

### 5.9 – 6.9 GHz 4W Communication Amplifier

#### FEATURES

- P<sub>1</sub>dB: 36 dBm
- Noise Figure: 4.5 dB
- IP3: 45 dBm
- Bias Condition: 2400 mA @ 12 V
- Small Signal Gain: 48 dB



#### DESCRIPTION

The TA059-069-48-36 is a 4 W power amplifier designed for high linearity applications in the 5.9 to 6.9 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	5.9		6.9	GHz
SSG	Small Signal Gain		48*		dB
GOF	Small Signal Gain Flatness		± 0.5	± 1.0	dB
P <sub>1</sub> dB	Output Power at 1 dB Gain Compression	35.5	36		dBm
IP3	Third Order Intercept Point	44	45		dBm
NF	Noise Figure		4.5	5	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 TA059-069-48-36 is TC5551K.