

# SANCOM

**SA-PAN012014-P40****1.2-1.4 GHz High Power GaN-HEMT**

## Features

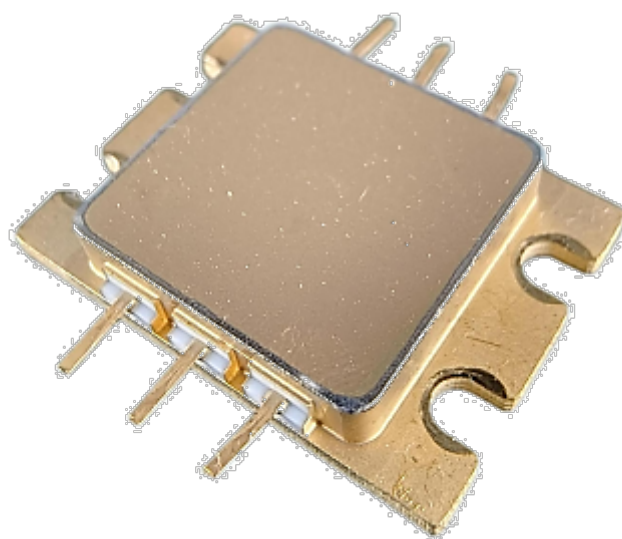
Frequency Range: 1.2-1.4 GHz

$P_{\text{sat}} \geq 40\text{dBm}$

Power Gain:  $\geq 14\text{dB}$

Efficiency:  $\geq 50\%$

$Z_{\text{in}}/Z_{\text{out}} = 50\ \Omega$



## Description

Sancom Electric's GaN-HEMT SA-PAN012014-P40 offers high power, high efficiency, ease of matching and greater consistency for high power applications with 32V operation. The SA-PAN012014-P40 typically provides 40 dBm of saturated output power and 14 dB of large-signal gain and can be widely used in various RF/microwave systems.

### ABSOLUTE MAXIMUM RATINGS

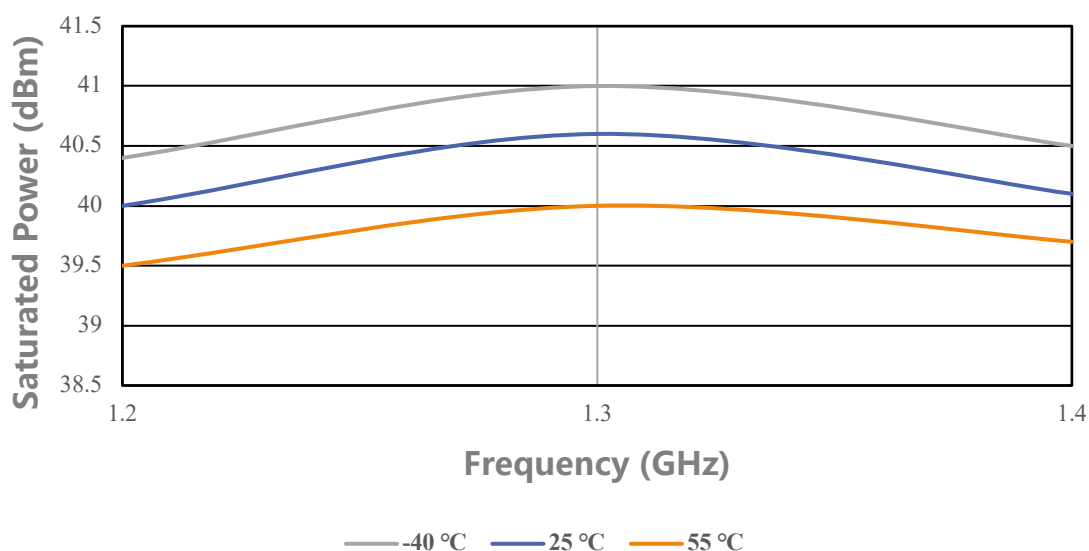
Parameter	Symbol	Condition	Rating	Unit
Drain-Source Voltage	$V_{DS}$	$TC=25^{\circ}C$	40	V
Gate-Source Voltage	$V_{GS}$	$TC=25^{\circ}C$	-5	V
Storage Temperature	$T_{stg}$	$TC=25^{\circ}C$	-65 to 150	$^{\circ}C$
Channel Temperature	$T_{ch}$	$TC=25^{\circ}C$	150	$^{\circ}C$

### ELECTRICAL SPECIFICATIONS

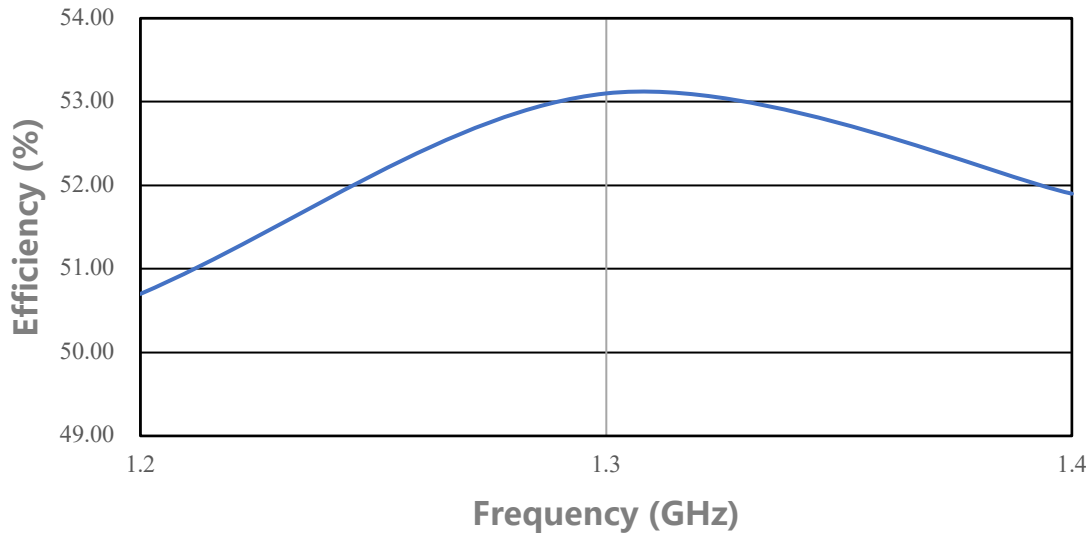
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Drain-Source Current	$I_{DS}$	$V_{DS}: 32 V$ CW (Continuous Wave) $P_{in}: 26 dBm$ Freq: 1.2 ~ 1.4 GHz	-	0.6	-	A
Saturated Power	$P_{sat}$		40	-	-	dBm
Power Gain	$G_p$		14	-	-	dB
Efficiency	$\eta$		50	-	-	%
Flatness	$\Delta G$		-0.8	-	0.8	dB

## Performance Plots

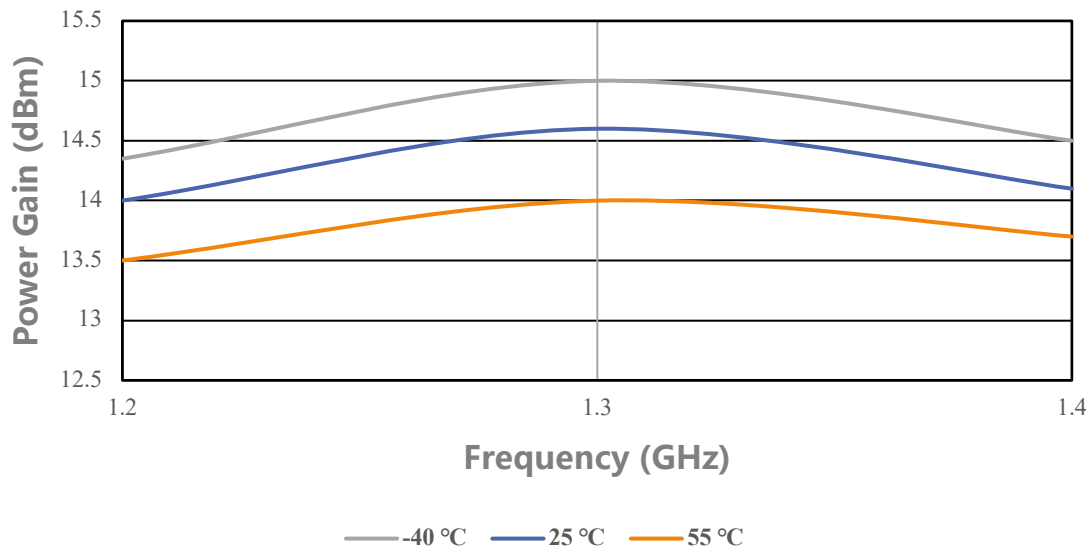
### Saturated Power VS Frequency



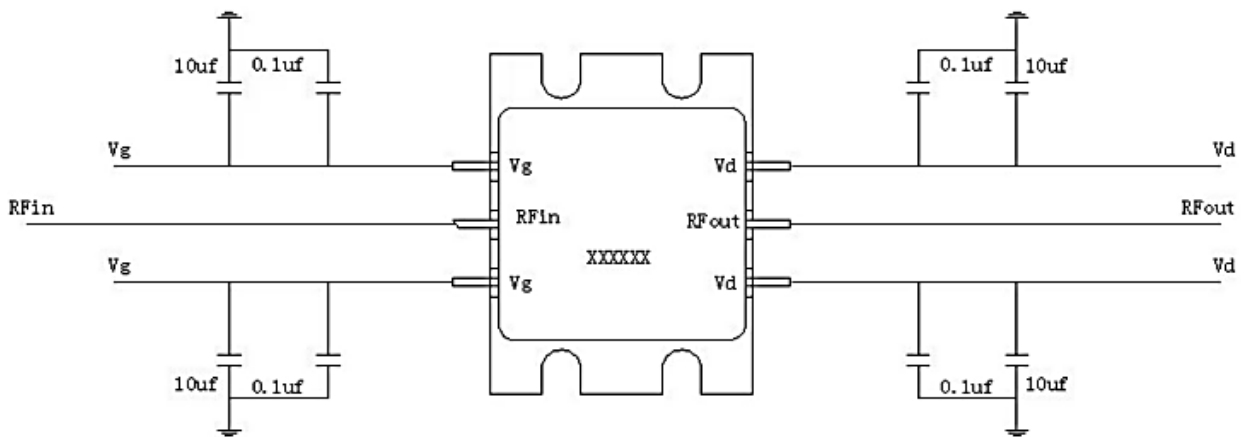
### Efficiency VS Frequency



### Power Gain VS Frequency



## Simplified Block Diagram



## ESD Protection

ESD	Class III	2000 V
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