

ZHH-24-01
IMEH0017-8 30-1500MHz

Test Report IMEH0017-8 ClassAB 30-1500MHz

Jan 31th, 2022

Introduction

This amplifier is designed with Innogrator 28V IMEH0017-8 LDMOS

Demo and Transistor

Frequency band : 30-1500 MHz
 Application : Telecom
 Configuration : Class AB
 Test Signal : CW
 Transistor : IMEH0017-8
 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 $V_{DS}=12.5V$, $I_{DQ}=80\text{ mA}$ $V_{GS}=2.70V$. all measurements unless otherwise noted.

Test Results:

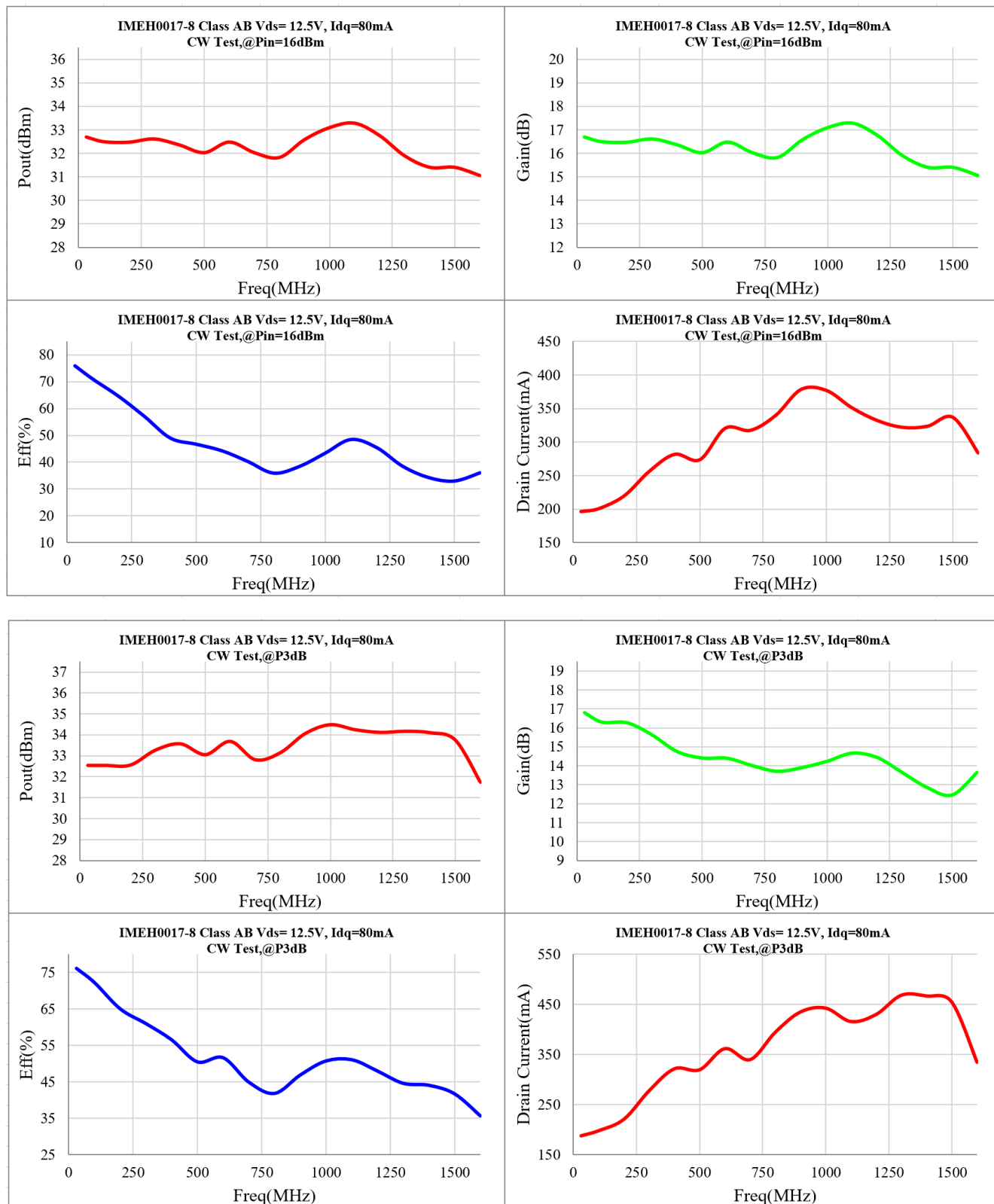
1. CW Test

**$V_{DS}=12.5V$, $I_{DQ}=80\text{ mA}$
 $V_{GS}=2.70V$**

Parameter	30MHz	0.2GHz	0.5GHz	0.8GHz	1.0GHz	1.2GHz	1.5GHz	Units
Linear Gain	19.8	19.3	17.4	16.7	17.2	17.4	15.5	dB
Pout@Pin=16dBm	1.9	1.8	1.6	1.5	2.0	1.9	1.4	W
Gain@Pin=16dBm	16.7	16.5	16.0	15.8	17.0	16.8	15.4	dB
Eff@ Pin=16dBm	76	65	47	36	43	45	33	%

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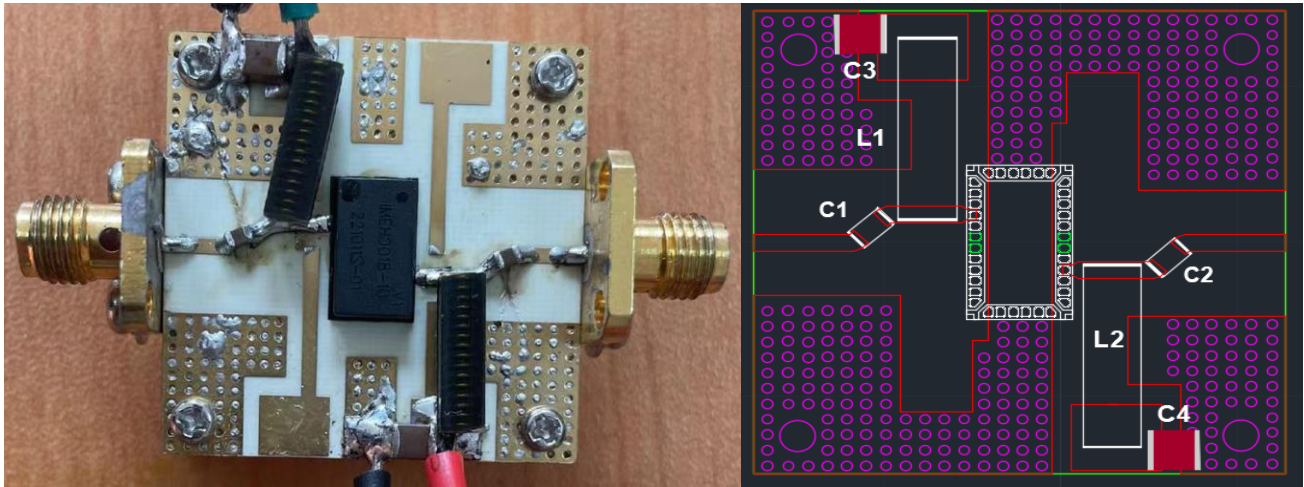
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2 DEMO And BOM Picture



		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		