

Mini-Circuits

ULTRA-REL™ MIXERS
5-YR. GUARANTEE*

Plug-In/Flat-Pack



ASK-X65



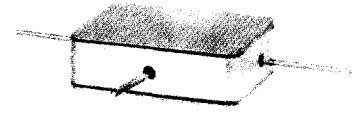
ASK-W38



TUF
TFM



LMX



PAM

MODEL NO.	FREQUENCY MHz		CONVERSION LOSS dB				LO-RF ISOLATION, dB						LO-IF ISOLATION, dB						CAPD DATA (see RF/IF Designer Handbook) Page	Case Style Note B	CONNECTION	Price \$ Qty. (1-9)
	LO/Rf f_L - f_U	IF	Mid-Band			Total Range Max.	L		M		U		L		M		U					
			x	m	σ		Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.						
□ ASK-1*	1-600	DC-600	5.58	.06	7.0	8.5	50	30	35	25	30	20	45	35	30	20	25	15	1-76	W38	w	6.95
□ ASK-2*	1-1000	DC-1000	6.79	.10	8.0	9.8	60	40	35	18	26	16	50	30	25	17	15	10	1-248	W38	w	8.25
TFM-2	1-1000	DC-1000	5.74	.07	7.5	8.5	50	45	40	25	30	25	45	40	35	25	25	20	1-66	B02	z	13.95
† TFM-2P	1-1000	DC-1000	5.74	.07	7.5	8.5	50	45	40	25	30	25	45	40	35	25	25	20	1-66	B02	z	13.95
† TFM-3	0.04-400	DC-400	4.70	.06	7.0	8.0	60	50	50	35	35	25	55	40	45	30	35	25	1-68	B02	z	21.45
† TFM-4	5-1250	DC-1250	6.47	.05	7.5	8.5	50	45	40	30	30	25	45	40	35	25	25	20	1-70	B02	z	23.45
TFM-5	5-1500	DC-1000	6.33	.06	8.5	9.5	60	45	35	25	30	25	60	40	35	15	25	14	1-268	B02	aa	25.45
TFM-11	1-2000	5-600	7.16	.07	8.5	9.0	50	45	35	25	25	20	45	40	27	20	25	20	1-72	B13	z	47.45
TFM-12	800-1250	50-90	5.71	.14	—	7.5	35	25	35	25	35	25	30	20	30	20	30	20	1-74	B13	z	47.45
TFM-2400	750-2400	DC-400	6.65	.20	—	9.0	30	20	30	20	30	20	30	10	30	10	30	10	1-266	B13	aa	28.95
TFM-4300	300-4300	DC-800	5.87	.13	—	10.5	30	20	—	—	30	17	15	7	—	—	10	7	1-246	B13	aa	38.95
LMX-3	0.04-400	DC-400	4.84	.05	7.0	8.0	60	50	50	35	35	25	45	40	35	25	25	20	1-68	BB48	q	25.95
LMX-113	5-1000	DC-1000	5.72	.05	7.0	8.0	50	40	40	25	35	25	45	35	35	30	30	20	1-78	BB48	q	16.95
LMX-124	0.5-500	DC-500	5.18	.06	6.5	7.0	50	40	45	25	45	22	45	40	40	30	30	20	1-80	BB48	q	27.95
LMX-149	10-1500	DC-1500	6.58	.09	7.5	9.0	55	40	45	35	30	20	50	40	40	25	20	12	1-82	BB48	q	29.95
LMX-156	800-2500	DC-1500	7.09	.37	9.0	9.0	35	25	35	25	35	25	22	17	22	17	22	17	1-214	BB48	q	44.95
□ PAM-42	2000-4200	DC-1300	8.13	.14	—	8.5	25 (typ.) 17 (min.)						12 (typ.) 8 (min.)						1-84	AA46	ac	27.95
□ TUF-1	2-600	DC-600	5.85	.04	7.0	8.0	60	50	42	30	37	25	60	45	47	30	36	22	1-192	B02	z	4.25
□ TUF-2	50-1000	DC-1000	5.85	.07	7.5	9.0	58	40	47	30	42	25	50	35	44	20	29	18	1-194	B02	z	5.20
□ TUF-3	0.15-400	DC-400	4.7	.02	7.0	8.0	60	50	46	30	35	25	60	40	47	25	35	20	1-200	B02	z	6.10
□ TUF-5	20-1500	DC-1000	5.7	.04	9.0	9.0	54	40	42	30	39	25	40	25	32	18	23	8	1-206	B02	z	9.45
□ TUF-5X	1-1500	1-1000	5.9	.10	7.0	9.0	60	40	40	20	28	17	60	45	45	25	38	20	—	B02	gm	11.95
□ TUF-11A	1400-1900	40-500	6.8	.30	8.6	8.6	33 (typ.) 20 (min.)						29 (typ.) 15 (min.)						1-290	B02	z	16.95
□ TUF-860	800-1050	DC-250	5.6	.24	7.75	7.75	35 (typ.) 25 (min.)						27 (typ.) 20 (min.)						1-292	B02	z	9.45

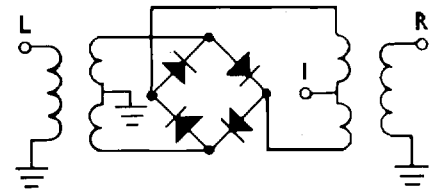
L = low range (f_L to $10f_L$)

M = mid range ($10f_L$ to $f_U/2$)
m = mid band ($2f_L$ to $f_U/2$)

U = upper range ($f_U/2$ to f_U)

NSN GUIDE

MCL NO.	NSN
ASK-1	5895-01-320-0366
PAM-42	5895-01-367-2079
RMS-2TR	5895-01-382-2092
SCM-1NL	5895-01-374-9561
TFM-2	5895-01-135-1852
TFM-3	5895-01-112-0031
TFM-12	5895-01-179-5686
TFM-4	5895-01-317-9388



pin connections see case style outline drawings

PORT	d	k	q	r	w	x	z	aa	ac	gk	gm
LO	8	8	8	1	1	2	4	1	3	1	4
RF	1	1	5	8	4	1	1	4	1	5	2
IF	3,4^	3	4	3	5	3	2	2	4	4	1
GND EXT.	2,5,6,7	2,5,6,7	1,2,3,6,7	2,4,5,6,7	2,3,6	4,5,6	3	3	2	2,3,6	3
CASE GND	—	—	1,2,3,6,7	—	—	—	3	3	2	—	3
NOT USED	—	4	—	—	—	—	—	—	—	—	—

^ pins must be connected together externally

In Stock...Immediate Delivery

For custom versions of standard models consult our applications dept.



AA46^(inch)_(mm)

A	B	C	D	E	F	G	H	J	
.830	.580	.265	.13	.415	.340	.025	.50		
21.082	14.732	6.731	3.302	10.541	8.636	0.635	12.700		
K	L	M	N	P	Q	R	S	T	wt. grams.
									6.400

Tolerance: .x ± .1 .xx ± .03 .xxx ± .015 inch.

Notes:

- Material and Finish:
 - Header material C.R.S. Pin material #52 alloy.
Finish: electro tin, hot-oil flowed. Cover material: cupro-nickel.
- Special Tolerances:
 - Pin diameter ±.005 inch.

