

## DESCRIPTION

The VDA-683 is a general-purpose distribution amplifier with excellent linearity and gain stability for solving common mode errors. It can handle anything from nominally 0.7Vp-p non-composite video to 2Vp-p subcarrier. Low power consumption and high temperature stability make this a very reliable, inexpensive distribution amplifier for analog composite/component and analog HDTV installations.

The VDA-683 provides a differential input when equalization and clamping are not required. Although normally used as a unity gain amplifier, a variable gain control on the module front edge with a range from -3dB to +3dB allows compensation for non-standard input levels or line losses.

## FEATURES

- ▶ **Differential looping input**
- ▶ **Composite/non-composite video or subcarrier distribution**
- ▶ **Eight outputs**
- ▶ **> 30MHz bandwidth**
- ▶ **Gain range -3 to +3 dB**

## SPECIFICATIONS

Specifications and designs are subject to change without notice.

### INPUT (DC COUPLED)

Video Input Level	1Vp-p nominal
Subcarrier Input level	1 to 2Vp-p
Input Impedance	750hms bridging
Input Return Loss	>40dB to 10MHz, 30dB to 30MHz
Coupling	D.C.
Max. Common Mode Signal	10Vp-p
CMR	>60dB to 10KHz

### PERFORMANCE

Gain Range	-3dB to +3dB
Gain Stability	<0.02dB per 10°C
Frequency Response	< ±0.05dB to 10MHz; 0 to -0.5dB to 20MHz; -3dB bandwidth, 35MHz typ.
Line Rate Window Tilt	<0.25%
Field Rate Window Tilt	<0.25%
50/60 Hz Square Wave Tilt	<0.5%
Differential Gain	<0.15% (10 - 90% APL)
Differential Phase	<0.1° (10 - 90% APL)
S/N Ratio	65dB to 20MHz unweighted (RMS noise/0.714V)
Hum	1mVp-p
Propagation Delay	20 ± 1ns @5 MHz
Stability with ±10% Line Voltage Change	0.05%

### OUTPUT

Number of Outputs	8
Output Impedance	75W
Output Return Loss	>37dB to 10MHz
Output Isolation	>30dB to 10MHz
Response Variation	<0.1dB, 1 to 8 loads, to 10 MHz

### TEMPERATURE

Performance	5° to 40°C
Operating	0° to 50°C

### POWER REQUIREMENTS

Power Dissipation	2 W
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## ORDERING INFORMATION

For more information visit [www.leitch.com](http://www.leitch.com)

VDA-683	Video Distribution Amplifier
FR-683	4 DA frame with 85-270V power supply
FR-683-48	4 DA frame with 48VDC power supply
FR-684	10 DA frame with 85-270V power supply
FR-684-48	10 DA frame with 48VDC power supply
FR-684AV	5-video, 5-audio frame with power supply
684PS	Redundant 85-270V power supply
684PS-48	Redundant 48VDC power supply
101ME	Module extender