

Test Report IMEH0030-6 ClassAB 30-3000MHz

Jan 2th, 2024

Introduction

This amplifier is designed with Innogrations 28V IMEH0030-6 LDMOS

Demo and Transistor

Frequency band : 30-3000 MHz
 Application : Telecom
 Configuration : Class AB
 Test Signal : CW
 Transistor : IMEH0030-6
 Date code :
 PCB : 20 Mil Rogers 4350B

The amplifier has been characterized under the following conditions:

- Network Analyzer plots for gain and IRL.
- P1dB and P3dB Peak power measurement using the CW Signal.
- RF Test Bench 3

Note: The PA is tested with a supply voltage of $V_{DS}=12.5V$, $I_{DQ}=60\text{ mA}$ $V_{GS}=2.80V$. all measurements unless otherwise noted.

Test Results:

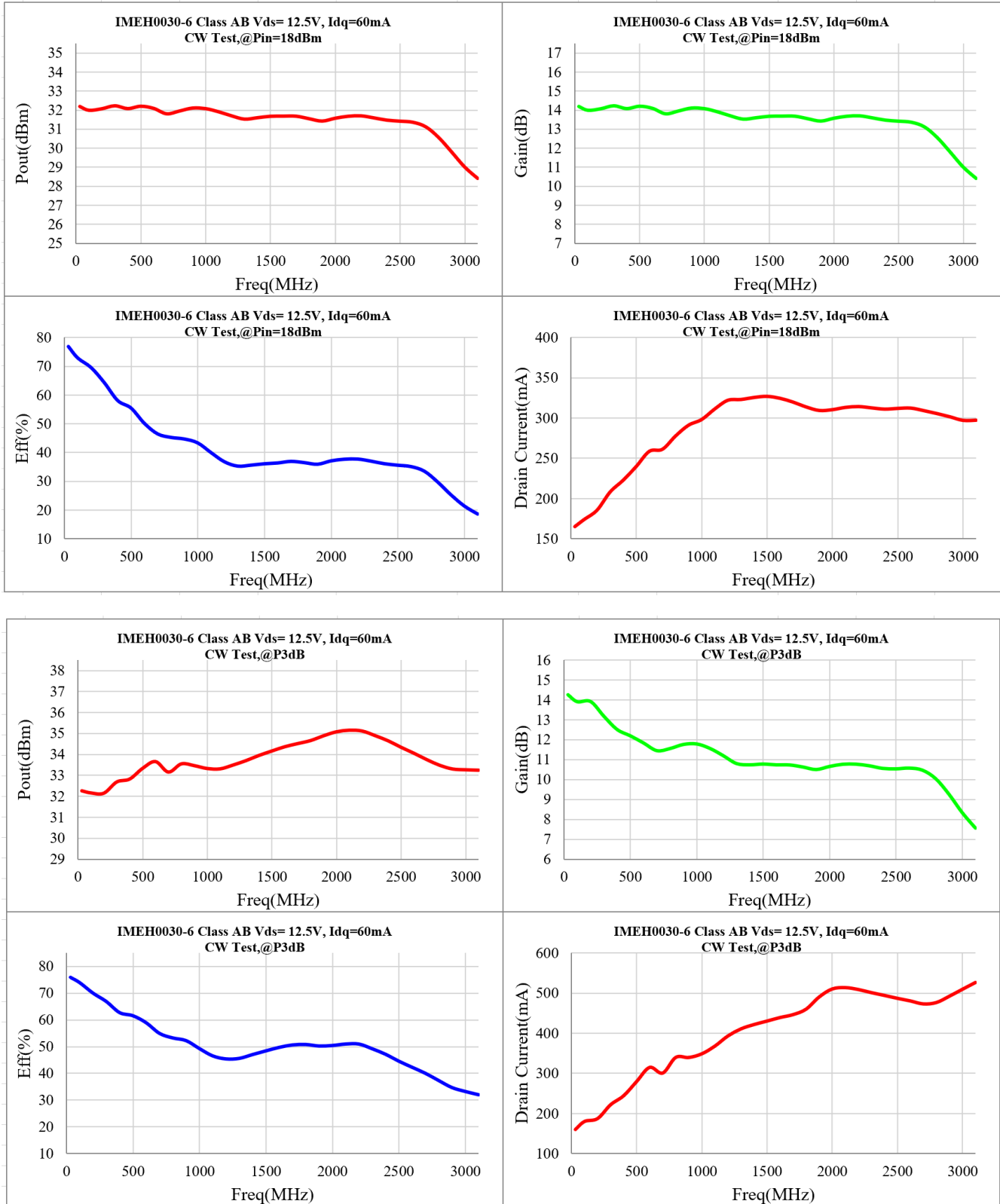
1. CW Test

**$V_{DS}=12.5V$, $I_{DQ}=60\text{ mA}$
 $V_{GS}=2.8V$**

Parameter	30MHz	0.5GHz	1.0GHz	1.5GHz	2.0GHz	2.5GHz	3.0GHz	Units
Linear Gain	17.2	15.2	14.8	13.8	13.6	13.5	11.3	dB
Pout@Pin=18dBm	1.6	1.6	1.6	1.5	1.4	1.4	1.0	W
Gain@Pin=18dBm	14.2	14.2	14.1	13.7	13.6	13.4	11.0	dB
Eff@ Pin=18dBm	77	55	43	36	37	35	21	%

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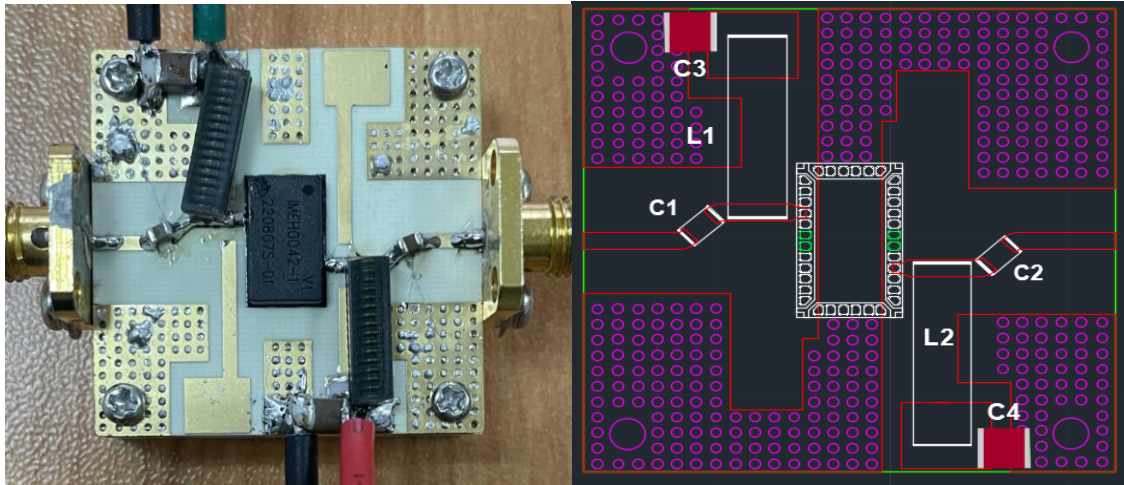
IMEH0030-6 30-3000MHz



ZHH-24-02

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2 DEMO And BOM Picture



		Part NO.	Vendor
C3,C4	10uF 100V chip Capacitor	C5750X7S2A106M230KB	TDK
C1,C2	50V 1uF Chip Capacitor	GRM21BR71H105KA12L	muRata
L1,L2	1.3 uH 4.2A Inductor	4310LC-132KEC	Coilcraft
PCB	RO4350B,20mil,er=3.48		