

### 5.3 – 5.9 GHz Low Noise Amplifier

#### FEATURES

- P<sub>1dB</sub>: 10 dBm
- Noise Figure: 1 dB
- IP3: 20 dBm
- Bias Condition: 90 mA @ 12 V
- Small Signal Gain: 22 dB



#### DESCRIPTION

The TA053-059-22-10 is a low noise amplifier designed for applications in the 5.3 to 5.9 GHz frequency range. This amplifier utilizes low noise devices that provide excellent noise figure. 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
<b>FREQ</b>	<b>Frequency Range</b>	5.3		5.9	GHz
<b>SSG</b>	<b>Small Signal Gain</b>	22			dB
<b>GOF</b>	<b>Small Signal Gain Flatness</b>		± 0.5	± 0.75	dB
<b>P<sub>1</sub> dB</b>	<b>Output Power at 1 dB Gain Compression</b>	10			dBm
<b>IP3</b>	<b>Third Order Intercept Point</b>		20		dBm
<b>NF</b>	<b>Noise Figure</b>		1.0	1.1	dB
<b>VSWR, IN</b>	<b>Input VSWR</b>		1.5:1	1.7:1	-
<b>VSWR, OUT</b>	<b>Output VSWR</b>		1.5:1	1.7:1	-
<b>VDC</b>	<b>DC Supply Voltage</b>		12		Volt
<b>IDC</b>	<b>Current Supply</b>		90	110	mA
<b>OTR</b>	<b>Operating Temperature Range</b>	-30		60	°C

#### CASE: HG2

Note: The previous product part number of TA053-059-22-10 is TC5561G.