

Performance characteristics:

- Frequency band: 5GHz~20GHz
- Gain : 23.5dB
- Output P-1dB:21dBm
- Output saturation power: 22dBm
- Power supply:+5V@135mA
- Chip size: 1.35mm×1.20mm×0.1mm

Product Description:

The CW-DA0520 is a GaAs MMIC driver amplifier with a frequency range of 5GHz~20GHz and an in-band gain of 23.5dB. the chip is powered by a single +5V power supply.

Electrical parameters:($T_A=25^{\circ}C$, $V_D=+5V$)

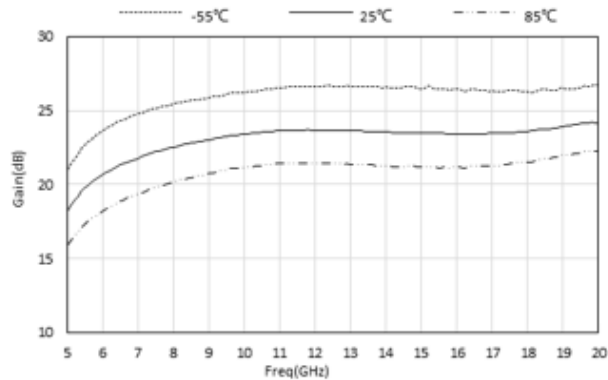
Indicators	Minimum value	Typical values	Maximum value	Unit
Frequency range	50-20			GHz
Gain	18	23.5	-	dB
Input Return Loss	13	15	-	dB
Output Return Loss	13	15	-	dB
Output P-1dB	20	21	-	dBm
Saturation Output Power	20	22	-	mA
Operating current	-	135	-	

Usage limitation parameters : (Exceeding any of the above maximum limits may result in permanent damage.)

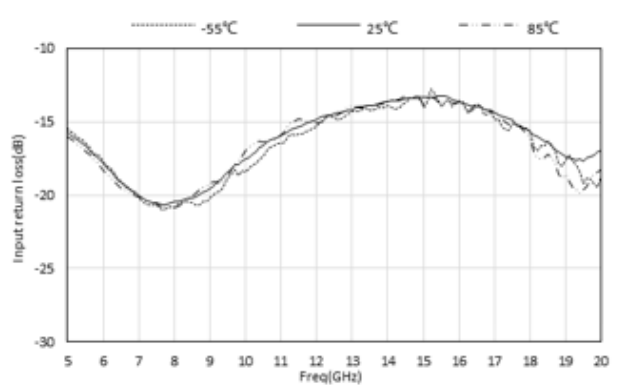
Input power	10dBm
voltage	+6V
Storage temperature	-65°C~150°C
Operating temperature	-55°C~125°C

Typical curves:

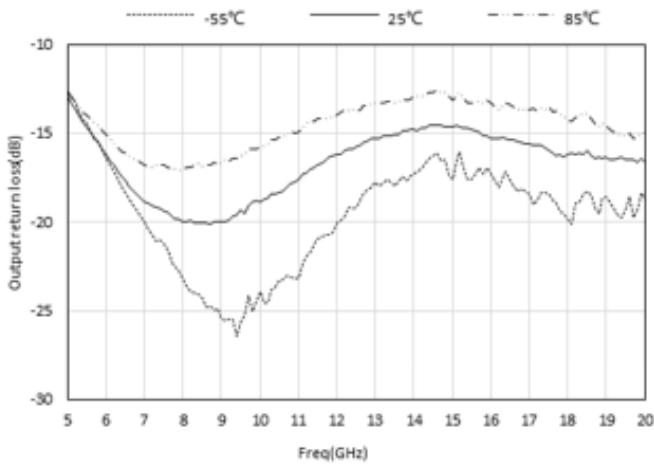
Gain



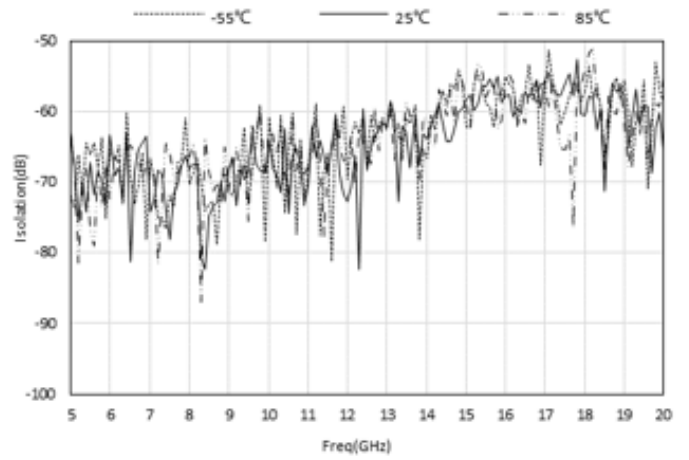
Input Return Loss



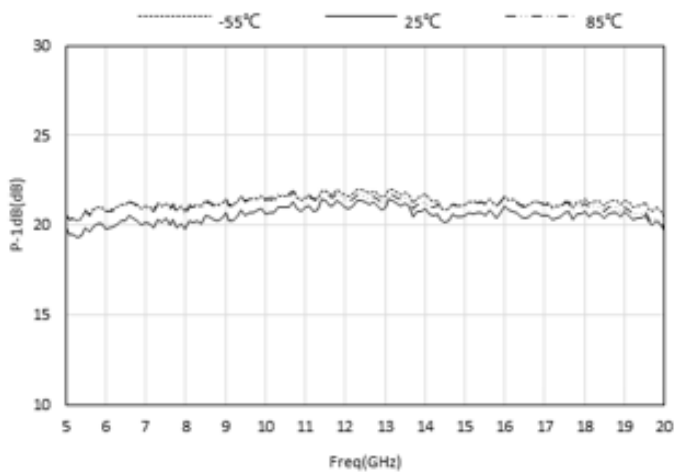
Output return loss



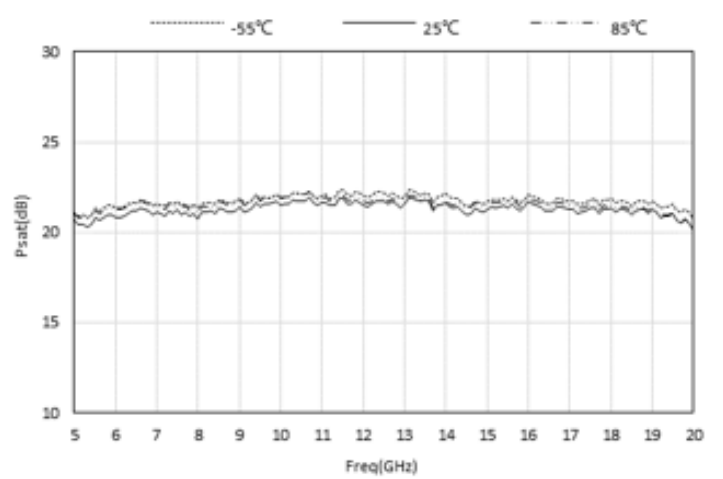
Reverse isolation degree



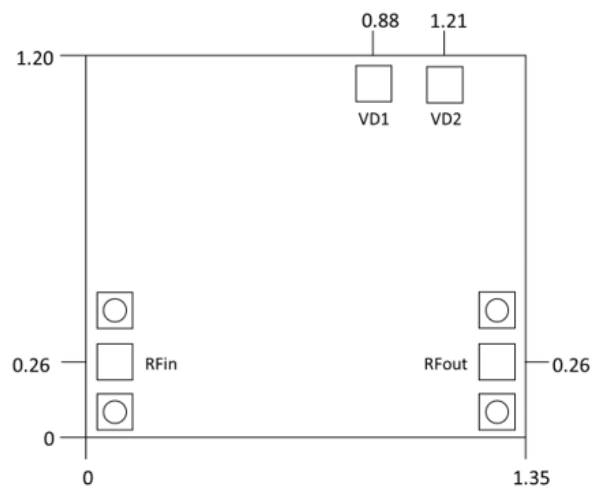
P-1dB



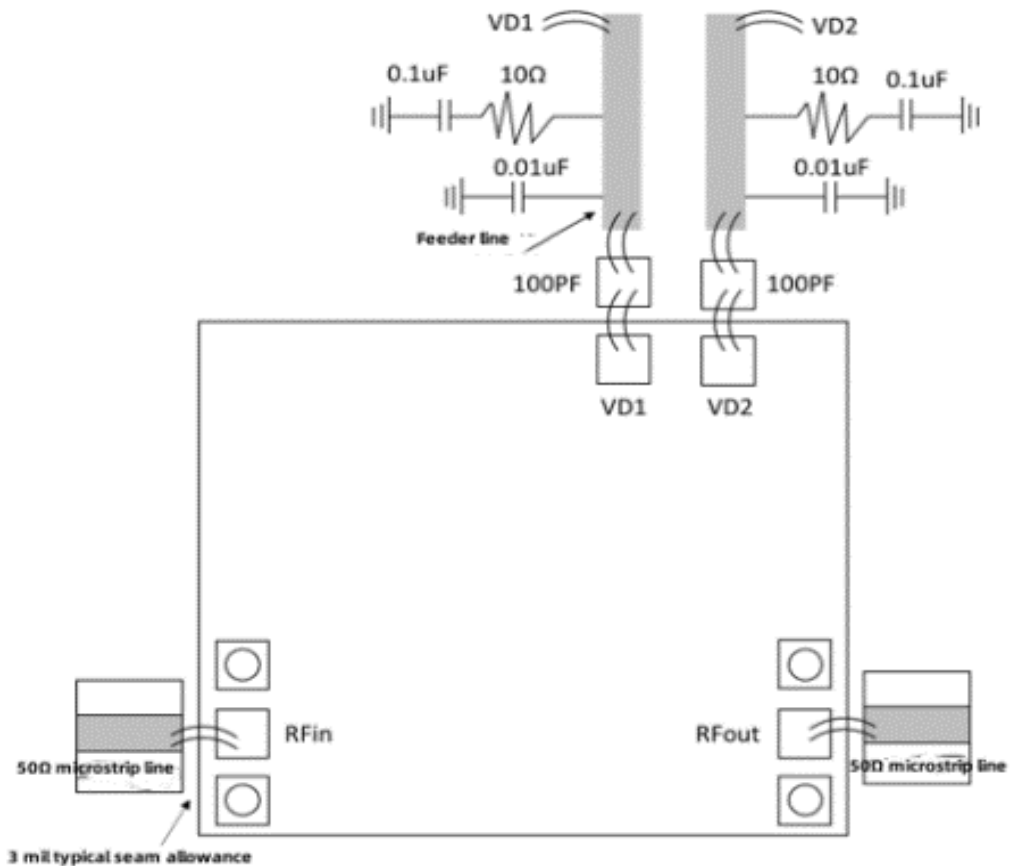
Saturation Output Power



Dimensional drawing: (unit mm)



Suggested assembly drawing:



Instructions for use:

Storage: The chip must be placed in a container with electrostatic protection and stored in a nitrogen atmosphere.

Cleaning treatment: Bare chips must be operated and used in a purified environment, and it is prohibited to use liquid cleaners to clean the chips.

Electrostatic protection: Please strictly comply with ESD protection requirements to avoid electrostatic damage to the device.

Routine operation: Please use vacuum chuck or precision pointed tweezers to pick up the chips. Avoid touching the chip surface with tools or fingers during the operation.

Mounting operation: Chip mounting can be done using AuSn solder eutectic welding or conductive adhesive bonding process. The mounting surface must be clean and flat.

Bonding operation: 2 (25μm diameter gold wire is recommended) bonding wires for each input and output, with a bonding wire length of less than 250μm optimal. It is recommended to use the lowest possible ultrasonic energy. Bonding starts at the pressure point on the chip and ends at the package (or substrate).