

Test Report ITEH40001P3 2000-2700MHz

2024-9-29

Introduction

This amplifier is designed with Innogration 28V ITEH40001P3 LDMOS

Demo and Transistor

Frequency band : 2000-2700MHz
 Application : Telecom
 Configuration : Class AB
 Test Signal : Pulsed CW, WCDMA
 Transistor : ITEH40001P3
 Date code : N/A
 PCB : 20 Mil RO4350B

The amplifier has been characterized under the following conditions:

- Network Analyzer plots for gain and IRL.
- P3dB Peak power measurement using the Pulse, 20uS width, 10% cycle.
- RF Test Bench 3

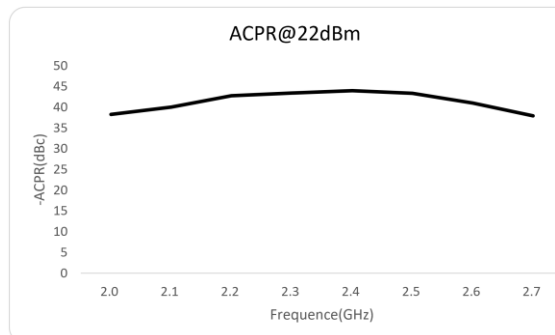
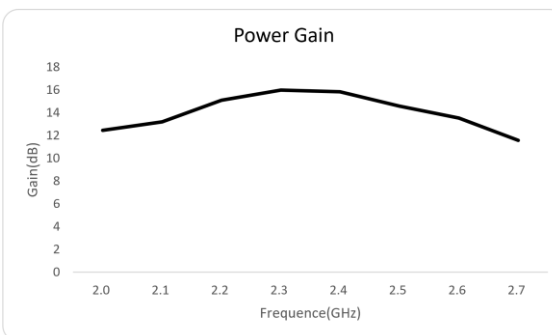
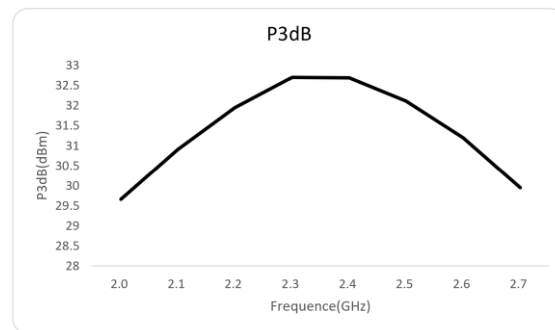
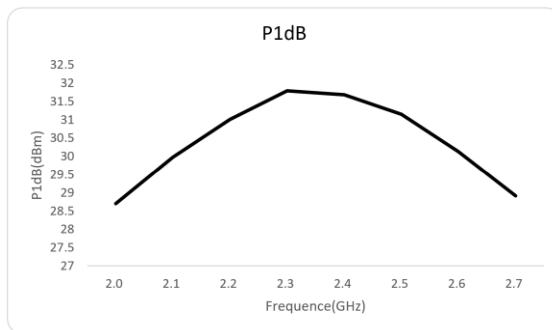
Test Results:

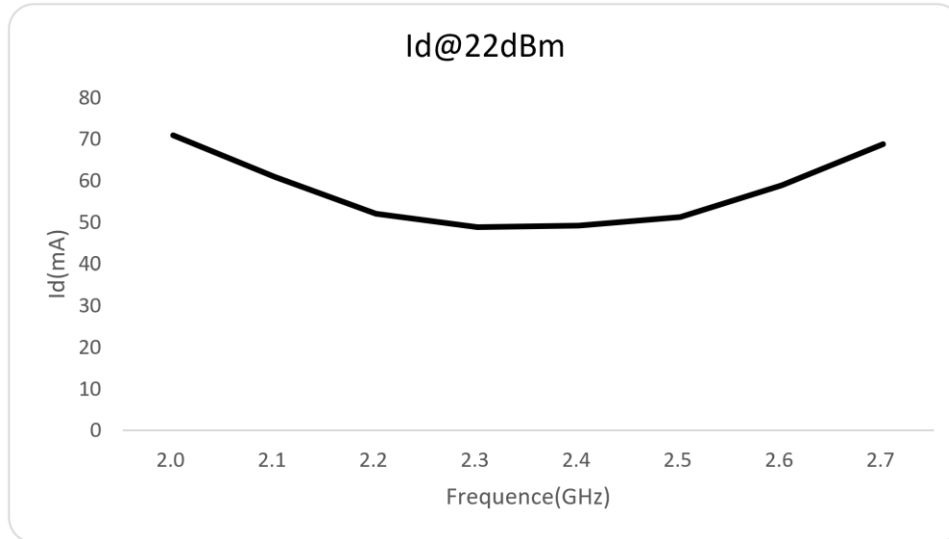
1. RF Performance

i. RF test data

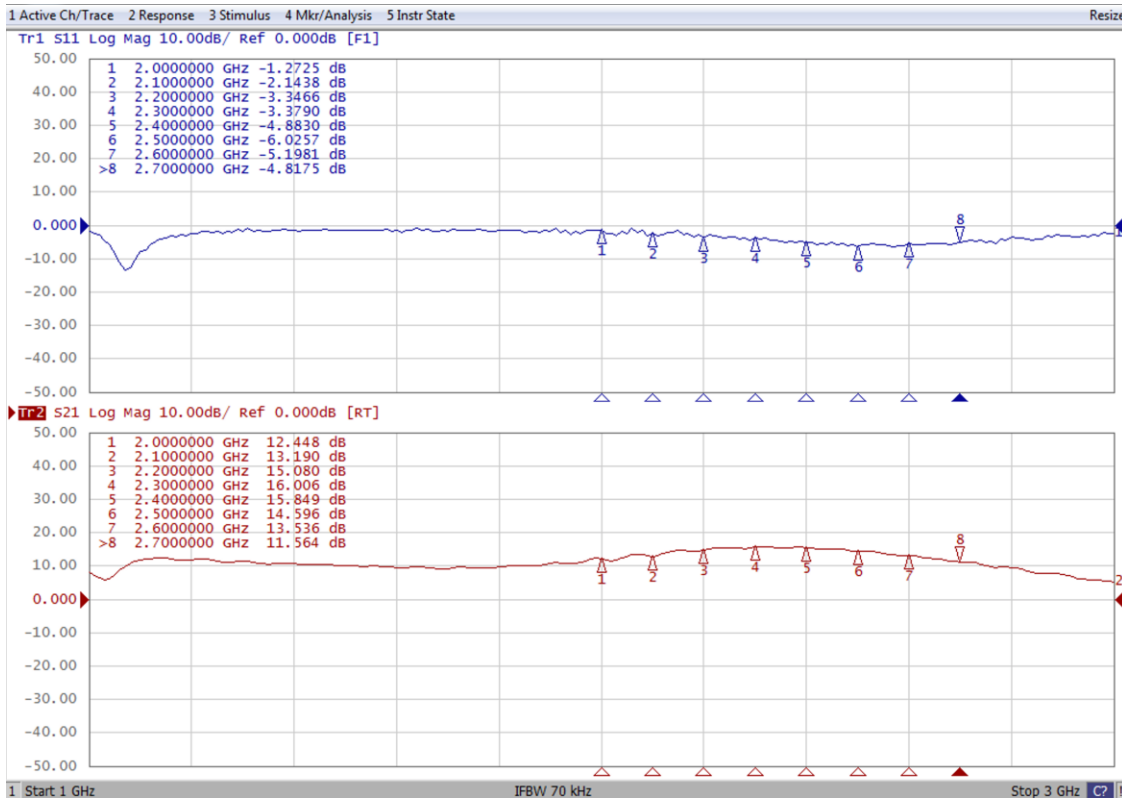
$V_{DS}=28V$, $I_{DQ}=20mA$ ($V_{GS}=2.87V$)

(1C-WCDMA Signal PAR = 10.8dB @ 0.01% Probability on CCDF.)



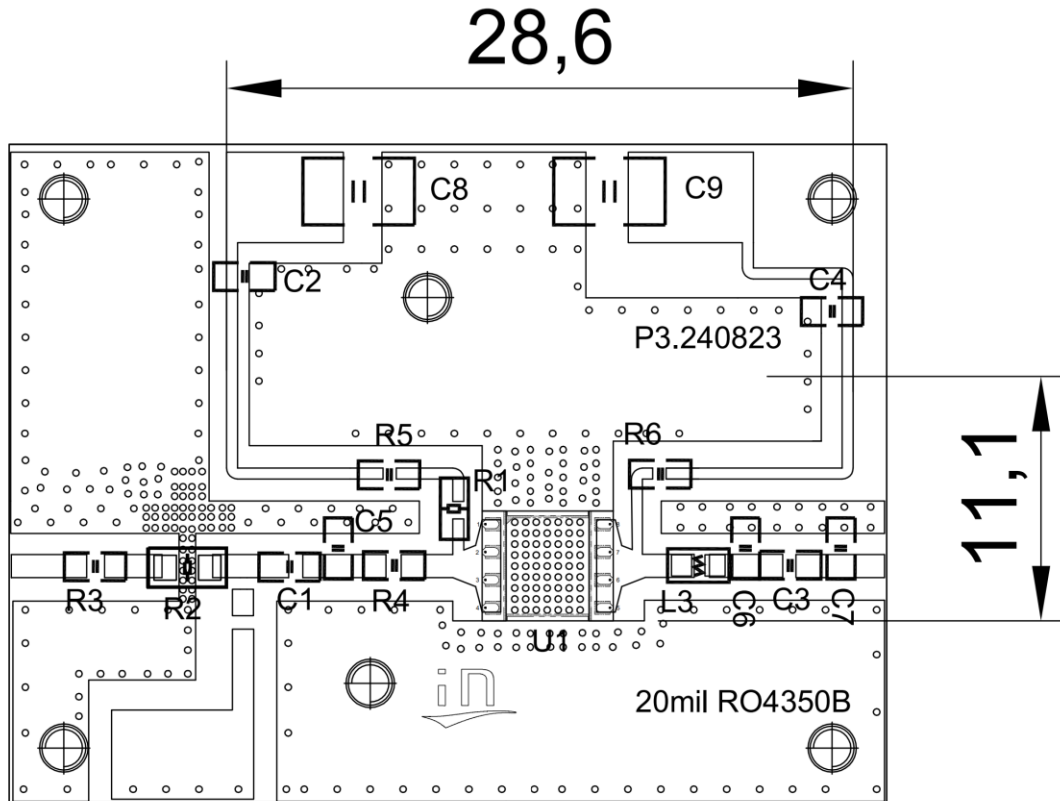


2. S-Parameter test data



3. PCB Layout and BOM

(i) PCB Layout



(ii) BOM of Test Circuit

Reference	Footprint	Value	Quantity
C1, C2, C3, C4	0603	12pF/250V	4
C5	0603	1.5pF/250V	1
L3	0603	2.2nH	1
C6	0603	0.6pF/250V	1
C7	0603	1.0pF/250V	1
C8, C9	1210	10uF/100V	2
R1	0603	10R	1
R2	0805	0R	1
R3, R4, R5, R6	0603	0R	4
U1	6*5mm	ITEH40001P3	1