

12 – 15.5 GHz 1W Amplifier

FEATURES

- P₁dB: 31 dBm
- Noise Figure: 4 dB
- IP3: 40 dBm
- Bias Condition: 1800 mA @ 12 V
- Small Signal Gain: 45 dB



DESCRIPTION

The TA120-155-45-31 is a 1 W power amplifier designed for high linearity application in the 12 to 15.5 GHz frequency range. This amplifier utilizes high power devices that provide excellent linearity, high gain and wide dynamic range. High efficiency operation is achieved by using hybrid MIC designs and advanced GaAs PHEMT devices. The amplifier requires only a +12V DC power supply.

ELECTRICAL SPECIFICATIONS at 25 °C

Symbol	Description	Min.	Typ.	Max.	Unit
FREQ	Frequency Range	12		15.5	GHz
SSG	Small Signal Gain	45*			dB
GOF	Small Signal Gain Flatness		± 0.5	± 0.75	dB
P₁ dB	Output Power at 1 dB Gain Compression	30.5	31		dBm
IP3	Third Order Intercept Point	39.5	40		dBm
NF	Noise Figure		3.5	4	dB
VSWR, IN	Input VSWR		1.5:1	1.8:1	-
VSWR, OUT	Output VSWR		1.5:1	1.8:1	-
VDC	DC Supply Voltage (with built-in regulator)		12		Volt
IDC	Current Supply		1.8	2.0	A
OTR	Operating Temperature Range	-30		60	°C

* Actual gain and current depend on configuration.

CASE: HA1

Note: The previous product part number of TA120-155-45-31 is TC6541K.