

wideband, 360° in 90° steps

49E D ■ 8068811 0001768 1&T ■ SCC

Phase Modulators

Mini-Circuits

B-77-09

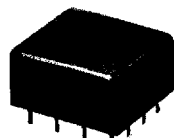
T-77-09

SCIENTIFIC/ MINI-CIRCUITS

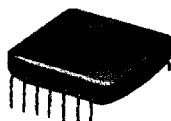
QPSK

case style selection

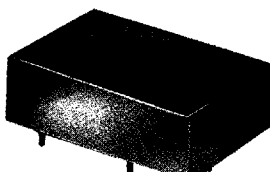
outline drawings see Table of Contents



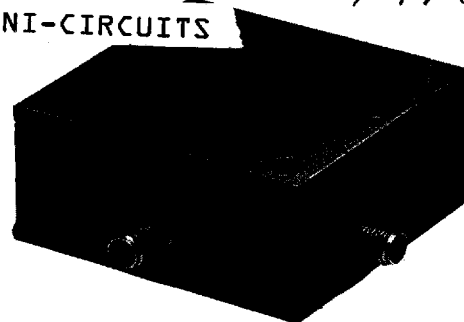
QMC



FPQ



PMQPW
PMQ



ZMQ

MODEL NO.	FREQ. (MHz)	INSERTION LOSS dB		AMPLITUDE UNBAL., dB		PHASE UNBAL., DEG. (±)		1 dB COMPRESSION dBm	VSWR TYP.		PRICE \$	DISTRIBUTOR	
		TYP.	MAX.	TYP.	MAX.	TYP.	MAX.		IN	OUT		FACTORY	LOCAL
QMC	50-100	5.6	7.5	0.2	0.8	3	6	4	1.5:1	1.9:1	128.95	●	
case C07 QMC	90-170	5.6	7.5	0.3	0.8	3	6	4	1.3:1	1.5:1	128.95	●	
QMC	800-1050	5.5	7.5	0.5	1.0	3	7	4	2.0:1	2.0:1	119.95	●	
PMQ	47-94	5.5	7.0	0.4	1.2	3	5	4	1.7:1	1.7:1	119.95	●	
case AAA118 PMQ	200-330	5.8	8.0	0.4	1.5	3	6	4	1.5:1	1.5:1	119.95	●	
PMQ	240-440	5.9	8.0	0.5	1.8	3	7	4	1.5:1	1.5:1	119.95	●	
FPQ	60-90	5.4	7.0	0.1	0.9	2	5	4	1.5:1	1.7:1	149.95	●	
case FFF122 FPQ	205-331	6.0	8.0	0.6	1.5	3	6	4	1.4:1	1.7:1	149.95	●	
FPQ	240-440	6.2	8.0	0.5	1.5	4	6	4	1.4:1	1.7:1	149.95	●	
FPQ	421-475	6.8	8.0	0.8	1.5	3	6	4	1.7:1	1.7:1	149.95	●	
*PMQPW	PMQPW-150	6	10.5	0.4	0.9	3	8	4	2:1	2:1	172.95	●	
case AAA118 PMQPW	50-250	6.5	10.5	0.5	1.2	3	8	4	1.7:1	1.4:1	172.95	●	
†ZMQ	ZMQ-1050	5.5	7.5	0.5	1.0	3	7	4	2.0:1	2.0:1	169.95	●	
case HH141													

NOTES:

- All data taken @ control current ± 20 mA
 - Control ports drive with 50 ohms source.
 - Refer to Table of Contents for quality control procedures, environmental specifications and absolute maximum ratings.
 - Prices and specifications subject to change without notice.
- * Protected under Patent No. 4,673,898
- † Available only with SMA connectors

features

- octave & multi-octave bandwidth
- good phase & amplitude balance
- hermetically sealed metallic enclosure with bent leads or plug-in version.
- capable of meeting MIL-M-28837 requirements

pin configuration

Series	QMC -100 -170	QMC -1050	PMQ & PMQPW	FPQ	ZMQ
RF IN	13	13	8	1	3
RF OUT	1	2	4	8	1
CONTROL-1	5	4	2	5	4
CONTROL-2	8	1	6	10	2
GND ♦	9,12,16	—	—	—	—
CASE GND	3,4,6,7,10	3,5,6,7,8	1,3,5,7	2,3,4,6,7,9	11,12,13,14
	11,14,15	10,11,14,15	—	—	—
NOT USED	2	9,12,16	—	—	—

♦ Ground externally. All measurements made with GND pin(s) grounded externally.

maximum ratings:

Input Power 100 mW
Control Current ± 40 mA
Temperature -55°C to 100°C

In Stock...Immediate Delivery

PHASE SHIFT VS. CONTROL CURRENT

CONT.-1 (mA)	CONT.-2 (mA)	PHASE SHIFT (Deg.)
+20	+20	0 (REF)
+20	-20	90
-20	-20	180
-20	+20	270

