



Fact Sheet

Power GaAs pHEMT

Applications

- Enterprise femtocell, picocell, land mobile, public safety, radar
- Cellular BTS (GSM, LTE, W-CDMA, TD-SCDMA, CDMA)

Freescale's high efficiency power pHEMT transistors are designed for today's demanding, high data rate small cell applications in frequencies ranging from 100 to 5000 MHz. These transistors are available in cost-effective surface mount plastic and air cavity ceramic packages. These transistors can be used in combination with Freescale's general purpose driver amplifiers to build a complete transmit chain.

GaAs Linear Power Transistors

Part Number	Frequency Range (MHz)	Gain (dB)	Test Frequency (MHz)	ACPR (dBc @ Pout)	Eff (%)	P1dB (dBm)	V _{DD} (V)	Supply Current (mA)	θ _{JC} (°C/W)	Package
MRFG35003ANT1	100–5000	15	1960	-43 @ 27 dBm	25	35	12	55	15.9	PLD 1.5
MRFG35003N6AT1	100–5000	12	2140	-43 @ 27 dBm	25	35	6	180	5.9	PLD 1.5
MRFG35005ANT1	100–5000	13	1960	-45 @ 27 dBm	25	37	12	80	13.7	PLD 1.5
MRFG35010ANT1	100–5000	16	750	-43 @ 30 dBm	25	39.5	12	120	6.5	PLD 1.5
MRFG35010AR1	100–5000	15	2100	-43 @ 30 dBm	25	40	12	120	4	NI-360HF



Driver Amplifiers

Part Number	Frequency Range (MHz)	Small Signal Gain (dB)	Test Frequency (MHz)	Noise Figure (dB)	OIP3 (dBm)	P1dB (dBm)	θ _{JC} (°C/W)	Supply Current (mA)	Package
MMG15241H	500–2800	14.4	2600	1.3	40.6	24	59	85	SOT-89
MMG20271H	1500–2700	16	2140	1.7	42	27.5	38	180*	QFN 3x3
MMG20271H9	1500–2700	16	2140	1.7	43.1	27.5	29	215	SOT-89
MMG3014N	40–4000	15	2140	5.7	40.5	25.8	27.4	135	SOT-89
MMG3004N	400–2200	17	2140	3.4	44	27	23.2	250*	PQFN 5x5

1. Nominal supply current is fully adjustable

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/RFMMIC