

DESCRIPTION

AMCOM's AM06013033WM-00-R is a broadband GaAs MMIC in bare die form which operates between 6 and 13 GHz with 28 dB gain and 33 dBm output power. MMIC Input and output are internally matched to 50 Ohms

FEATURES

- Ultra-Broadband from 6 to 13GHz
- Saturated output power P_{sat} is 33 dBm
- Gain, 28 dB
- Input & output matched to 50 Ohms

APPLICATIONS

- Test Instrumentation
- Commercial telecom transmission equipment
- Military and Space

TYPICAL PERFORMANCE * (Bare die (AM06013033WM-00-R))

Bias Conditions:** $V_{ds} = +8V$, $I_{ds} = 650mA$

Parameters	Minimum	Typical **	Maximum
Frequency	7 – 12 GHz	6 – 13 GHz	
Small Signal Gain	24	28	
Gain Ripple	-	± 1.5 dB	± 3.0dB
P1dB	-	32 dBm	
P3dB	31 dBm	33 dBm	
P3dB Efficiency	-	30%	
NF	-	9	
Input Return Loss	-	15dB	
Output Return Loss	-	7dB	

* Specifications subject to change without notice

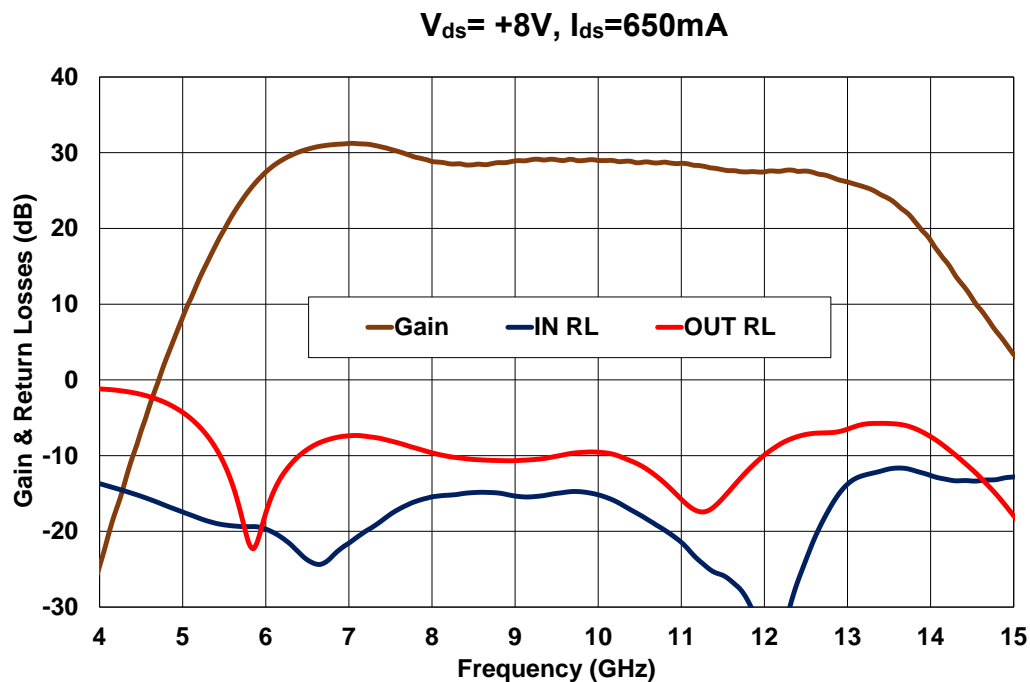
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ABSOLUTE MAXIMUM RATING

Parameters	Symbol	Rating
Drain voltage	V_{ds}	10V
Gate voltage	V_{gs}	-4V
Total Drain current	I_{dsq}	1.1A
Continuous dissipation at 25°C	P_t	8W
Channel temperature	T_{ch}	175°C
Operating temperature	T_{op}	-40°C to +85°C
Storage temperature	T_{sto}	-55°C to +135°C

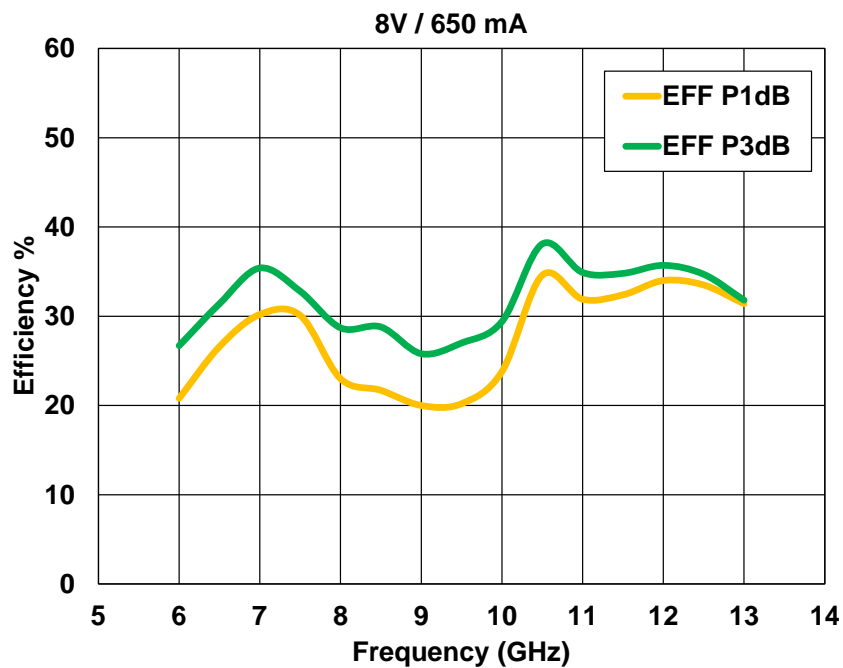
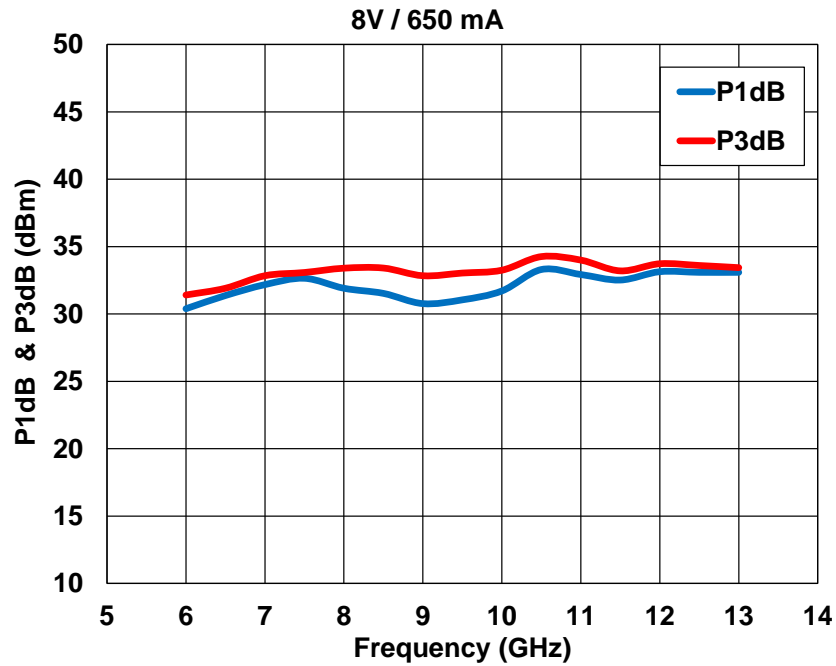
SMALL SIGNAL DATA*

Bare Die MMIC S-Parameters (AM06013033WM-00-R)

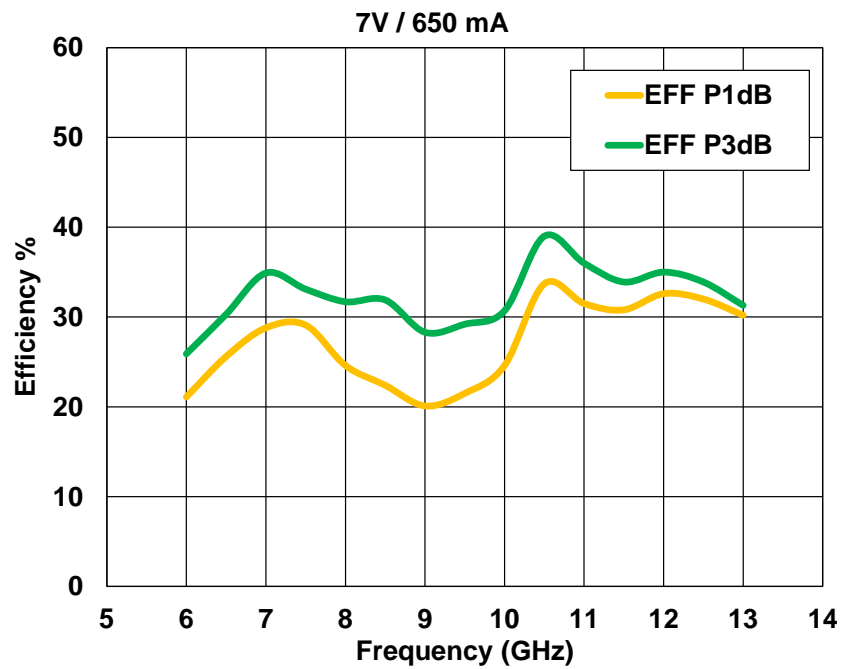
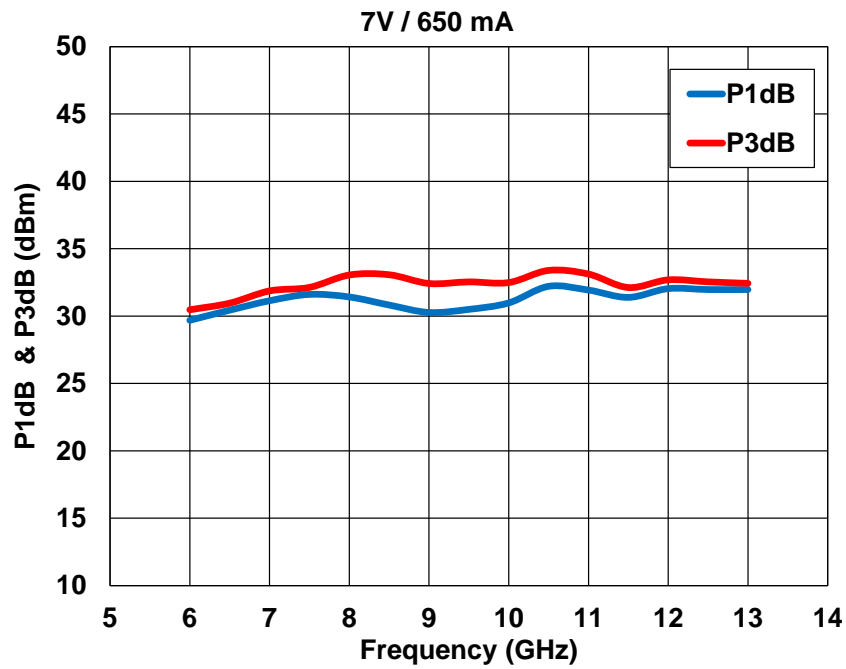


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POWER DATA (Bare Die)

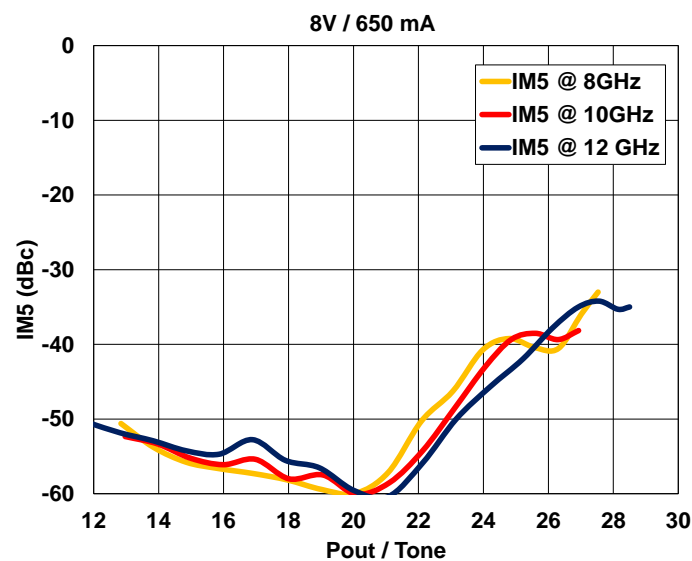
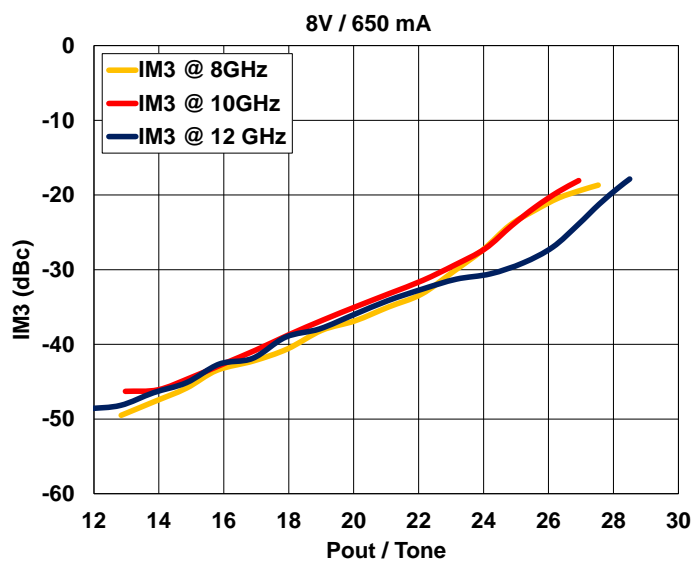
A) Bias $V_{ds}=+8V$, $I_{ds}=650mA$ 

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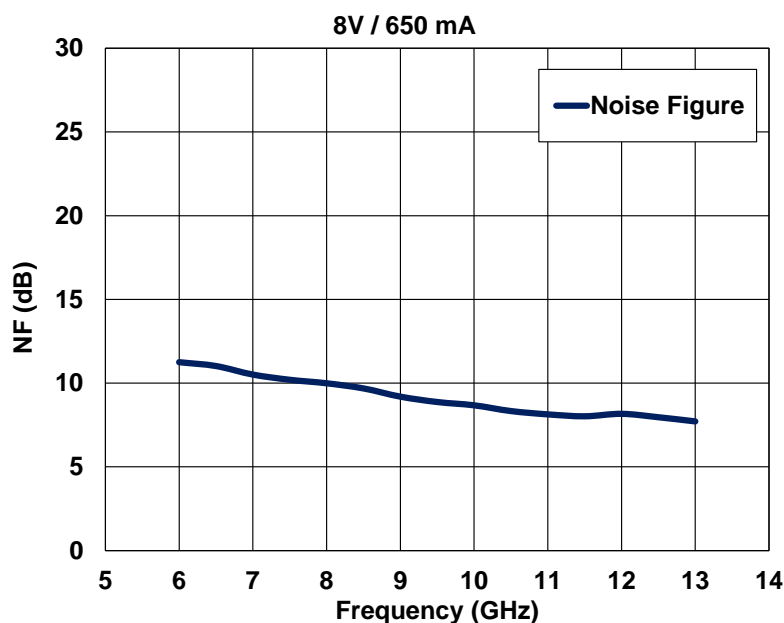
B) Bias $V_{ds}=+7V$, $I_{ds}=650mA$ 

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IM3/IM5 MEASUREMENTS

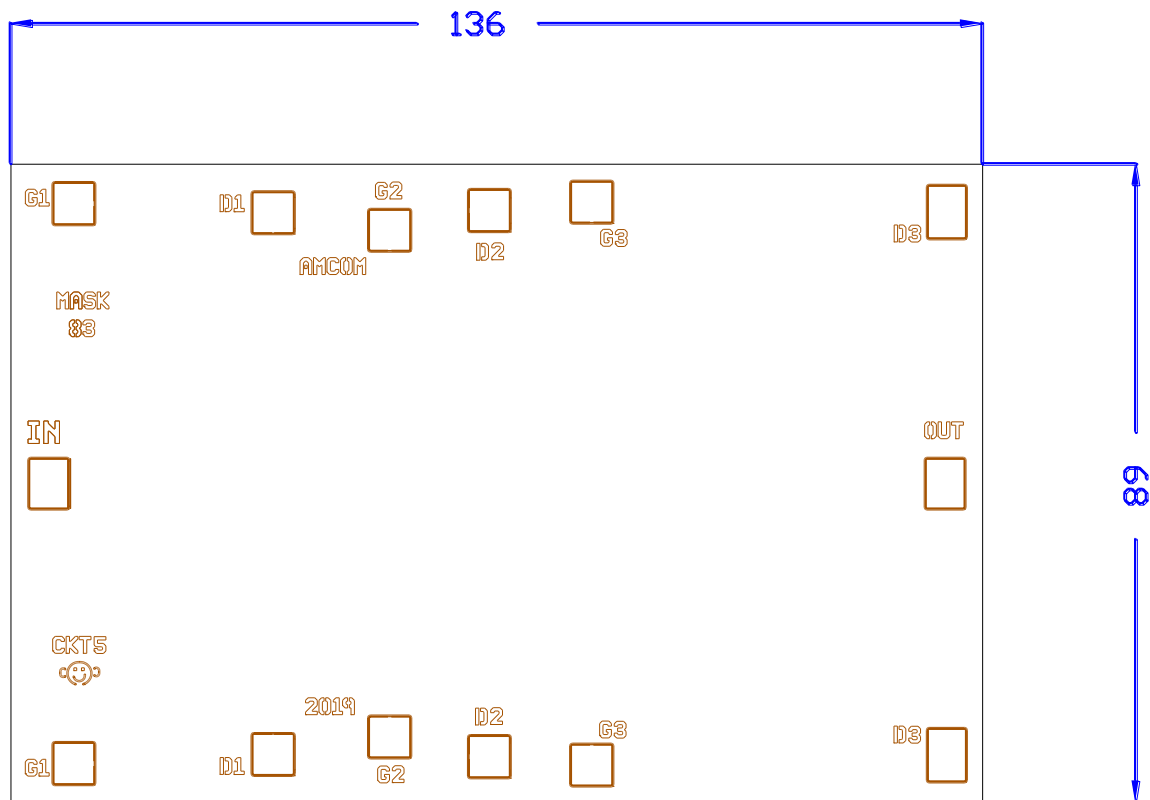


NOISE FIGURE



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CHIP OUTLINE



Notes:

- 1- Dimensions in mils.
- 2- All pads are 6x6 mils.
- 3- Chip thickness 100um (4 mils).
- 4- Use eutectic perform for chip assembly.
- 5- For best performance IN and Out bond wires should not exceed 20mils length.
- 6- DXF file available.

