

### 3.1 –3.5 GHz Low Noise Amplifiers

#### FEATURES

- P<sub>1</sub>dB: 15 dBm
- Noise Figure: 1.1 dB
- Bias Condition: 170 mA @ 15 V
- Small Signal Gain: 40 dB

#### DESCRIPTION

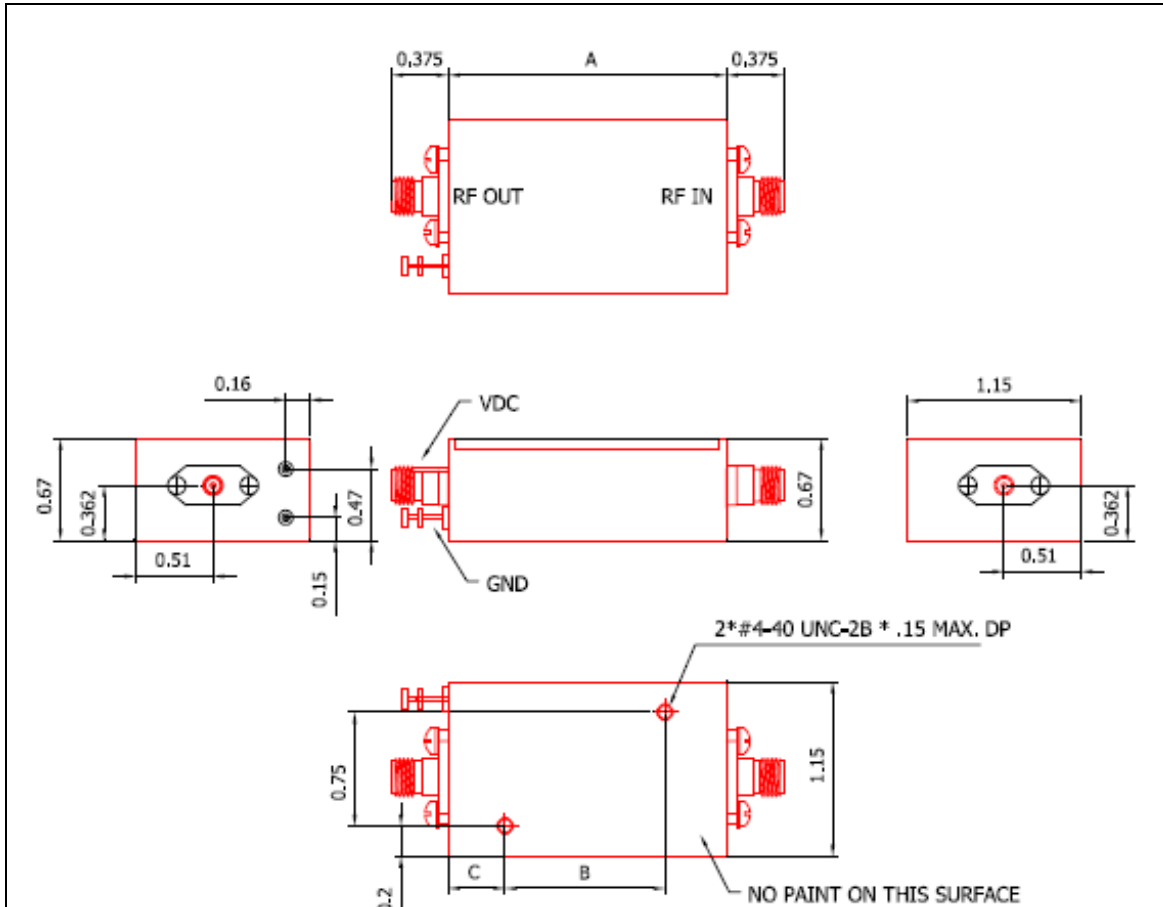
The TA031-035-40-10 is a low noise amplifier designed for application in the 3.1 to 3.5 GHz frequency range. This amplifier utilizes low noise devices that provide excellent noise figure. High efficiency operation is achieved by using hybrid MIC designs and advanced GaAs PHEMT devices. The amplifier requires only a +15V DC power supply.

#### ELECTRICAL SPECIFICATIONS at 25 °C

Symbol	Description	Min.	Typ.	Max.	Unit
<b>FREQ</b>	<b>Frequency Range</b>	3.1		3.5	GHz
<b>SSG</b>	<b>Small Signal Gain</b>		40		dB
<b>GOF</b>	<b>Small Signal Gain Flatness</b>		± 0.3	± 0.5	dB
<b>P<sub>1</sub> dB</b>	<b>Output Power at 1 dB Gain Compression</b>	10	15		dBm
<b>NF</b>	<b>Noise Figure</b>		1.1	1.2	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(including internal regulator)</b>	10	15	17	Volt
<b>Idc</b>	<b>Current Supply</b>		0.15	0.17	A
<b>OTR</b>	<b>Operating Temperature Range</b>	-30		60	°C

Note – Internal input/output module stages are with balance design.

**CASE: HC6, see attached.**



CASE	"A" DIM	"B" DIM	"C" DIM
3	1.087	0.500	0.375
4	1.337	0.750	0.375
5	1.587	1.000	0.375
51	1.750	1.125	0.375
6	1.837	1.250	0.418
61	1.837	1.250	0.375
7	2.087	1.500	0.418
71	2.250	1.750	0.250