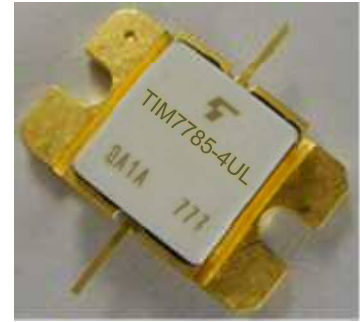


**FEATURES**

- **BROAD BAND INTERNALLY MATCHED FET**
- **HIGH POWER**  
P1dB= 36.5dBm at 7.7GHz to 8.5GHz
- **HIGH GAIN**  
G1dB= 8.5dB at 7.7GHz to 8.5GHz
- **LOW INTERMODULATION DISTORTION**  
IM3(MIN.) = -44dBc at Pout= 25.5dBm (Single Carrier Level)
- **HERMETICALLY SEALED PACKAGE**



**RF PERFORMANCE SPECIFICATIONS ( Ta= 25°C )**

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Output Power at 1dB Gain Compression Point	P1dB	VDS= 10V IDSset= 0.9A f= 7.7 to 8.5GHz	dBm	35.5	36.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	7.5	8.5	—
Drain Current	IDS1		A	—	1.1	1.3
Gain Flatness	ΔG		dB	—	—	±0.6
Power Added Efficiency	ηadd		%	—	35	—
3rd Order Intermodulation Distortion	IM3	Two-Tone Test Po= 25.5dBm, Δf= 5MHz (Single Carrier Level)	dBc	-44	-47	—
Drain Current	IDS2		A	—	1.1	1.3
Channel Temperature Rise	ΔTch	(VDS × IDS + Pin - P1dB) × Rth(c-c)	°C	—	—	80

**Recommended Gate Resistance(Rg): 150 Ω**

**ELECTRICAL CHARACTERISTICS ( Ta= 25°C )**

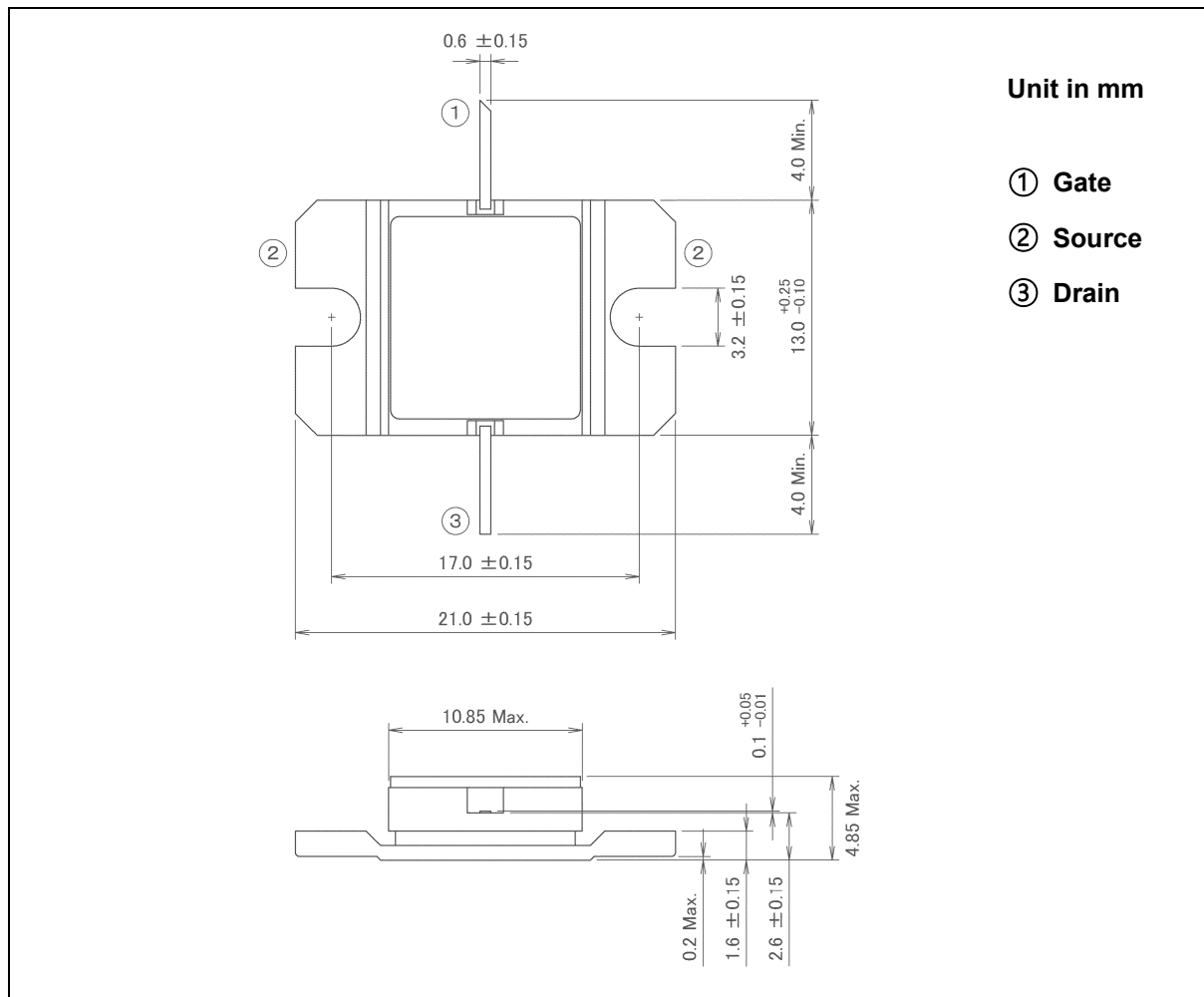
CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 1.5A	S	—	0.9	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 15mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	2.6	—
Gate-Source Breakdown Voltage	VGSO	IGS= -50μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	4.5	6.0

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**ABSOLUTE MAXIMUM RATINGS (Ta= 25°C)**

CHARACTERISTICS	SYMBOL	UNIT	RATING
Drain-Source Voltage	VDS	V	15
Gate-Source Voltage	VGS	V	-5
Drain Current	IDS	A	3.5
Total Power Dissipation (Tc= 25°C)	PT	W	25
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

**PACKAGE OUTLINE (2-11D1B)**



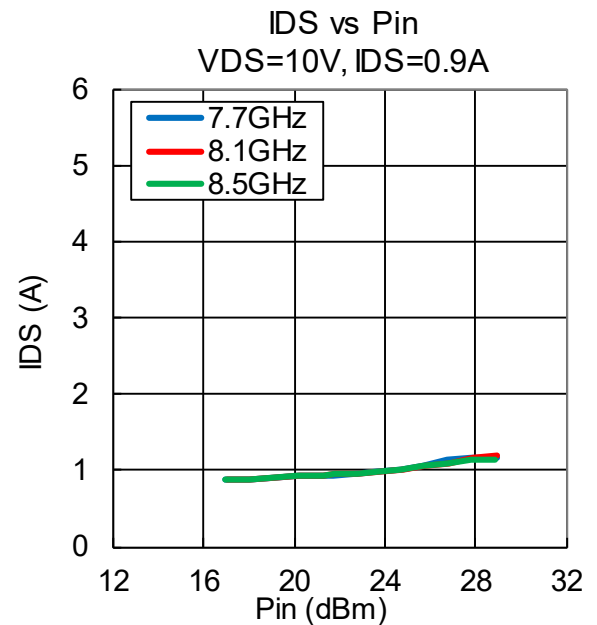
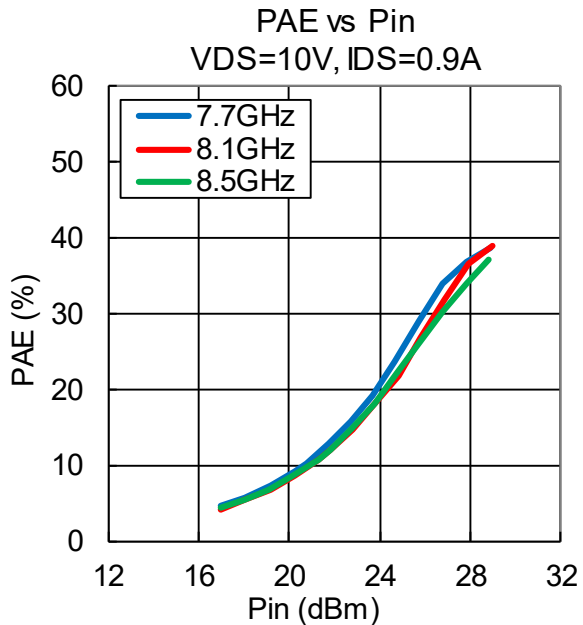
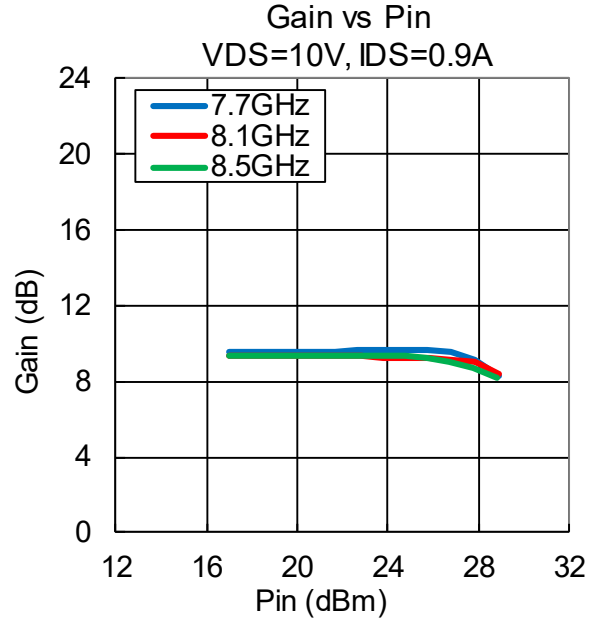
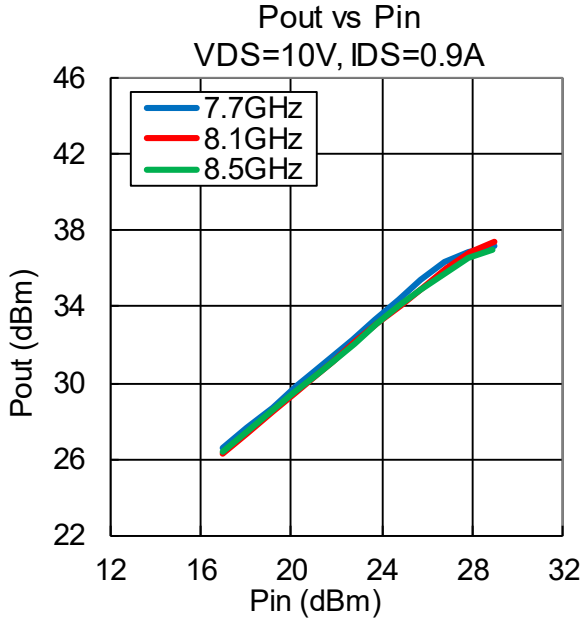
**HANDLING PRECAUTIONS FOR PACKAGE MODEL**

Soldering iron should be grounded and the operating time should not exceed 10 seconds at 260°C or 3 seconds at 350°C.

**TYPICAL RF PERFORMANCE**

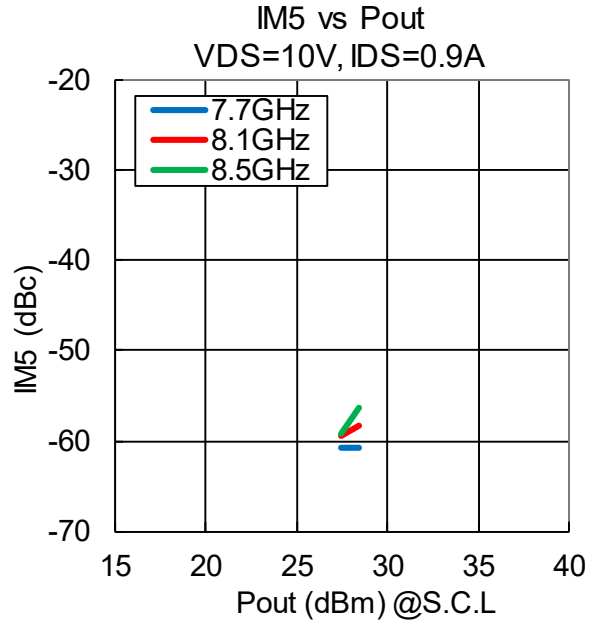
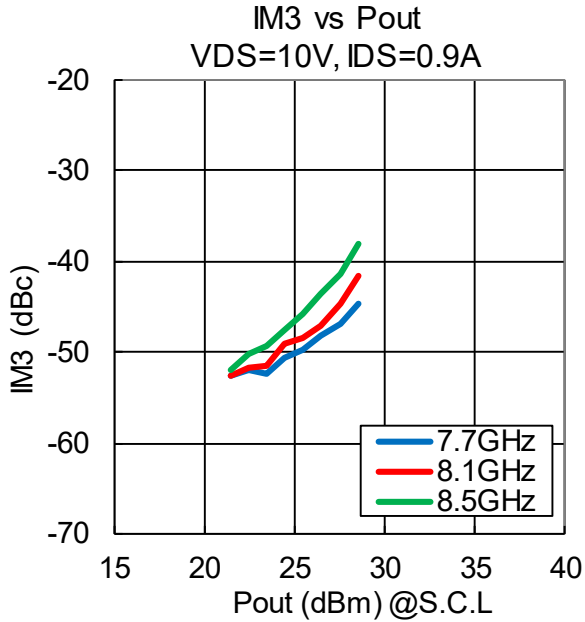
• Pout , Gain , PAE , IDS vs. Pin

VDS= 10 V, IDSset= 0.9 A, f= 7.7, 8.1, 8.5 GHz, Ta= +25 °C

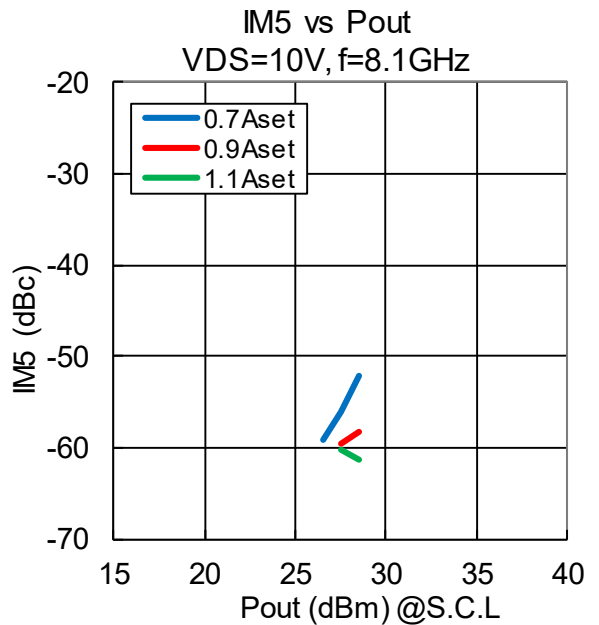
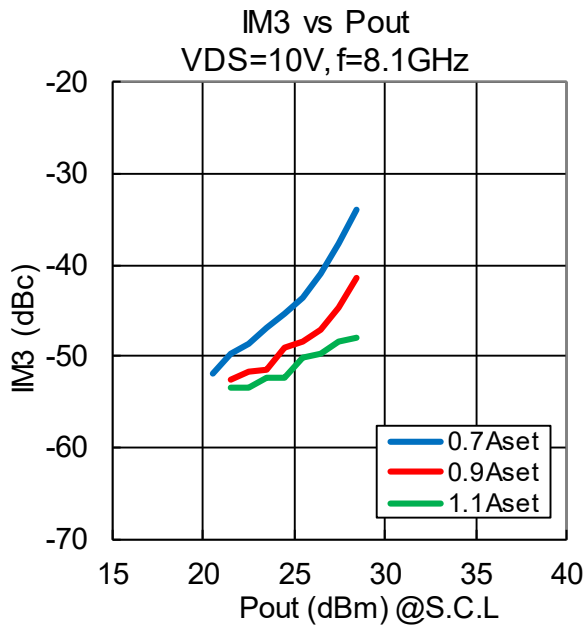


**•IM3, IM5 vs. Pout**

VDS= 10 V, IDSset= 0.9 A, f= 7.7, 8.1, 8.5 GHz, Δf= 5 MHz , Ta= +25 °C

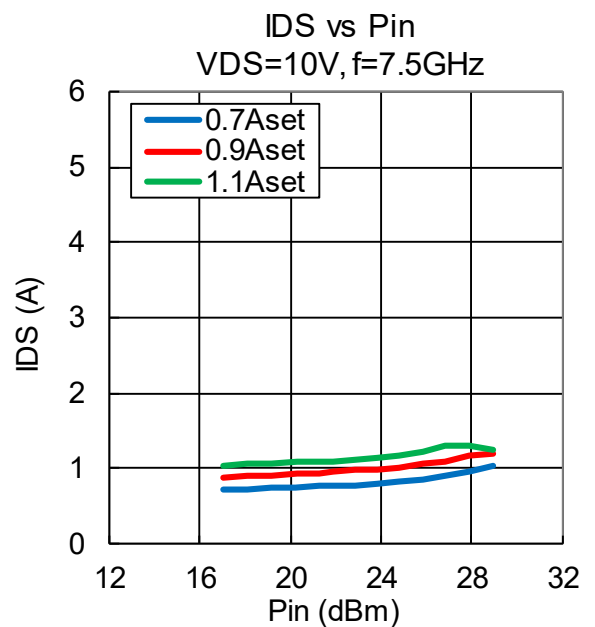
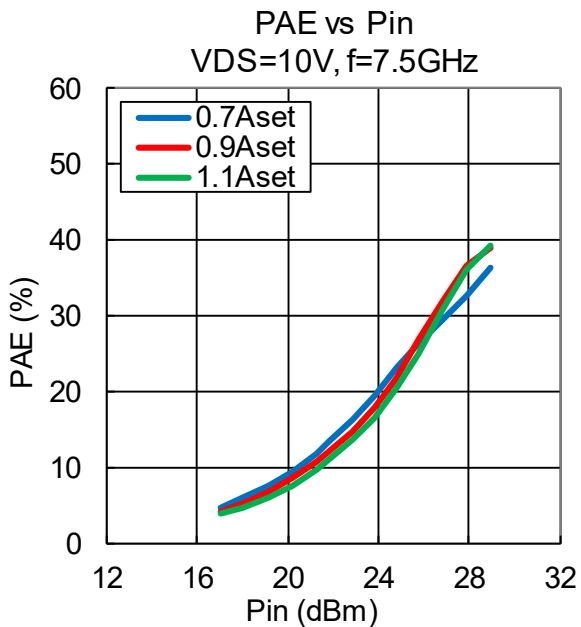
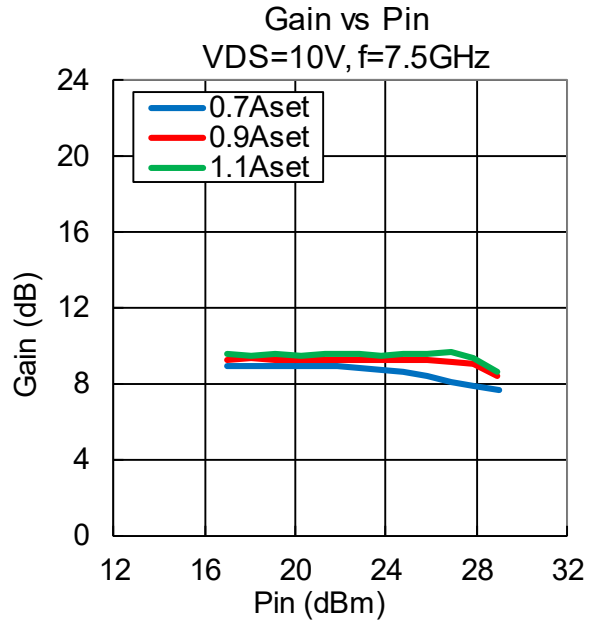
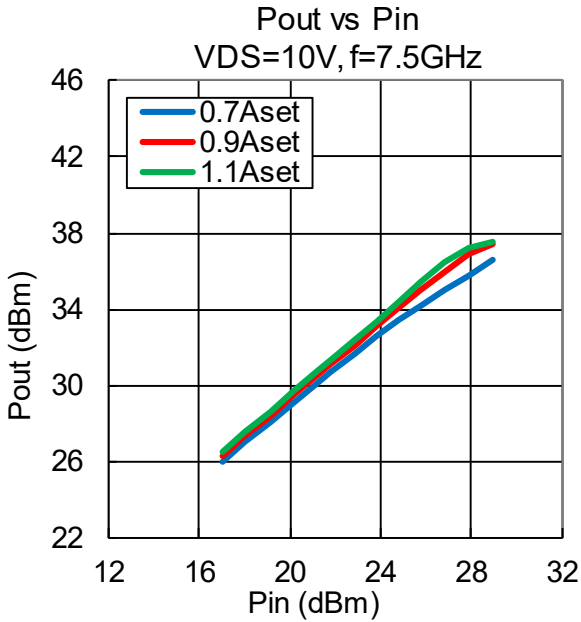


VDS= 10 V, IDSset= 0.7, 0.9, 1.1 A, f= 8.1 GHz, Δf= 5 MHz , Ta= +25 °C



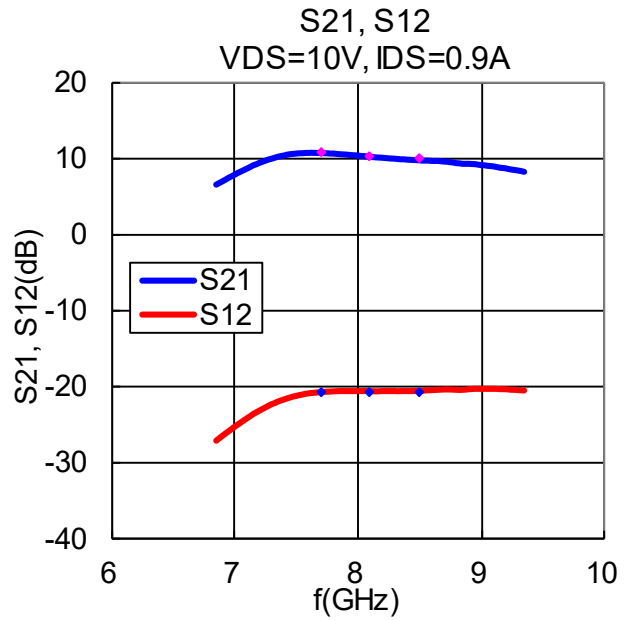
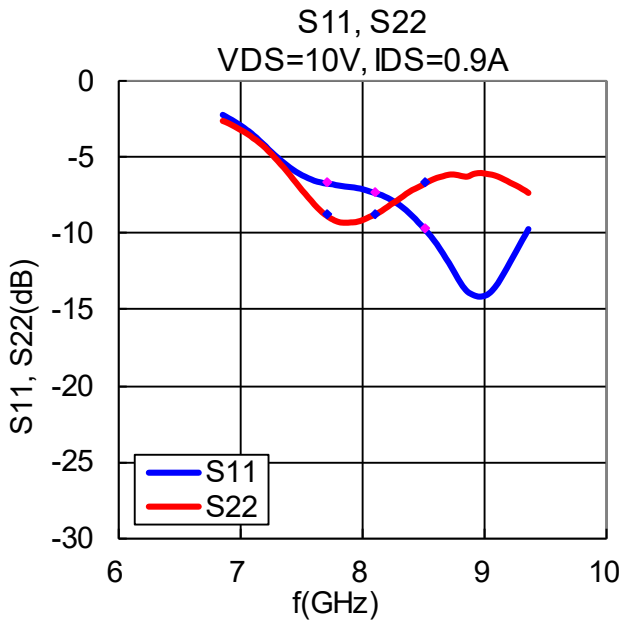
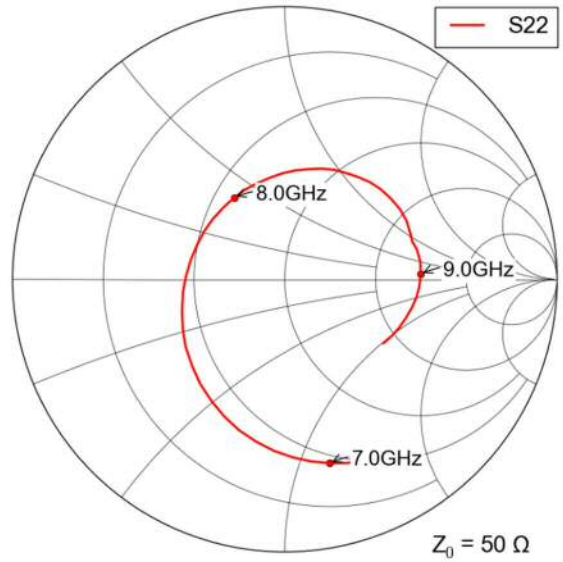
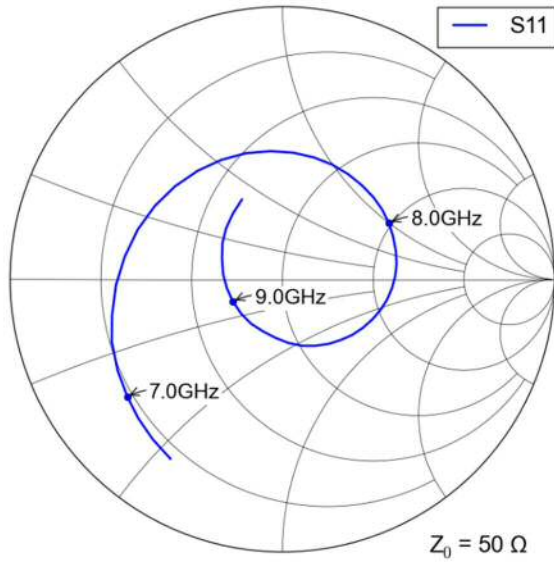
•Pout , Gain , PAE , IDS vs. Pin vs. IDSset

VDS= 10 V, IDSset= 0.7, 0.9, 1.1 A, f= 8.1 GHz, Ta= +25 °C



**-S-Parameters**

VDS= 10 V, IDSset= 0.9 A, f= 6.85 to 9.35 GHz, Ta= +25 °C



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