

Product Description

The RFMT series is comprised of double balanced thick film passive mixers. These mixers use our stress relieved surface mount package, FLEX-RAP, and our patented BLUE CELL™* Planar Technology. All RFMT mixers are PCMCIA compatible.

All RFMT mixers are available in Low (L), Medium (M) and High (H) diode barrier versions and have a nominal impedance of 50Ω.

Section 1: BLUE CELL™* Surface Mount Mixers

Product Specifications **Pages 1-2 to 1-3**
Product Outlines **Page 1-4**
Product Pinouts **Page 1-4**

What is BLUE CELL™ Technology?

BLUE CELL™ technology is a patented process developed by RF Prime Corporation for producing low cost, high performance microwave signal components. There are several associated patents as well, covering the implementation of the process and the design structures of RF Prime's mixers, modulators and quadrature couplers.

At the heart of BLUE CELL™ is a multilayered thick-film structure that is printed and fired onto an alumina ceramic substrate. This structure incorporates all the balun transformer and capacitive/resistive requirements eliminating the need for core and wire assemblies. The result is a very small component with the reliability characteristics of an IC, and performance approaching that of a thin-film military product. Add to that a stress relieved, leaded package to prevent component attachment failure, as well as pricing 20-50% below competitive vendors, and there is no better solution to your microwave design.

*BLUE CELL is a Patented Process of RF Prime and a registered trademark: U.S. Patent Number 5,534,830



Product Specifications @25°C

Model	Frequency Range, MHz	IF Range, MHz	LO Drive, dBm	Maximum RF Power, dBm	Pinout	Package Type
RFMT-9 ¹	800-1000	DC-500	+7,13,17	+20	A	SM2
RFMT-10	800-1000	DC-600	0	+20	B	SM2
RFMT-10LM	800-1000	DC-600	+3	+20	B	SM2
N▷ RFMT-12	800-2500	DC-500	+7	+20	A	SM2
N▷ RFMT-12M	800-2500	DC-500	+13	+20	A	SM2
N▷ RFMT-12H	800-2500	DC-500	+17	+20	A	SM2
RFMT-15	1200-2400	DC-600	+4	+20	B	SM2
RFMT-15M	1200-2400	DC-600	+10	+20	B	SM2
RFMT-15H	1200-2400	DC-600	+13	+20	B	SM2
N▷ RFMT-17	1200-2000	DC-750	+7	+20	C	SM26
N▷ RFMT-17M	1200-2000	DC-750	+13	+20	C	SM26
N▷ RFMT-17H	1200-2000	DC-750	+17	+20	C	SM26
RFMT-18	1400-2200	DC-800	+4	+20	B	SM2
RFMT-18M	1400-2200	DC-800	+10	+20	B	SM2
RFMT-18H	1400-2200	DC-800	+13	+20	B	SM2
IP3 RFMT-19	1700-2000	DC-300	+7	+20	E	SM18
IP3 RFMT-19VH	1700-2000	DC-300	+17	+23	E	SM18
RFMT-25	2000-3000	DC-1000	+4	+20	B	SM2
RFMT-25M	2000-3000	DC-1000	+10	+20	B	SM2
RFMT-25H	2000-3000	DC-1000	+13	+20	B	SM2
N▷ RFMT-26	2200-2700	DC-500	+7	+20	B	SM2
RFMT-30	2000-4000	DC-600	+4	+20	C	SM26
RFMT-30M	2000-4000	DC-600	+10	+20	C	SM26
RFMT-30H	2000-4000	DC-600	+13	+20	C	SM26
RFMT-35	3000-4000	DC-1000	+4	+20	B	SM2
RFMT-35M	3000-4000	DC-1000	+10	+20	B	SM2
RFMT-35H	3000-4000	DC-1000	+13	+20	B	SM2
RFMT-42	3600-4800	DC-1000	+7	+20	B	SM2
RFMT-42M	3600-4800	DC-1000	+13	+20	B	SM2
RFMT-42H	3600-4800	DC-1000	+17	+20	B	SM2
RFMT-56 ¹	4400-6000	DC-1200	+7,13,17	+20	D	SM2

¹These mixers are also available in Medium (M), and High (H) diode barrier versions.

All specifications subject to change rev. 11/97

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IP3 = New High IP3 Mixer
N▷ = New Products

Product Specifications @25°C

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Model	Frequency	Conversion Loss, dB		Isolation LO/RF, dB		Isolation LO/IF, dB		Input IP3
	Range, MHz	Typ.	Max.	Typ.	Min.	Typ.	Min.	Typ., dBm
RFMT-9 ¹	800-1000	7.5	9.0	22	20	16	12	+10
RFMT-10	800-1000	8.5	9.5	22	15	15	10	+4
RFMT-10LM	800-1000	8.5	9.5	24	15	15	10	+9
RFMT-12	800-2500	7.5	9.0	30	20	15	10	+12
RFMT-12M	800-2500	7.5	9.0	30	20	15	10	+15
RFMT-12H	800-2500	7.5	9.0	30	20	15	10	+18
RFMT-15	1200-2400	6.5	8.5	27	20	20	12	+10
RFMT-15M	1200-2400	6.5	8.5	27	20	20	12	+16
RFMT-15H	1200-2400	6.5	8.5	27	20	20	12	+17
RFMT-17	1200-2000	6.0	8.5	25	20	15	12	+10
RFMT-17M	1200-2000	6.0	8.5	25	20	15	12	+15
RFMT-17H	1200-2000	6.0	8.5	25	20	15	12	+18
RFMT-18	1400-2200	6.5	8.5	27	20	16	10	+8
RFMT-18M	1400-2200	6.5	8.5	27	20	16	10	+12
RFMT-18H	1400-2200	6.5	8.5	27	20	16	10	+15
RFMT-19	1700-2000	7.0	9.5	35	30	24	20	+15
RFMT-19VH	1700-2000	7.0	9.0	40	35	23	20	+25
RFMT-25	2000-3000	6.0	8.0	32	20	15	10	+10
RFMT-25M	2000-3000	5.5	8.0	35	20	15	10	+12
RFMT-25H	2000-3000	5.5	8.0	32	20	15	10	+14
RFMT-26	2200-2700	5.7	8.0	40	32	28	20	+10
RFMT-30	2000-4000	6.0	8.0	25	20	15	10	+12
RFMT-30M	2000-4000	6.0	8.0	25	20	15	10	+15
RFMT-30H	2000-4000	6.0	8.0	25	20	15	10	+18
RFMT-35	3000-4000	6.5	8.0	26	20	17	13	+8
RFMT-35M	3000-4000	6.5	8.0	26	20	17	13	+13
RFMT-35H	3000-4000	6.5	8.0	26	20	17	13	+17
RFMT-42	3600-4800	6.5	9.0	25	20	15	13	+8
RFMT-42M	3600-4800	6.5	9.0	25	20	15	13	+13
RFMT-42H	3600-4800	6.5	9.0	25	20	15	13	+17
RFMT-56 ¹	4400-6000	8.0	9.5	22	15	13	8	+11,15,19

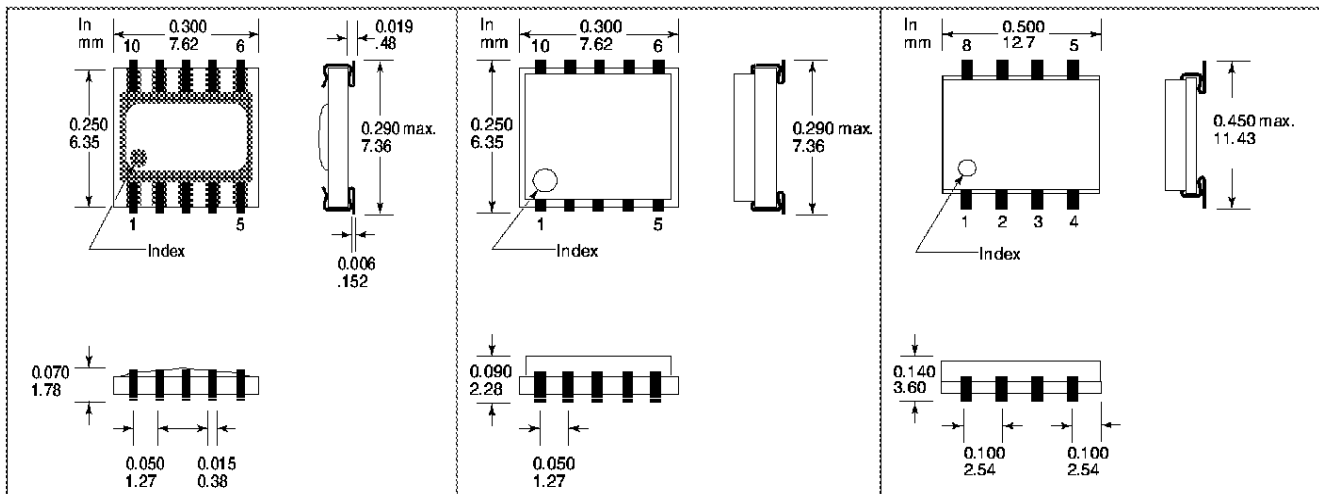
¹These mixers are also available in Medium (M), and High (H) diode barrier versions.

PACKAGE OUTLINES

SM2

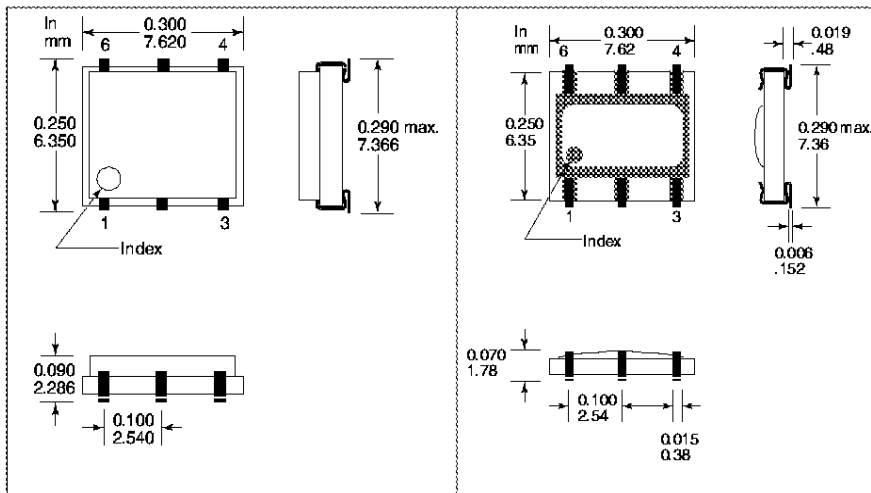
SM10

SM18



SM25

SM26



Contact Factory for Footprints, Installation Drawings, and Application Notes.

PIN OUT TABLE

Pin Out	LO	RF	IF	Ground	No Connect
A	10	5	3	1,4,7,8,9	2,6
B	10	5	3	1,2,4,6,7,8,9	
C	6	3	2	1,4,5	
D	10	6	1	2,3,4,5,7,8,9	
E	5	1	7	2,3,4,6,8	

ABSOLUTE MAXIMUM RATINGS

Operating Temperature	-55° to 100°C
Storage Temperature	-55° to 100°C
Maximum Temperature, 10 sec.	240°C ¹

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¹As per specifications provided in RF Prime's Installation Drawings

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