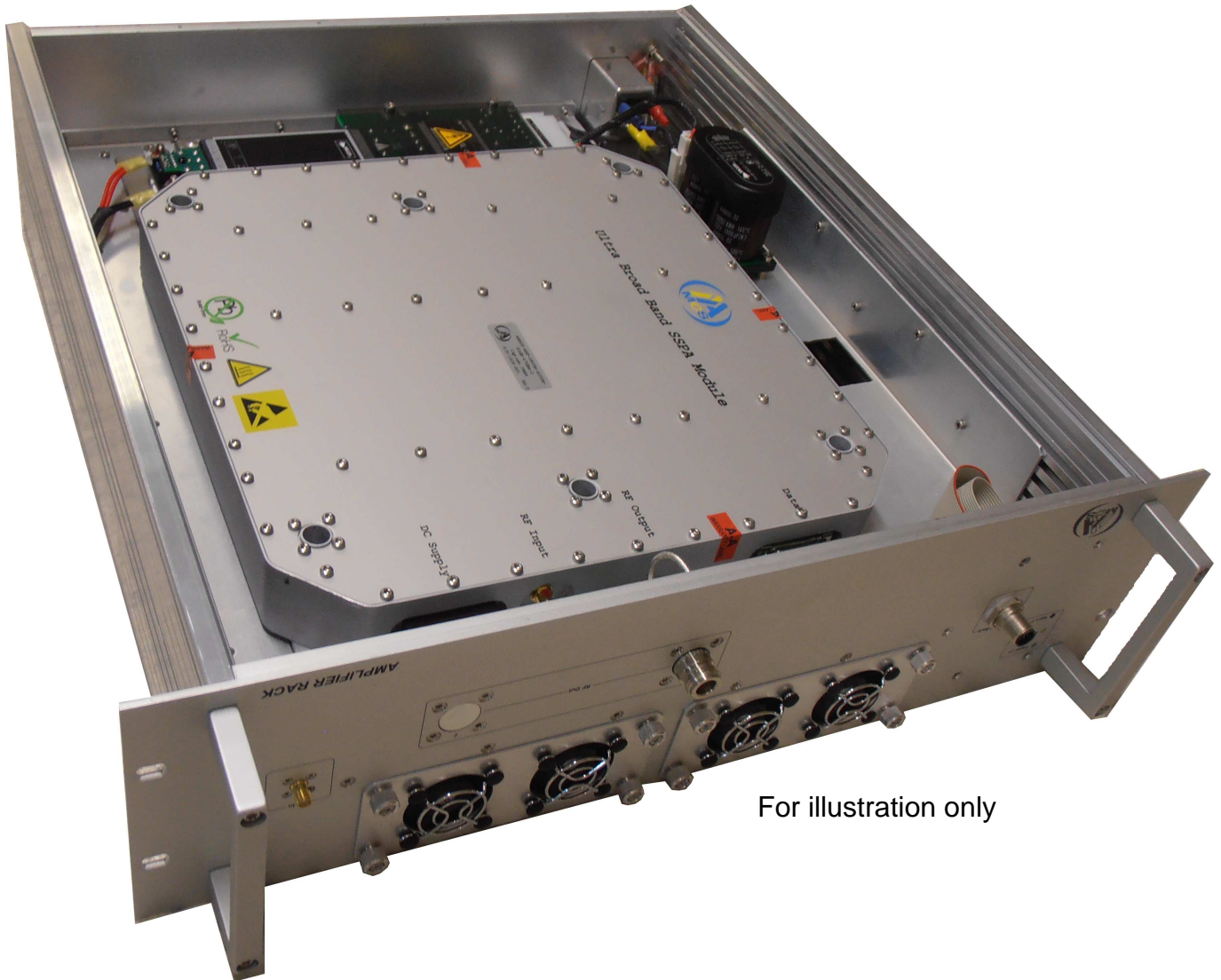




**FEUILLE DE Spécifications**  
**DATASHEET**

**P/N: AAMCS-AMP-6G-18G-45dB-43dBm-R**  
**Designation : 20W, 45dB, 6-18GHz Amplifier rack**

**20W, 45dB, 6-18GHz Amplifier rack**



For illustration only

Ed.	Par / By	Le	Observation
0	Belluot	30/06/2016	Création (ET16005)



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<b>Caractéristiques électriques</b> <i>Electrical specifications</i>		All measurements performed @ +25°C	
<b>Paramètres</b> <i>Parameters</i>	<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>		6000-18000	MHz
<b>Puissance de sortie</b> <i>Output power</i>	@ ambient temp = +25°C & @ Psat	min. 42 typ. 44	dBm
<b>Puissance d'entrée</b> <i>Input power</i>	@ Psat Damage level	-5 typ. 0 max. +3 max.	dBm
<b>Gain</b> <i>Gain</i>	Small signal @+25°C @ Psat	typ. 58 min. 42 typ. 45	dB
<b>Ondulation dans la bande</b> <i>In band ripple</i>	Small signal @ Psat	max.+/- 5 max.+/- 1.5	dB
<b>Adaptation d'entrée / sortie</b> <i>Input/output return loss</i>	Input Output	min.10 typ.14 typ.10	dB
<b>Tenue au TOS de sortie</b> <i>Load mismatch</i>	@ +28Vdc	max. 3:1	
<b>Parasites</b> <i>Spurious</i>	@ Psat	-60 max.	dBc
<b>Distorsion harmonique</b> <i>Harmonics</i>	@ Psat H2 6-10GHz H2 10-18GHz H3 6-18GHz	-6 typ. -3 max. -15 typ. -10 max. -20 typ. -13 max.	dBc
<b>OIP3</b> <i>OIP3</i>	2 carriers 37 dBm each	typ. 45	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>		1 max.	us
<b>Ed.</b>	<b>Par / By</b>	<b>Le</b>	<b>Observation</b>
<b>0</b>	<b>Belluot</b>	<b>30/06/2016</b>	<b>Création (ET16005)</b>



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<b>Paramètres</b> <i>Parameters</i>	<b>Conditions de mesures</b> <i>Measuring conditions</i>	<b>Mesures</b> <i>Measurements</i>	<b>Unités</b> <i>Units</i>
<b>Tension d'alimentation</b> <i>Supply voltage</i>		230 +/-10% 50 +/-10%	Vac Hz
<b>Consommation</b> <i>Consumption</i>	@ Psat	typ. 1.5 max. 2	A rms
<b>Tension de contrôle température</b> <i>Temperature voltage monitoring</i>	Positive slope	10 -300mV @ -30°C 0V @ 0°C +600mV @ +60°C	mV/°C

<b>Contrôles, Alarmes et Informations</b> <i>Control, Alarms and Monitoring</i>		
<b>Paramètres</b> <i>Parameters</i>	<b>Conditions de mesures</b> <i>Measuring conditions</i>	<b>Spécifications</b> <i>Specifications</i>
<b>Commande d'extinction RF</b> <i>Noise quieting / RF blanking control</i>	TTL command "Blanking"	Low or Not Connected = RF Output ON High = RF Output OFF (Muted)
<b>Info température</b> <i>Temperature indicator</i>	Analog output "Temperature"	Range : -5Vdc to +5Vdc See electrical features
<b>Commande ON/OFF alimentation</b> <i>ON/OFF supply control</i>	TTL command "Shutdown"	low or not connected = supply ON high = supply OFF
<b>Etat de l'alarme température</b> <i>Temperature protection</i>	TTL info	Low = OK High = alarm (autosutdown of the biasing if temperature of the baseplate exceeds +65°C – auto recovery when temperature decrease below 60°C)

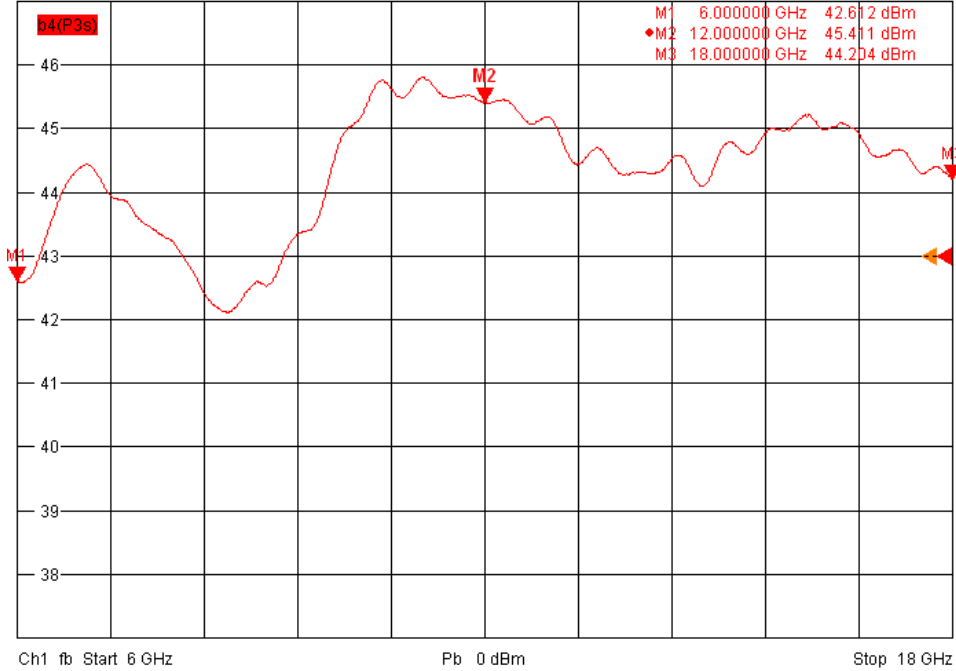
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## FEUILLE DE Spécifications DATASHEET

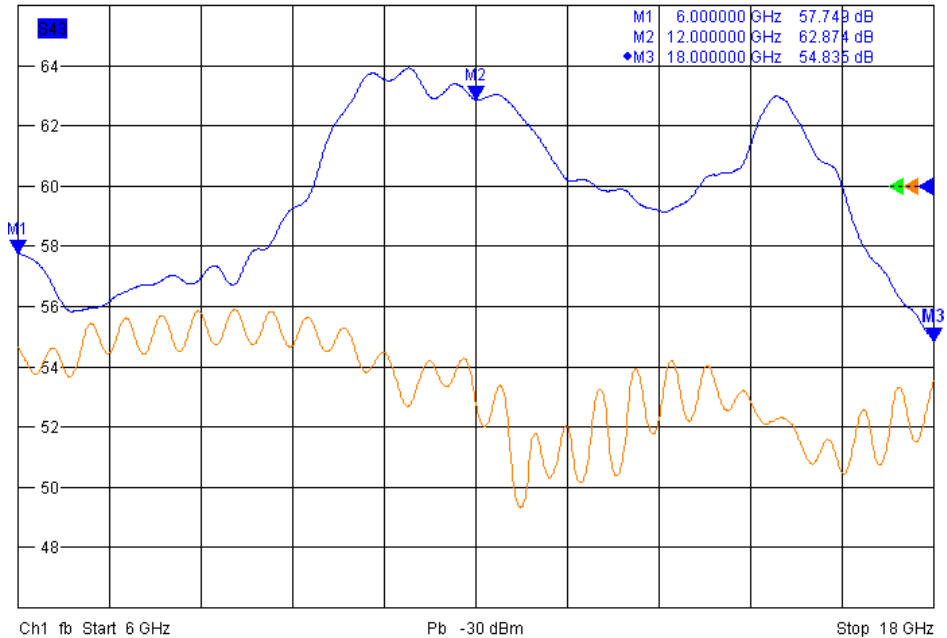
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PWR b4(P3s) dB Mag 1 dB / Ref 43 dBm PCal Math Smo 2 (Max)  
Mem[PWR] b4(P3s) dB Mag 1 dB / Ref 43 dBm Invisible



### Output power in dBm @ Psat @ +25°C

Gain S43 dB Mag 2 dB / Ref 60 dB Cal int PCao Smo 1 (Max)  
Adapt S33 dB Mag 5 dB / Ref 0 dB Cal int PCao Smo  
Mem[Gain] S43 dB Mag 2 dB / Ref 60 dB Invisible



### Small signal gain in blue & input return loss in orange @ +25°C

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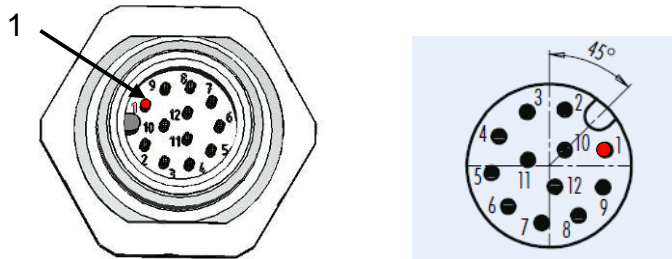
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### Monitoring & Control interface : J1 connector

Pin N°	Name	Wire colour	Type	Description
1	Shutdown	Brown	Ctrl ; TTL	Low = Amplifier enabled (Bias ON) High = Amplifier disabled (Bias OFF)
2	Blanking	Blue	Ctrl ; TTL	Low = RF ON High = RF OFF
3	Alarm temperature	White	Info ; TTL	High = Temperature alarm => Amplifier disabled
6	Temperature monitor	Yellow	Info ; analog	Temperature indication: -5 to +5Vdc
4,5,7,8,9, 10,11	Reserved			Internally connected, leave open
12	GND	Red / blue	GND	Grounded to chassis (for TTL)

#### 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).

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### Internal protection & options

Type	Included or optional items	Description
Temperature protection	<b>Included in standard configuration</b>	Autoshutdown of the bias if temperature of the internal module baseplate exceeds max. temp.
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)

### **Caractéristiques mécaniques** *Mechanical features*

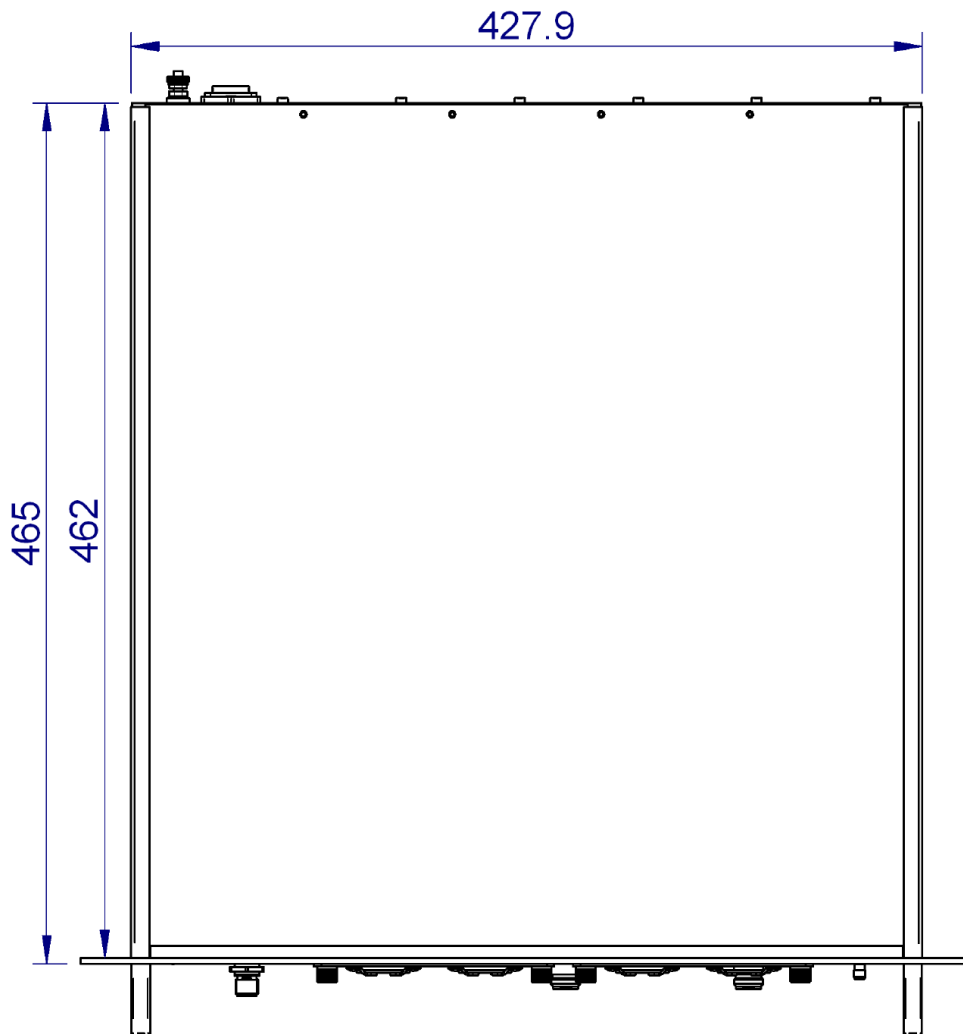
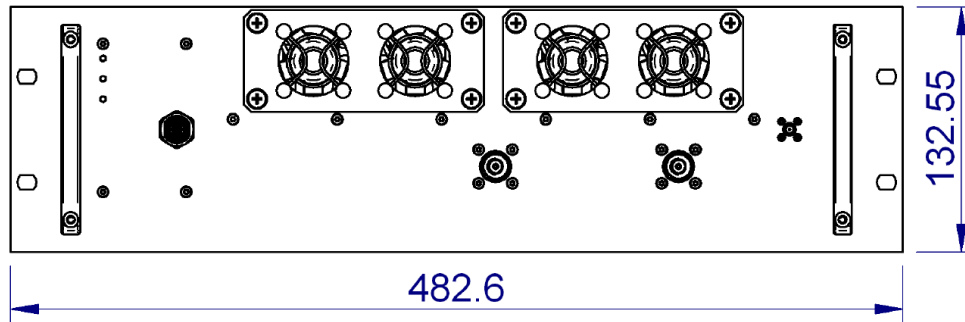
Paramètres <i>Parameters</i>	Conditions de mesure <i>Measuring conditions</i>	Spécifications AA-MCS <i>AA-MCS specifications</i>	Unités <i>Units</i>
<b>Longueur x largeur x Hauteur</b> <i>Length x width x height</i>	L x W x H ISO 2768-mH	465 x 19" x 3U (without connectors)	mm
<b>Dissipation</b> <i>Cooling</i>		Air cooled (integrated fans)	-
<b>Temperature opérationnelle</b> <i>Operating temperature range</i>	Room temperature	-10 min. +45 max.	°C
<b>Connectique RF</b> <i>RF Connectors</i>	Input Output 1	SMA female N female	-
<b>Connecteur de commande et d'alimentation</b> <i>Monitoring &amp; Control connector &amp; Supply</i>	J1 (Control)  J2 (Supply)	Connector M12x1 12pts male Ref.: Binder 09-3491-500-12 (amplifier provided with 2m control cable)  EIC plug	
<b>Masse</b> <i>Weight</i>		17 typ.	kg

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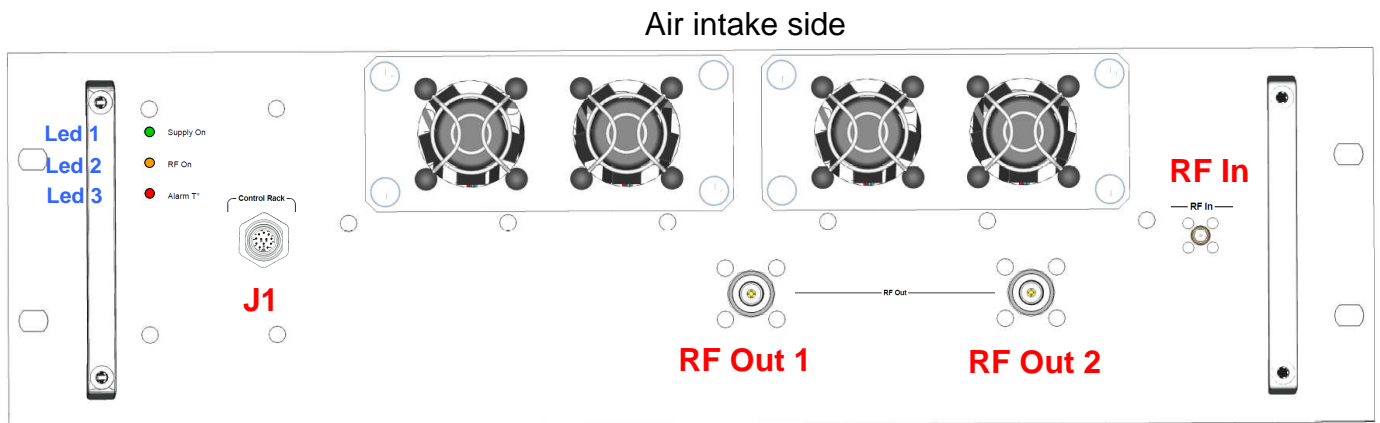
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Monitoring & Control display : Front Panel

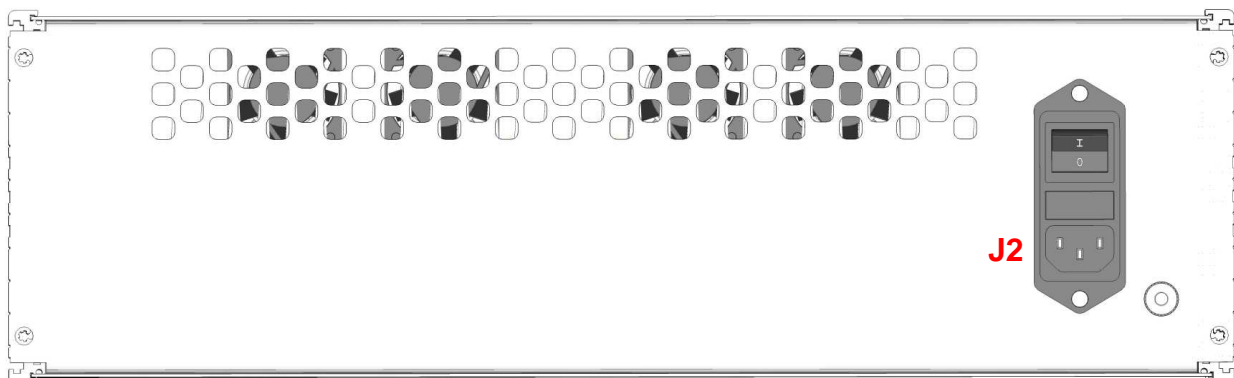
Pin N°	Name	Type	Description
1	Supply On	Green Led	highlighted = supply On off = Supply Off
2	RF On	Yellow Led	highlighted = RF On (RF enabled) off = RF Off
3	Alarm T°	Red Led	highlighted = alarm temperature off = Temperature OK

**Front panel :**



**Rear Panel :**

Air exhaust side



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