

Replaced by MHL19338NN. There are no form, fit or function changes with this part replacement.

PCS Band RF Linear LDMOS Amplifier

Designed for ultra-linear amplifier applications in 50 ohm systems operating in the PCS frequency band. A silicon FET Class A design provides outstanding linearity and gain. In addition, the excellent group delay and phase linearity characteristics are ideal for digital modulation systems, such as TDMA and CDMA.

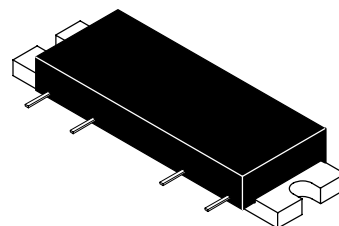
- Third Order Intercept: 46 dBm Typ
- Power Gain: 30 dB Typ (@ f = 1960 MHz)
- Input VSWR \leq 1.5:1

Features

- Excellent Phase Linearity and Group Delay Characteristics
- Ideal for Feedforward Base Station Applications
- N Suffix Indicates Lead-Free Terminations

MHL19338N

**1900-2000 MHz
4.0 W, 30 dB
RF LINEAR LDMOS AMPLIFIER**



CASE 301AP-02, STYLE 1

Table 1. Absolute Maximum Ratings ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Rating	Symbol	Value	Unit
DC Supply Voltage	V_{DD}	30	Vdc
RF Input Power	P_{in}	+10	dBm
Storage Temperature Range	T_{stg}	- 40 to +100	$^\circ\text{C}$
Operating Case Temperature Range	T_C	- 20 to +100	$^\circ\text{C}$

Table 2. Electrical Characteristics ($V_{DD} = 28$ Vdc, $T_C = 25^\circ\text{C}$; 50 Ω System)

Characteristic	Symbol	Min	Typ	Max	Unit
Supply Current	I_{DD}	—	500	525	mA
Power Gain (f = 1960 MHz)	G_p	29	30	32	dB
Gain Flatness (f = 1900 - 2000 MHz)	G_F	—	0.1	0.4	dB
Power Output @ 1 dB Compression (f = 1950 MHz)	P_{1dB}	35	36	—	dBm
Third Order Intercept (f1 = 1950 MHz, f2 = 1955 MHz)	ITO	45	46	—	dBm
Noise Figure (f = 2000 MHz)	NF	—	4.2	4.5	dB

NOTE - CAUTION - MOS devices are susceptible to damage from electrostatic charge. Reasonable precautions in handling and packaging MOS devices should be observed.

REVISION HISTORY

The following table summarizes revisions to this document.

Revision	Date	Description
7	Dec. 2006	<ul style="list-style-type: none">Added replacement part information, p. 1

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Technical Information Center
Schatzbogen 7
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Japan:

Freescale Semiconductor Japan Ltd.
Headquarters
ARCO Tower 15F
1-8-1, Shimo-Meguro, Meguro-ku,
Tokyo 153-0064
Japan
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Asia/Pacific:

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