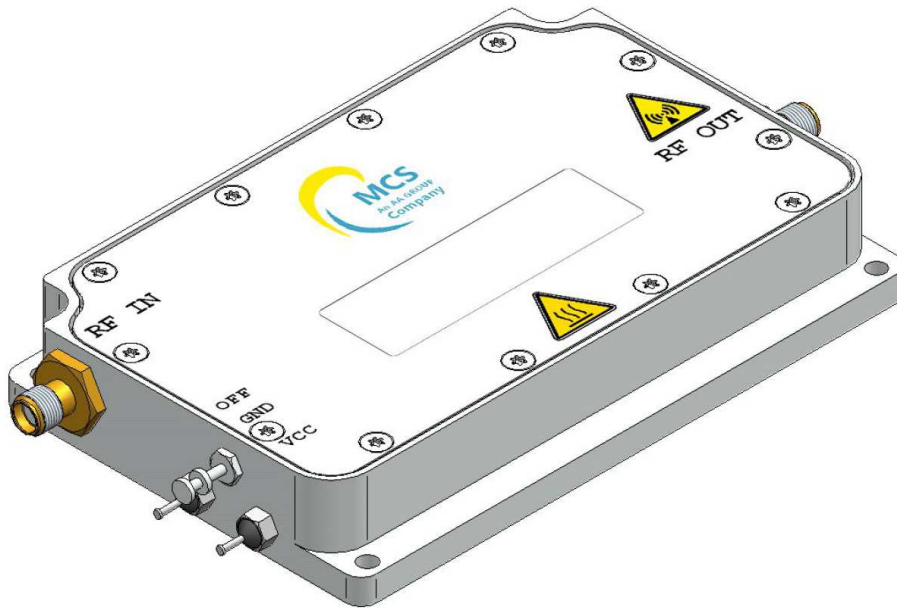




DATASHEET
FEUILLE DE SPECIFICATIONS

P/N: MCS-AMP-1000M-6000M-40dB-40dBm-1
Designation: 10W, 40dB, 1-6GHz Amplifier Module



1-6GHz 10W Power Amplifier Module

Ed.	Written by	Date	Observation	Approved by
0	A. Billy	14/03/2022	Creation	R.Penicault



DATASHEET FEUILLE DE SPECIFICATIONS

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Electrical features <i>Caractéristiques électriques</i>		All parameters specified @ baseplate temperature of +25°C, unless otherwise specified	
Electrical parameters <i>Paramètres électriques</i>	Measuring conditions <i>Conditions de mesure</i>	MCS specifications <i>Spécifications AA-MCS</i>	Units <i>Unités</i>
Bandwidth <i>Bande de fréquence</i>		1000 – 6000	MHz
Output power <i>Puissance de sortie</i>	Saturated output power @ Pin = 0dBm typ.	39 min. 40 typ.	dBm
Input power <i>Puissance d'entrée</i>	For saturated power Absolute maximum level	0 typ. +13 max.	dBm
Gain <i>Gain</i>	@ small signal @ 10W	52 typ. 39 min. 40 typ.	dB
In band Gain ripple <i>Ondulation de gain</i>	@ small signal @ Psat	+/- 4 max. +/- 1.5 max.	dB
Impedance <i>Impedance</i>		50	Ohms
Input / Output VSWR <i>TOS d'entrée / sortie</i>	Input Output	2:1 max. 2:1 typ.	
Load mismatch <i>Résistance au TOS de charge</i>		5:1 max.	
Time for RF on/off (blinking) <i>Vitesse d'extinction RF</i>	10-90% RF rise / fall time	0.5 typ. 1 max.	µs
Power density in blanking mode <i>Densité spectrale de puissance</i>	In 2 MHz BW	-120 max. (Switch in RF path and gate bias cut-off)	dBm/Hz
Spurious <i>Parasites</i>	@ Psat	-60 max.	dBc
Operating class <i>Classe de fonctionnement</i>		AB on GaN devices	

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Supply voltage <i>Tension d'alimentation</i>		+24 min. +28 typ. +36 max.	Vdc
Current consumption <i>Courant consommé</i>	Blanking ON Small signal, CW @Psat	0.3 typ. 1.0 typ. 1.8 typ. 2.2 max.	A

Control (Bypass connector) <i>Contrôle</i>		
Parameters <i>Paramètres</i>	Description <i>Description</i>	Spécifications <i>Specifications</i>
Noise quieting / RF blanking control <i>Commande d'extinction RF</i>	TTL command OFF "Blanking" – 0-5V	Low or Not Connected = RF Output ON High = RF Output OFF (Muted)

Environnemental conditions <i>Conditions environnementales</i>			
Parameters <i>Paramètres</i>	Measuring conditions <i>Conditions de mesure</i>	MCS specifications <i>Spécifications AA-MCS</i>	Units <i>Unités</i>
Operating temperature range <i>Température opérationnelle</i>	Case temperature <i>(includes automatic shutdown for thermal protection when baseplate temperature exceeds +85°C ; with auto-recovery)</i>	-40 min. +85 max.	°C
Storage temperature range <i>Température de stockage</i>	Case temperature	-55 min. +105 max.	°C

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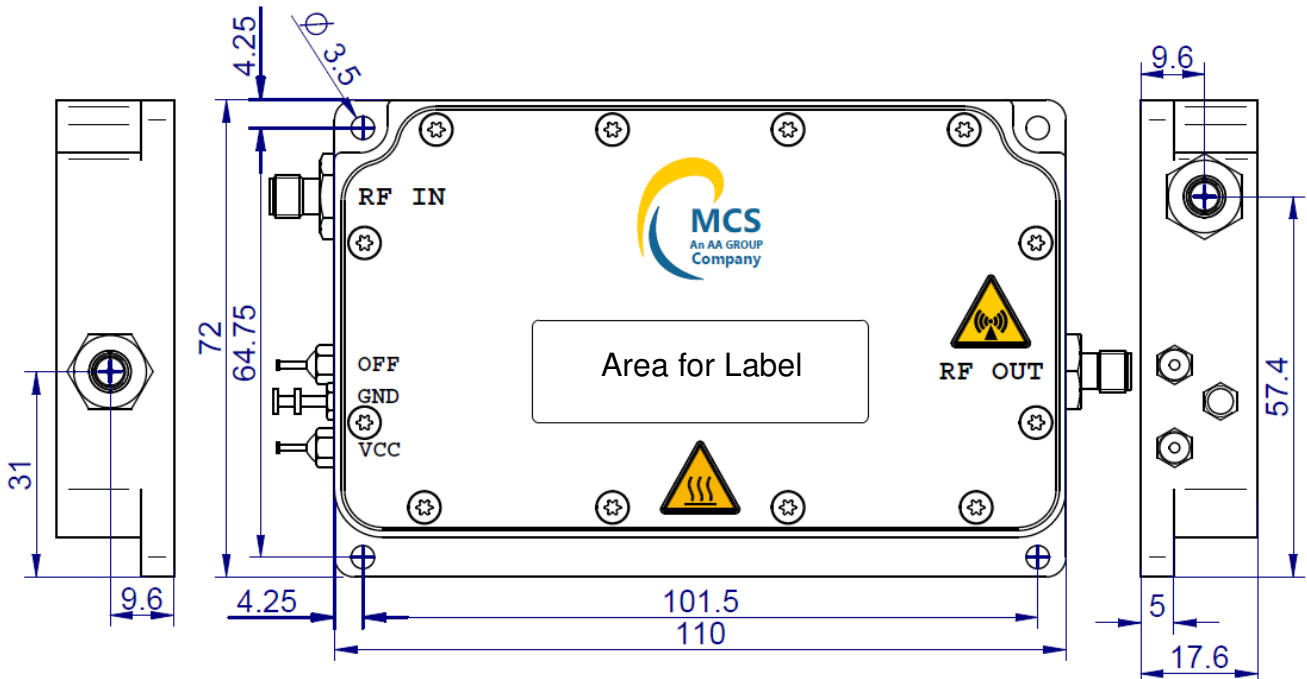
DATASHEET
FEUILLE DE SPECIFICATIONS

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Mechanical features

Caractéristiques mécaniques

Parameters <i>Paramètres</i>	Measuring conditions <i>Conditions de mesure</i>	MCS specifications <i>Spécifications AA-MCS</i>	Units <i>Unités</i>
Length x width x height <i>Longueur x largeur x Hauteur</i>	L x W x H ISO 2768-mH	110 x 72 x 17.6 max. (without connectors) (see drawings below)	mm
Cooling <i>Dissipation</i>		Conduction cooled: user shall maintain base plate temperature below +85°C	-
RF Connectors <i>Connectique RF</i>	Input / Output	SMA female	-
Supply & Control connector <i>Connecteurs de contrôle et alim.</i>	VCC (Supply) OFF (Blanking)	Solder terminals	
Weight <i>Masse</i>		280 typ.	g
Housing <i>Châssis</i>		Aluminium coated with Surtec 650	



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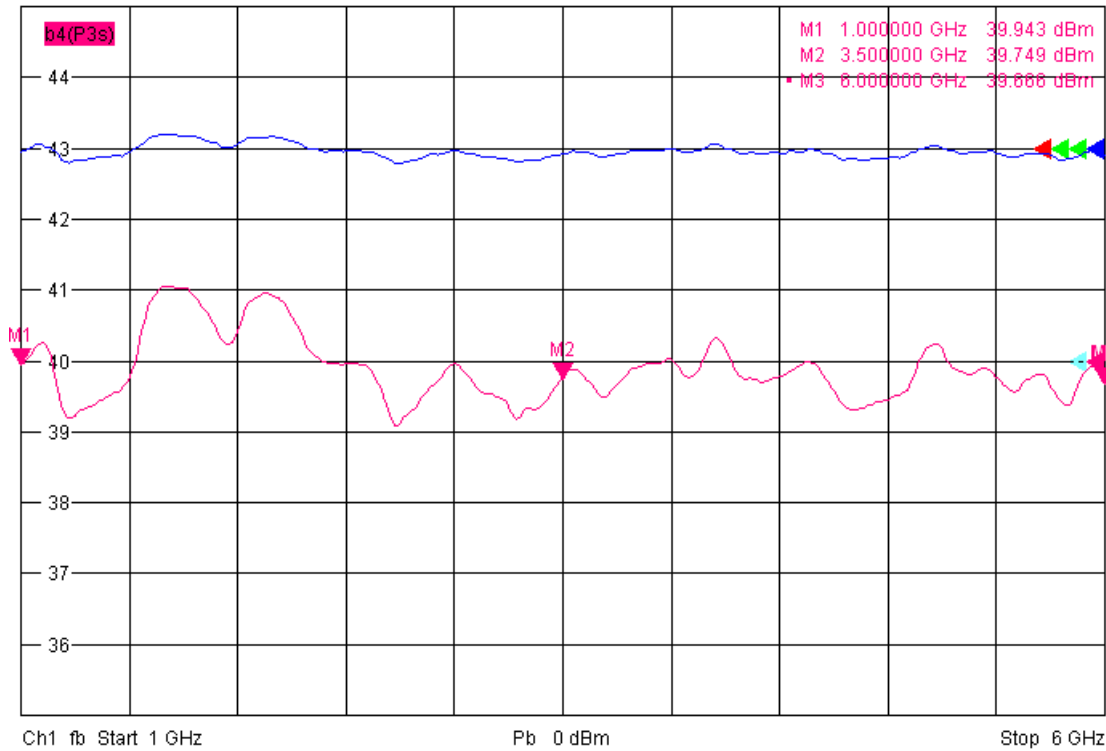


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Output Power:

Trc1 **S43** dB Mag 5 dB / Ref 40 dB Trc2 **b4(P3s)** dB Mag 1 dB / Ref 40 dBm 1
 Trc5 **S33** dB Mag 5 dB / Ref 0 dB Mem6[Trc1] **S43** dB Mag 5 dB / Ref 40 dB
 Mem7[Trc2] **b4(P3s)** dB Mag 1 dB / Ref 40 dBm Mem8[Trc5] **S33** dB Mag 5 dB / Ref 0 dB



Gain (Blue) & Psat (Purple) @ Pin = 0dBm

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