



Model Number:  
**A-VGAL1-3032 to 3035**

RF Components

# L-band Smart Amplifier

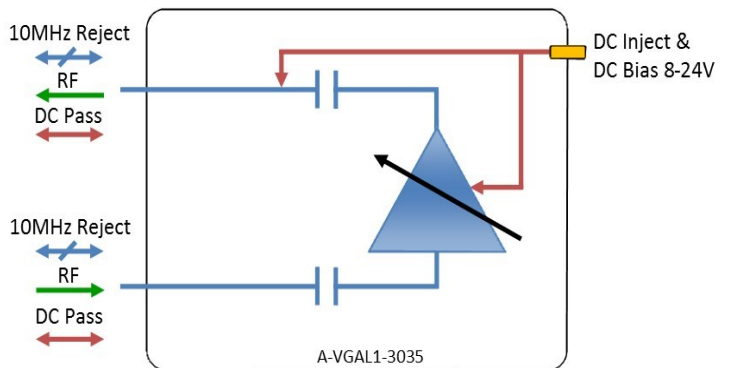
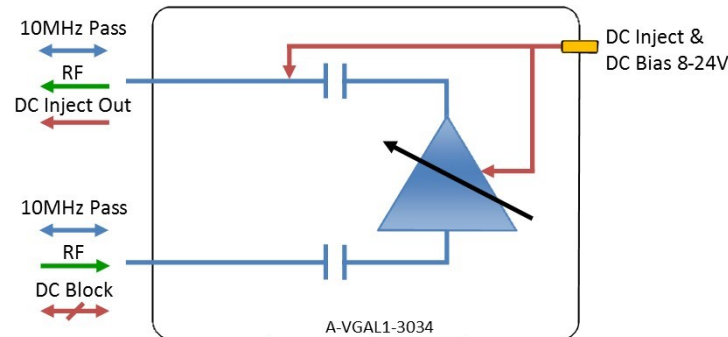
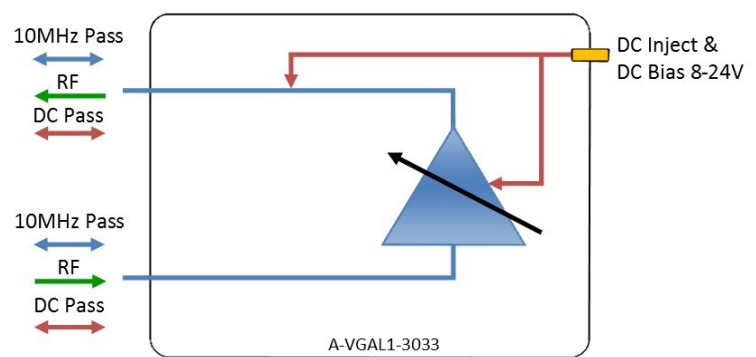
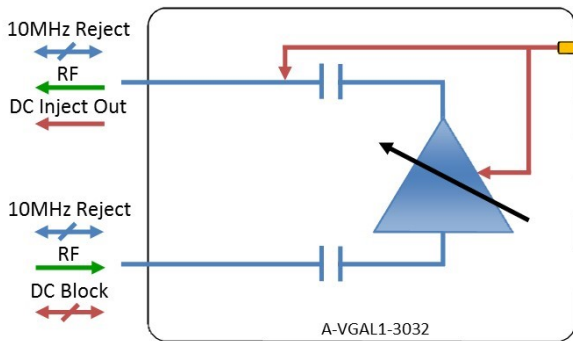
## 850 to 2150MHz



- Variable gain & variable slope
- Can be remotely controlled using ETL's controller CTR-9900
- Gain range is 8 to 38 dB in 0.5dB steps
- Slope is 0 to +8dB in dB steps
- Optional DC inject onto the RF input port for LNB supply
- Requires a DC power supply from 8-24V Max

Available with RF connector options:

- 50 Ω SMA
- 50 Ω N-type
- 50 Ω BNC
- 75 Ω BNC
- 75 Ω F-type



Environmental	
Operating Temperature	0°C to +55°C
Storage Temperature	-20°C to +75°C
Location	Indoor use Only
Humidity	Max 85% non-condensing
Altitude	Max 10,000 feet

Max Operating Parameters	
Input RF Power	+24dBm
DC Voltage	28V
DC Current	Max 500mA max DC current for LNB supply

**!** Operation beyond these limits may cause instantaneous and permanent damage.

### Broadcast



### Marine Oil & Gas



### SNG & VSAT



### Satellite Teleport





RF Components

Model Number:  
**A-VGAL1-3032 to 3035**  
*L-band Smart Amplifier*

		RF Parameters				
A-VGAL1-3032 DC and 10MHz Block		S5S5	N5N5	B5B5	B7B7	F7F7
Frequency Range		850-2150 MHz				
RF Connectors		50Ω SMA	50Ω N-Type	50Ω BNC	75Ω BNC	75Ω F-Type
Gain (dB)		8-38	8-38	8-38	8-38	8-38
Gain vs. Frequency Variation (dB)	Typ.	± 0.75	± 0.75	± 0.80	± 1.0	± 1.0
	Max.	±1.5	±1.5	±1.8	±2.0	±2.0
Input Return Loss (dB)	Typ.	18	18	14	14	14
	Min.	15	15	12	8	8
Output Return Loss (dB)	Typ.	18	18	14	14	14
	Min.	15	15	12	8	8
Output P1dB GCP* (dB)	Typ.	15	15	15	15	15
	Min.	13	13	13	13	13
Output IP3 (dBm)	Typ.	25	25	25	25	25
Noise Figure** (dB)	Typ.	9	9	9	9	9
*1dB Gain Compression Point (1dB GCP) is in relation to output power. GCP measured at centre of frequency band ** Gain settings > 25dB						

		RF Parameters				
A-VGAL1-3033 DC and 10MHz Pass		S5S5	N5N5	B5B5	B7B7	F7F7
Frequency Range		850-2150 MHz				
RF Connectors		50Ω SMA	50Ω N-Type	50Ω BNC	75Ω BNC	75Ω F-Type
Gain (dB)		8-38	8-38	8-38	8-38	8-38
Gain vs. Frequency Variation (dB)	Typ.	± 0.75	± 0.75	± 0.80	± 1.0	± 1.0
	Max.	±1.5	±1.5	±1.8	±2.0	±2.0
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Output Return Loss (dB)	Typ.	18	18	14	14	14
	Min.	15	15	12	8	8
Output P1dB GCP* (dB)	Typ.	15	15	15	15	15
	Min.	13	13	13	13	13
Output IP3 (dBm)	Typ.	25	25	25	25	25
Noise Figure** (dB)	Typ.	9	9	9	9	9
*1dB Gain Compression Point (1dB GCP) is in relation to output power. GCP measured at centre of frequency band ** Gain settings > 25dB						

**Broadcast**



**Marine Oil & Gas**



**SNG & VSAT**



**Satellite Teleport**





RF Parameters					
A-VGAL1-3034 DC Block and 10MHz Pass	S5S5	N5N5	B5B5	B7B7	F7F7
Frequency Range	850-2150 MHz				
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC	75Ω BNC	75Ω F-Type
Gain (dB)	8-38	8-38	8-38	8-38	8-38
Gain vs. Frequency Variation (dB)	Typ.	± 0.75	± 0.75	± 0.80	± 1.0
	Max.	±1.5	±1.5	±1.8	±2.0
Input Return Loss (dB)	Typ.	18	18	14	14
	Min.	15	15	12	8
Output Return Loss (dB)	Typ.	18	18	14	14
	Min.	15	15	12	8
Output P1dB GCP* (dB)	Typ.	15	15	15	15
	Min.	13	13	13	13
Output IP3 (dBm)	Typ.	25	25	25	25
Noise Figure** (dB)	Typ.	9	9	9	9

\*1dB Gain Compression Point (1dB GCP) is in relation to output power.  
GCP measured at centre of frequency band  
\*\* Gain settings > 25dB

RF Parameters					
A-VGAL1-3035 DC Pass and 10MHz Block	S5S5	N5N5	B5B5	B7B7	F7F7
Frequency Range	850-2150 MHz				
RF Connectors	50Ω SMA	50Ω N-Type	50Ω BNC	75Ω BNC	75Ω F-Type
Gain (dB)	8-38	8-38	8-38	8-38	8-38
Gain vs. Frequency Variation (dB)	Typ.	± 0.75	± 0.75	± 0.80	± 1.0
	Max.	±1.5	±1.5	±1.8	±2.0
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\*1dB Gain Compression Point (1dB GCP) is in relation to output power.  
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**Broadcast**



**Marine Oil & Gas**



**SNG & VSAT**



**Satellite Teleport**

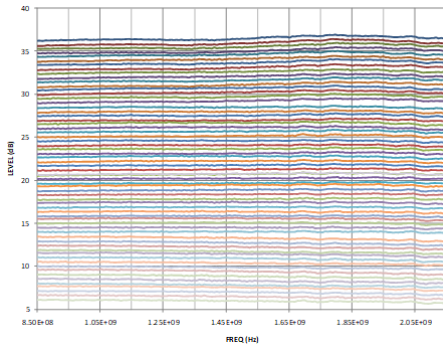




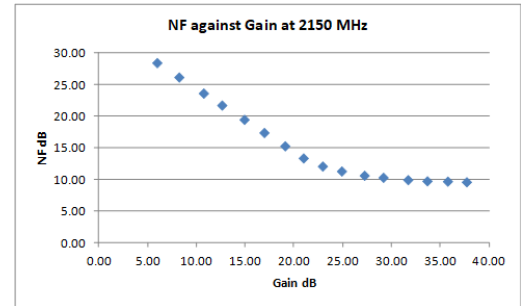
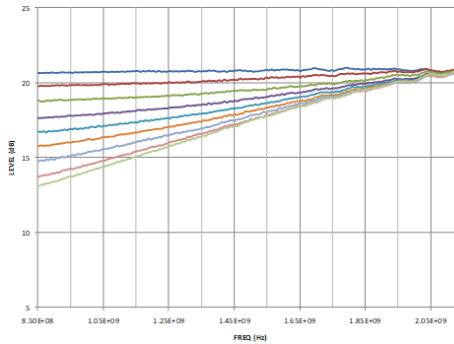
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**A-VGAL1-3032 to 3035**

RF Components

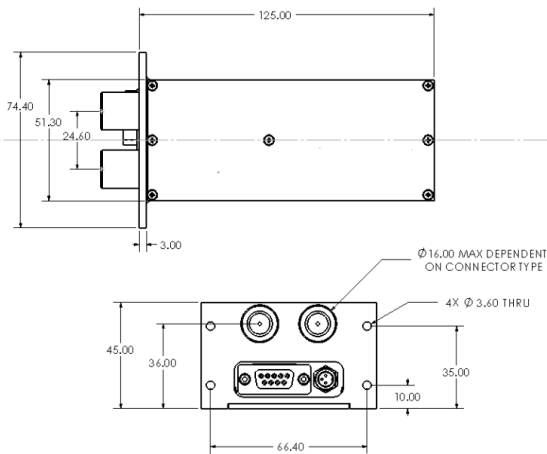
**Gain Control Characteristics**



**Slope Control Characteristics**



**Physical Dimensions (mm)**



**Smart Controller (see CTR-9900 manual)**



**Smart Controller Web Browser Page**



Ethernet Control Card				
Home	Configuration	SNMP Configuration	Firmware Upgrade	Engineering

Ethernet Control Card					
Power supply: 17.9V	Temperature: +30.0C				
Calculated performance at : 850MHz		Calculated performance at : 1500MHz		Calculated performance at : 2150MHz	
Gain: +30±1dB	NF ≤ 9dB	1dB GCP ≥ 15dB	Gain: +30±1dB	NF ≤ 9dB	1dB GCP ≥ 12dB
Gain: +30±1dB	NF ≤ 9dB	1dB GCP ≥ 15dB	Gain: +30±1dB	NF ≤ 9dB	1dB GCP ≥ 15dB
Serial No: 001234	Model No: A-VGA-3024			Customer No: ETL Inc.	
Gain: 30dB	Slope: 0dB	LNB: OFF			
Monitoring: Set	Amp1: 4.5V	Amp2: 4.5V	Amp3: 4.5V	6.5V: 6.4V	5V: 5.0V
Temperature: 29.3C					

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Note: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved specification accuracy.

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