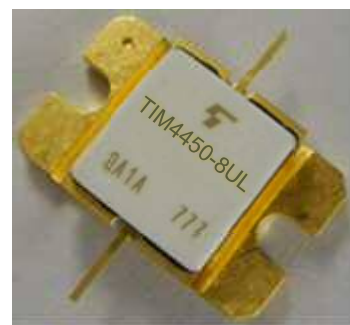


FEATURES

- BROAD BAND INTERNALLY MATCHED FET
- HIGH POWER
P1dB= 39.5dBm at 4.4GHz to 5.0GHz
- HIGH GAIN
G1dB= 10.5dB at 4.4GHz to 5.0GHz
- LOW INTERMODULATION DISTORTION
IM3(MIN.) = -44dBc at Pout= 28.5dBm (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= 1.8A f=4.4 to 5.0GHz	dBm	38.5	39.5	—
Power Gain at 1dB Gain Compression Point	G1dB		dB	9.5	10.5	—
Drain Current	IDS1		A	—	2.2	2.6
Gain Flatness	ΔG		dB	—	—	±0.6
Power Added Efficiency	ηadd		%	—	37	—
3rd Order Intermodulation Distortion	IM3	Two-Tone Test Po= 28.5dBm, Δf= 5MHz (Single Carrier Level)	dBc	-44	-47	—
Drain Current	IDS2		A	—	2.2	2.6
Channel Temperature Rise	ΔTch	(VDS × IDS + Pin – P1dB) × Rth(c-c)	°C	—	—	80

Recommended Gate Resistance(Rg): 150 Ω

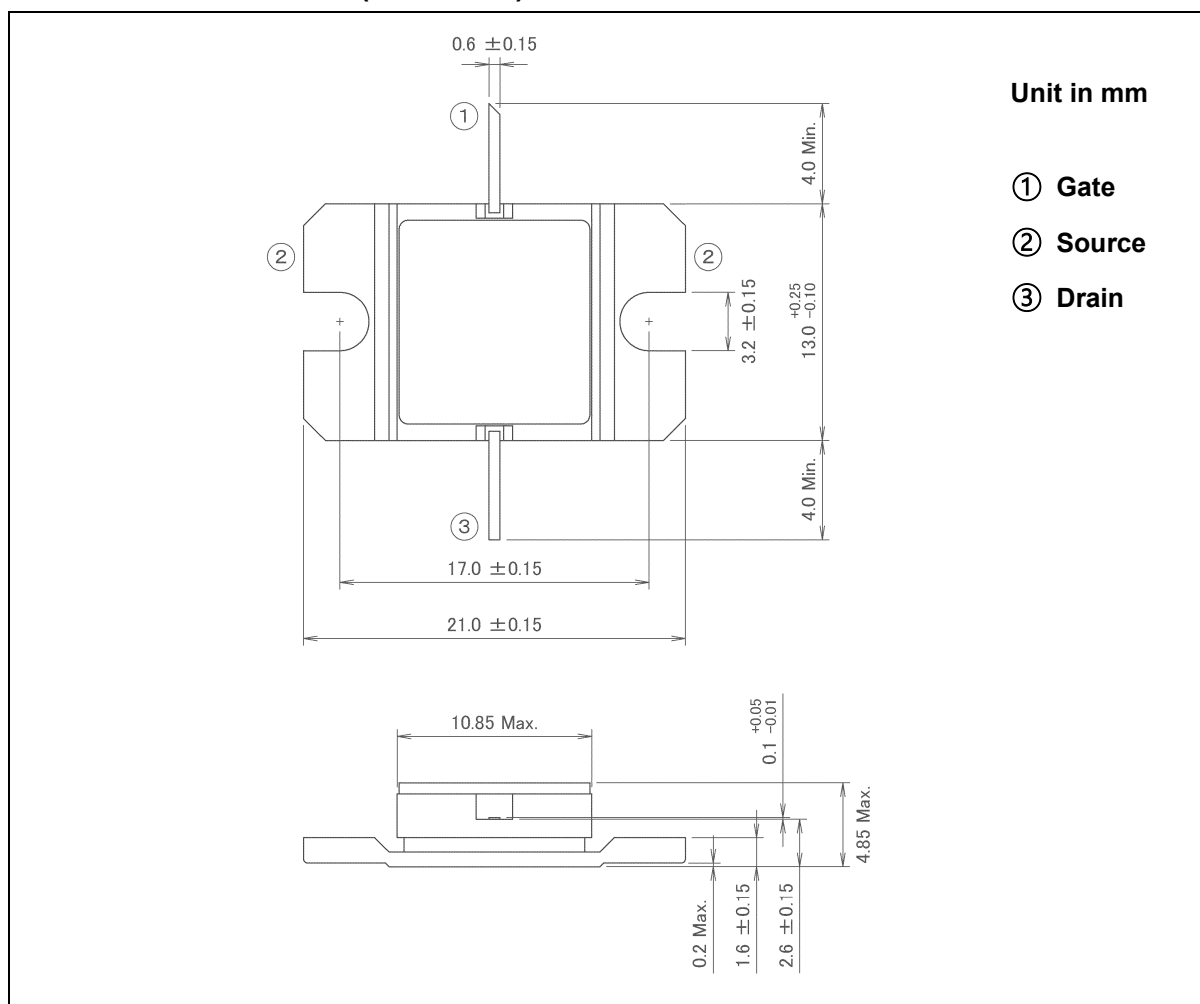
ELECTRICAL CHARACTERISTICS (Ta= 25°C)

CHARACTERISTICS	SYMBOL	CONDITIONS	UNIT	MIN.	TYP.	MAX.
Transconductance	gm	VDS= 3V IDS= 3.0A	S	—	1.8	—
Pinch-off Voltage	VGSoff	VDS= 3V IDS= 30mA	V	-1.0	-2.5	-4.0
Saturated Drain Current	IDSS	VDS= 3V VGS= 0V	A	—	5.2	—
Gate-Source Breakdown Voltage	VGSO	IGS= -100μA	V	-5	—	—
Thermal Resistance	Rth(c-c)	Channel to Case	°C/W	—	2.5	3.5

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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	7.0
Total Power Dissipation (Tc= 25°C)	PT	W	42.9
Channel Temperature	Tch	°C	175
Storage Temperature	Tstg	°C	-65 to +175

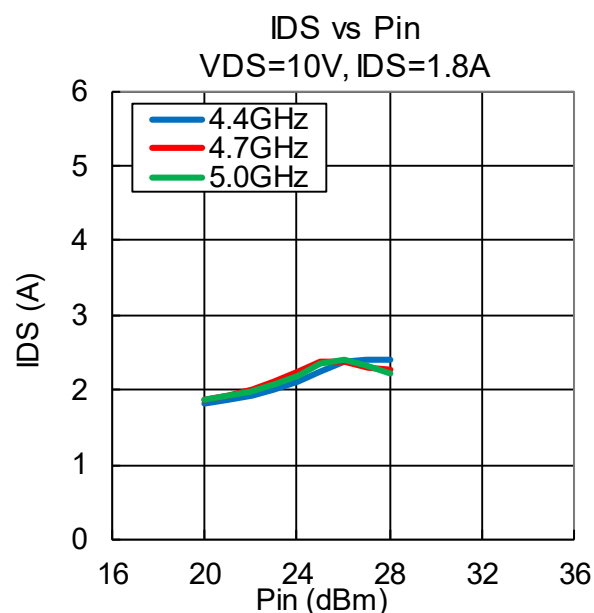
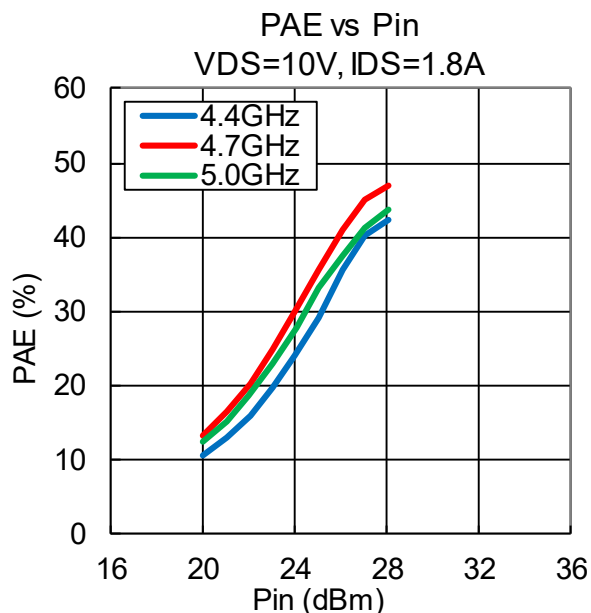
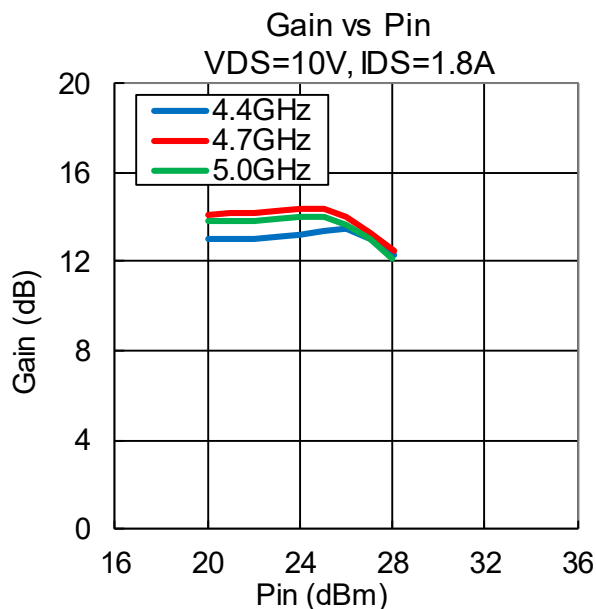
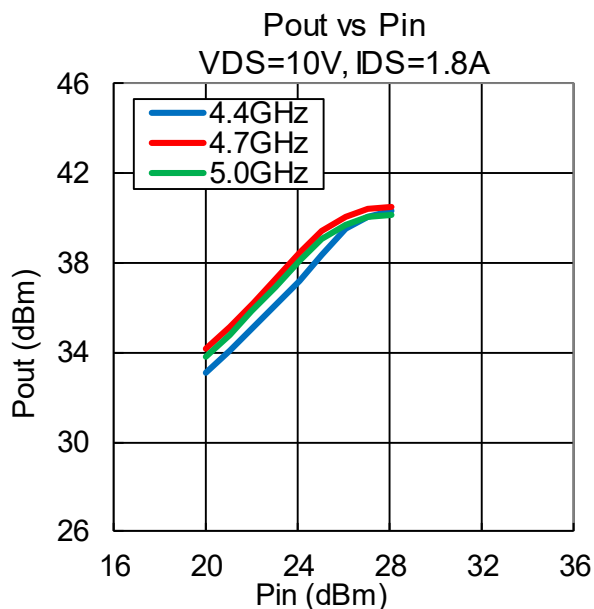
PACKAGE OUTLINE (2-11D1B)

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

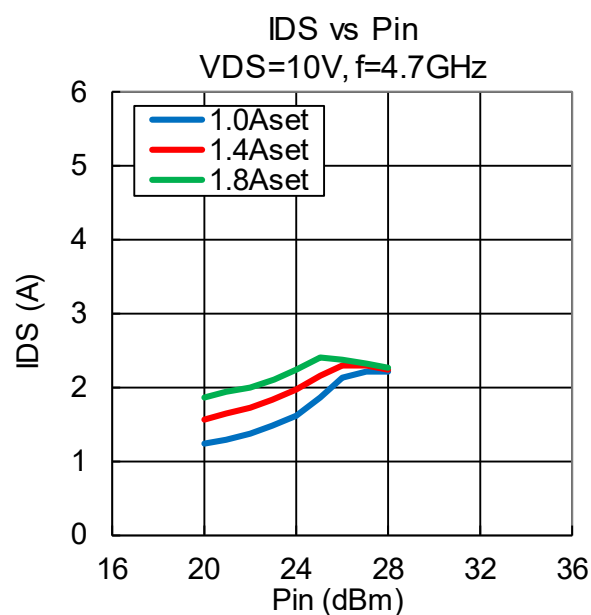
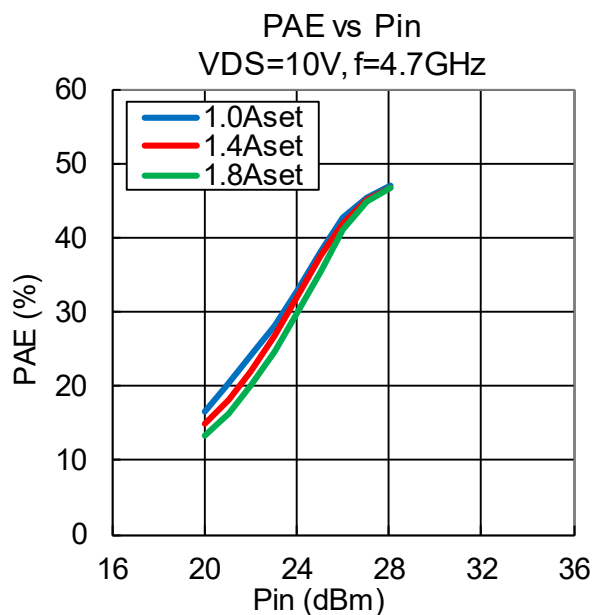
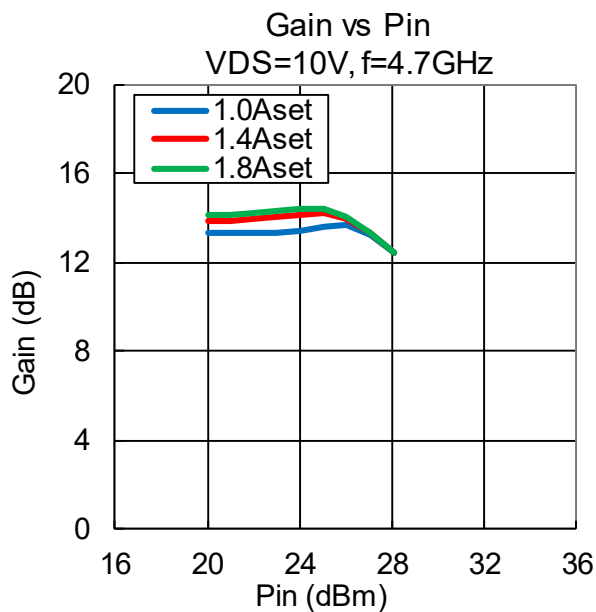
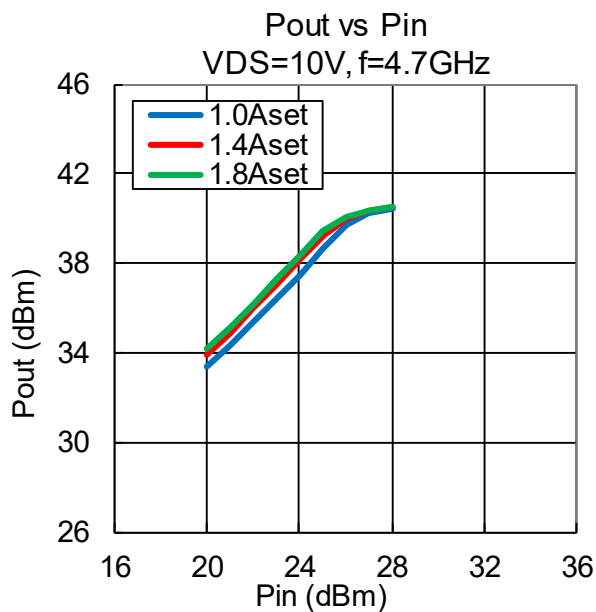
• Pout , Gain , PAE , IDS vs. Pin

VDS= 10 V, IDSset= 1.8 A, f= 4.4, 4.7, 5.0 GHz, Ta= +25 °C



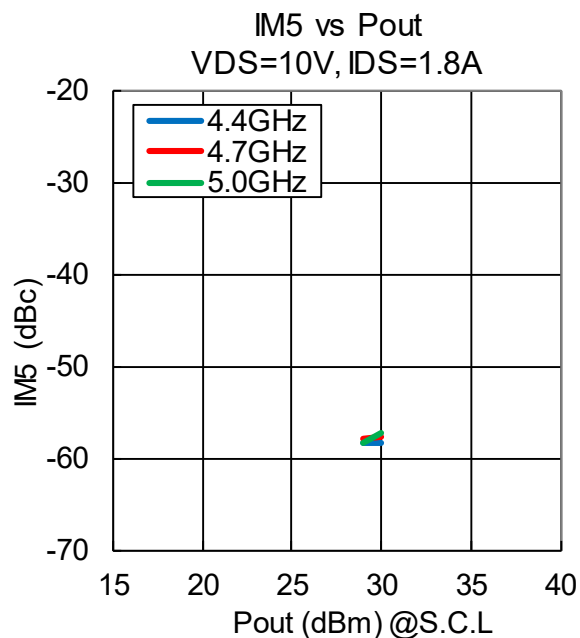
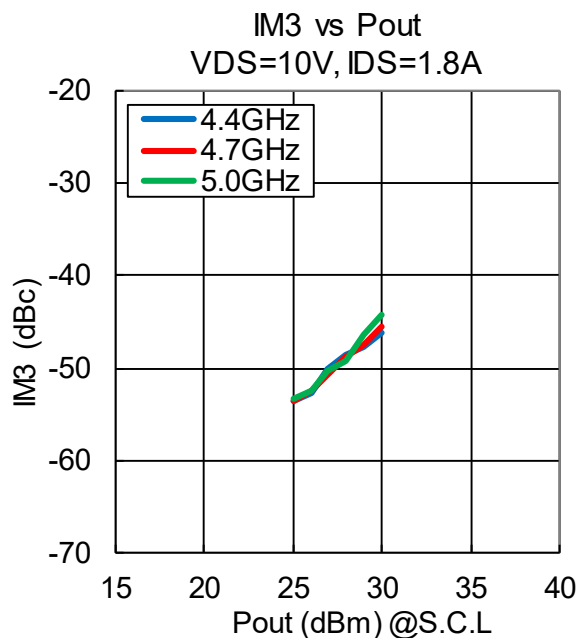
•Pout , Gain , PAE , IDS vs. Pin vs. IDSset

VDS= 10 V, IDSset= 1.0, 1.4, 1.8 A, f= 4.7 GHz, Ta= +25 °C

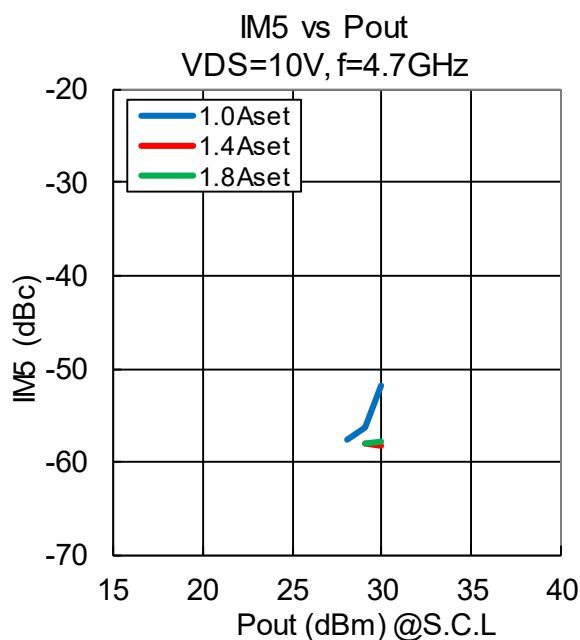
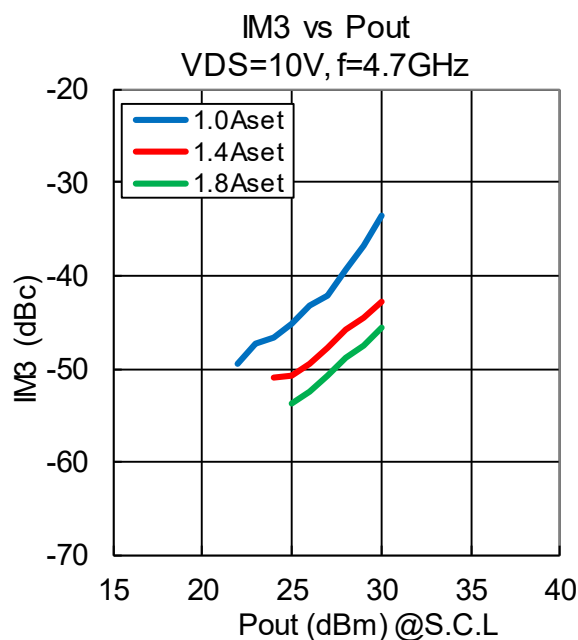


IM3, IM5 vs. Pout

VDS= 10 V, IDSset= 1.8 A, f= 4.4, 4.7, 5.0 GHz, Δf= 5 MHz, Ta= +25 °C

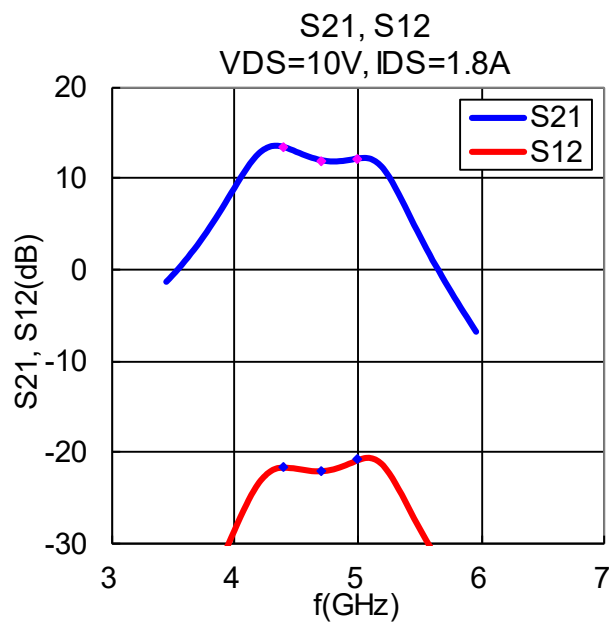
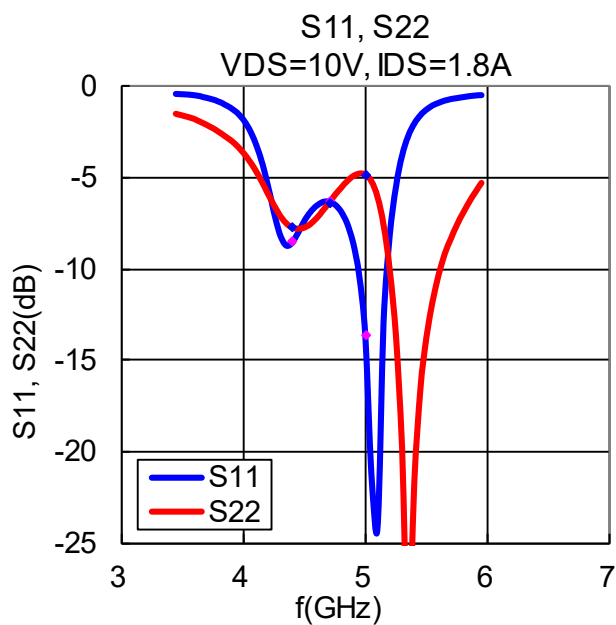
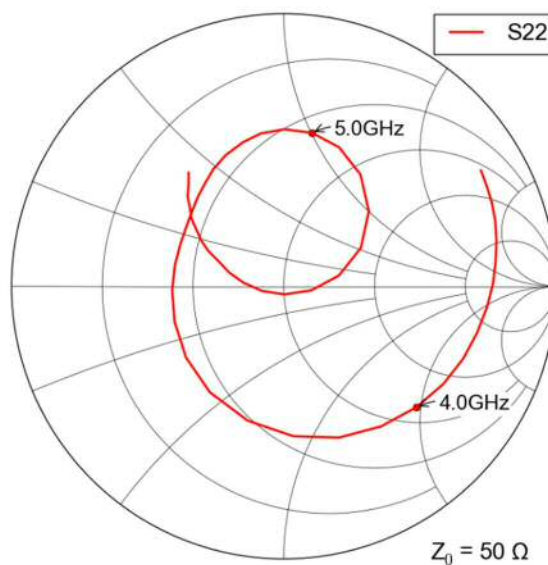
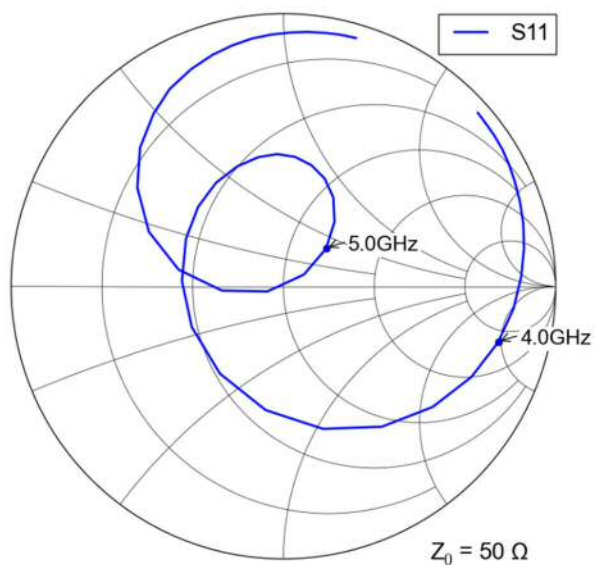


VDS= 10 V, IDSset= 1.0, 1.4, 1.8 A, f= 4.7 GHz, Δf= 5 MHz, Ta= +25 °C



•S-Parameters

$V_{DS} = 10\text{ V}$, $I_{DS\text{set}} = 1.8\text{ A}$, $f = 3.45\text{ to }5.95\text{ GHz}$, $T_a = +25\text{ }^{\circ}\text{C}$



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