

## Gain Block Amplifiers

(If not specified, the data @ 2 GHz)

Part Number	Vd (V)	Id (mA)	S21 (dB) @ MHz						OIP3 (dBm)	OP1dB (dBm)	NF (dB)	S11 (dB)	S22 (dB)	Package	Matching Circuit Frequency (wideband internally matched)
			900	2000	2400	2700	3500	5800							
ASG330	5	75	19	10	-	-	-	-	43	20	4.3	-14	-18	SOT89	
ASW114	3.1	25	19	16.4	16	15.3	13.5	10.5	19	11.5	3.1	-15	-14	SOT363	500 ~ 3500 MHz, 5000 ~ 6000 MHz
	3.2	37	20	17	16	15.3	13.5	10.5	26	13	3.3	-14	-15		
	3.3	53	20.5	17	16	15.5	14	11	29	14.5	3.3	-14	-16		
ASX101	2.7	38	21.5	16	13	13	-	-	29	17	3.2	-15	-15	SOT89	500 ~ 2500 MHz
ASW135	3.3	60	18.5	16.5	15.7	15	-	-	29	18.5	1.8	-14	-15	SOT363	500 ~ 3500 MHz
ASW101	3.3	40	18	11	9.5	-	-	-	31	18	4.0	-10	-18	SOT89	500 ~ 2500 MHz
ASW103	3.3	44	17	11	9	-	-	-	31	18	3.9	-9	-15	SOT89	500 ~ 2500 MHz
ASW105	3.3	65	19.3	17.5	16.9	16.3	-	-	31.5	18.5	1.8	-16	-11	SOT89	500 ~ 3500 MHz
ASW235	4.3	36	22.5	19	18.5	17	15	-	28	16	3.4	-15	-12	SOT363	500 ~ 2700 MHz
	4.65	46	23	19.5	18.5	17.5	15	-	30.5	18	3.5	-15	-12		
ASW234	3	53	18.8	16.5	14.8	12.5	-	-	32	17	2.2	-14	-16	SOT363	500 ~ 3500 MHz
	4.7	35	17.8	16.2	16	15.5	13.5	-	29	21	1.8	-12	-18		
	5	55	18.7	16.8	16	15.5	13.5	10	31	22	1.8	-11	-18		
ASW205	4.6	42	23.6	20.4	-	18.1	17	15	28.4	17.6	3.2	-18.1	-9.5	SOT89	500 ~ 2700 MHz, 3000-4500MHz
	5	70	24.2	20.7	20	18.3	17	15	32.5	19.5	3.6	-17	-10		
ASW214	4.8	54	19.5	17.9	17	16	15	13.5	30.7	16	5.7	-12	-12	SOT89	500 ~ 3500 MHz, 5000 ~ 6000 MHz
	5	52	19.5	18.2	17	16.4	15	13.5	32	16	5.7	-12	-11.5		
ASW204	4.8	43	19.5	17.8	-	-	14.8	-	31.1	21.5	1.67	-13.7	-13	SOT89	500 ~ 3500 MHz
	5	55	19.8	18	-	16.7	15	12.5	32.5	21	1.75	-14	-12		
	5.3	75	20.2	18.3	-	17	15.2	-	34	22.5	1.8	-15	-12		
ASX201	5	66	19	16	14	14	12	-	34.5	21	3.3	-15	-18	SOT89	
ASW212	5	73	14	12.5	12	12	11	11	34	18	5.5	-11	-14	SOT89	500 ~ 3500 MHz, 5000 ~ 6000 MHz
ASW215	5	83	16	12	11.5	11	10	-	35	19	4.3	-15	-18	SOT89	500 ~ 3500 MHz
ASW208	5.5	80	21	19	-	17	-	-	35	22	1.7	-12	-12	SOT89	500 ~ 3500 MHz, 3000-4500MHz
ASW216	3	35	13.1	11	-	-	-	-	24	15	2.4	-10	-12	SOT89	500 ~ 3500 MHz
	4.5	80	14	11.8	11	10	-	-	38	20	2.4	-14	-14	SOT89	500 ~ 3500 MHz
ASL03H	4.3	36	19	14	12.5	12	9	-	32	17.5	0.9	-14	-12	SOT363	800 ~ 3500 MHz
ASL19H	5	73	20	14.5	12.3	11.5	9	-	36	22	1.05	-20	-13	SOT89	500 ~ 3500 MHz
ASL19W	4.4	73	19	13	12	11	-	-	37.5	22	0.9	-7	-18	SOT89	500 ~ 3500 MHz
ASL210	3.3	67	18.5	12.5	-	-	-	-	37	20.5	0.9	-18	-12	SOT89	824~894MHz, 1920~2170MHz
ASL19D	3	90	-	24.5	21.5	20	16	-	36	19	0.95	-18	-10	DFN6	1700 ~ 2700 MHz
ASL13W	5	60	19	13	11.5	11	-	-	38	22	0.9	-20	-15	SOT363	500 ~ 3500 MHz
ASL29W	5	75	19	12.5	11.5	10.2	-	-	39.5	22	0.9	-14	-18	SOT89	
ASW301	5	75	16.5	10	8	-	-	-	40.5	22	7.0	-12	-14	SOT89	500 ~ 2500 MHz
ASW311	5	120	14.3	12.1	11	10.5	-	-	41	21	2.4	-12	-12	SOT89	500 ~ 3500 MHz, 380 ~ 2170 MHz
ASW313	5	95	16.5	14.5	14	13.8	-	-	41	22	3.2	-14	-10	SOT89	50 ~ 2150 MHz, 70 ~ 2700 MHz
ASW335	5	100	17.5	16	16	15	-	-	41.5	21.5	2.1	-12	-13	SOT89	50 ~ 2150 MHz, 70 ~ 2700 MHz
ASW316	5	110	17.0	16	-	15.5	-	-	39	22.5	2.6	-20	-10	SOT89	
ASW314	4.6	95	16.1	14.6	-	-	-	-	41.7	23	2.85	-15.6	-13.3	SOT89	
	5	105	16.0	14.5	-	-	-	-	43	23	3.0	-13	-13	SOT89	

## Medium Power Amplifiers

(If not specified, the data @ 2 GHz)

Part Number	Vd (V)	Id (mA)	S21 (dB) @ MHz					OIP3 (dBm)	OP1dB (dBm)	NF (dB)	S11 (dB)	S22 (dB)	Package	Remark	
			900	2000	2400	2700	3500								
ASW318	6	100	16	15	14	14	-	43	23	3.3	-14	-11	SOT89	50 ~ 2700 MHz (75 ohm)	
	8	120	16.5	15	14	14	-	45.5	26	3.3	-15	-11		350 ~ 2700 MHz, 70 ~ 2700 MHz	
ASW338	8	120	17.5	16.5		16	-	43	25	2.2	-14	-14	SOT89	50 ~ 2150 MHz, 70 ~ 2700 MHz	
ASX415	4.75	123	-	14	-	-	-	40	26.5	4.1	-7	-11	SOT89	ACLR= -67, -63, -54, -42 dBc @ Po= 12, 17, 19, 22 dBm, WCDMA 1FA	
	5	155	20	14.3	-	11	-	42	27	4.6	-7	-11		ACLR= -69, -63, -60, -47 dBc @ Pout=13, 16, 19, 22 dBm, WCDMA 1FA	
			-	-	13.1	-	-	36	27.5	5.1	-8	-18		2300-2700MHz	
5.3	185	-	14.5	-	-	-	46	29	5.6	-7	-11				
ASX401	5	290	19.5	13	10	10	-	46	29.5	4.2	-15	-16	SOT89	ACLR= -68, -68, -59, -46 dBc @ Po= 12, 18, 22, 25 dBm, WCDMA 1FA	
		290	-	-	10.7	-	-	46	29.5	6.1	-9	-20		2300-2700MHz	
		560	-	14	-	-	-	45.5	32	5.2	-20	-20		Balanced Type @1710-1785MHz	
ASX501	4.7	457	18	11.5	9	-	-	44	31	4.7	-15	-13	SOT89		
	5	560	18	11.5	9	-	-	47	31	5.0	-15	-13			
	5	1120	17	-	-	-	-	48	35	5.0	-30	-25		Balanced Type @908-923 MHz	
ASX601	4.7	710	16	9.5	-	-	-	43	31	5.8	-14	-12	SOT89		
	5	850	16	9.5	-	-	-	47	31	5.8	-14	-12			
	5	850	16					48	32.7	5.5	-18	-15		902-928 MHz	
ASX403	3.3	620	16.5	11	-	-	-	38.5	29.5	4.5	-20	-9	SOIC8	900 MHz, 2000 MHz	
			580	16.5	10.5	8.9	-	-	43(48)	33(32)	5.2	-15		-10	ACLR= -68, -70.5, -62, -54 dBc @ Po= 13, 18, 22, 25 dBm, WCDMA
			580	16.8	-	-	-	-	48	33	4.9	-18		-7	RFID(USA) 902~928 MHz
ASX602	5	1100	-	11.3	-	-	-	42.5	35	5.5	-18	-18	SOIC8	Balanced @1710~1785MHz	
			580	17.5	-	-	-	-	44	32.5	5.5	-18		-10	LTE @ 740MHz
			580		12.5				45	32.5	5.0	-14		-9	1600MHz
ASX420	5	370	-	-	-	-	13		47	28.5	7.4	-16	SOIC8	Balanced @3100 ~ 3500	
			31.5	21.5	17.5	16.5	-		46	29.5	7.0	-15		-15	
ASX423	5	400	-	-	-	-	-	10.5	39	23	6.2	-11	SOIC8	Balanced @4300 ~ 4500	
			32.5	22.5	20	17	-		47	29.5	2.6	-11		-18	
ASL425	5	350	34	22	20	17.5	-	47	29.5	1.4	-13	-15	SOIC8		
ASX520	5	650	31	-	-	-	-	48	33	7.0	-15	-9	SOIC8	900 MHz, UHF (860~960 MHz) RFID	
ASX521	4.3	510	28	19	18.5	16.5	-	44	30	5.0	-16	-9	SOIC8		
	4.7	650	28	19	18.5	16.5	-	45	31.5	5.0	-16	-9			
	5	870	28	19	18.5	16.5	-	48	31.5	5.6	-16	-9			
ASX620	5	950	29.5	-	-	-	-	48	33	6.7	-15	-8	SOIC8		
ASX621	4.6	930	30	18	13	16	-	47	31.5	5.5	-14	-14	SOIC8		
	5	1150	30	18	13	16	-	49	32.5	5.6	-14	-14			

IF Amplifiers

Part Number	Vd (V)	Id (mA)	S21 (dB) @ MHz				OIP3 (dBm) @ MHz				OP1dB (dBm)	NF (dB)	S11 (dB)	S22 (dB)	Package	Matching Circuit Frequency
			70	150	300	450	70	150	300	450						
ASX101	3.5	55	28.5	28.5	25	-	28	28	29	-	17.5	3.5	-14	-15	SOT89	70 ~ 300 MHz (Data @ 150 MHz)
ASW101	3.3	40	25	24.5	23.5	21.5	28	29	30	30	17	3.8	-15	-13	SOT89	5 ~ 450 MHz
ASW103	3.3	44	25	24	23	21	29	30	30.5	30	17	3.8	-14	-15	SOT89	5 ~ 450 MHz
ASW105	3.3	65	22	21	20	20	31	32	33	33.5	18.5	1.7	-14	-12	SOT89	70 ~ 450 MHz
ASW114	3.2	37	21	21	21	20.5	22.5	22.5	23	23.5	12	3.2	-18	-16	SOT363	70 ~ 450 MHz
ASW135	3.3	60	20.5	19.6	19.2	19	27.5	27.5	28.5	28.5	17.5	1.8	-12	-17	SOT363	50 ~ 450MHz (Data @ 300MHz)
ASW214	4.9	52	20	20	20	19.5	30	30	30	31	16	5.5	-13	-11	SOT89	70 ~ 450 MHz
ASW234	5	55	21	20	19.5	19	27	28	29	-	21.5	2.2	-8	-16	SOT363	50 ~ 450 MHz (Data @ 150 MHz)
ASW204	5	55	22.5	21	20	20	29.5	29.5	31	-	21.5	1.6	-8	-15	SOT89	50 ~ 450 MHz (Data @ 150 MHz)
ASW235	4.65	46	24	24	24	24	27	28	29	-	15	3.3	-12	-8	SOT363	50 ~ 450 MHz (Data @ 150 MHz)
ASW205	5	70	25.9	25.7	25.4	25	32	32	34.5	-	18.5	3.3	-17	-10	SOT89	50 ~ 450 MHz (Data @ 150 MHz)
ASL210	3	80	24.5	24	22.6	23	35	35	35	35	18.5	2.4	-12	-20	SOT89	50 ~ 200 MHz (Data @ 100 MHz)
ASL03H	4.3	36	-	23.1	-	22.5		30	-	30	16.5	1.3	-18	-15	SOT363	400 ~ 500 MHz (Data @ 450 MHz)
ASL13W	5	60	24.5	23.5	22.3	21	30	33	35	35	22.5	0.8	-14	-13	SOT363	50 ~ 450 MHz(Data @ 300 MHz)
ASL19H	4.4	73	26.3	25.5	-	-	31.5	33	-	-	22	2.1	-10	-18	SOT89	70 ~ 140 MHz (Data @ 100 MHz)
ASL19W	4.4	73	24.5	24	22.5	21	32	32.5	34	-	21	2.9	-13	-18	SOT89	30 ~ 400 MHz
ASL29W	4.3	75	25	24	22.5	21	31	32	33	-	21.5	3.0	-11	-18	SOT89	30 ~ 400 MHz
ASW208	5.5	80	21	20	20	19.5	32	33	34	34	23.5	3.4	-14	-18	SOT89	50~450 MHz (Data @ 150 MHz)
ASW301	4.8	75	25	24	23	21	35.5	36	37	37	22	6.8	-14	-15	SOT89	70 ~ 450 MHz
ASW212	4.8	73	17	17	16	15.5	36	36.5	37	37	18.5	4.8	-18	-10	SOT89	70 ~ 450 MHz
ASW215	4.9	83	18.5	-	-	-	37	-	-	-	19	3.4	-16	-14	SOT89	5 ~ 40 MHz (Data @ 40 MHz)
	4.9	83	18.5	18.5	18	17.5	37.5	38	38	38	19	3.5	-15	-14	SOT89	70 ~ 450 MHz
ASW311	5	120	15.5 <sup>(1)</sup>	14.5	13.5	13.5	41	40	40	40	21	3.2	-12	-13	SOT89	150 ~ 450 MHz
ASW313	5	95	17	17	16.5	16	42	42	43	-	22	1.8	-10	-10	SOT89	80 ~ 300 MHz (Data @ 100 MHz)
ASW314	5	105	16.7	16.2	16	16	41	40	40	42	22	1.7	-13	-13	SOT89	80 ~ 350 MHz (Data @ 150 MHz)
ASF240	4.75	108	26.5	-	-	-	40	-	-	-	20	3.0	-15	-9	SOT89	5~ 30 MHz (Data @ 30 MHz)
	4.9	114	26.4	26.3	26	25.6	40.5	41	38	34.5	20.5	3.0	-15	-11	SOT89	50 ~ 500 MHz (Data @ 150 MHz)
ASW335	5	100	18.8	-	18.5	17.3	45	-	43	40.5	22	1.6	-14	-18	SOT89	100 ~ 450 MHz (Data @ 100MHz)
ASW350	4.8	150	24.5	24.3	23		41	41	40	-	23.5	8.0	-11	-16	SOT89	80 ~ 120 MHz
ASW318	8	120	17.5	17.5	17	16.5	44	44	41	-	25.5	1.8	-9	-11	SOT89	80 ~ 300 MHz (Data @ 100 MHz)
ASW338	8	120	19	-	18.5	18	48	-	45	-	26	1.7	-14	-15	SOT89	100 ~ 240 MHz (Data @ 100 MHz)
ASX401	5	290	-	19.5	-	-	-	42.5	-	-	30.5	9.5	-7	-12	SOT89	128 ~ 152 MHz (Data @ 152MHz)
ASX415	5	155	-	-	-	22	-	-	-	37	28	6.0	-18	-15	SOT89	433~444 MHz (Data @ 444MHz)
ASX423	5	400	-	33.5	-	-	-	44.5	-	-	29.5	4.5	-17	-13	SOIC-8	Data @ 150 MHz

### Low Noise Amplifiers (Discrete)

(If not specified, the data @ 2 GHz)

Part Number	Vd (V)	Id (mA)	S21 (dB) @ MHz					NF (dB) @ MHz					OIP3 (dBm)	P1dB (dBm)	S11 (dB)	S22 (dB)	Package	Matching Circuit Frequency
			900	2000	2400	2700	3500	900	2000	2400	2700	3500						
AST11L	3	25	18	13	-	-	1.2	1.3	-	-	27	14	-14	-11	SOT363	5 ~ 3500 MHz		
AST163	5	35	17.5					0.65					28	16.5	-10	-8	SOT363	5 ~ 3000 MHz
AST20S	5	48	18	15.5	13	11	0.6	0.7	0.9	2.1	34	18	-11	-13	SOT363	5 ~ 6000 MHz		
	3.3	20	11					0.9					29.5	15		-10	-14	2500 MHz
AST30S	5	135	21	15.5	-	-	2.0	1.9	-	-	37	22	-15	-15	DFN6	5 ~ 6000 MHz		
ASL563	5	50	33	26	-	-	1.0	1.0	-	-	29	15	-15	-20	SOT363	5 ~ 6000 MHz		
AST54S	3.3	40	19	12.8	12.5	-	10	0.45	0.5	0.65	-	0.8	34	19	-18.0	-10	SOT-343	900~3300MHz
	3.3	40	14.5					0.6					34	19	-18.0	-12	SOT-343	900~3300MHz

## Low Noise Amplifiers (Internally Matched)

(If not specified, the data @ 2 GHz)

Part Number	Vd (V)	Id (mA)	S21 (dB) @ MHz					NF (dB) @ MHz					OIP3 (dBm)	P1dB (dBm)	S11 (dB)	S22 (dB)	Package	Matching Circuit Frequency
			900	2000	2400	2700	3500	900	2000	2400	2700	3500						
ASL226	3	8.5	34	25	21.5	-	14	1.3	1.3	1.3	-	1.8	16.5	10.5	-15	-20	SOT363	700 ~ 6000 MHz
	5	18	38	28	25	23	-	-	1.05	1.05	1.15	1.8	23	14	-18	-12	SOT363	
ASL210	3.3	67	18.5	12	-	10	-	0.8	0.9	-	1.2	-	37	20.5	-18	-10	SOT363	5 ~ 3000 MHz
ASL03H	4.3	36	19.5	14.2	13	12	9	0.9	1.0	-	-	-	32.5	18	-20	-12	SOT363	800 ~ 3500 MHz
ASL09S	3	28	19	12.6	10.8	9.8	7	0.8	0.95	1.15	1.25	1.5	30.5	18	-17	-10	SOT89	800 ~ 3500 MHz
	5	45	19.3	12.8	11	10	7.5	0.8	0.9	1.1	1.2	1.5	34.5	19.5	-18	-10		
ASL03S	5	45	19.5	13	11.5	10.5	8	0.8	0.9	1.1	1.2	1.5	35	19.5	-18	-10	SOT-343	800 ~ 3500 MHz
ASL13W	5	60	19	13	11.5	-	-	0.9	0.9	1.1	-	-	38	22	-20	-14	SOT363	5 ~ 3000 MHz
ASL19W	4.4	73	20	13.5	11.5	-	-	0.9	0.9	-	-	-	37	22	-20	-15	SOT89	5 ~ 3000 MHz
ASL19H	5	73	20	14.5	12.3	-	9	0.95	1.05	1.1	-	1.8	36	22	-20	-13	SOT89	5 ~ 4000 MHz
ASL19D	3	90	-	24.5	21.5	-	16	-	0.95	1.1	-	1.6	36	19	-18	-10	DFN6	1500 ~ 4000 MHz
	5	90	-	24	19.5	19	-	-	0.9	1.1	1.25	-	38	23	-18	-9		1700 ~ 2700 MHz
ASL29W	5	75	19	12.5	10.2	-	-	-	0.9	-	-	-	39.5	22	-15	-15	SOT89	5 ~ 3000 MHz
ASL425	5	350	35.5	24	21	18	-	1.0	1.40	1.5	2.1	-	47	30	-13	-15	SOIC8	200 ~ 4000 MHz

## Low Noise Amplifiers (GPS, DVB, CMMB)

Part Number	Frequency (MHz)	Vd (V)	Id (mA)	S21 (dB)	IIP3 (dBm)	OIP3 (dBm)	OP1dB (dBm)	NF (dB)	S11 (dB)	S22 (dB)	Package	Remark
AST163	1575	3	3.7	13.5	-	16	10	1.1	-10	-10	SOT363	
		3	6	14	-	18	10	0.95	-12	-14		
		2.8	9.5	15.5	7	24	10	0.9	-10	-11		
		2.8	9.5	14.2	-	21.2	10	1.3	-10	-10		without strip lines
ASL11N	1575	3	4.5	18	-8	-	2.2	1.1	-8	-12	USON6	
		2.75	4.5	16.8	-6	-	2	0.85	-6	-10		1.5x1.5x0.4 (V <sub>CTL</sub> =1.7V), Contact ESD 3KV
ASL226	1575	3	8.5	28	-	15.5	11	1.1	-16	-15	SOT363	Application PCB area : 2.7 x 4.2 mm <sup>2</sup>
		3.3	9.5	28.5	-	17	11	0.95	-20	-20		
	2.2	5.5	23.5	-	11	9	1.2	-14	-12			
	2	4.5	23.5	-	10	8	1.3	-11	-10			
	1.8	6.5	23.5	-	14	6	1.1	-14	-16	ASL226 GPS LNA for 1.8V application		
	5	18	30.5	-	20	11	1.0	-11	-14			
ASL563	1163~1210	3	8.5	30.5	-	17	11	1.0	-20	-18	SOT363	
	1204~1240	3	8.5	30	-	17	11	1.0	-20	-18		
	1210~1270	3	8	32	-	17	10.6	0.94	-17.4	-12		
	1558~1577	3	8.5	27.5	-	16	11	0.95	-18	-18		
	1163~1210	3	7.7	24.5	-	21	10	1.10	-15	-15		
	1204~1240	3	7.7	26	-	21	10.5	1.00	-15	-16		
ASL563	1575	3	7.7	25	-8	16	10	1.1	-15	-13	SOT363	Type1: 2-stage cascade
		3	7.7	25	-5	19	10	1.1	-15	-15		Type 2: a filter in between the 2 stages
		3	14	27	-	22	11	0.8	-20	-20		Type 2: Strip lines(P1&P2)
		3	28	30	-5	25.5	10.5	0.8	-18	-18		Type 2: a filter in between the 2 stages
AST54S	50~860	5	40	19	-	29	17	1.1	-12	-12	SOT-343	CATV, 50ohm
	470~860	5	40	20	-	29	17	0.9	-17	-15		CMMB,50ohm
	1575	3	18	14.5	-	28	17.5	0.5	-18	-10		
	1210~1620	3	18	16.5	-	26	16	0.5	-11	-12		
ASL004	470~770	2.8	7	17	-	-	6	1.3	-8~-13	-11~-13	WSON6	DVB Bypass MMIC LNA
ASL19W	1575	4.4	73	14.5	23	37.5	22	0.8	-20	-15	SOT89	
		3.3	20	15.5	-	17	28.5	0.9	-16	-12		
		3.1	20	14	-	27.5	17	1.1	-14	-14		
ASL19W	176~264	4.4	37	23.6~24.3	-	30	20	1.6~1.7	-10	-14~-15	SOT89	DVB-T Full-band (V- & U-band)
	478~862	4.4	37	16.8~17.3	-	25~28	16~20	1.43~1.48	-9~-12	-9~-20		
AST11L	170~240	5	13	14	-	16	5	1.8	-8	-11	SOT363	
	478~862	5	13	16~15	-	18~18.5	6.5	1.8~1.6	-9	-9		

Part Number	Frequency (MHz)	Vd (V)	Id (mA)	S21 (dB)	IIP3 (dBm)	OIP3 (dBm)	OP1dB (dBm)	NF (dB)	S11 (dB)	S22 (dB)	Package	Remark
ASW114	57~213	3.1	25	20	-	18.5~19	10.5	2.7~2.8	-15	-13	SOT363	ATSC
	170~860	3.1	25	20~18.5	-	19	10~11	2.7~2.8	-14	-15	SOT363	DVB-T Full-band (V- & U-band)
ASW234	170~860	4.5	25	18~16	-	23.5	20	1.7~2.1	-7	-15	SOT363	DVB-T Full-band (V- & U-band)
ASL033	40~900	3	5	13.5	-	18.5	17	1.5	-10	-13	SOT363	ATSC
		3.3	10	15.7	-	20	17.5	1.2	-15	-20		
	170~860	3.3	10	20.2~16.6	-	24~19	17.5	1.2	-6	-6		DVB-T Full-band (V- & U-band)
		3	5	17.8~14.3	-	24~18	17.5	1.3~1.4	-5	-4		
	170~860	3.3	10	18~15.2	-	22~17	17	1.1	-14	-15		DVB-T Full-band (V- & U-band), 75 ohm
		3.6	16	19.4~16.5	-	25.5~19.5	23.5	1.1	-13	-13		
	170~860	3.3	10	17~16	-	20.5~20	18	1.1	-12	-17~-14		DVB / CMMB, 50ohm
		3	5	15~14	-	18~17	18	1.3	-8	-10		
	170~860	5	11	17.5	-	20.4	7.19	1.075	-15.1	-15.9		5V, 75ohm
	47~860	3.3	37	19	-	30	17	1.1	-13	-10		DVB-C , 75ohm
6~10	3.3	10	18.2	-	18.5	17	1.45	-9	-14			
1575	5	13	15.5	-	22.5	10.5	1.3	-20	-15	GPS		
ASL03H	470~860	5	36	19.4	-	28	15	1.05	-14	-23	SOT363	CMMB
	50~810	4.5	28	18.12	-	26.8	13.3	1.167	-9.8	-15.3		Wideband Antenna
AST20S	470~860	4.5	28	18.4	-	27	14	1.2	-18	-15	SOT363	CMMB
	1210~1620	3	18	17	-	25.5	15.5	0.55	-11	-10		GPS
ASW105	145~245	3.3	65	20.5	-	31.5	18	1.8	-12	-12	SOT89	DMB Antenna
ASW335	470~860	5	100	18~17.5	-	44~41	22.5	1.8~1.7	-16~-14	-18~-15	SOT89	CMMB
ASW101	470~860	3.3	40	21~18	-	30	17	3.8~4.2	-10	-18	SOT89	CMMB
ASW105	470~860	3.3	65	21~19.3	-	31.5	17.5	1.7	-16	-11	SOT89	CMMB
ASW114	470~860	3.2	37	20.5~20	-	24.5	12.5	3.2	-15	-13	SOT363	CMMB
ASW135	470~860	3.3	60	19~18.5	-	28.5	17.5	1.8	-12	-15	SOT363	CMMB
ASW204	470~860	5	55	20.4~20.0	-	31	21	1.7	-13	-13	SOT89	CMMB
ASW205	470~860	5	70	25.4~24.2	-	34.5	19	3.5	-12	-10	SOT89	CMMB
ASW208	470~860	5	80	22~21	-	35	22	3.5	-12	-10	SOT89	CMMB
ASW212	470~860	4.8	73	15.5~14	-	35	18	5	-10	-16	SOT89	CMMB
ASW214	470~860	4.85	52	19.7~19.5	-	30	16	5.7	-12	-11	SOT89	CMMB
ASW215	470~860	4.9	83	17~16	-	37	19	3.8	-12	-18	SOT89	CMMB
ASW216	470~860	4.5	80	15.3~14.2	-	36	20	2.2	-14	-15	SOT89	CMMB
ASW234	470~860	5	55	19~18.7	-	29.5	22	1.9	-7	-18	SOT363	CMMB
ASW235	470~860	4.65	46	25~23	-	29	16	3.4	-7	-13	SOT363	CMMB
ASW311	470~860	5	120	15.3~14.3	-	40	21	2.3	-13	-14	SOT89	CMMB
ASW313	470~860	5	95	15.5	-	43	21.5	2.2	-12	-12	SOT89	CMMB
ASW314	470~860	5	105	16	-	42.5	22	2.2	-12	-13	SOT89	CMMB
ASW316	470~860	5	110	17	-	42.5	22	2	-9	-9	SOT89	CMMB
ASW318	470~860	8	120	16	-	45.5	24.5	2	-11	-9	SOT89	CMMB
ASW335	470~860	5	100	18~17.5	-	41	22.5	1.8	-14	-15	SOT89	CMMB
ASW338	470~860	8	120	17.5	-	46	26	2	-15	-15	SOT89	CMMB

### Wide-band Amplifiers

Part Number	Measured @	Vd (V)	Id (mA)	S21 (dB)	OIP3 (dBm)	P1dB (dBm)	NF (dB)	S11 (dB)	S22 (dB)	Package	Matching Circuit Frequency
ASW313	54 MHz	5	95	16	40.5	21.5	2.6	-14	-9	SOT89	54 ~ 2150 MHz
	1000 MHz	5	95	15	41	21	2.7	-11	-9		
	2150 MHz	5	95	14	38	19	3.3	-7	-9		
	470 MHz	5	95	15.2	41.5	21	3.1	-13.5	-14		470 ~ 2400 MHz
	800 MHz	5	95	15	41	21	2.4	-11.5	-15		
	1600 MHz	5	95	13.5	40	21	2.9	-11	-10		
	2400 MHz	5	84	13	36	18	3.9	-11	-10		380 ~ 2170 MHz
	380 MHz	5	95	14.5	40.5	20.5	2.6	-9	-14		
	2170 MHz	5	95	14.4	40	18	3.3	-16	-12		
	350 MHz	5	95	16	41	22	2.7	-11	-11		350 ~ 2500 MHz
	2500 MHz	5	95	12.5	35.5	19.5	4.4	-6.5	-7.5		
	70 MHz	5	95	16	41	20.5	1.9	-8	-14		
2700 MHz	5	95	13.8	35	17.5	2.9	-14	-7	70 ~ 2700 MHz		
960 MHz	8	120	16.5	45	26	2.5	-15	-20			
1200 MHz	8	120	16	47	26	2.4	-15	-15			
ASW318	470 MHz	8	120	15.4	46	25	2.9	-11.5	-15	SOT89	470 ~ 2400 MHz
	800 MHz	8	120	15	46	25	2.5	-11.5	-15		
	1600 MHz	8	120	13.5	44	25	3.2	-11	-10		
	2400 MHz	8	120	13	39.5	24	4.2	-11	-10		350 ~ 2500 MHz
	350 MHz	8	120	16	42	25	2.7	-10	-11		
	2500 MHz	8	120	12.5	39	24	4.6	-6.5	-7.5		
	70 MHz	8	120	16	44	24	2	-8	-14		70 ~ 2700 MHz
	2700 MHz	8	120	14	39	21	3.1	-15	-7		
	50 MHz	8	120	15	44	23	2	-10	-15		
	2700 MHz	8	120	14	37	19	3.3	-18	-13		50 ~ 2700 MHz ( 75 ohm )
70 MHz	5	63	17.8	28	15.4	1.2	-15	-6			
2700 MHz	5	63	15.3	32.5	19.5	1.3	-9	-16			
AST20S	1200 MHz	5	48	18.5	31	17	0.6	-9	-14	SOT363	70 ~ 2700 MHz, OIP2 = 38.5 dBm
	1900 MHz	5	48	15.9	33	18	0.7	-10	-14		
	1200 ~ 1900 MHz										
ASW311	500 MHz	5	120	14.3	41	21.5	2.2	-13	-14	SOT89	500 ~ 3500 MHz
	3500 MHz	5	120	12.1	41	21	2.4	-12	-12		
	380 MHz	5	120	11.7	36	16	2.4	-15	-12		380 ~ 2170 MHz, Gain = 13.0 dB @ 1000 MHz
	2170 MHz	5	120	11.7	41	21.5	2.3	-15	-15		
	380 MHz	4	80	11.5	36.5	14	2.4	-16	-12		
2170 MHz	4	80	11.5	36.5	19	2.3	-15	-14	380 ~ 2170 MHz, Gain = 13.0 dB @ 1000 MHz		
ASW314	900 MHz	5	105	15.5	43	21.5	1.9	-8	-20	SOT89	900 ~ 2200 MHz
	2200 MHz	5	105	15	38.5	18	2.4	-9	-14		
	50 MHz	5	105	14	40	21.5	3.2	-15	-9		50 ~ 2170 MHz
	2170 MHz	5	105	13	37.5	20.5	2.4	-7	-7		
	5 MHz	5	105	13.7	40	20	2.9	-13	-12		
1000 MHz	5	105	12.6	39	21	2.7	-13	-11	5 ~ 1000 MHz		
ASW316	5 MHz	5	110	14.8	40	20.5	2.9	-18	-10	SOT89	5 ~ 1000 MHz
	1000 MHz	5	110	13.4	38	21	2.6	-11	-10		
ASW335	70 MHz	5	100	17.9	42.5	21.5	1.4	-9	-20	SOT89	70 ~ 2500 MHz
	2500 MHz	5	100	14.6	36	19.5	3.2	-13	-8		
ASW338	1950 MHz	8	120	16.5	43	25	2.2	-14	-14	SOT89	1700 ~ 2700 MHz
	2450 MHz	8	120	16	41.5	22	2.8	-14	-14		

## CATV Amplifiers (75 ohm)

### 50~1000 MHz (Down-link)

Part Number	Vd (V)	Id (mA)	G (dB)	GF (+/-)	NF (dB)	S11 (dB) @ MHz			S22 (dB) @ MHz			OP1dB (dBm)	OIP2 (dBm)	OIP3 (dBm)	Output (dBmV)	CSO (dBc)	CTB (dBc)	Package	Remark
						50	500	860	50	500	860								
ASW114	3.1	22	19.3	0.5	2.9	-13	-18	-31	-16	-22	-16	11.4	24.7	19.5	-	-	-	SOT363	CATV @ low current.
ASL033	3.3	37	19	1.5	1.1	-12	-13	-15	-8	-10	-15	17	-	30	-	-	-	SOT363	47~860MHz
AST54S	5	40	19	1	1.1	-18	-12	-16	-9	-12	-18	17	-	29	-	-	-	SOT-343	50ohm
ASW205	5	70	24.3	0.25	3.7	-14	-10	-11	-10	-13	-10	17.5	42.5	32.5	-	-	-	SOT89	Gain=21dB
			21.3	0.5	4.0	-7	-8	-10	-11	-12	-13	17.5	42.5	32.5	-	-	-		
ASF240	5	107	25.3	0.6	2.9	-14	-14	-14	-10	-11	-9	19	46	32	-	-	-	SOT89	
ASW220	5	75	16.8	0.05	3.4	-20	-20	-16	-20	-18	-18	18.5	48	37	28	60(60ch)	75(60ch)	SOT89	
ASL330	5	105	16.4	0.65	1.7	-20	-20	-18	-18	-20	-17	21	56	41	20	66(160ch)	76(160ch)	SOT89	Min. VSWR
			16.0	0.15	1.8	-14	-12	-14	-12	-15	-20	21	51	41	20	66(160ch)	76(160ch)		Gain Flatness
ASL360	5	110	17.3	0.05	1.6	-17	-15	-15	-17	-17	-15	21	53	40	33	60(60ch)	75(60ch)	SOT89	
ASL380	5	110	19.2	0.40	1.6	-15	-12	-12	-16	-18	-16	22	63	41.5	35	60(84ch)	>70(84ch)	SOT89	
ASL360(p-p)	5	220	12.1	0.2	2.6	-17	-18	-16	-17	-18	-20	25.5	70	45.5	-	-	-	SOT89	
ASL362	5	220	16	0.5	2.4	-18	-12	-18	-12	-18	-20	23	65	39.5	35	70(84ch)	66(84ch)	SOIC8	2:1 transformer
			10.7	0.1	3.2	-18	15	-18	-20	-15	-18	24.5	74	44.5	40	70(84ch)	66(84ch)		1:1 transformer
ASW311(p-p)	5	240	10.8	0.15	3.5	-18	-12	-15	-9	-15	-11	24	71	43	42	65(60ch)	66(60ch)	SOT89	2:1 transformer
ASL331	5	220	19.7	0.60	1.60	-20	-18	-20	-20	-15	-18	26	62	41	41	64(84ch)	60(84ch)	SOIC8	1:1 transformer
ASL550	8	120	17	0.1	2.0	-15	-15	-16	-14	-17	-20	25	54	43	25	74(116ch)	75(116ch)	SOT89	Gain Flatness
			17.5	0.65	2.0	-18	-18	-17	-20	-20	-17	25	56	42	25	74(116ch)	75(116ch)		Min. VSWR
			16.6	0.5	1.9	-15	-11	-12	-10	-13	-15	25	-	42	25	74(116ch)	75(116ch)		Positive Gain slope
			11.5	0.2	2.2	-11	-14	-12	-18	-18	-18	20	-	37	37	-	-		Low gain
ASL560	8	120	17.9	0.2	1.5	-13	-14	-12	-17	-16	-17	25	52	42.5	36	60(60ch)	75(60ch)	SOT89	
ASL580	8	120	19.4	0.9	1.6	-18	-15	-10	-20	-14	-11	24.5	52	41	35	60(84ch)	>70(84ch)	SOT89	
			20.5	1.2	1.3	-18	-8	-12	-18	-9	-9	19.5	57	43	-	-	-		High Gain
ASW338(p-p)	8	240	14.3	0.15	2.8	-15	-11	-14	-11	-10	-12	28	65	45	44	67(60ch)	64(60ch)	SOT89	2:1 transformer
ASL550(p-p)	8	240	14.9	0.45	2.7	-15	-15	-11	-9	-18	-13	26.5	69	43	46	65(60ch)	68(60ch)	SOT89	2:1 transformer
			11.5	0.25	2.7	-17	-17	-17	-20	-16	-16	27.5	69	47	-	-	-		1:1 transformer
ASL560(p-p)	8	240	12.0	0.15	2.8	-18	-16	-16	-17	-17	-20	28	68	46.5	-	-	-	SOT89	
ASL551	6.5	433	19.6	0.70	1.9	-20	-17	-20	-20	-17	-17	28	76	46.5	-	-	-	SOIC8	1:1 transformer
	6	433	19.6	0.70	1.8	-20	-17	-20	-20	-17	-17	28	76	47.5	-	-	-		1:1 transformer
	5	433	19.6	0.75	1.75	-20	-18	-20	-20	-17	-18	27.5	75	48	-	-	-		
	8	250	19.8	0.60	1.55	-20	-20	-18	-20	-17	-18	28	65	43.5	45	62(84ch)	63(84ch)		1:1 transformer
	8	360	19.6	0.75	1.9	-20	-17	-20	-20	-17	-17	28	72	45	-	-	-		1:1 transformer,High Linearit
ASL552	8	240	14.9	0.35	2.8	-15	-15	-12	-12	-18	-14	26	74	44	45	76(60ch)	73(60ch)	SOIC8	2:1 transformer
			11.2	0.25	3.1	-18	-15	-18	-20	-16	-15	26	70	48.5	45	76(60ch)	73(60ch)		
		370	11.2	0.2	3.5	-18	-15	-18	-20	-16	-15	26	73	49	45	76(60ch)	73(60ch)		1:1 transformer
ASL572	8	240	16.6	0.5	2.5	-18	-10	-18	-12	-15	-20	26	79	44	40	61(84ch)	65(84ch)	SOIC8	2:1 transformer
			11	0.2	2.7	-20	-18	-18	-20	-15	-18	26	71	45.5	40	61(84ch)	65(84ch)		1:1 transformer
ASL522	6	240	34.2	0.3	1.8	-18	-18	-13	-15	-15	-14	22	62	41.5	-	-	-	SOIC8	
	8	240	33.6	1.55	1.9	-18	-14	-8	-11	-20	-9	23	55	44	-	74(116ch)	75(116ch)		
	8	360	34.0	1.60	1.9	-20	-13	-8	-11	-20	-9	23	63	45.5	-	-	-		High Linearity

(p-p) means two chips in push-pull configuration

### 5~200 MHz (Up-link)

Part Number	Vd (V)	Id (mA)	G (dB)	GF (+/-)	NF (dB)	S11 (dB) @ MHz			S22 (dB) @ MHz			OP1dB (dBm)	OIP2 (dBm)	OIP3 (dBm)	Output (dBmV)	Package	Remark
						5	50	200	5	50	200						
ASW205	5	70	25.8	0.15	3.5	-12	-12	-12	-12	-20	-15	18	40	32	-	SOT89	
ASF240	4.65	95	26.5	0.1	3.4	-16	-17	-18	-14	-20	-15	20	47	39	-	SOT89	
ASW220	5	75	17.0	0.1	3.3	-20	-20	-20	-20	-20	-20	18	47	36	-	SOT89	Low Gain
			10.3	0.05	4.5	-7	-7	-7	-7	-7	-7	17	47	34	-		
ASL330	5	105	15.8	0.35	1.9	-18	-15	-14	-15	-15	-14	21	57	42	-	SOT89	
ASL360	5	110	18.1	0.5	1.5	-18	-20	-18	-16	-20	-16	21.5	55	42	-	SOT89	1:1 transformer
ASL360(p-p)	5	220	12.3	0.5	2.7	-20	-18	-17	-20	-18	-17	24.5	56	42	-		
ASL380	5	110	21.3	0.2	1.2	-18	-20	-16	-16	-20	-20	22	51	40.5	-	SOT89	
ASL362	5	220	17	0.65	1.9	-20	-20	-17	-20	-20	-15	24.5	74	44	-	SOIC8	2:1 transformer
			12.5	0.25	2.7	-20	-18	-17	-20	-18	-16	25	68	42	-		1:1 transformer
ASL331	5	220	20.8	0.1	1.3	-20	-20	-20	-20	-20	-20	25.5	70	40	-	SOIC8	1:1 transformer
ASL550	5	95	16.1	0.75	1.8	-6	-15	-15	-5	-15	-12	21	52	36.5	-	SOT89	Gain Flatness(2:1 transformer)
	8	120	16.5	0.25	2.1	-15	-16	-15	-10	-15	-14	25.5	-	43	-		Min. VSWR(2:1 transformer)
ASL560	8	120	18.5	0.5	1.5	-18	-20	-18	-18	-20	-17	25	55	43	-	SOT89	1:1 transformer
ASL560(p-p)	8	240	12.5	0.4	2.9	-20	-18	-17	-20	-18	-17	26	67	42	-		
ASL580	8	120	21.6	0.2	1.2	-18	-20	-18	-18	-20	-17	25	52	41	-	SOT89	
ASL550(p-p)	8	240	15.8	0.85	2.2	-17	-15	-14	-16	-15	-14	27.5	73	40.5	-	SOT89	2:1 transformer
			11.8	0.4	2.8	-20	-20	-20	-18	-20	-20	25.5	70	41.5	-	SOT89	1:1 transformer
ASL551	8	250	21.1	0.1	1.5	-20	-20	-18	-20	-20	-18	26	74	39	-	SOIC8	1:1 transformer
ASL552	8	240	16.2	0.7	2.7	-17	-15	-18	-11	-17	-15	26	77	45	-	SOIC8	Gain Flatness (2:1 transformer)
			15.7	0.95	2.3	-17	-15	-14	-17	-15	-14	26	79	38	-		Min. VSWR (2:1 transformer)
			11.6	0.25	3.4	-20	-20	-18	-20	-18	-18	26	65	42	-		Min. VSWR (1:1 transformer)
ASL572	8	240	17.5	0.7	1.9	-20	-20	-15	-17	-20	-14	26	75	44	-	SOIC8	2:1 transformer
			12.8	0.3	2.8	-20	-18	-17	-20	-18	-16	26	68	42.5	-		1:1 transformer

(p-p) means two chips in push-pull configuration

**SMATV (DVB-S) (950~2160MHz), MOCA (800~1500MHz), ONU(70~2700MHz)**

Part No.	Frequency (MHz)	Vd (V)	ID (mA)	Gain (dB)	GF (+/-) @ 950~2150 MHz	NF (dB)	S11 (dB)	S22 (dB)	OP1dB (dBm)	OIP3 (dBm)	Package	Impedance
ASW135	950~2150	3.3	60	17.3	1	2.2	-13	-14	18	32	SOT363	50 ohm
ASW114	950~2150	3.3	53	18.5	1.75	3.2	-14	-14	14.5	29	SOT363	50 ohm
ASW208	950~2150	5	80	20	1.5	1.7	-11	-11	22	35	SOT89	50 ohm
		5.5	80	20	1.75	1.7	-12	-12	22	35		
ASL360	950~2150	5	110	16.6	0.95	2.3	-8	-12	17	37	SOT89	75 ohm
ASL550	950~2600	8	120	16.5	0.8	2.5	-12	-8	24	40.5	SOT89	75 ohm
ASL560	950~1500	8	120	17.5	0.3	2	-7	-17	22	40	SOT89	75 ohm
ASW318	50~2700	8	120	13	1	3.2	-4	-4	20	41.5	SOT89	75 ohm
ASW313	70~2700	5	95	14	0.6	2.4	-7	-9	20	40	SOT89	50 ohm
ASW335	70~2500	5	100	15	0.8	1.9	-7	-5	22.5	37	SOT89	50 ohm
AST20S	70~2700	5	63	16.8	0.7	1.2	-5	-14	19	33	SOT363	50 ohm
	900~2100	3	12	13.5	0.25	1.5	-6	-14	5	19.5		50 ohm
ASW205	500~2700	5	70	20.7	2.95	3.6	-17	-9	19.5	32.5	SOT89	50 ohm
ASW220	900~2100	5	75	16.4	0.2	3.8	-9	-9	18	32.5	SOT89	75 ohm
ASW212	70~2700	5	73	12.5	1.1	5.5	-14	-12	17.5	34	SOT89	50 ohm
ASW214	70~2700	5	52	17.5	0.9	5.5	-15	-9	15	29.5	SOT89	50 ohm
ASW204	500~3500	5	55	18	1.5	1.75	-14	-12	21	32.5	SOT363	50 ohm
		5.3	75	18.3	1.5	1.8	-15	-12	22.5	34		50 ohm
	500~3500	5	51	20	2	1.62	-14.3	-13.5	22.1	32.6		@950~2150MHz, 50 ohm
	950~2150	5	55	19.8	1.05	1.7	-14	-13	21.5	32		50 ohm
ASW311	500~3500	5	120	12.1	0.7	2.4	-12	-12	21	41	SOT89	50 ohm
ASW314	800~1500	5	105	15.5	0.2	2.0	-17	-18	22	43	SOT89	50 ohm
	900~2200	5	105	15	0.25	2.0	-9	-9	21.5	41		50 ohm
	50~2170	5	105	13.5	0.5	3.2	-15	-9	21.5	40		50 ohm
ASL330	150~2200	5	105	15.3	0.85	2.3	-9	-9	18	38	SOT89	50 ohm
ASL380	950~2150	5	110	16.8	0.1	2.6	-5	-15	19	38	SOT89	50 ohm