



## FEUILLE DE Spécifications DATASHEET

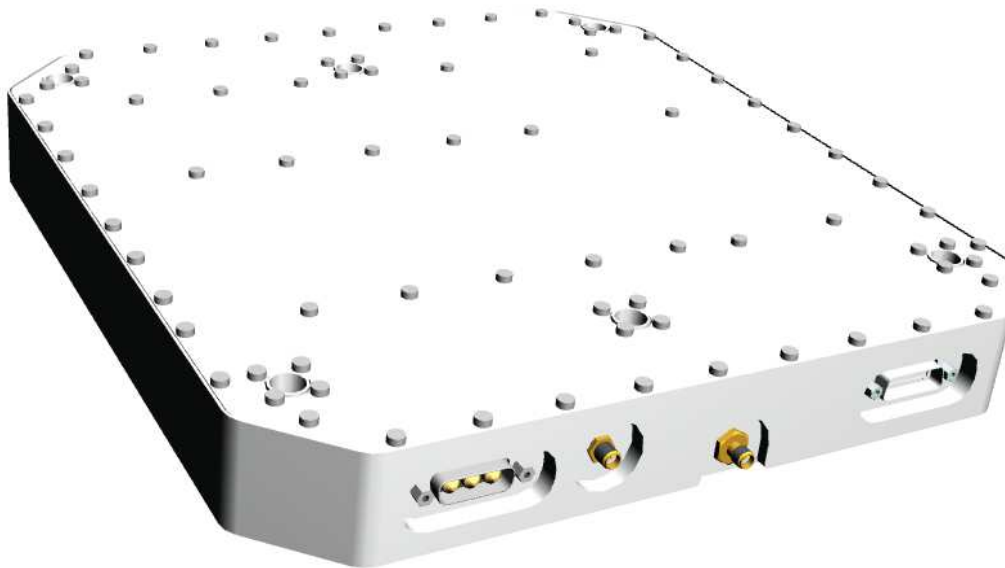
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**P/N: AAMCS-AMP-0800M-4200M-50dB-47dBm-0**  
**Designation : 50W, 50dB, 0.8-4.2GHz Amplifier module**

### 50W, 50dB, 800-4200MHz Amplifier

EW, IED, COM-INT, ECM, EMC or instrumentation purpose featuring:

- French design and manufacture
- ITAR free design
- No export license or end user statement
- RoHs compliant
- Ultra small package
- GaN technology for ruggedness
- Input power and thermally protected
- Ultra fast switch time for noise quieting / blanking mode
- Gate current protection for saturated power operation
- Palet drop-in configuration available on request
- Rack mount configuration available on request



Frequency (MHz)	800	1200	1600	2000	2400	2800	3300	3800	4200
Psat (dBm)	48.7	49.3	48.5	49.8	49.7	49.2	48.9	48.9	48.2
I (A) @ Psat	6.2	7.2	7.5	8.4	9	9.2	9.2	8.4	7.3
PAE (%)	43	42	34	41	37	32	30	33	32

**Typical values @ +28Vdc and +25°C**

Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)
1	Belluot	17/04/2015	Création (ET14-020)



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<b>Caractéristiques électriques</b> <i>electrical specifications</i>		All measurements performed @ +25°C and +28Vdc unless specified other	
	<b>Conditions de mesures</b> <i>Measuring conditions</i>	<b>Mesures</b> <i>Measurements</i>	<b>Unités</b> <i>Units</i>
<b>Bande de fréquence</b> <i>Bandwidth</i>		800-4200	MHz
<b>Puissance de sortie</b> <i>Output power</i>	@ baseplate temp = +25°C & @ Psat +28Vdc	min. 47 typ. 48.5 max. 50.5	dBm
<b>Puissance d'entrée</b> <i>Input power</i>	@ Psat  Damage level	0 typ. +5 max. (gate current self cutoff protection) +20 max. (internal limiter)	dBm
<b>Gain</b> <i>Gain</i>	Small signal @+25°C @ Psat	min. 55 max. 65 min. 50 max. 55	dB
<b>Ondulation dans la bande</b> <i>In band ripple</i>	Small signal @ Psat	max.+/- 2.5 max.+/- 1.5	dB
<b>Adaptation d'entrée / sortie</b> <i>Input/output return loss</i>	Input Output	min.10 typ.17 min.10 typ.14	dB
<b>TOS de sortie</b> <i>Load mismatch</i>	@ +28Vdc	infinite	
<b>Distorsion harmonique</b> <i>Harmonics</i>	@ Psat	-15 max.	dBc
<b>Parasites</b> <i>Spurious</i>	@ Psat	-60 max.	dBc
<b>OIP3</b> <i>OIP3</i>	2 carriers 40 dBm each	typ. 55	dBm
<b>Extinction</b> <i>Noise quieting</i>	TTL	low or not connected = RF / bias ON high = RF / bias OFF	
<b>Temps d'extinction</b> <i>Noise quieting time</i>		200 typ. 500 max.	ns
<b>Temps de montée/descente</b> <i>Rise/fall time</i>		20 max.	ns

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<b>Tension d'alimentation</b> <i>Supply voltage</i>		min.+24 typ +28 max. +36	Vdc
<b>Consommation</b> <i>Consumption</i>	Vcc = 28V Pout = 50W	typ. 9 max. 11	A

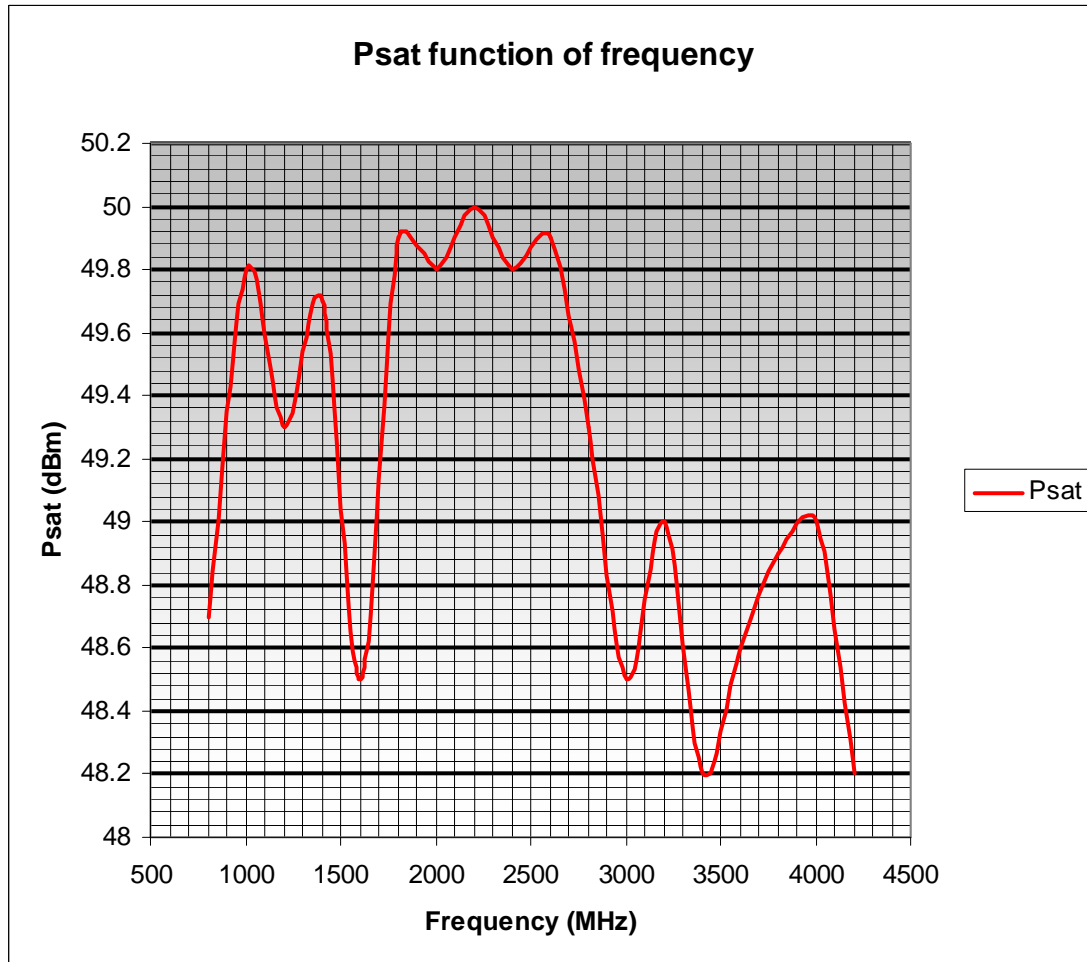
<b>Alarmes et informations</b> <i>Alarm and display</i>			
<b>Réarmement polarisation</b> <i>Reset gate</i>	command	Rising edge of a pulse = biasing ON	
<b>Commande d'extinction</b> <i>Noise quieting/blanking control</i>	TTL command	low or not connected = RF / bias ON high = RF / bias OFF	
<b>Etat de l'alarme grille</b> <i>Gate protection status</i>	TTL info	Low = OK High = alarm	
<b>Etat de l'alarme temperature</b> <i>Temperature protection</i>	TTL info	Low = OK High = alarm (autosutdown of the biasing if temperature of the baseplate exceeds +85°C – auto recovery when temperature decrease below 80°C)	
<b>Caractéristiques mécaniques</b> <i>Mechanical features</i>			
<b>Longueur x largeur x Hauteur</b> <i>Length x width x height</i>	L x W x H	310 x 300 x 38.5 max.	mm
<b>Dissipation</b> <i>Cooling</i>		Conduction cooled	-
<b>Connectique</b> <i>Connectors</i>	Input/output	SMA female	-
<b>Conditions environnementales</b> <i>Environmental conditions</i>			
<b>Température de service</b> <i>Operating temperature</i>	Of the baseplate	-40 min. + 85 max. Internally protected	°C
<b>Température de stockage</b> <i>Storage temperature</i>		-40 min. +105 max.	°C

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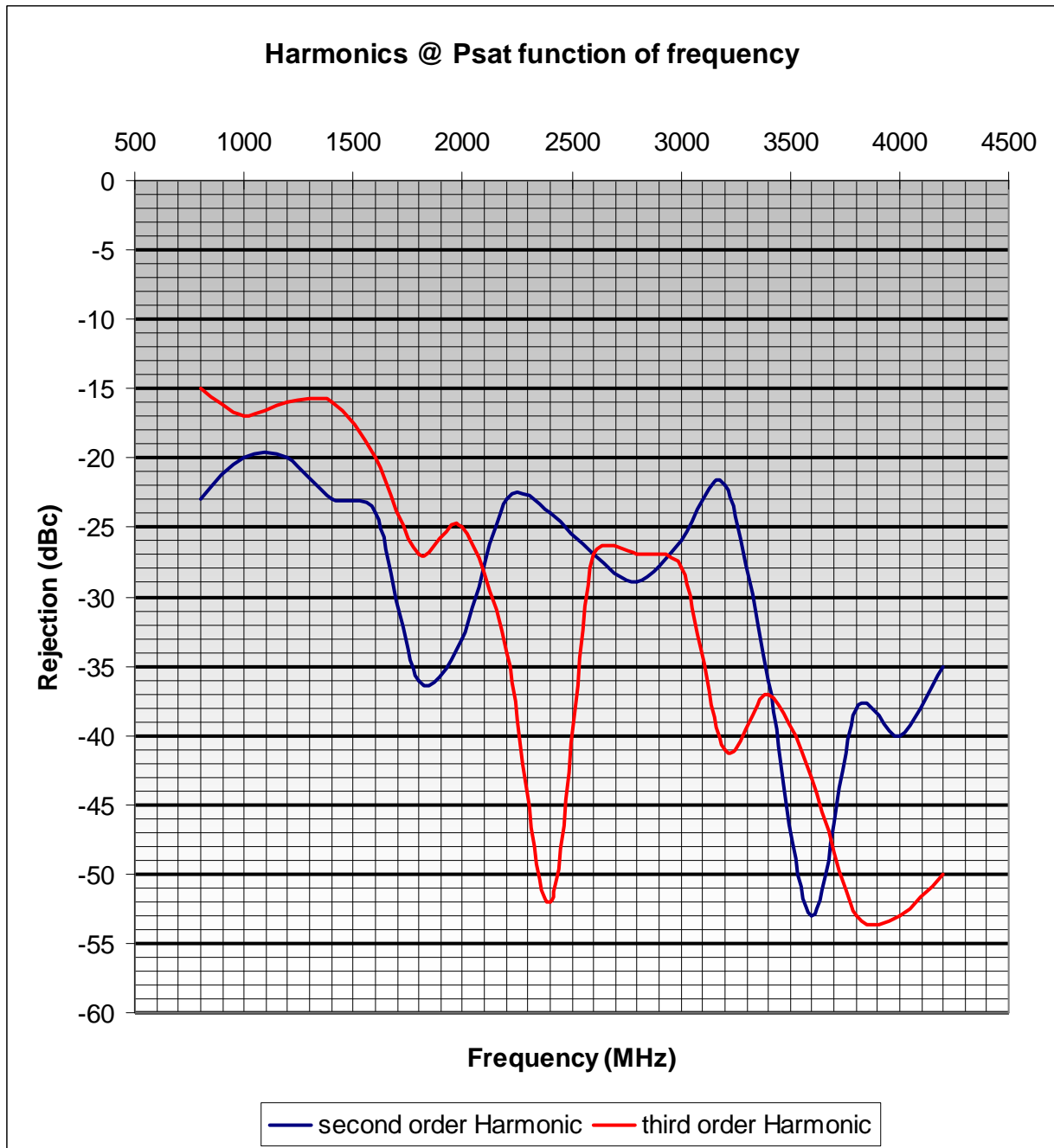
Typical output power @ Pin = 0dBm Gain

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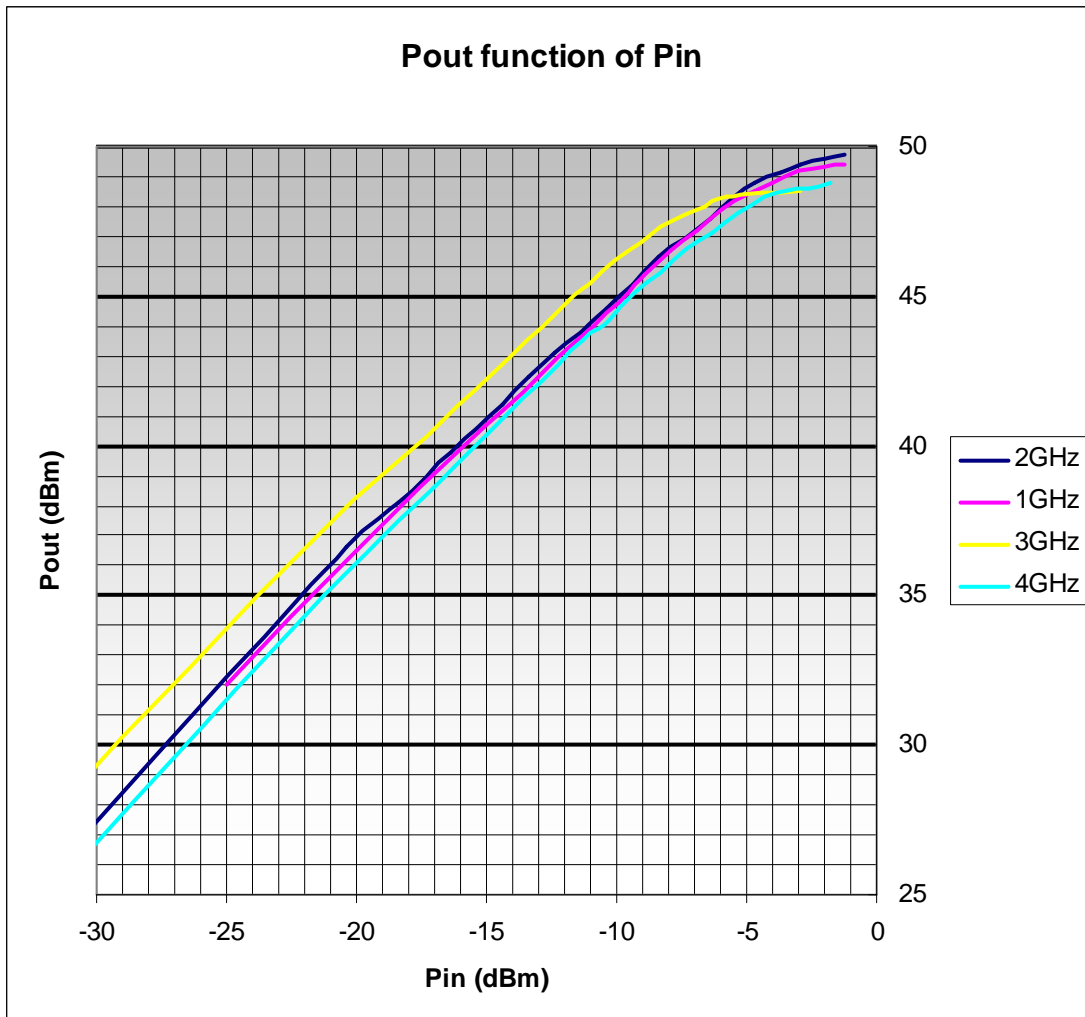


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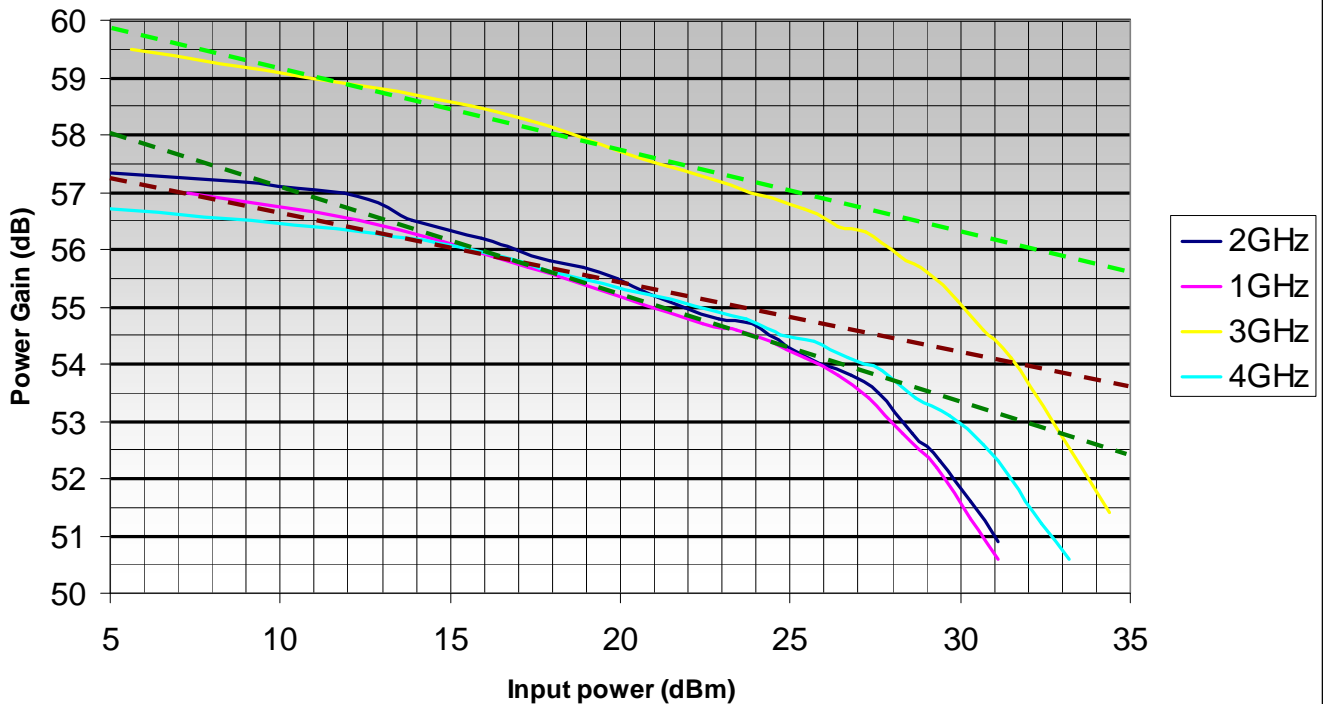
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**Power gain function of input power**

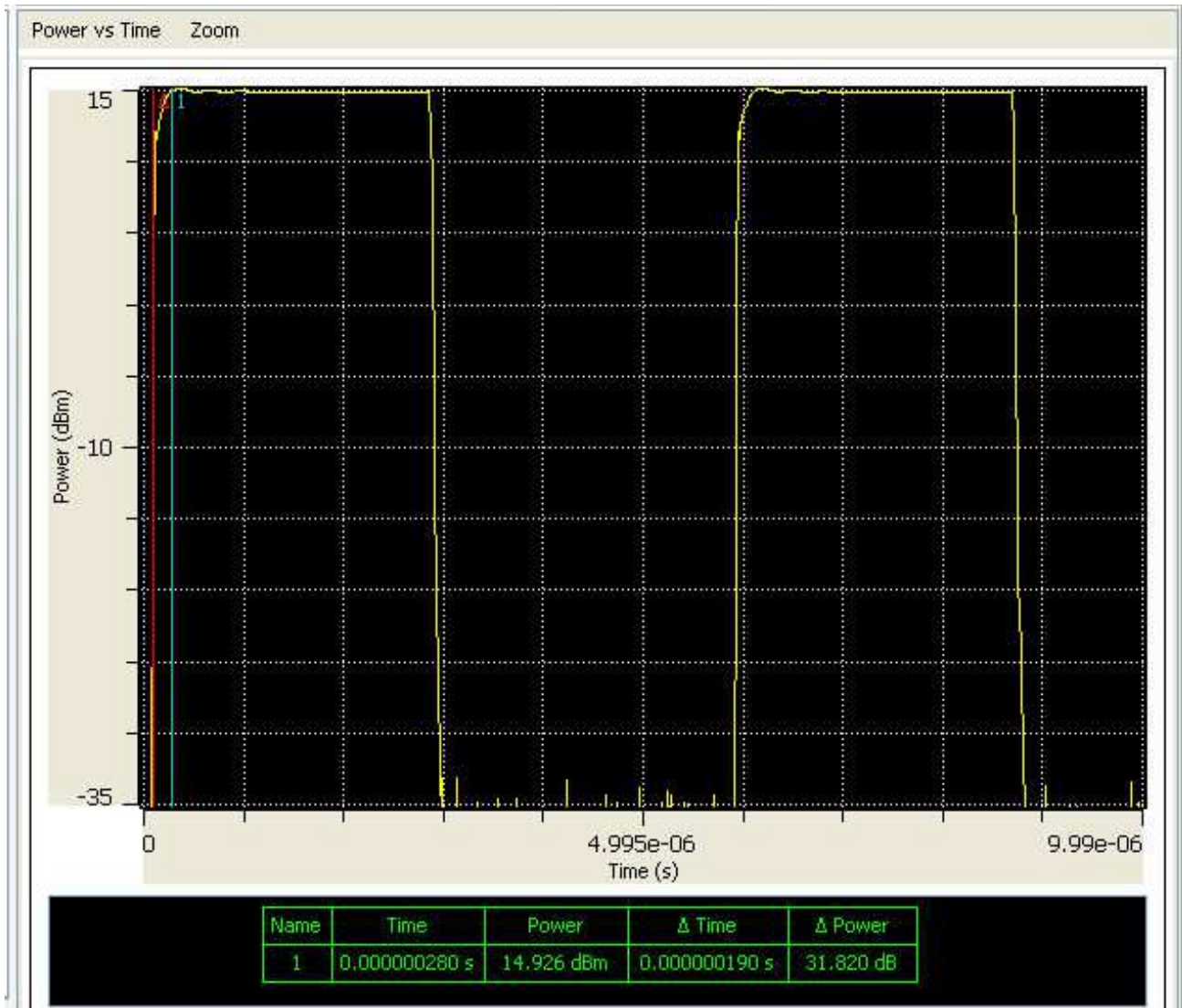


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On/Off time thru the blanking command PRF 170KHz @ 1000MHz & P3dB

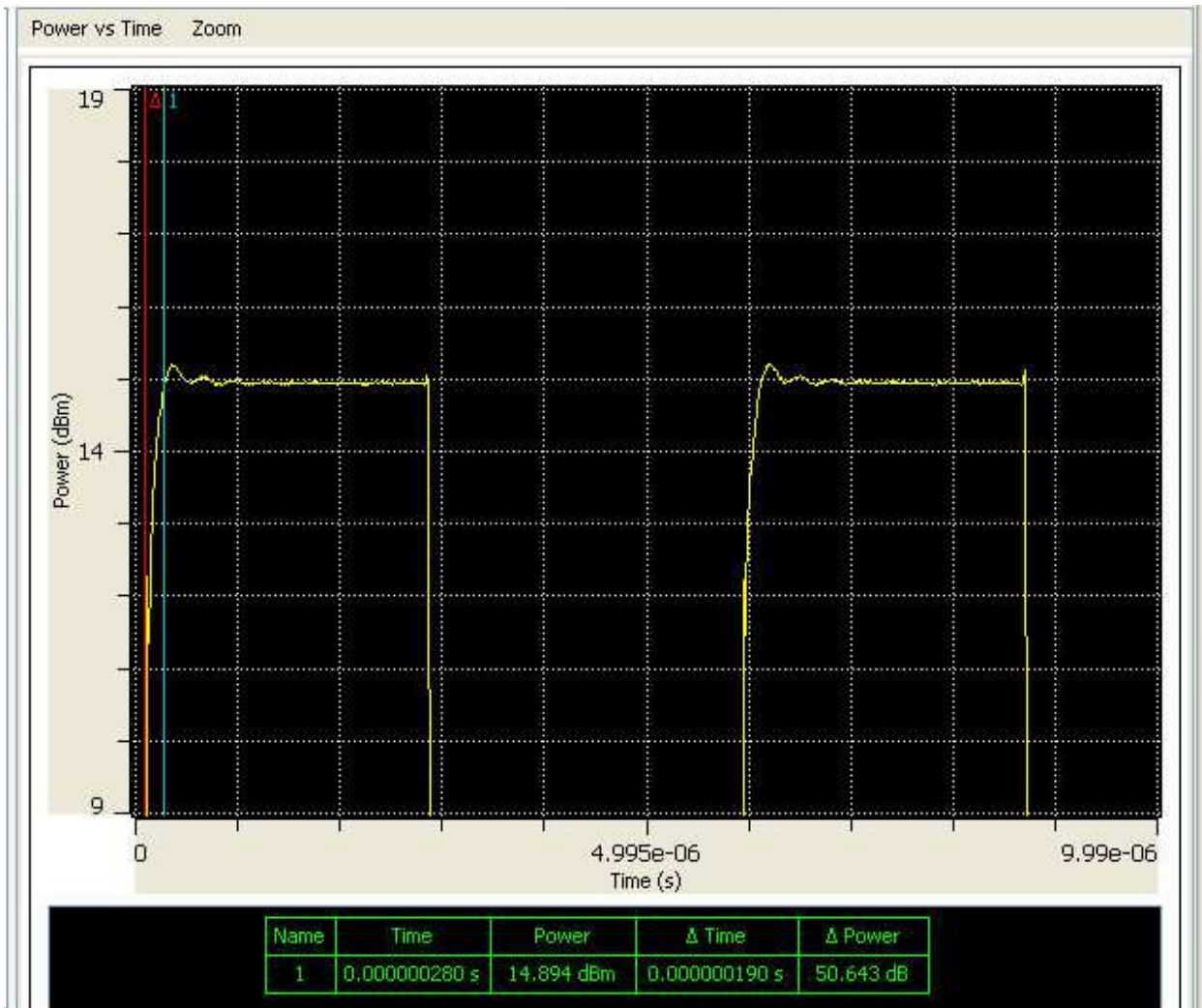
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**Zoom on On/Off time thru the blanking command PRF 170KHz @ 1000MHz & P3dB**

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