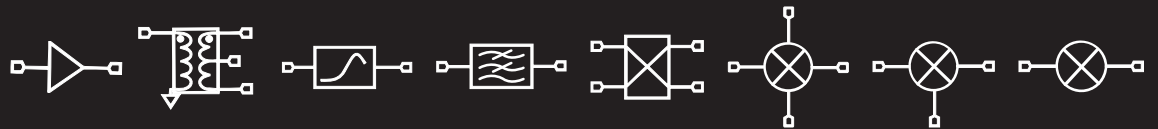
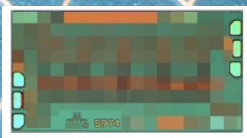


FULAI上海馥莱电子有限公司

Marki裸芯片产品目录



Amplifiers
Baluns
Equalizers
Filters
Hybrids
IQ Mixers
Mixers
Multipliers





1. Mixer MMIC Die 混频器裸芯片

Model	RF Low	RF High	LO Low	LO High	IF Low	IF High	CL [dB]	Isolations L-R [dB]	IIP3 [dBm]
ML1-0113	1.5	13	1.5	13	DC	1.5	7	40	+14
ML1-0220	2	20	2	20	DC	4	7	40	+14
MM1-0212L	2	12	2	12	DC	3	8	47	+12.5
MM1-0212H	2	12	2	12	DC	3	8.5	47	+23
MM1-0212S	2	12	2	12	DC	3	8.5	47	+26
MM1-0312H	3	12	3	12	DC	4.5	8	52	+19
MM1-0312S	3	12	3	12	DC	4.5	8	52	+24
MM1-0320L	3	20	3	20	DC	4	8.5	54	+10
MM1-0320H	3.5	20	3.5	20	DC	4	8	52	+20
MM1-0424S	4.5	24	4.5	24	DC	4	8	49	+25
NEW MM1-0626H	6	26.5	6	26.5	DC	9	8	53	+21
MM1-0626S	6	26.5	6	26.5	DC	9	8	53	+25
NEW MM1-1044L	10	44	10	44	DC	14	7.8	47	+12.5
NEW MM1-1044H	10	44	10	44	DC	14	7.8	47	+22
MM1-1140H	11	40	11	40	DC	12	7	47	+21
MM1-1240S	12	40	12	40	DC	12	7	43	+25
NEW MM1-1850H	18	50	18	50	DC	20	8	43	+21
MM1-1850S	18	50	18	50	DC	20	8.5	43	+25
MM1-1857L	18	57	18	57	DC	21	8	35	+13
MM1-1857H	18	57	18	57	DC	21	7.5	45	+20
NEW MM1-2567L	25	67	25	67	DC	30	9	33	+9
MM2-0530L	5	30	5	30	2	20	9	44	+15
MM2-0530H	5	30	5	30	2	20	8	35	+21
MT3H-0113L	1.5	13	1.5	13	0.8	8.5	8	43	+20

Model	RF Low	RF High	LO Low	LO High	IF Low	IF High	CL [dB]	Isolations L-R [dB]	IIP3 [dBm]
MT3H-0113H	1.5	13	1.5	13	0.8	8.5	8.5	37	+28



2. Legacy MMIC Die, 老产品不推荐的 Die

Model	RF [GHz]		LO [GHz]		IF [GHz]		CL [dB]	Isolation	
	Low	High	Low	High	Low	High		L-R [dB]	L-I [dB]
ML1-0732	7	32	7	32	DC	8	8	42	25
ML1-0936	9	36	9	36	DC	12	7	33	28
ML1-1040	10	40	10	40	DC	16	8	43	20
ML1-1050	10	50	10	50	DC	16	8	43	20
ML1-1644	16	44	16	44	DC	21	7	40	25
ML1-1850	18	50	18	50	DC	24	8	37	23
MLIQ-0416	4	16	4	16	DC	3.5	8.5	45	25
MLIQ-1845	18	45	18	45	DC	20	8	37	29



3. IQ Mixer 镜像抑制混频器

Model	RF [GHz]		LO [GHz]		IF [MHz]		CL [dB]	Image [dB]	Isolations	
	Low	High	Low	High	Low	High			L-R [dB]	L-I [dB]
NEW MMIQ-0520L	5	20	5	20	DC	6000	9	35	46	49
MMIQ-0520H	5	20	5	20	DC	6000	12	35	46	49
NEW MMIQ-0626L	6	26	6	26	DC	6000	9	35	41	50
MMIQ-0626H	6	26	6	26	DC	6000	12	35	41	50
NEW MMIQ-1040L	10	40	10	40	DC	12000	9	25	47	48
MMIQ-1037H	10	37	10	37	DC	12000	12	25	47	48
MMIQ-4067L	40	67	40	67	DC	20000	9	35	33	40



4. Frequency Multiplier Passive x2, 无源倍频器裸芯片

Model	Fin Low	Fin High	Fout Low	Fout High	CL [dB]	Suppression F (dBc)	Suppression 3F (dBc)	Surface Mount	Bare Die	Module
MLD-0632	3	16	6	32	12	40	42	N	Y	Y
MMD-1030H	5	15	10	30	12	41	51	N	Y	Y
MLD-1640	8	20	16	40	11	34	34	N	Y	Y
MMD-1648L	8	24	16	48	15	44	69	N	Y	Y
MMD-3567L	17.5	33.5	35	67	11	38	44	N	Y	Y
MMD-3580L	17.5	40	35	80	11	38	44	Y	Y	Y



5. NLTL Comb Generator 梳状谱波发生器

Model	Fin Low	Fin High	Fout Low	Fout High	Drive [dBm]	Surface Mount	Bare Die	Module
NLTL-6026	1	16	1	60	16	N	Y	Y
NLTL 6273	0.7	5	0.7	40	20	N	Y	Y
<u>NEW</u> NLTL-6275	3	15	3	85	20	N	Y	Y



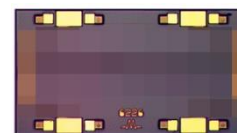
6. Amplifier LO Driver Die, 裸芯片放大器

Model	Freq Low	Freq High	Pin Low	Pin High	Saturated [dBm]	SSG [dB]	Surface Mount	Bare Die	Module
ADM 5931CH	DC	28	+3	+13	+18	11	N	Y	N
<u>NEW</u> ADM 5974CH	DC	35	+6	+16	+22	14	N	Y	N



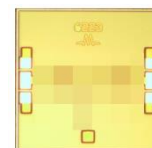
7. Balun Bare Die, 裸芯片巴伦

Model	Low	High	Amplitude Balance [dB]	Phase Balance [Degrees]	Total Insertion Loss [dB]	Common Rejection (dB)	Surface Mount
NEW MBAL-1440CH	14GHz	40GHz	±0.2	±1.	4.5	35	N



8. 90degree Hybrid, 裸芯片电桥

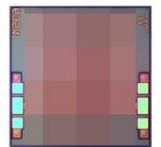
Model	Low	High	Coupling [dB]	Amplitude Balance [dB]	Phase Balance [Degrees]	Isolation [dB]	DIE
NEW MQH-0920	9	20	3	+/-0.55	+/-2	21	Y
NEW MQH-1434	14	34	3	+/-0.7	+/-4.5	17	Y
NEW MQH-1842	18	42	3	+/-1.5	+/-4	15	Y



9. Equalizer Bare Die 均衡器裸芯片

Model	Low	High	Loss (dB)	Return Loss (dB)	Surface Mount	Bare Die	Module
MEQ3-60A	DC	40	3	15	N	Y	N
MEQ3-30A	DC	30	3	20	N	Y	N
MEQ6-30A	DC	30	6	20	N	Y	N
MEQ6-60A	DC	40	6	15	N	Y	N
MEQ10-30A	DC	30	10	20	N	Y	N
MEQ10-60A	DC	40	10	15	N	Y	N
MEQ3-7ACH	DC	7	3	29	N	Y	N
MEQ6-7ACH	DC	7	6	29	N	Y	N
MEQ10-7ACH	DC	7	10	27	N	Y	N
MEQ12-7ACH	DC	7	12.5	27	N	Y	N

Model	Low	High	Loss (dB)	Return Loss (dB)	Surface Mount	Bare Die	Module
MEQ3-14ACH	DC	14	3	23	N	Y	N
MEQ6-14ACH	DC	14	6	22	N	Y	N
MEQ10-14ACH	DC	14	10	24	N	Y	N
MEQ3-20ACH	DC	20	3	21	N	Y	N
MEQ5-20ACH	DC	20	5	22	N	Y	N
MEQ6-20ACH	DC	20	6	21	N	Y	N
MEQ7-20ACH	DC	20	7.5	23	N	Y	N
MEQ10-20ACH	DC	20	10	25	N	Y	N
MEQ11-20ACH	DC	20	11	23	N	Y	N



10. Bandpass Filter Bare Die 带通滤波器裸芯片

Model	Center [GHz]	Low Freq Cutoff [GHz]	High Freq Cutoff [GHz]	Surface Mount	Bare Die	Module
MFB-2400	24	21	27	N	Y	N
MFB-2500	25	18	32	N	Y	Y
MFB-3300	33	26	40	N	Y	Y
MFB-3450	35	24	45	N	Y	N
MFB-5350	53	40	67	N	Y	N



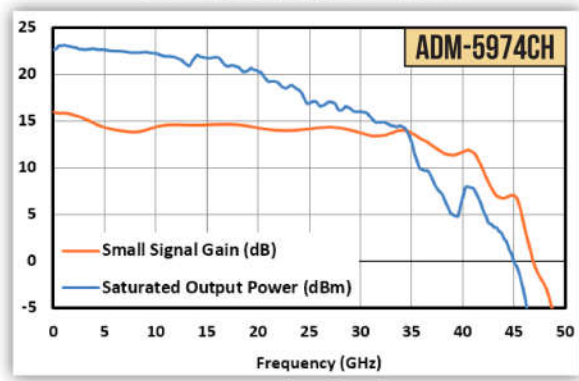
11. Diplexer Bare Die, 双工器裸芯片

Model	Pass Low [GHz]		Pass High [GHz]		Isolation [dB]	Surface Mount	Bare Die	Module
	Low	High	Low	High				
MDPX 2330	DC	23	30	60	36	N	Y	N
MDPX-2734	DC	27	34	60	38	N	Y	N

AMPLIFIERS

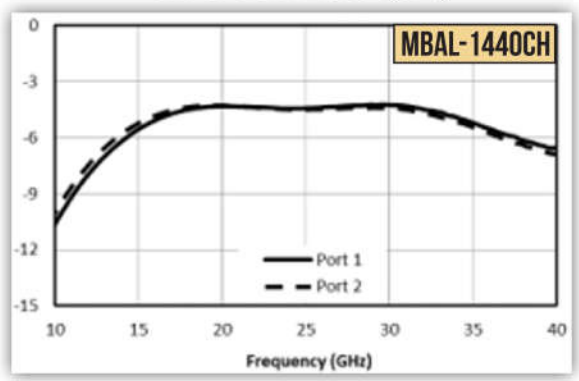
BROADBAND LO DRIVERS

Gain & Output Power



MULTI-OCTAVE TO 40 GHZ

Insertion Loss (dB)

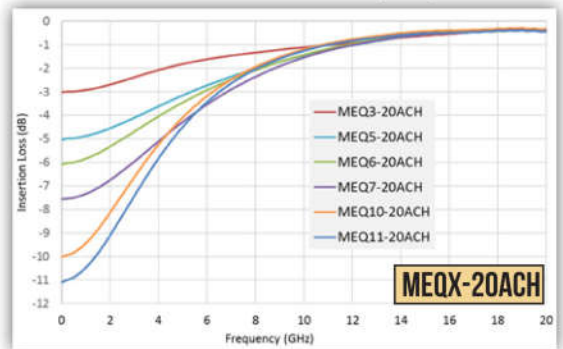


BALUNS

EQUALIZERS

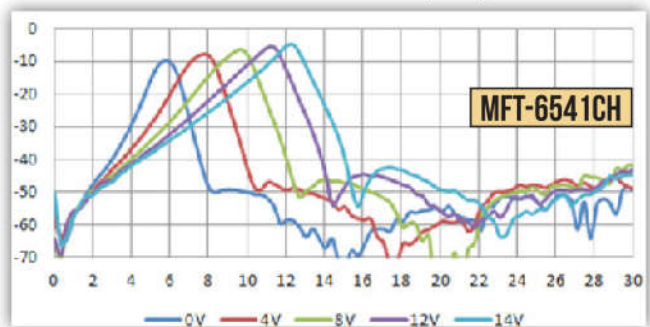
POSITIVE GAIN SLOPES UP TO 50 GHZ

Insertion Loss (dB)



TUNABLE BANDPASS & LOWPASS

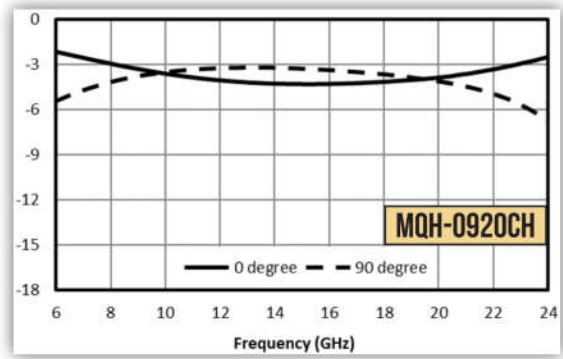
Insertion Loss (dB)



FILTERS

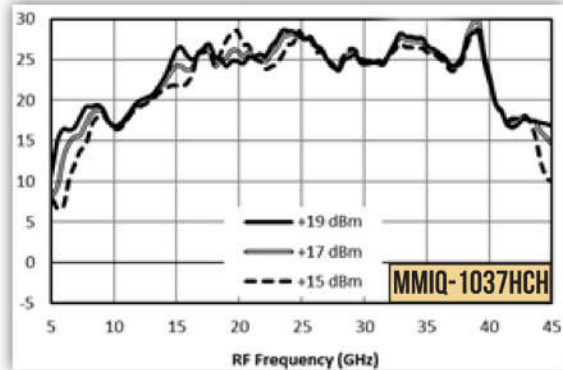
MULTI-OCTAVE TO 40 GHZ

Insertion Loss (dB)



RF/LO TO 90 GHZ, IF TO 20 GHZ

I+Q Input IP3 vs LO Power (dBm)

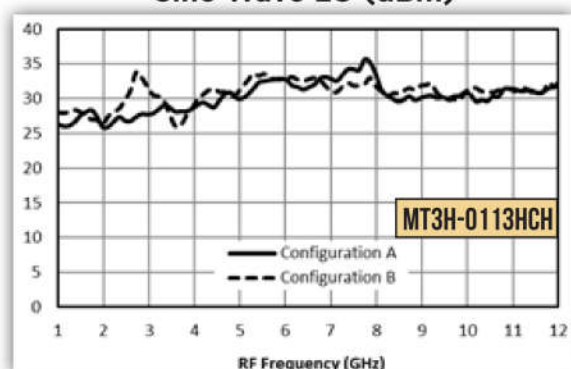


IQ MIXERS

HYBRIDS

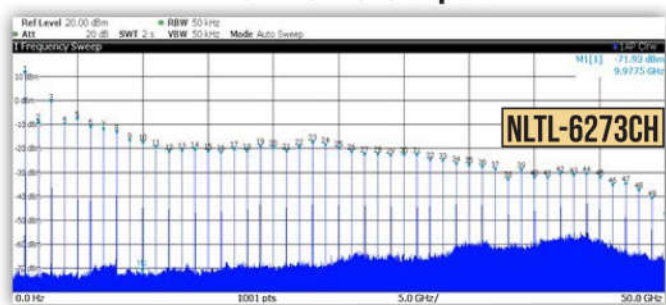
DC TO 67 GHZ WITH HIGH LINEARITY

Input IP3: +20dBm
Sine Wave LO (dBm)



NLTL COMB GENERATORS TO 85 GHZ

Harmonic Output



MULTIPLIERS

MIXERS

Email support@markimicrowave.com for questions about our MMICs.