

# Test Report ITEH40001P3 1000-2000MHz

**2024-9-28**

**Introduction**

This amplifier is designed with Innogration 28V ITEH40001P3 LD MOS

**Demo and Transistor**

Frequency band : 1000-2000MHz  
 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 1

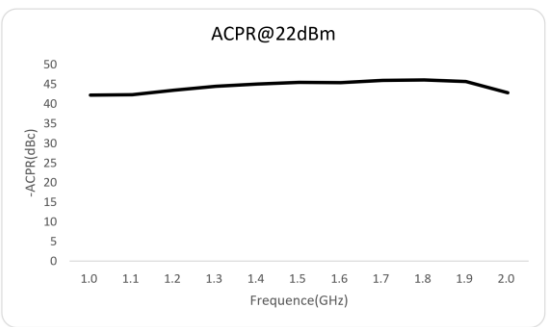
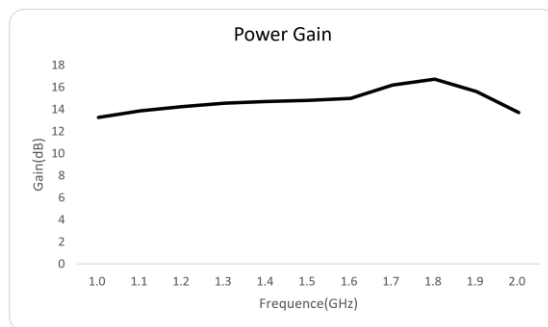
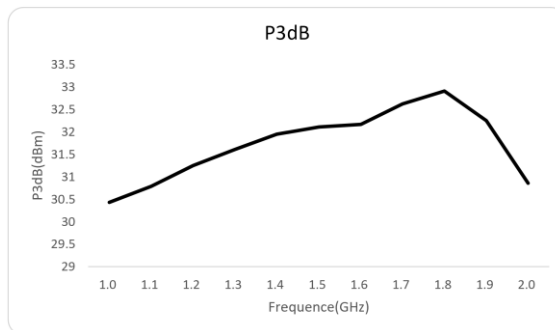
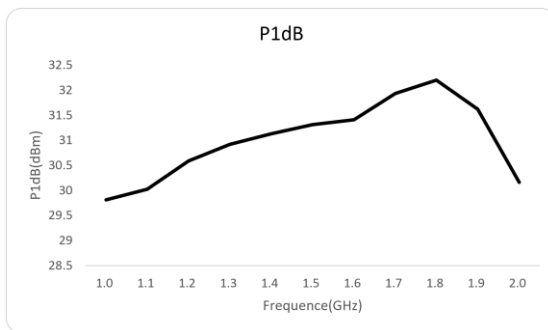
**Test Results:**

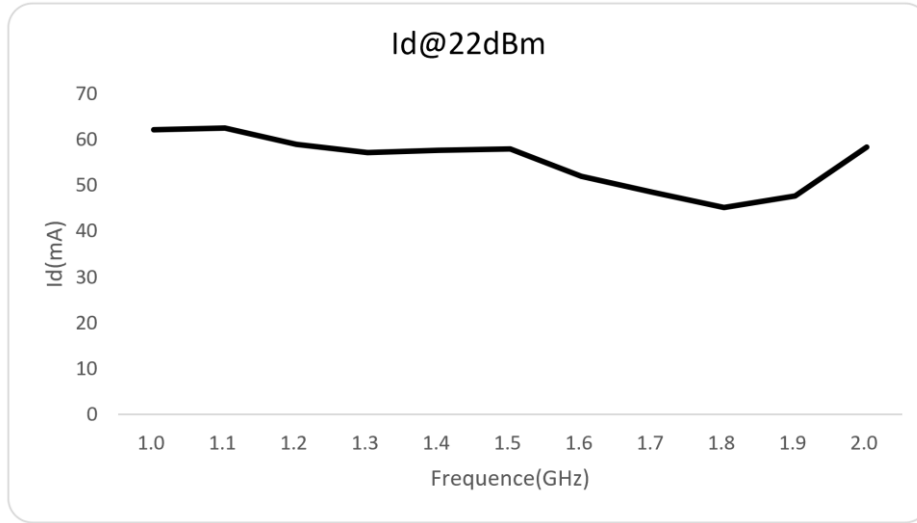
**1. RF Performance**

**i. RF test data**

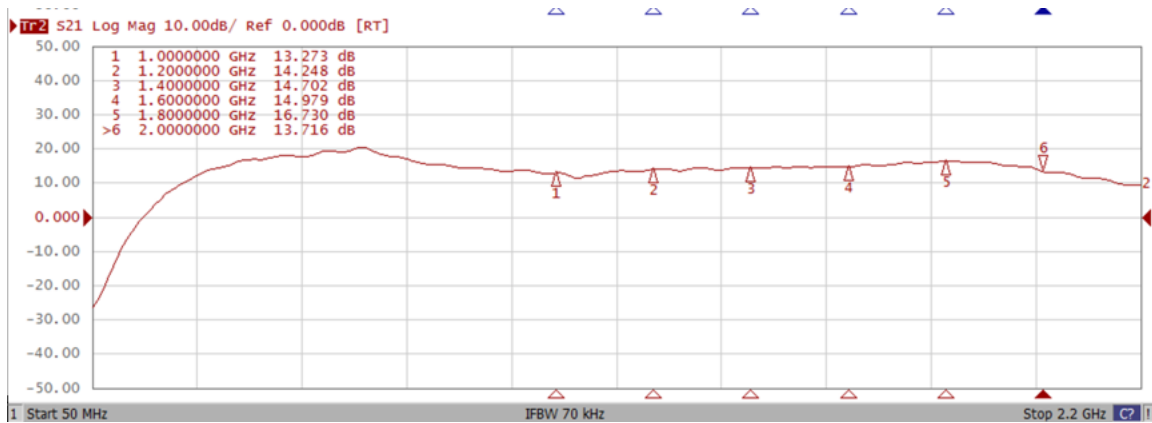
**V<sub>DS</sub>= 28V, I<sub>DQ</sub>=20mA(V<sub>gs</sub>=2.87V)**

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

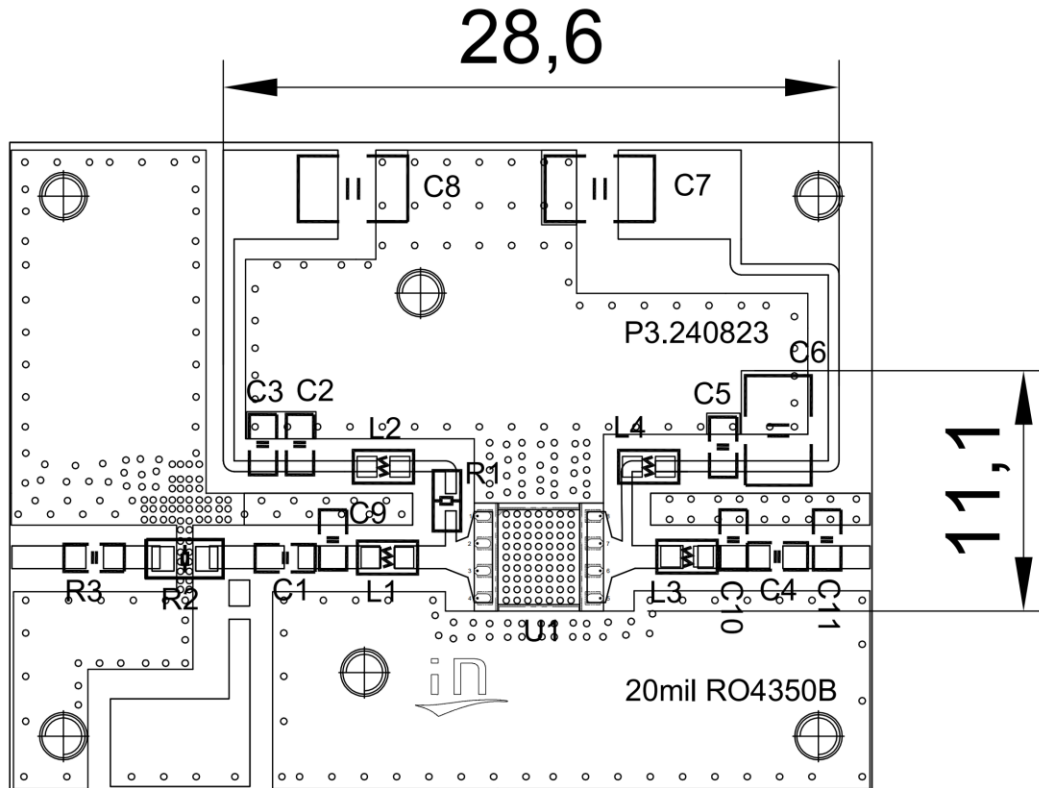




## 2. Small signal Gain



**3. PCB Layout and BOM**  
**(i) PCB Layout**



**(ii) BOM of Test Circuit**

Reference	Footprint	Value	Quantity
C1, C2, C4, C5	0603	20pF/250V	4
C9	0603	1.5pF/250V	1
C3	0805	10nF/50V	1
L2, L4	0805	470nH	2
L1	0603	2.2nH	1
L3	0603	4.7nH	1
C10	0603	0.6pF/250V	1
C11	0603	1.0pF/250V	1
C6, C7, C8	1210	10uF/100V	3
R1	0603	10R	1
R2	0805	0R	1
R3	0603	0R	1
U1	6*5mm	ITEH40001P3	1