A-VGAC1-3041

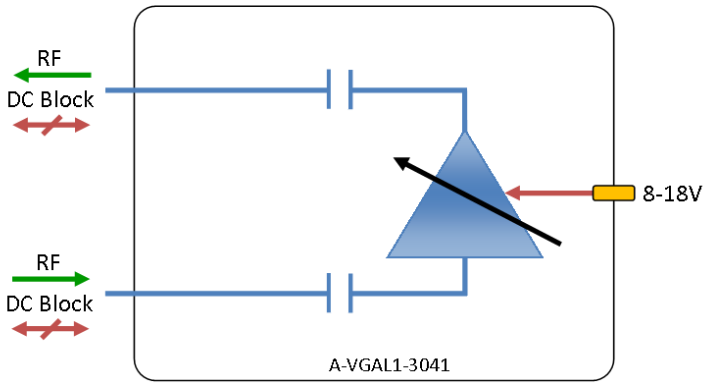
Variable Gain C-band Amplifier

RF Engineering & Custom Build

The A-VGAC1- 3041 is a variable gain C-band (3400-4200MHz) amplifiers with 0 to 30dB gain settable in 1dB gain steps with a built in regulator. The unit requires an external 8 to 18V source.

These components are available with the following RF connector options: 50 Ω SMA, N-type, BNC and 75 Ω

Vector diagram



RF Parameters

A-VGC1-3041-xxxx	S5S5	N5N5
Frequency Range (MHz)	3400-4200	3400-4200
RF Connectors	50Ω SMA	50Ω N-Type
Gain	0-30 dB	0-30 dB
Flatness	±1.5dB	±1.5dB
Input Return Loss	18 dB typ	18 dBtyp
	14dB min	14dB min
Output Return Loss	15 dB typ	15 dB typ
	12dB min	12dB min
1dB GCP	12dBm Typ Max Gain	12dBm Typ Max Gain
IP3	20dBm Max Gain	20dBm Max Gain
Noise Figure	10dB Typ Max Gain	10dB Typ Max Gain

Broadcast

Marine Oil & Gas

SNG & VSAT

Satellite Teleport

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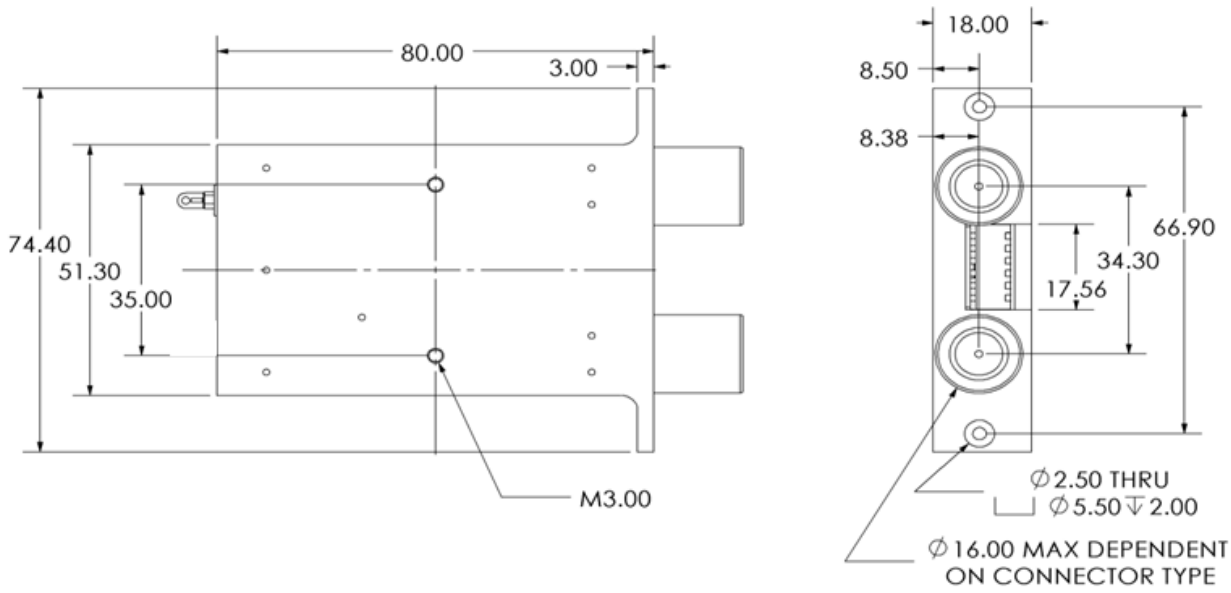
Environmental	
Operating Temperature	0˚C to 45˚C
Storage Temperature	-20˚C to +75˚C
Location	Indoor use Only
Humidity	85% non-condensing
Altitude	10,000 feet

Max Operating Parameters	
Input RF Power	24dBm 0.25W
DC Voltage	20V Max
DC Current	300 mA Max
DC Consumption	300 mA

Operation beyond these limits may cause instantaneous and permanent damage.

Physical dimensions



Gain Setting: Model numbers A-VGAC1-3041

Switch settings	1	2	3	4	5	6	Other features
Attenuation	16	8	4	2	1	n/a	Attenuation settings when the selected switch is at ON state
DC Injection	n/a	n/a	n/a	n/a	n/a	0 for DC OFF 1 for DC ON	Options 3015 only
Max Gain	1	1	1	1	1	n/a	Max gain (0dB attenuation setting)
Min gain	0	0	0	0	0	n/a	Min gain (31dB attenuation setting)

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V 1.2 E&OE

A-VGAC1-3041

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Alternative L-band 850-2150 MHz Gain Block Amplifiers

Model Numbers	Bias Option*	Freq vs. Gain	Gain Options (dB)	Other features
3011	In-Line	Flat	0 to 30	DC block and 10MHz Block on all ports
3015	In-Line	Flat	0 to 30	DC block and 10MHz Block on all ports with LNB inject
3013	In-Line	Flat	0 to 30	DC block and 10MHz pass on all ports
3014	In-Line	Flat	0 to 30	DC Pass and 10MHz Pass on all ports
3016	External	Flat	0 to 30	DC block and 10MHz Block on all ports
3017, 3020	External	Flat	0 to 30	DC block and 10MHz Block on all ports with LNB inject
3018	External	Flat	0 to 30	DC Block and 10MHz Pass on all ports
3019	External	Flat	0 to 30	DC Pass and 10MHz Pass on all ports

PSU range available

PSU12F125-9701

PSU120V02-9702

Model Number	Input	Output	Other
PSU12F125-9701-SLP	100-240V (AC), 0.6A	12V (DC), 1.25A	Solder pin output
PSU12F125-9701-ML2	100-240V (AC), 0.6A	12V (DC), 1.25A	Female 3 pin Molex socket
PSU120V02-9702-SLP	100-240V (AC), 1.2A	12V to 24V (DC), 5A	Solder pin output
PSU120V02-9702-ML2	100-240V (AC), 1.2A	12V to 24V(DC) 5A	Female 3 pin Molex socket
PSU48F150-9703-SLP	100-240V (AC), 2.5A	48V (DC), 3.13A	Solder pin output
PSU48F150-9703-ML2	100-240V (AC), 2.5A	48V (DC), 3.13A	Female 3 pin Molex socket

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