

General Purpose Amplifiers



Overview

Freescale's general purpose amplifiers are designed for today's demanding, high data rate wireless applications in frequencies ranging from 0 to 6000 MHz. These amplifiers are designed using highly reliable InGaP HBT, E-pHEMT and HFET technologies, and are available in cost-effective surface mount packages.

Gain Block/Pre-Driver Amplifier

Part Number	Frequency Range (MHz)	Test Frequency (MHz)	Small Signal Gain (dB)	Noise Figure (dB)	P1dB (dBm)	OIP3 (dBm)	Supply Voltage (V)	Supply Current (mA)	Package
MMG38151B	0-6000	3800	17.1	3.5	13.4	25	5	47	SOT-89
MMG3007N	0-6000	900	19	3.8	16	30	5	47	SOT-89
MMG3012N	0-6000	2140	15.8	3.8	19	32	5	70	SOT-89
MMG3H21N	0-6000	2140	16	5.5	19.8	34	5	90	SOT-89
MMG3015N	0-6000	2140	14.5	5.6	20.5	33.5	5	95	SOT-89

Driver Amplifier (Vdc = 5 Volts)

Part Number	Frequency Range (MHz)	Test Frequency (MHz)	Small Signal Gain (dB)	Noise Figure (dB)	P1dB (dBm)	OIP3 (dBm)	R _{θJC} (°C/W)	Supply Current (mA)	Package
MMG20241H	450-3800	2655	17.8	2.1	23.9	38	57	78	SOT-89
MMG15241H	500-2800	2600	14.4	1.3	24	40.6	59	85	SOT-89
MMG3014N	40-4000	2140	15	5.7	25.8	40.5	27.4	135	SOT-89
MMG3004N	400-2200	2140	17	3.4	27	44	23.2	250 ⁽¹⁾	PQFN 5 × 5
MMG20271H9	1500-2700	2140	16	1.7	27.5	43.1	29	215	SOT-89
MMG3005N	800-2200	2140	15	5	30	47	21.5	480 ⁽¹⁾	PQFN 5 × 5
MMG3006N	400-2400	2140	14	6.6	33	49	7.8	850 ⁽¹⁾	QFN 4 × 4

1. Nominal supply current is fully adjustable

Target Applications

- Cellular base station (GSM, LTE, W-CDMA, TD-SCDMA, CDMA)
- DAS
- Smart Energy (IEEE® 802.15.4 ZigBee®), femtocell, DVB-T, mobile radio, public safety, radar
- Buffer amp, LO amp, gain block, pre-driver, driver



Freescale offers comprehensive global in-region support to help you with your design. Contact your local Freescale sales office or authorized Freescale distributor for additional information and sample availability.

For more information, visit freescale.com/RFlowpower

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