

### 13 – 15.5 GHz 2W Amplifiers

#### FEATURES

- P<sub>1</sub>dB: 33 dBm
- Noise Figure: 4 dB
- IP3: 42 dBm
- Bias Condition: 2400 mA @ 12 V
- Small Signal Gain: 49 dB



#### DESCRIPTION

The TA130-155-49-32 is a 2 W power amplifier designed for high linearity application in the 13 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	13		15.5	GHz
SSG	Small Signal Gain	49*			dB
GOF	Small Signal Gain Flatness		± 0.5	± 0.75	dB
P <sub>1</sub> dB	Output Power at 1 dB Gain Compression	32	33		dBm
IP3	Third Order Intercept Point	42	43		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	-
V <sub>dc</sub>	DC Supply Voltage (with built-in regulator)		12		Volt
I <sub>dc</sub>	Current Supply		2.4	2.6	A
OTR	Operating Temperature Range	-30		60	°C

\* Actual gain and current depend on configuration.

#### CASE: HA1

Note: The previous product part number of TA130-155-49-32 is TC6542K.