

HPA & LNA



Feature

- CDMA multicarrier operation
- Low cost, high efficiency and high reliability
- Several alarm and monitoring function
- Internal predistorter(Optional)
- Digital attenuator & Auto level contr

Application

Repeaters for Cellular, PCS and
IMT-2000, etc..



***High Power Amplifier*****Specification**

Part Number	Frequency Range (MHz)	Gain (dB)	Output Power (dBm)	Two-Tone IMD (dBc)	Supurious Emission	DC Power
RCA800-32-3L	824~849 869~894	40	+32.5avg. @ PA output	-15/30KHz at 1.23MHz	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V/1.8A
RCA800-42-3L	824~849 869~894	50	+42avg. @3FA	-15/30KHz	-45 @750KHz -65@1.98MHz	27V/6A
RCA800-39-3DL	824~849 869~894	50	+39avg. @3FA	-15/30KHz	-45 @750KHz -65@1.98MHz	27V/4.5A
RCA800-35-3BL	824~849 869~894	50	+34.8 avg. @PA output	-15/30KHz at 1.23MHz	-45dBc/30KHz at 750KHz -65dBc/30KHz at 1.98MHz	27V/1.8A
RCA800-29-3L	824~849 869~894	40	+29 avg. @ PA output	-15/30KHz at 1.23MHz	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V/1.8A
RCA800-39-3S	825~835	50	+39avg. @3FA CDMA	-15@36dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-35-3S	825~835	45	+35avg. @3FA CDMA	-16@32dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-36-3S	825~835	50	+36avg. @3FA CDMA	-15@33dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-33-3S	825~835	45	+33avg. @3FA CDMA	-15@30dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-37-1AS	825~835	45	+37avg. @ 1FA CDMA	-15@34dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-40-1AS	825~835	50	+40avg. @ 1FA CDMA	-15@37dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-30-1S	825~835	30	+30avg. @ 1FA CDMA	-20@27dBm/tone	-49dBc/30KHz at750KHz -68dBc/30KHz at 1.98MHz	27V
RCA800-40-1BS	870~880	50	+40avg. @ 1FA CDMA	-15@37dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-41-3BS	870~880	54	+41.5avg. @3FA CDMA	-15@38dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-39-3BS	870~880	50	+39avg. @3FA CDMA	-15@36dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-36-3BS	870~880	50	+36avg. @3FA CDMA	-15@33dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-35-3BS	870~880	45	+35avg. @3FA CDMA	-16@32dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-33-3BS	870~880	45	+33avg. @3FA CDMA	-15@30dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-44-1AS	870~880	54	+44avg. @ 1FA CDMA	-15@41dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-42-1AS	870~880	50	+42avg. @ 1FA CDMA	-15@39dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V
RCA800-37-1BS	870~880	45	+37avg. @ 1FA CDMA	-15@34dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at 1.98MHz	27V



High Power Amplifier

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Part Number	Frequency Range (MHz)	Gain (dB)	Output Power (dBm)	Two-Tone IMD (dBc)	Supurious Emission	DC Power
RCA800-43-1BS	870~880	50	+43avg. @1FA CDMA	-15@40dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at1.98MHz	27V
RCA800-44-1BS	870~880	54	+44avg. @1FA CDMA	-15@41dBm/tone	-45dBc/30KHz at750KHz -65dBc/30KHz at1.98MHz	27V
RCA800-30-1BS	870~880	30	+30avg. @1FA CDMA	-20@27dBm/tone	-49dBc/30KHz at750KHz -68dBc/30KHz at1.98MHz	27V
RPA1800-36-3ABL	1750~1780 1840~1870	37	36	-46@25dBm/ tone	-47 dBc @ 885KHz -61 dBc @ 1.98 MHz	12V/1.6A
RPA1800-39-3ABL	1750~1780 1840~1870	40	39	-45 @ 30dBm/tone	-45 dBc @ 885KHz -62 dBc @ 1.98 MHz	12V/3A
RPA1800-42-3ABL	1750~1780 1840~1870	50	42	-50 @ 32dBm/tone	-46 dBc @ 885KHz -60 dBc @ 1.98 MHz	12V/5A
RPA1700-33-3R	1750~1780	40	33(3FA)	-50 @ Pout=30dBm/tone	-50dBc @885KHz -68dBc @ 1.98MHz	27V
RPA1800-42-3BR	1840~1870	50	42(3FA)	-50 @ pout=39dBm/tone	-48dBc @885KHz -62dBc @ 1.98MHz	27V
RPA1800-44-3BR	1840~1870	50	44(3FA)	-50 @ pout=41dBm/tone	-45dBc @885KHz -60dBc @ 1.98MHz	27V
RUA1900-23-4AL	1940~1980	30	23/4FA	ACLR at±5.0MHz Pout=0.2W(4W-CDMA Carriers) -45 dBc Channel Integration B.W: 3.84MHz ACLR at±10.0MHz Pout=0.2W(4W-CDMA Carriers) -50 dBc Channel Integration B.W: 3.84MHz		12V/2A
RUA1900-27-4AL	1940~1980	40	27/4FA	ACLR at±5.0MHz Pout=0.2W(4W-CDMA Carriers) -45 dBc Channel Integration B.W: 3.84MHz ACLR at±10.0MHz Pout=0.2W(4W-CDMA Carriers) -50 dBc Channel Integration B.W: 3.84MHz		27V/1A
RUA1900-30-4AL	1940~1980	40	30/4FA	ACLR at±5.0MHz Pout=0.2W(4W-CDMA Carriers) -45 dBc Channel Integration B.W: 3.84MHz ACLR at±10.0MHz Pout=0.2W(4W-CDMA Carriers) -50 dBc Channel Integration B.W: 3.84MHz		27V/2A
RPA2100-20-4BL	2130~2150	35	20/4FA	ACLR at±5.0MHz Pout=0.2W(4W-CDMA Carriers) -45 dBc Channel Integration B.W: 3.84MHz ACLR at±10.0MHz Pout=0.2W(4W-CDMA Carriers) -50 dBc Channel Integration B.W: 3.84MHz		12V/1.3A
RPA2100-40-4BL	2130~2150	50	40/4FA	ACLR at±5.0MHz Pout=0.2W(4W-CDMA Carriers) -45 dBc Channel Integration B.W: 3.84MHz ACLR at±10.0MHz Pout=0.2W(4W-CDMA Carriers) -50 dBc Channel Integration B.W: 3.84MHz		27V
RPA2100-40-1BL	2130~2150	50	40(1FA)	-50 @Pout =37dBm/tone	@ Pout=40dBm fc=±5MHz -45dBc @ Pout=40dBm fc=±10MHz -50dBc	27V

Low Noise Amplifier

Specification

Part Number	Freq. Range (MHz)	Gain (dB)	Gain(dB) Flatness (max)	N.F (dB)	In/Out VSWR	P1dB (dBm)	OIMD3 (dBc)	OIP3 (dBm)	DC Power (V/A)	Dimension (WxLxH) (mm)
RLA1-284A	283~285	32	±0.3	1.5	1.5/1.5	21	-	26	5~12V/250mA	SMD TYPE
RLA-F405G20N1.5	380~430	20±0.8	±0.5	1.5	-	14	-	9	18V/100mA	66 x 47.5 x 15
RLA-F450G20N1.5	430~470	20	-	1.5	-	14	-	9	12V/80mA	61.5 x 45 x 14
RLA1-450A	445~455	35	±0.3	1.5	1.5/1.5	18	-	30	5~12V/250mA	SMD TYPE
RLA-F475G32N1.3	450~500	32	±1.0	1.3	1.3:1	18	-	30	13.8V	92.6 x 45 x 20
RLA1-517A	506~528	35	±0.3	1.8	1.5/1.5	18	-	30	5~12V/250mA	SMD TYPE
RLA-F835G45N0.8	820~850	45±1.0	±0.5	0.8	1.5:1	22	72	36	12V	85 x 50 x 20
RLA1-830B	824~849	32	±0.3	0.9	1.3/1.3	18	-	30	5~12V/250mA	SMD TYPE
RLA1-830A	824~849	30	±0.3	0.9	1.3/1.3	18	-	30	5~12V/250mA	SMD TYPE
RLA1-830C	824~849	30	±0.3	0.9	1.3/1.5	21	-	35	5~12V/250mA	SMD TYPE
RLB1-830A	824~849	50	±0.3	0.9	1.3/1.3	21	-	37	9.0V/350mA	SMD TYPE
RLB1-830B	824~849	40	±0.3	0.9	1.3/1.3	21	-	37	9.0V/350mA	SMD TYPE
RLA-F835G35N0.9	824~849	35±0.4	±0.5	0.9	1.2:1	20	70	35	27V	80 x 45 x 16
RLA-F835G32N1	824~849	32±1.0	±0.5	1.0	1.3:1	21	70	35	12V	80 x 45 x 16
RLA-F836.5G37N0.8	824~849	37±1.0	±0.5	0.6	1.2:1	23	-	38	8~12V	61 x 14 x 45
RLB2-830A	824~849	30	±0.3	0.9	1.3/1.3	19	-	30	6V/250mA	SMD TYPE
RLB2-830B	824~849	32	±0.3	0.9	1.3/1.3	18	-	30	6V/250mA	SMD TYPE
RLE1-830A	824~849	40	±0.3	0.9	1.3/1.3	21	-	37	9~12V/0.5A	55x34x14
RLH1-830A	824~849	40	±0.3	0.9	1.3/1.3	21	-	37	9~12V/0.5A	80x50x14
RLC2-838AH	835~840	35	±0.3	1.5	1.3/1.3	21	-	37	9~12V/0.6A	120x92x30
RLA-F878G37N0.8	860~895	37±1.5	±0.5	0.8	1.2:1	20	70	35	12V	80 x 45 x 16
RLA-F877.5G37N0.8	860~895	37±1.0	±0.5	0.6	1.2:1	23	-	38	12V/150mA	61 x 14 x 45
RLA-F880G45N0.8	860~900	45±1.0	±0.5	0.8	1.2:1	22	72	36	12V	85 x 50 x 20
RLA1-875A	869~894	30	±0.3	0.9	1.3/1.3	18	-	30	5~12V/250 mA	SMD TYPE
RLA1-875B	869~894	32	±0.3	0.9	1.3/1.3	18	-	30	5~12V/250 mA	SMD TYPE
RLA1-875C	869~894	30	±0.3	0.9	1.3/1.3	21	-	35	5~12V/250 mA	SMD TYPE
RLB1-875A	869~894	50	±0.3	0.9	1.3/1.3	21	-	37	9.0V/350 mA	SMD TYPE
RLB1-875B	869~894	40	±0.3	0.9	1.3/1.3	21	-	37	9.0V/350 mA	SMD TYPE
RLB2-875A	869~894	30	±0.3	0.9	1.3/1.3	18	-	30	6V/250 mA	SMD TYPE
RLB2-875B	869~894	32	±0.3	0.9	1.3/1.3	18	-	30	6v/250 mA	SMD TYPE
RLA-F881G32N1	869~894	32±1.0	±0.5	1.0	1.3:1	21	70	35	12V	80 x 45 x 16
RLA1-906A	887~925	30	±0.3	0.9	1.3/1.3	18	-	30	5~12V/250 mA	SMD TYPE
RLA-F902G45N0.9	890~915	45±1.0	±0.5	0.9	1.5:1	20	50	35	12V	80 x 45 x 16
RLA-F902.5G45N0.9	890~915	45±1.0	±0.5	0.9	1.5:1	20	50	35	12V	80 x 45 x 16
RLA1-931A	902~960	30	±0.3	0.9	1.3/1.3	18	-	30	5~12V/250 mA	SMD TYPE
RLA-F947G45N0.9	935~960	45±1.0	±0.5	0.9	1.5:1	20	50	35	12V	80 x 45 x 16
RLA1-1440A	1429~1453	30	±0.3	1.0	1.3/1.3	18	-	30	5~12V/250 mA	SMD TYPE
RLB2-1434A	1430~1438	30	±0.3	0.9	1.3/1.3	18	-	30	6V/250 mA	SMD TYPE
RLA1-1490A	1477~1501	30	±0.3	1.0	1.3/1.3	18	-	30	6V/250 mA	SMD TYPE
RLB2-1482A	1478~1486	30	±0.3	0.9	1.3/1.3	18	-	30	6V/250 mA	SMD TYPE
RLA-F1540G25N1	1520~1560	25	±0.5	1.5	1.5:1	-	-	10	15V	60 x 44 x 14
RLA-F1730G23N1.5	1700~1760	23±1.0	±0.5	1.5	-	-	-	25	10V	55 x 35 x 20
RLA-F1755G35N1	1740~1770	35±1.0	±0.5	1.0	1.2:1	20	58	29	5V	80 x 45 x 16
RLA-F1755G40N0.95	1740~1770	35±1.0	±0.5	0.95	1.3:1	20	55	27	12V	80 x 45 x 16

Low Noise Amplifier

Specification

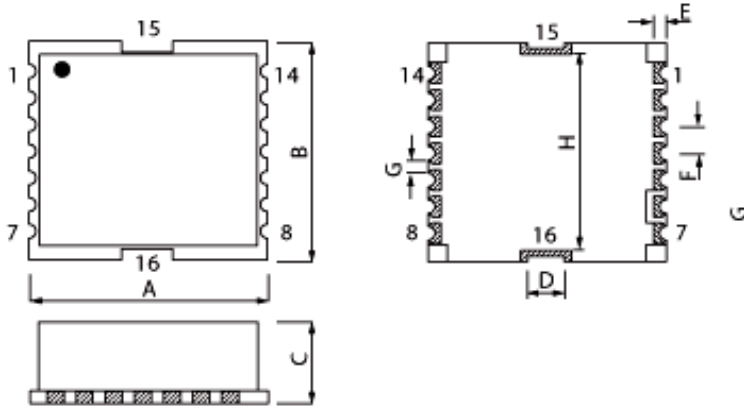
Part Number	Freq. Range (MHz)	Gain (dB)	Gain(dB) Flatness (max)	N.F (dB)	In/Out VSWR	P1dB (dBm)	OIMD3 (dBc)	OIP3 (dBm)	DC Power (V/A)	Dimension (WxLxH) (mm)
RLH1-1745A	1740~1780	40	±0.3	0.9	1.3/1.3	21	-	37	9~12V/0.5A	80x50x14
RLE1-1760A	1740~1780	40	±0.3	0.9	1.3/1.3	21	-	37	9~12V/0.5A	55x34x14
RLA1-1765A	1750~1780	30	±0.3	1	1.3/1.3	18	-	30	5~12V/250mA	SMD TYPE
RLA1-1765B	1750~1780	26	±0.3	0.9	1.3/1.3	21	-	30	5~12V/250mA	SMD TYPE
RLB1-1760A	1750~1780	40	±0.3	0.9	1.3/1.3	21	-	37	9.0V/350mA	SMD TYPE
RLA-F1750G42N0.9	1750~1760	42±1.0	±0.5	0.9	1.3:1	23	74	37	12V	80 x 45 x 16
RLA-F1765G40N1	1760~1770	40±1.0	±0.5	0.95	1.3:1	20	58	29	12V	85 x 50 x 20
RLA-F1845G40N0.95	1830~1860	40±1.0	±0.5	0.95	1.3:1	20	55	27	12V	80 x 45 x 16
RLA1-1855A	1840~1870	30	±0.3	1	1.3/1.3	18	-	30	5~12V/250mA	SMD TYPE
RLA1-1855B	1840~1860	26	±0.3	0.9	1.3/1.3	21	-	37	5~12V/250mA	SMD TYPE
RLB1-1850A	1840~1870	40	±0.3	0.9	1.3/1.3	21	-	37	9.0V/350Ma	SMD TYPE
RLA1-1950A	1920~1980	30	±0.5	1	1.5/1.5	18	-	30	5~12V/250mA	SMD TYPE
RLA1-1950B	1920~1980	25	±0.5	1	1.5/1.5	21	-	37	5~12V/250mA	SMD TYPE
RLD1-1960A	1940~1960	45	±0.3	1	1.3/1.3	27	-	41	12V/1 mA	85x70x20
RLB1-1970A	1960~1980	40	±0.3	1.0	1.5/1.5	21	-	37	9.0V/350Ma	SMD TYPE
RLA1-2140A	2110~2170	30	±0.3	1.1	1.5/1.5	18	-	30	5~12V/250mA	SMD TYPE
RLA1-2140B	2110~2170	24	±0.3	1	1.5/1.5	21	-	37	5~12V/250mA	SMD TYPE
RLB1-2160C	2150~2170	40	±0.3	1.0	1.5/1.5	21	-	37	9.0V/350mA	SMD TYPE
RLA-F2450G45N1.8P17	2450	40±1.0	±0.2	1.8	2.0:1	17	-	30	-	94 x 47 x 18
RLA-F3300G30N2	3100~3500	20~30	±1.0	2.0	1.5:1	20	50	35	12V	85 x 50 x 20
RLA-F3300G35N2	3100~3500	35	±2.0	2.0	1.6:1	22	52	-	12V	85 x 50 x 20
RLA-F3300G35N2.5	3100~3500	35(±1)	ATT 0dB<2 ATT10dB<3.5	ATT 0dB<2 ATT10dB<2.5	1.6:1	22	ATT 0dB<52 ATT10dB<48	-	12	85 x 50 x 20
RLA-F9750G30N2.5	9250~10250	30	-	2.5	1.5:1	10	45	-	-	72 x 47 x 21
RLA-F9750G60P12	9250~10250	60	±0.2	-	1.5:1	12	-	25	24V	50 x 100 x 40

Low Noise Amplifier

***SMD Type(RLA1 Series)**

Dimensions(mm/inch)			
A	19.5/0.77	E	1.0/0.04
B	19.5/0.77	F	2.3/0.09
C	6.5/0.26	G	0.8/0.03
D	4.0/0.16	H	17/0.67
tolerance:±0.2/0.008			

Pin No.	Connection	Pin No.	Connection
6	RF In	8	Vcc
13	RF Out	All other pins are GROUND	



***SMD Type (RLB1, RLB2 Series)**

Dimensions(mm/inch)			
A	29.0/1.14	G	26.0/1.02
B	30.0/1.18	H	27.0/1.06
C	8.0/0.31	I	9.8/0.39
D	3.0/0.12	J	1.5/0.06
E	1.1/0.04	K	1.5/0.06
F	1.9/0.07	tolerance:±0.2/0.008	

Pin No.	Connection	Pin No.	Connection
8	RF In	12	Vcc
18	RF Out	All other pins are GROUND	

