



FEUILLE DE Spécifications DATASHEET

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

Page : 1 / 12

50W, 50dB, 800-4200MHz Amplifier



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
Cons. (W) @ Psat	220	250	260	295	315	320	320	295	255
PAE (%)	36	32	27	34	32	26	25	27	24

Typical values @ +25°C

Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)



FEUILLE DE Spécifications DATASHEET

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

Page : 2 / 12

Caractéristiques électriques <i>electrical specifications</i>		All measurements performed @ +25°C and +28Vdc unless specified other	
	Conditions de mesures <i>Measuring conditions</i>	Mesures <i>Measurements</i>	Unités <i>Units</i>
Bande de fréquence <i>Bandwidth</i>		800-4200	MHz
Puissance de sortie <i>Output power</i>	@ baseplate temp = +25°C & @ Psat	min. 47 typ. 48.5	dBm
Puissance d'entrée <i>Input power</i>	@ Psat Damage level	0 typ. +5 max. +10 max.	dBm
Gain <i>Gain</i>	Small signal @+25°C @ Psat	min. 55 max. 65 min. 47	dB
Ondulation dans la bande <i>In band ripple</i>	Small signal @ Psat	max.+/- 2.5 max.+/- 1.5	dB
Adaptation d'entrée / sortie <i>Input/output return loss</i>	Input Output	min.10 typ.17 min.10 typ.14	dB
TOS de sortie <i>Load mismatch</i>		infinite	
Distorsion harmonique <i>Harmonics</i>	@ Psat	-15 max.	dBc
Parasites <i>Spurious</i>	@ Psat	-60 max.	dBc
OIP3 <i>OIP3</i>	2 carriers 40 dBm each	typ. 55	dBm
Temps d'extinction <i>Noise quieting (blanking) time</i>		300 typ. 1000 max.	ns
Temps de montée/descente <i>Rise/fall time</i>		20 max.	ns
Tension d'alimentation <i>Supply voltage</i>		230 +/-10% 50 +/- 10%	Vac Hz
Consommation <i>Consumption</i>	Pout = 50W	typ. 1.5 max. 2.5	A

Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)



FEUILLE DE Spécifications DATASHEET

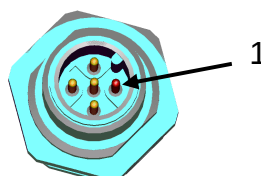
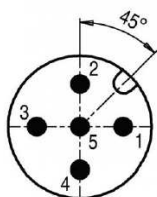
P/N: AAMCS-AMP-0800M-4200M-50dB-47dBm-R
Designation : 50W, 50dB, 0.8-4.2GHz Rack Amplifier

Page : 3 / 12

Monitoring & Control interface : J1 connector (Control)

Pin N°	Name	Type	Description
1	Alarm_temp_rack	Info TTL	high = Temp alarm
2	Cmd_Bias_Off	Ctrl TTL	high = RF bias OFF
3	Présence_alim_rack	Info TTL	High = Power Supply On
4	Blanking_On	Ctrl TTL	high = Blanking ON (RF OFF)
5	GND	GND	Grounded to chassis

J1 pinning :



Amplifier provided with 2m control cord (customer doesn't have to order the plug if not required).
 The amplifier is operational without plugging the control cable (if monitoring & control is not necessary).

Internal protection & options

Type	Included or optional items	Description
Temperature protection	Included in standard configuration	autosutdown of the bias if temperature of the internal module baseplate exceeds +85°C – auto recovery when temperature decreases below 80°C)
Coupler	Option 1 (not included in standard conf.)	Directional coupler for monitoring of the forward output power
Remote control	Option 2 (not included in standard conf.)	Remote control with Man Machine Interface and microcontroller board
Gate protection	Option 3 (not included in standard conf.)	Gate current self protection
Reverse PWR protection	Option 4 (not included in standard conf.)	Reverse power ALC (automatic level control)

Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)



FEUILLE DE Spécifications DATASHEET

Page : 4 / 12

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

Caractéristiques mécaniques *Mechanical features*

Paramètres <i>Parameters</i>	Conditions de mesure <i>Measuring conditions</i>	Spécifications AA-MCS <i>AA-MCS specifications</i>	Unités <i>Units</i>
Longueur x largeur x Hauteur <i>Length x width x height</i>	L x W x H ISO 2768-mH	465 x 19" x 3U (without connectors)	mm
Dissipation <i>Cooling</i>		Air cooled (integrated fans)	-
Connectique RF <i>RF Connectors</i>	Input Output 1 Output 2 (if directional coupler option chosen)	SMA female N female N female	-
Connecteur de commande et d'alimentation <i>Monitoring & Control connector & Supply</i>	J1 (Control) J2 (Supply)	Connecteur femelle M12x1 5pts Male ref : Binder 09 3441 500 05 (amplifier provided with 2m control cable) EIC plug	
Poids <i>Weight</i>		20 typ.	kg

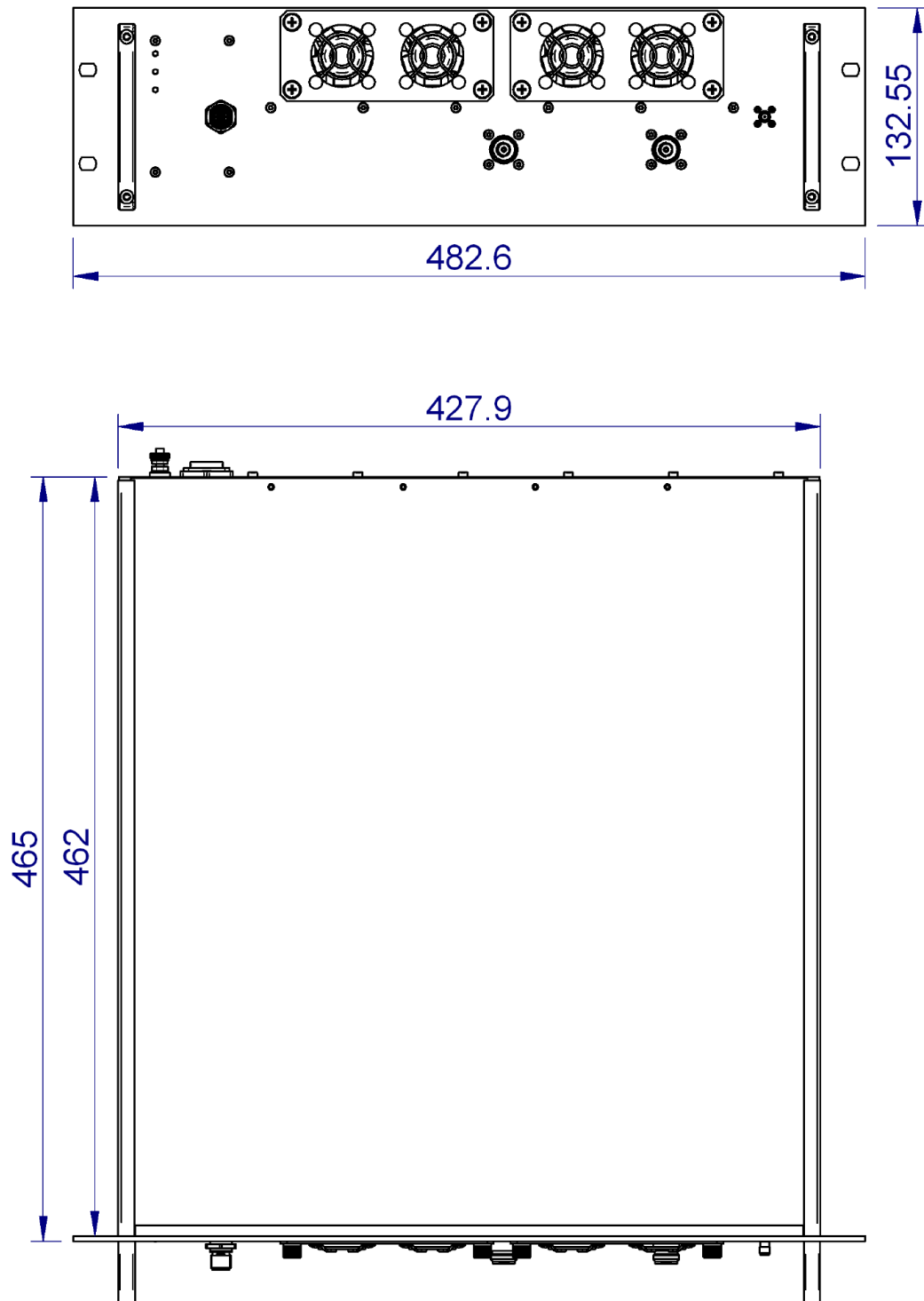
Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)



FEUILLE DE Spécifications DATASHEET

Page : 5 / 12

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



Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)



FEUILLE DE Spécifications DATASHEET

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

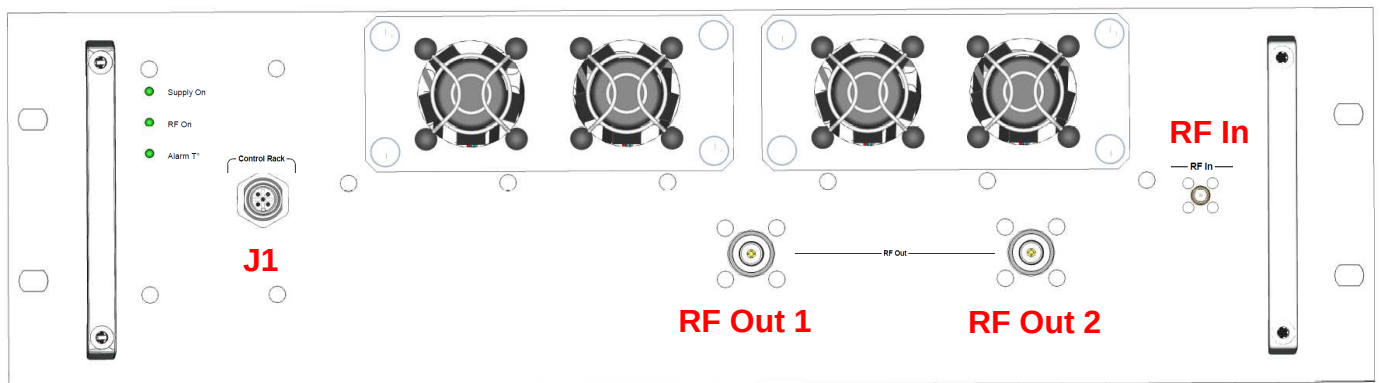
Page : 6 / 12

Monitoring & Control display : Front Panel

Pin N°	Name	Type	Description
1	Supply On	Green Led	highlighted = supply On off = supply Off
2	RF On	Yellow Led	highlighted = RF On off = RF Off
3	Alarm T°	Red Led	highlighted = alarm temperature off = temperature OK

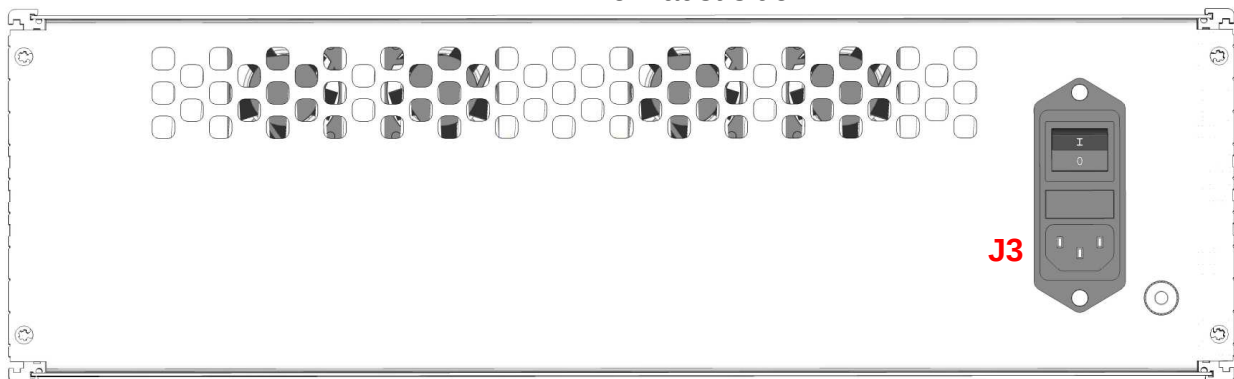
Front panel :

Air intake side



Rear Panel :

Air exhaust side



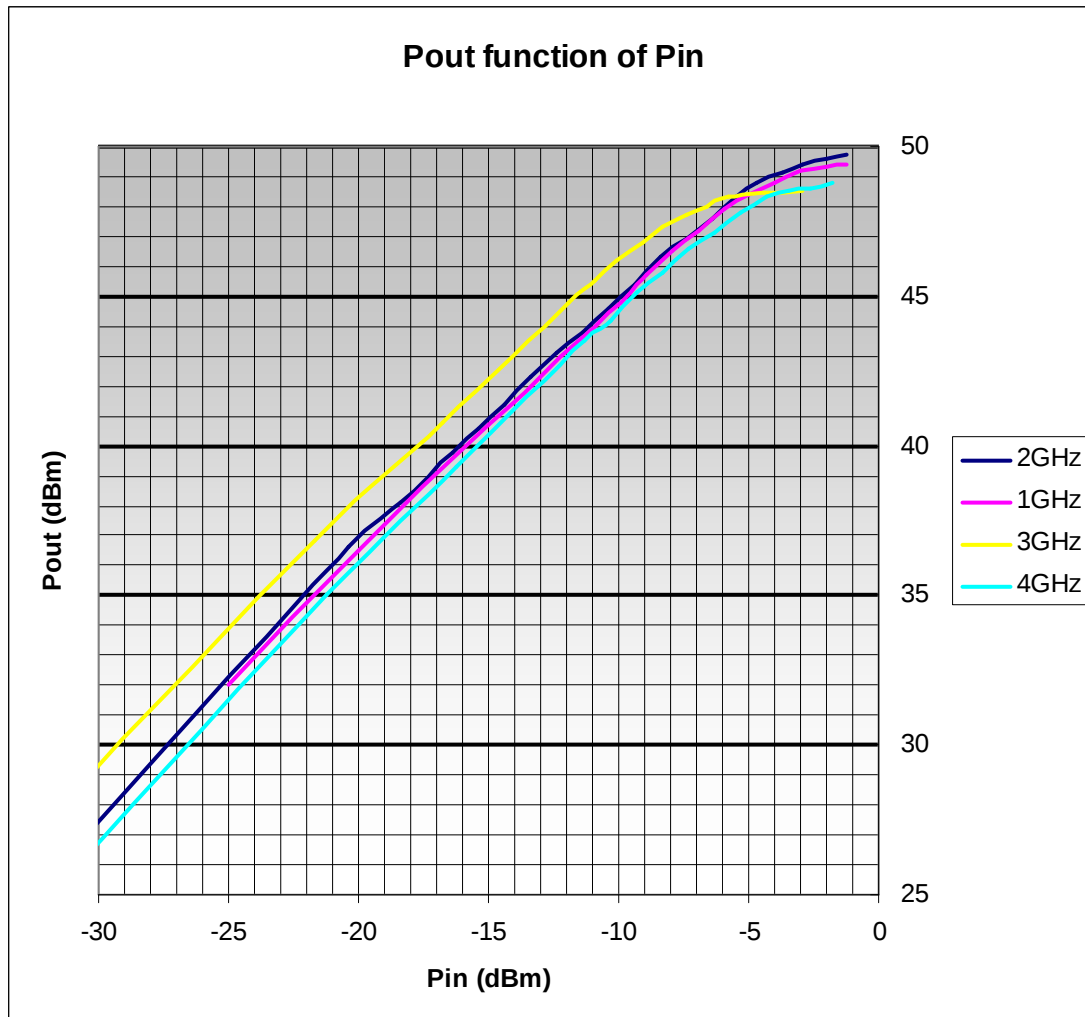
Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)



FEUILLE DE Spécifications DATASHEET

Page : 7 / 12

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



Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)

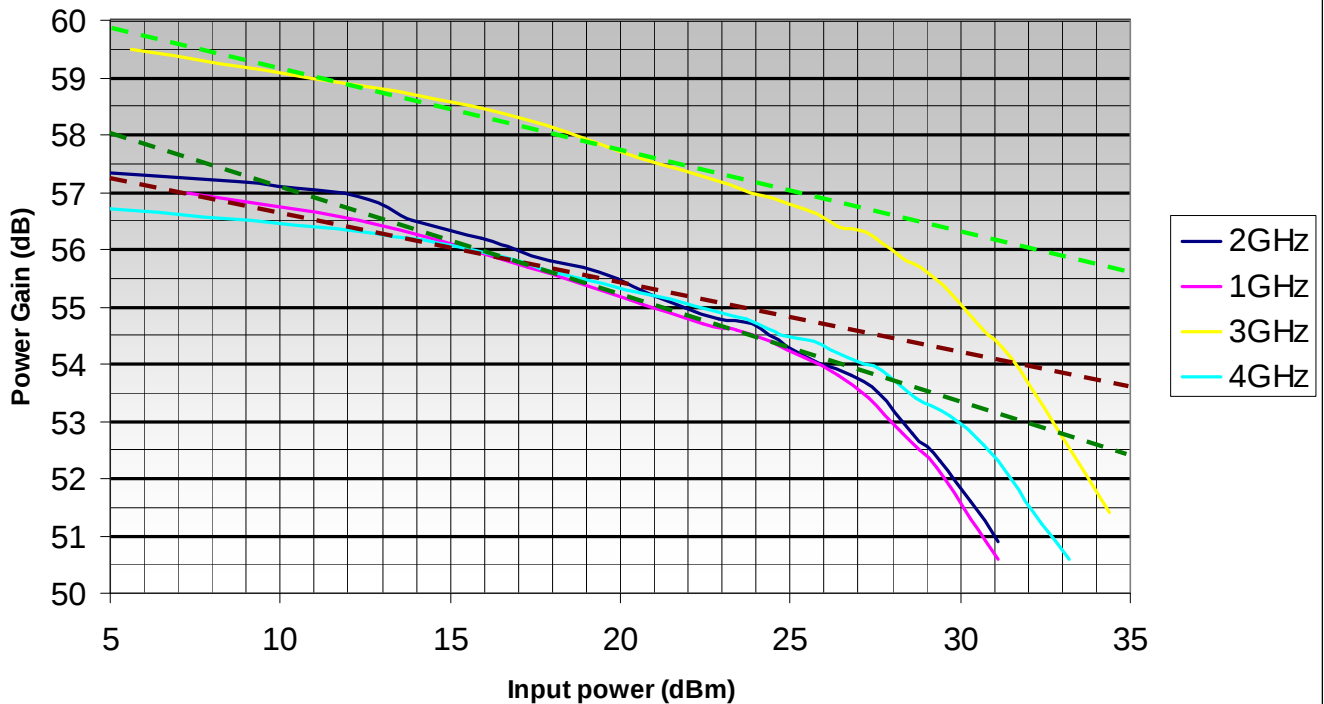


FEUILLE DE Spécifications DATASHEET

Page : 8 / 12

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

Power gain function of input power



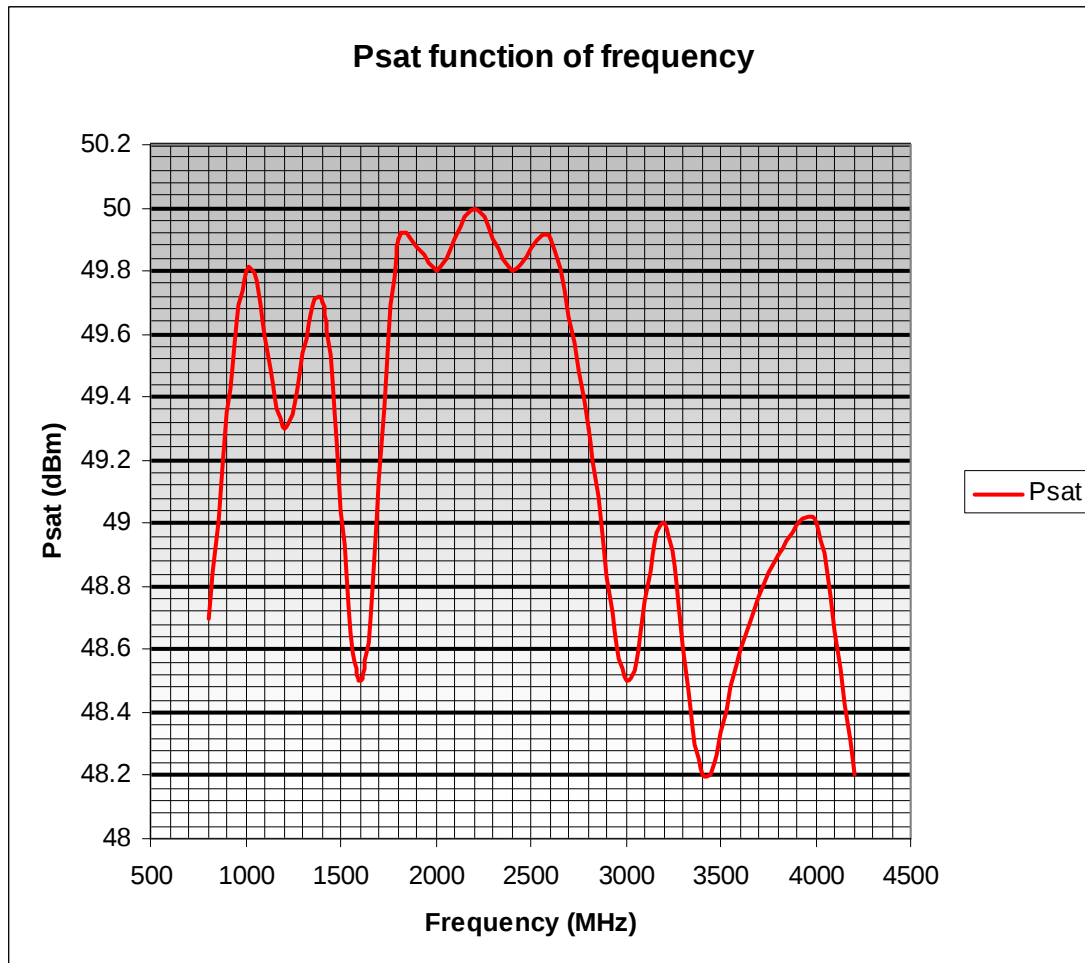
Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)



FEUILLE DE Spécifications DATASHEET

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

Page : 9 / 12



Typical output power @ Pin = 0dBm Gain

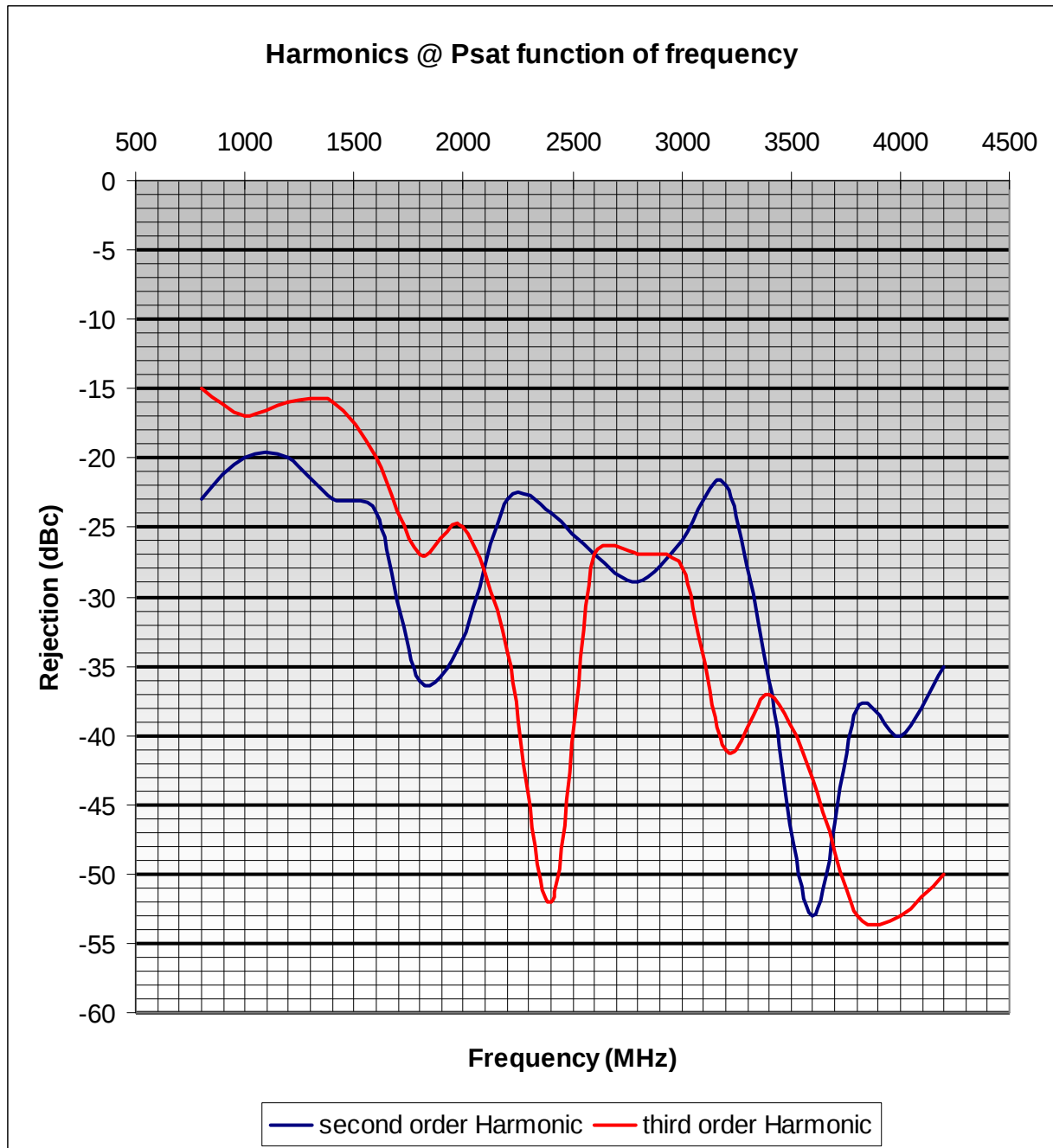
Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)



FEUILLE DE Spécifications DATASHEET

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

Page : 10 / 12



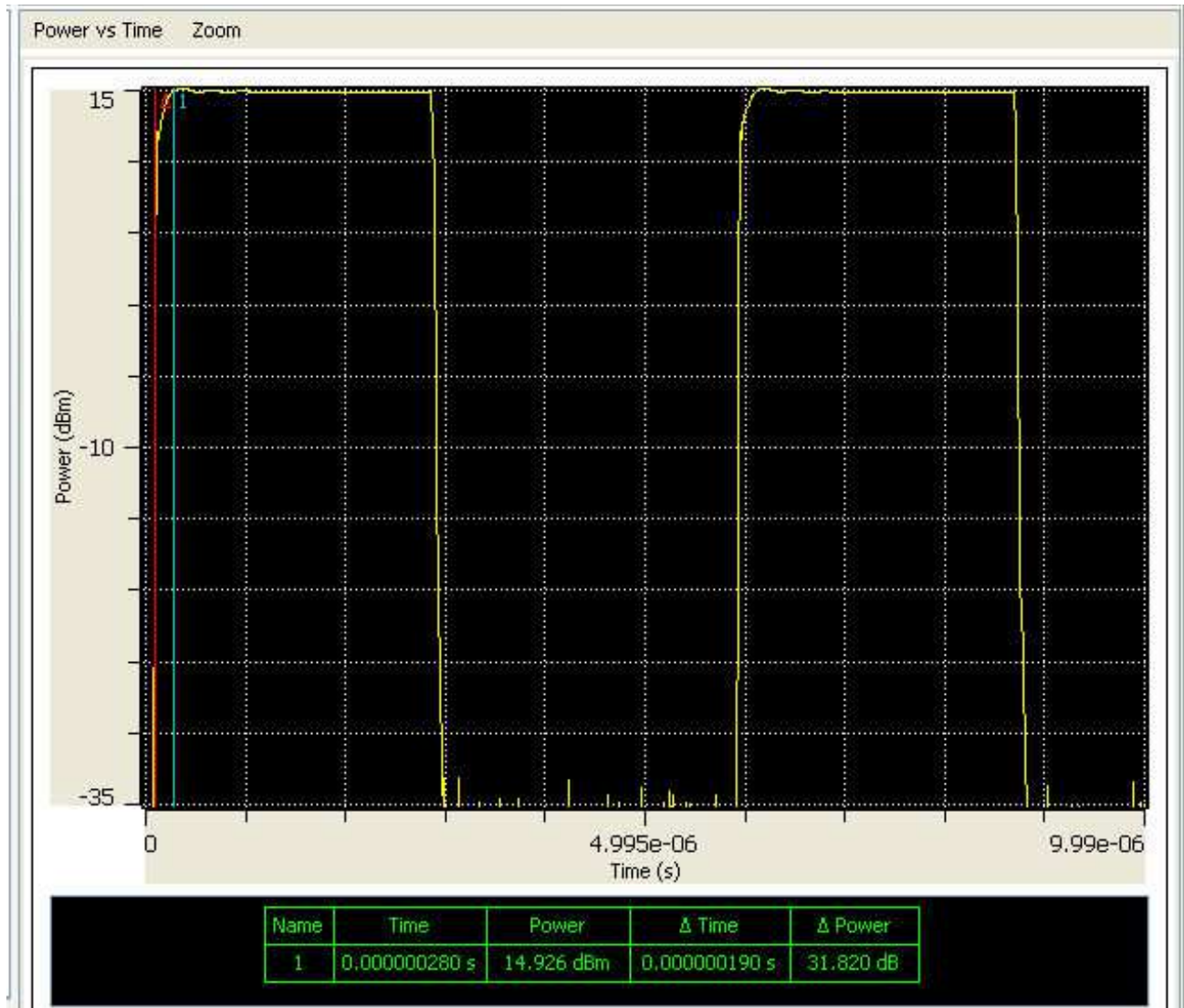
Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053) 50



FEUILLE DE Spécifications DATASHEET

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

Page : 11 / 12



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

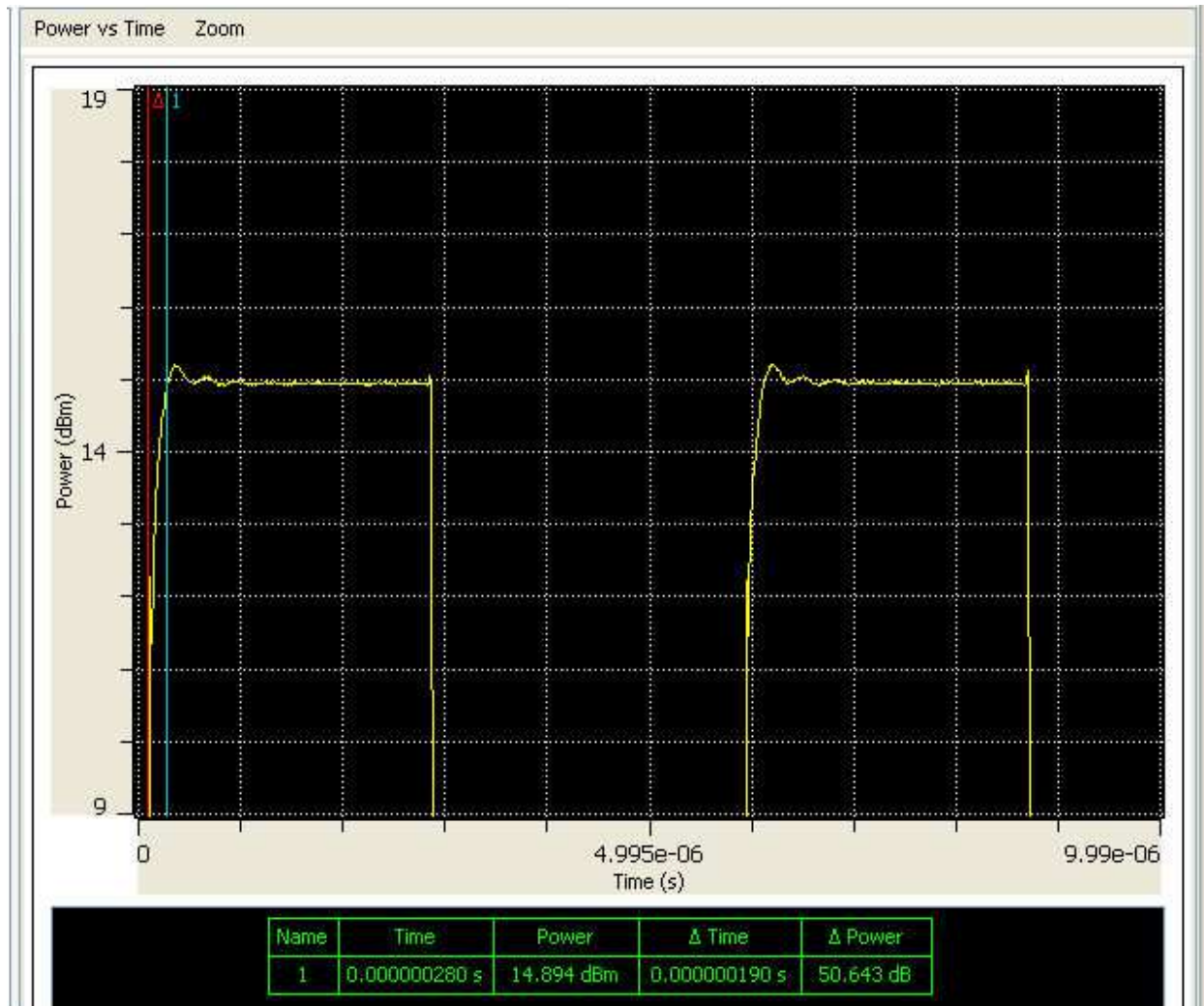
Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)



FEUILLE DE Spécifications DATASHEET

Page : 12 / 12

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



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

Ed.	Par / By	Le	Observation
0	Belluot	14/08/2011	Création (ET11-053)