.25	91.98	179.75	-87.82	1.30	1.51
73.13	5.32	0.08	0.26	92.32	179.67	-87.45	1.32	1.50
76.88	5.34	0.08	0.28	92.52	179.66	-87.30	1.34	1.48
78.25	5.34	0.08	0.28	92.55	179.68	-87.25	1.35	1.48
80.75	5.36	0.08	0.29	92.50	179.64	-87.30	1.36	1.47
84.63	5.39	0.09	0.32	92.32	179.63	-87.55	1.38	1.46
87.13	5.41	0.10	0.33	92.04	179.57	-87.83	1.40	1.45
88.50	5.42	0.10	0.33	91.90	179.59	-87.97	1.40	1.45
92.25	5.45	0.10	0.35	91.31	179.53	-88.56	1.43	1.43
96.13	5.49	0.11	0.39	90.61	179.53	-89.30	1.45	1.42
97.38	5.49	0.11	0.40	90.35	179.57	-89.57	1.46	1.42
98.75	5.51	0.11	0.40	90.00	179.52	-89.94	1.47	1.41
100.00	5.52	0.10	0.42	89.78	179.54	-90.23	1.48	1.41

Typical Performance Curves



Outline Dimensions

C07



CASE#	A	B	C	D	E	F	G	H	WT. GRAM
C07	.770 (19.56)	.810 (20.57)	.380 (9.65)	.410 (10.41)	.030 (.76)	.200 (5.08)	.20 (5.08)	.14 (3.56)	11.0

Dimensions are in inches (mm). Tolerances: 2 Pl. $\pm .03$; 3 Pl. $\pm .015$

Notes:

- Header material: C.R.S.
Pin material: #52 alloy.
Cover material: Cupro-Nickel.
- Pin finish: Electro Tin-Silver..
- Tolerance on pin diameter $\pm .005$ inch.
- Glass meniscus 0.015 inch max.
- Blue bead indicates Pin 1. Pin numbers do not appear on unit, for reference only.



INTERNET <http://www.minicircuits.com>

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Mini-Circuits ISO 9001 & ISO 14001 Certified



All Mini-Circuits products are manufactured under exacting quality assurance and control standards, and are capable of meeting published specifications after being subjected to any or all of the following physical and environmental test.

Specification	Test/Inspection Condition	Reference/Spec
Operating Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Storage Temperature	-55° to 100° C Ambient Environment	Individual Model Data Sheet
Thermal Shock	-55° to 100°C, 100 cycles	MIL-STD-202, Method 107, Condition A-3, except +100°C
Vibration (High Frequency)	20g peak, 10-2000 Hz, 12 times in each of three perpendicular directions (total 36)	MIL-STD-202, Method 204, Condition D
Mechanical Shock	50g, 11 ms, 1/2-sine, 18 shocks: 3 each direction, each of 3 axes	MIL-STD-202, Method 213, Condition A
Moisture Resistance	10 cycles, 24 hours per cycle	MIL-STD-202, Method 106, Condition A, except 50°C and end point electrical test done within 12 hours
Solderability	10X Magnification	J-STD-002, 95% Coverage
Resistance to Solder Heat	260°C for 10 seconds	MIL-STD-202, Method 210, Condition B
Marking Resistance to Solvents	Isopropyl alcohol + mineral spirits at 25°C; terpene defluxer at 25°C; distilled water + proylene glycol monomethyl ether + monoethanolamine at 63°C to 70°C	MIL-STD-202, Method 215
Terminal Strength	4 1/2 Pound Pull	MIL-STD-202, Method 211, Condition A



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Specification	Test/Inspection Condition	Reference/Spec
Gross Leak	125°C Bubble Test	MIL-STD-202, Method 112, Condition D
Barometric Pressure	100,000 Feet	MIL-STD-202, Method 105, Condition D