SJM Prewell MMIC Application Guide for Broadcasting Market(v23)

CATV Forward Solution

Category	Part Number	Frequency MHz	Gain dB	S11 dB	S22 dB	CSO dBc	CTB dBc	P1dB dBm	OIP3 dBm	NF dB	Vcc V	Vd V	Id mA	PKG TYPE	Condition
CATV AMP.	PL08	40 ~ 1000	19.3	-18.0	-15.0	59.2	78.4	16.4	36.5	0.74	3.0	3.0	45	SOT-363	+15dBmV/132ch Flat
	PL07A	45 ~ 1000	20.0	-20.0	-15.0	59.5	77.6	16.5	35.5	0.67	3.0	3.0	45	DFN 8L	+15dBmV/132ch Flat
	PL09A	40 ~ 1200	20.0	-23.0	-17.0	61.9	77.5	16.0	34.5	0.90	3.0	3.0	48	SOT-89	+15dBmV/132ch Flat
	NEW PL10C	40 ~ 1200	20.5	-24.0	-15.0	64.0	69.0	17.0	31.0	1.10	5.0	5.0	50	SOT-89	+15dBmV/98ch Flat
	PS401	45 ~ 1000	19.0	-17.0	-12.0	65.0	76.0	15.0	32.0	2.40	5.0	3.7	60	SOT-89	+15dBmV/132ch Flat
	PS404	45 ~ 1000	22.5	-13.0	-9.0	61.0	75.0	15.5	31.0	2.00	5.0	3.64	55	SOT-89	+15dBmV/132ch Flat
	PW125	45 ~ 1000	22.1	-19.0	-16.0	54.1	70.8	17.1	31.7	2.40	5.0	4.5	120	SOT-89	+25dBmV/132ch Flat
	NEW PG885	40 ~ 1200	26.3	-9.8	-19.1	65.5	74.7	19.2	37.5	4.39	5.0	5.0	90	SOT-89	+25dBmV/99ch Flat
	PK831	40 ~ 1500	17.3	-22.0	-18.0	66.0	76.0	21.5	40.0	2.00	5.0	5.0	125	SOT-89	+30dBmV/132ch Flat
	NEW PK857	40 ~ 1200	20.5	-15.0	-24.0	64.0	74.0	20.0	40.0	1.70	5.0	5.0	120	SOT-89	+30dBmV/98ch Flat
Push Pull	PW128	50 ~ 870	17.1	-18.0	-18.0	63.0	63.0	19.2	37.0	5.80	5.0	4.5	235	SOIC-8	+34dBmV/77ch Flat
	NEW PT815	40 ~ 1200	18.6	-18.4	-15.2	72.7	73.4	25.1	39.4	1.90	5.0	5.0	210	SOIC-8	+34dBmV/98ch Flat
	NEW PT818	40 ~ 1200	19.0	-17.7	-19.3	68.4	66.4	28.7	44.0	2.00	8.0	8.0	320	SOIC-8	+44dBmV/85ch Flat

CATV Reverse Solution

Category	Part Number	Frequency MHz	Gain dB	S11 dB	S22 dB	P1dB dBm	OIP3 dBm	NF dB	Vcc V	Vd V	Id mA	PKG TYPE
CATV AMP.	PS401	5 ~ 100	19.5	-14.0	-14.0	14.5	33.1	2.2	5.0	3.7	50	SOT-89
	PS404	5 ~ 100	23.5	-11.0	-11.0	15.2	32.5	1.9	5.0	3.64	45	SOT-89
	PW450	5 ~ 100	18.5	-14.0	-14.0	17.5	34.0	3.5	6.0	4.94	60	SOT-89
	PW125	5 ~ 100	23.0	-23.0	-23.0	18.3	41.0	2.2	5.0	4.5	95	SOT-89
Push Pull	PW128	5 ~ 300	21.0	-15.0	-19.0	24.0	43.0	3.7	5.0	4.5	220	SOIC-8
	NEW PT815	5 ~ 700	18.6	-19.6	-22.1	24.6	39.8	1.5	5.0	5.0	210	SOIC-8
	NEW PT818	5 ~ 700	18.7	-21.6	-24.8	28.4	44.5	1.6	8.0	8.0	320	SOIC-8

SMATV Solution

Category	Part Number	Frequency MHz	Gain dB	S11 dB	S22 dB	P1dB dBm	OIP3 dBm	NF dB	Vcc V	Vd V	Id mA	PKG TYPE
SMATV AMP.	PS205	950 ~ 2150	20.6	-20.0	-12.0	13.0	24.0	2.3	5.0	3.5	45.0	SOT-89
			20.6	-18.0	-13.0	12.0	23.0	2.1	5.0	3.45	35.0	
	PW210-63	950 ~ 2150	19.0	-17.0	-14.0	15.8	29.5	3.0	6.0	4.65	44.0	SOT-363
	PW250-63	950 ~ 2150	17.0	-17.0	-14.0	15.5	29.8	3.3	6.0	4.7	44.0	SOT-363
	PW290-63	950 ~ 2150	13.5	-17.0	-10.0	15.1	31.0	3.6	5.0	4.3	45.0	SOT-363
	PW350	950 ~ 2150	16.4	-18.0	-13.0	16.4	31.0	3.2	5.0	4.84	56.0	SOT-89
	PW550	950 ~ 2150	17.5	-16.0	-13.0	19.5	33.5	3.8	6.0	5.35	85.0	SOT-89
	PK833	40 ~ 2200	17.0	-12.5	-17.0	20.2	39.0	2.2	5.0	5.0	125.0	SOT-89

Mixer / 混频器

Category	Part Number	RF Freq. MHz	IF Freq. MHz	SSB CL dB	Input IP3 dBm	Input P1dB dBm	Vcc V	Vd V	Id mA	PKG TYPE
Mixer	NEW PM210	150 ~ 1500	40 ~ 250	6.1	28.0	18.3	3	3	7	SOT-26

Passive Component Solution

Category	Part Number	Frequency MHz	I/L dB	Isolation dB	VSWR (PORT S) :1	VSWR (PORT 1-2) :1	Amplitude Unbalance dB	Phase Unbalance Degrees	PKG TYPE	Remark
Splitter	PBS10A	5 ~ 500	0.2	20.0	1.1	1.1	0.09	0.54	SMD Base	Insertion Loss is less 3dB split
		500 ~ 1000	0.8	25.0	1.3	1.3	0.12	1.92		
	PBS30A	50 ~ 1500	0.4	21.0	1.9	1.9	0.10	0.90	SMD Base	
		1500 ~ 3000	0.3	17.0	1.3	1.3	0.30	5.50		

Category	Part Number	Frequency MHz	Main Line Loss dB	Isolation dB	Input Return Loss dB	Output Return Loss dB	Coupling Return Loss dB	Coupling dB	PKG TYPE
Coupler	NEW PBC10A	5 ~ 1000	1.0	28.3	17.3	20.9	17.1	10.0	SMD Base
		1000 ~ 1200	1.3	22.1	13.4	14.5	13.0	10.1	
	NEW PBC15A	5 ~ 1000	0.8	36.3	17.8	19.9	18.1	14.9	SMD Base
		1000 ~ 1200	1.1	27.2	13.3	14.4	13.7	15.6	

Category	Part Number	Frequency MHz	I/L dB	Input Return Loss dB	Amplitude Unbalance dB	Phase Unbalance Degrees	PKG TYPE
Balun	PBR11S	5 ~ 1000	0.3	21.3	0.9	2.2	SMD Base
		1000 ~ 3000	2.4	5.8	1.1	9.5	

Contact Point / 联络处

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SJM PREWELL

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SJM Prewell MMIC Application Guide for Communication Market(v20)

LNA / 低噪声放大管

Category	Part Number	Frequency MHz	Gain dB	P1dB dBm	OIP3 dBm	NF dB	Vcc V	Vd V	Id mA	Package Type
LNA	PL08	900	20.2	17.9	32.4	0.81	3	3	45	SOT-363
		1900	14.9	17.7	35.5	0.89				
		2600	11.9	18.1	34.8	1.10				
	PL07A	900	20.2	18.0	32.8	0.69	3	3	45	DFN2*2 8L
		1900	14.6	17.3	33.0	0.86				
		2600	11.5	18.1	34.8	1.16				
	NEW PL03S (Power S/D)	1900	23.1	17.8	33.7	0.46	5	5	80	DFN2*2 8L
		2600	20.4	20.5	32.7	0.73				
		3500	18.9	19.4	32.0	1.00				

IF Gain Block / 中频放大管

Category	Part Number	Frequency MHz	Gain dB	P1dB dBm	OIP3 dBm	NF dB	Vcc V	Vd V	Id mA	Package Type
IF MMIC	PW11A	70	19.7	23.5	44.0	4.4	5	5	80	SOT-89
		250	19.5	24.2	41.6	4.5				
	PW113	70	22.3	20.1	39.3	3.6	5	4.7	88	SOT-89
		250	22.1	20.2	39.0	3.6				
	PW118	70	28.7	18.9	36.3	2.5	5	4.2	76	SOT-89
		250	28.0	19.0	35.2	2.8				
		70	29.2	20.9	40.3	2.8		4.6	115	
		250	28.4	21.2	38.3	2.8				
	PW119	70	22.1	19.2	39.5	2.6	5	4.25	87	SOT-89
		250	21.8	19.3	37.5	2.8				
		70	22.3	20.6	42.1	2.9		4.65	115	
		250	22.0	20.5	39.5	2.9				

Gain Block / 增益放大管

Category	Part Number	Frequency MHz	Gain dB	P1dB dBm	OIP3 dBm	NF dB	Vcc V	Vd V	Id mA	Package Type
GainBlock MMIC	PG615	900	22.3	19.0	33.6	3.1	5	5	69	SOT-89
		1900	21.5	17.8	31.8	3.4				
		2600	20.4	17.1	30.3	3.5				
		3600	20.0	17.7	28.1	4.3				
	PG631	900	20.4	19.2	35.2	3.8	5	5	68	SOT-89
		1900	18.6	19.1	32.6	4.1				
		2600	17.0	18.1	31.5	4.4				
	PG671	900	15.8	18.8	36.2	4.8	5	5	64	SOT-89
		1900	15.0	18.6	33.3	5.1				
		2600	13.9	17.8	31.9	5.4				
		3600	14.2	17.1	28.6	5.7				
	PG771	900	17.1	19.4	36.9	4.5	5	5	75	SOT-89
		1900	16.1	18.2	33.7	4.8				
		2600	14.9	18.4	32.3	5.1				
		3600	14.9	17.9	29.3	5.5				
	NEW PG751	900	23.2	17.5	33.2	0.8	3.3	3.3	59	SOT-89
		2100	20.4	17.0	33.6	1.0				
		3500	18.3	16.8	33.1	1.1				
		4200	18.1	14.8	28.3	1.3				
		900	23.6	20.2	36.4	0.9	5	5	91	
		2100	20.8	19.7	37.3	1.1				
		3500	18.7	19.5	37.1	1.2				
		4200	18.6	17.4	36.7	1.5				
	NEW PG753	900	23.3	17.6	32.9	0.8	3.3	3.3	57	DFN2*2 8L
		2100	21.0	17.7	32.3	0.9				
		3500	18.6	17.4	31.7	1.1				
		4250	18.1	15.4	30.7	1.3				
		4750	17.7	16.3	30.8	1.6				
		5800	17.7	13.6	28.1	1.8				
		900	23.8	20.2	36.1	0.9	5	5	90	
		2100	21.5	20.2	35.4	0.9				
		3500	19.1	19.7	35.1	1.2				
		4250	18.6	18.0	34.7	1.4				
		4750	18.2	18.8	36.7	1.6				
		5800	18.2	16.4	36.2	2.0				

Driver / 推动放大管

Category	Part Number	Frequency MHz	Gain dB	P1dB dBm	OIP3 dBm	NF dB	Vcc V	Vd V	Id mA	Package Type
Driver MMIC	PNH16	70	24.7	24.3	42.2	4.5	5	5	84	SOT-89
		900	20.0	23.8	44.1	4.6				
		1900	15.9	24.7	39.3	3.4				
		2600	13.5	24.3	40.1	3.7				

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SJM Prewell MMIC Application Guide for Communication Market(v19)

IF Gain Block / 中频放大管

Category	Part Number	Frequency MHz	Gain dB	P1dB dBm	OIP3 dBm	NF dB	Vcc V	Vd V	Id mA	Package Type
IF MMIC (3.3V)	PNW511	70	28.2	14.6	31.4	2.5	3.3	3.3	50	SOT-363
		250	27.5	14.3	31.1	2.4				
	PNW534	75	20.5	14.3	34.3	3.6	3.3	3.3	61	SOT-363
		300	20.4	14.5	32.6	3.7				
	PNW566	70	21.3	18.5	36.0	2.1	2.8	2.8	70	SOT-363
		250	20.9	18.1	36.0	2.1				
		70	21.3	19.2	36.5	2.1	3	3	85	
		250	21.0	18.6	36.5	2.0				

Gain Block / 增益放大管

Category	Part Number	Frequency MHz	Gain dB	P1dB dBm	OIP3 dBm	NF dB	Vcc V	Vd V	Id mA	Package Type
GainBlock MMIC (3.3V)	PNW236	900	22.0	20.5	29.5	1.8	3.3	3.3	35	SOT-363
		1900	17.5	21.2	35.0	2.0				
		2600	15.5	20.1	35.0	2.1				
	PNW255	900	19.2	20.2	28.6	2.6	3.3	3.3	37	SOT-363
		1900	14.8	20.8	30.5	2.6				
		2600	12.4	20.1	31.5	3.1				
	PNW465	900	19.7	20.2	26.5	2.7	3.3	3.3	50	SOT-363
		1900	16.5	21.5	33.6	2.6				
		2600	13.6	21.1	33.6	3.8				
	PNW534	900	20.2	14.0	30.8	4.3	3.3	3.3	61	SOT-363
		1900	19.3	14.0	26.8	4.1				
		2600	18.5	13.3	25.1	4.0				
	PNW566	850	18.2	19.7	36.3	1.9	3	3	85	SOT-363
		1850	14.5	19.8	34.0	2.5				
		2140	13.7	20.3	35.0	2.6				
		2600	11.8	20.8	34.0	2.6				
	NEW PNW351	900	23.5	14.0	31.5	3.2	3.3	3.3	47	SOT-363
		1900	21.5	14.8	32.5	3.3				
		2600	20.5	14.8	30.5	3.7				
		3500	19.5	13.4	28.5	3.7				
		3700	19.5	13.2	26.5	3.9				
	NEW PNW353	900	21.2	18.9	35.4	1.0	3.3	3.3	63	SOT-363
		1900	19.7	18.3	33.9	1.1				
		2600	18.4	18.0	33.6	1.3				
		3500	17.2	17.1	36.2	1.4				
		4200	17.2	14.8	34.1	2.1				
	NEW PNW355	800	23.2	17.8	32.0	0.8	3.3	3.3	52	SOT-363
		2100	19.9	17.4	32.7	1.0				
		3500	17.7	17.9	33.7	1.2				
		4300	17.1	17.1	32.3	1.3				
		4800	18.0	14.4	26.9	1.6				

Mixer / 混频器

Category	Part Number	RF Freq. MHz	IF Freq. MHz	SSB CL dB	Input IP3 dBm	Input P1dB dBm	Vcc V	Vd V	Id mA	Package Type
NEW Mixer	PM210	150 ~ 1500	40 ~ 250	6.1	28.0	18.3	3	3	7	SOT-26
	NEW PM485	1700 ~ 1800	50 ~ 500	7.6	32.3	22.0	3.3	3.3	35	MSOP8
		1900 ~ 2000		7.4	32.5	20.7				
		2100 ~ 2200		8.1	32.4	20.0				
		2300 ~ 2400		9.3	31.6	19.2				
		2500 ~ 2600		11.6	33.3	22.6				

Divider / Splitter / 分配器

Insertion Loss is less 3dB split.

Category	Part Number	Frequency MHz	Insertion Loss dB	Isolation dB	Amplitude Balance dB	Phase Balance deg	Package Type
Divider	PD09A	700	0.83	-18.0	0.00	0.03	SOT-26
		800	0.88	-26.5	0.00	0.12	
		900	0.99	-20.1	0.01	0.01	
	PD18A	1900	0.62	-26.2	0.04	0.05	SOT-26
		2100	0.77	-20.5	0.02	0.13	
		2300	0.97	-15.9	0.01	0.56	
	PD26A	2300	0.79	-22.1	0.02	0.26	SOT-26
		2600	0.84	-22.1	0.01	0.43	
		3000	1.07	-16.0	0.02	0.75	
	NEW PD35A	3500	0.54	-33.0	0.05	0.60	SOT-26
		3800	0.55	-21.5	0.05	0.70	
		4200	0.63	-15.0	0.08	0.90	
Power Splitter	PBS10A	5 ~ 500	0.40	-28.0	0.11	1.00	SMD Base
		500 ~ 1000	0.70	-20.0	0.09	2.40	
	PBS30A	50 ~ 1500	0.50	-28.0	0.10	0.40	SMD Base
		1500 ~ 3000	0.80	-13.0	0.50	4.90	

Transformer / 巴伦

Insertion Loss is less 3dB split.

Category	Part Number	Frequency MHz	Insertion Loss dB	Amplitude Unbalance dB	Phase Unbalance deg	Part Number	Frequency MHz	Insertion Loss dB	Amplitude Unbalance dB	Phase Unbalance deg
Balun	PBI11C	0.4 ~ 250	0.8	0.1	3.6	PB1T1A	5 ~ 250	1.5	0.4	1.3
		250~500	2.0	0.7	8.3		250~500		2.0	3.7
	PBR11S	5 ~ 1000	0.3	0.9	2.2	PB4T1A	5 ~ 250	1.3	0.04	0.4
		1000 ~ 3000	2.4	1.1	9.5		250~500		0.16	3.8

SJM Prewell MMIC Application Guide for GNSS Market(v20)

北斗卫星导航系统 ГЛОНАСС みちびき

GNSS LNA (GPS/BeiDou/Glonass/Galileo/IRNSS/QZSS)

Part	Frequency	1575MHz									Status	Remark
		Vd	Gain	S11	S22	P1dB	OIP3	NF	Id	Package		
Number	MHz	Vd	dB	dB	dB	dBm	dBm	dB	mA	Type		
PLG01	1000 ~ 2500	2	23.7	-9.9	-12.1	8.8	8.3	1.50	5.0	SOT-363	Production	2V ~ 5V Available
		3	28.9	-20.3	-25.6	14.5	13.6	0.92	8.8			
		5	32.1	-16.9	-14.2	15.1	20.5	0.90	16.5			
PLG02	400 ~ 1700	3	13.7	-15.8	-15.1	18.6	17.6	1.50	8.0	SOT-363	Production	
		5	14.9	-14.1	-18.7	17.6	20.8	1.30	13.0			
PLG03	400 ~ 1700	3	16.3	-19.3	-17.3	13.1	23.6	1.22	21.0	SOT-363	Sampling	
PLG04	1100 ~1700	3	16.0	-12.0	-19.0	11.0	23.3	1.30	9.0	SOT-363	Sampling	
PLG05	1100 ~ 1700	3	22.0	-17.0	-10.0	10.2	9.0	1.10	3.3	SOT-363	Sampling	Power Shutdown
		5	25.0	-8.0	-8.0	12.0	16.0	0.80	5.5			
PLG07	1000 ~ 2500	3	16.5	-18.0	-14.0	17.7	34.6	0.80	46.0	DFN 2*2 8L	Production	

Remark 1) The above specification is measured at 1575MHz

2) If you use other freqeuncy range for GPS, Please contact the contact point as below

如果您将其他频率范围用于GPS，请按以下方式联系联系人

RRH

GPS Active Antenna

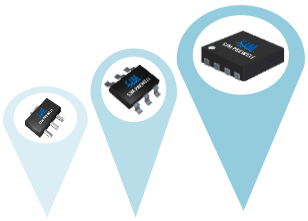
Survey Antenna

Vehicle Navigation

Automotive Antenna

Video Recorder

Satellite Terminal



Contact Point / 联络处

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