

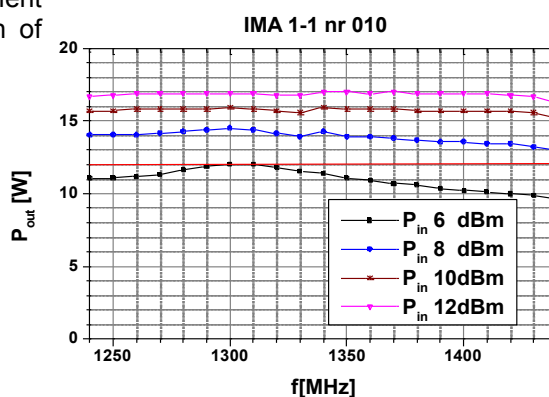
Description

The IMA-1 is L-band semiconductor pulse high power amplifier. The amplifier is intended to be used mainly as power booster to drive high power TWTs type LO-120, LO-111 and LO-112. The structure of the amplifier consists of microwave amplifying section (preamplifier and power stage, based on A class FET transistors) and supply and control unit. Control unit stage, drive by an external trigger pulse, switches DC power on only for the time when RF pulse is present to minimize power dissipation. The amplifier is protected against microwave pulse width exceed specified level and negative voltage feed also. At the input, output and between stages there are isolators assure amplifier stability and insensibility to load mismatch. The amplifier includes built in test equipment unit (BITE). There are three versions with different width of pulse available.

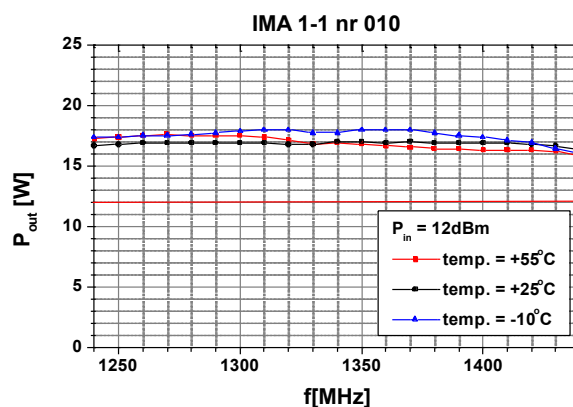


Parameters	
Frequency range	1.24 ÷ 1.44 GHz
Output power	12 W min.
Small Signal gain	31 dB min.
Duty factor	4% max. (*)
RF Pulse width	45 μ s (IMA-1) 75 μ s (IMA-1-1) 110 μ s (IMA-1-2)
DC supply	24V / -12V
Load VSWR	any
Trigger pulse	5V / 2 μ s
BITE	too low output power level (**)
	no DC supply
	no trigger pulse
Operating temperature	-10°C ÷ +55°C
RF connector	SMA (f), SMA (m) or N (f)
Control and supply connector	DBM9W4P

Example characteristics



Output power vs. frequency (input power as parameter).



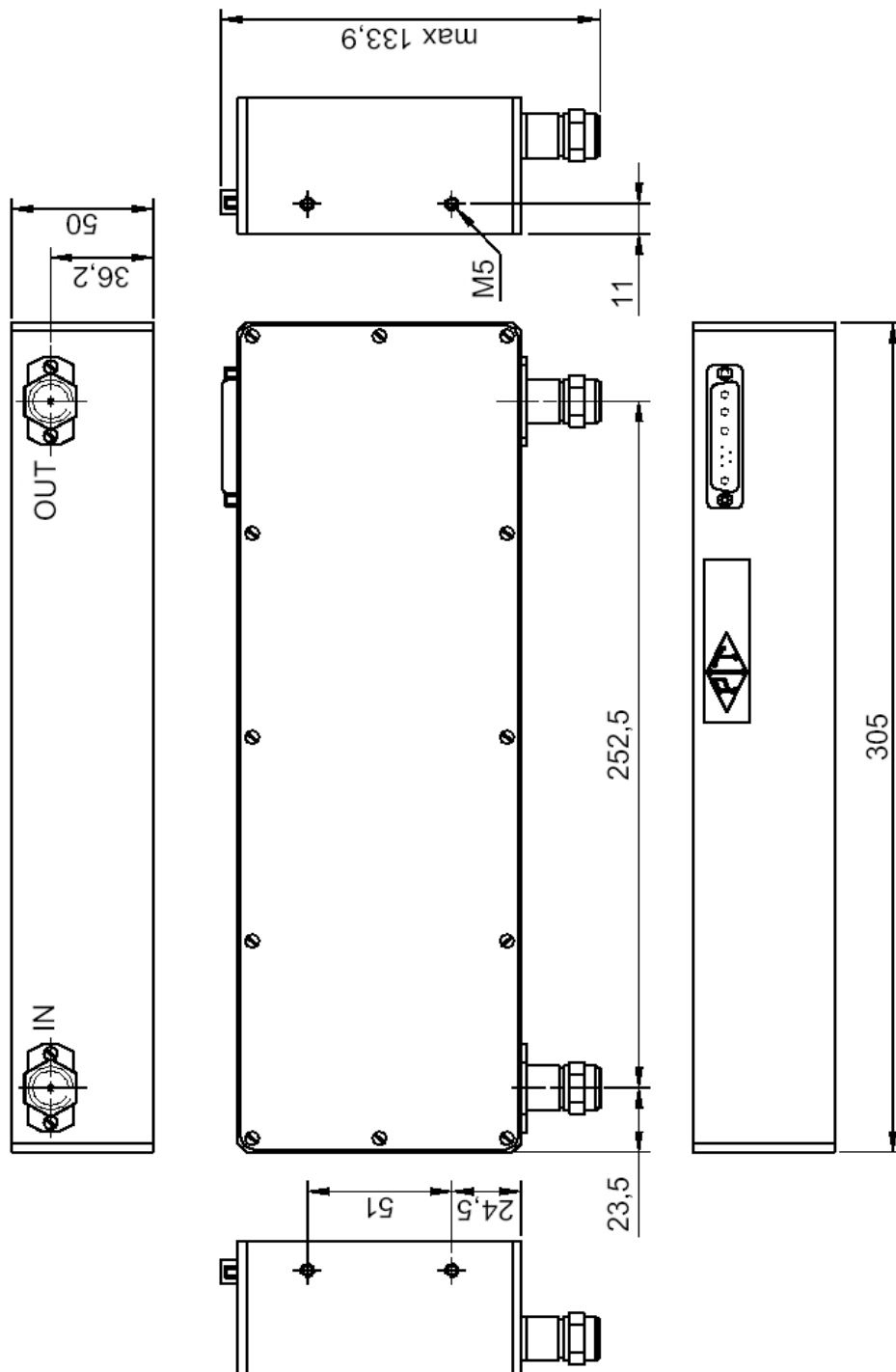
Output power vs. frequency (temperature as parameter).

(*) Other values up to 100% (CW) can be discussed.

(**) With external power output control unit.

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The mechanical dimensions can be modified. Current detailed outline drawing are available on request.
All mechanical dimensions are in [mm].

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