6.0 to 18.0 GHz, 75dB, Extended Range
Successive Detection Log Video Amplifier

TECHNICAL DATASHEET

SDLVA-6G18G-CD-2-OPT218

PMI Model No. SDLVA-6G18G-CD-2-OPT218 is a Successive Detection Logarithmic Video Amplifier (SDLVA) designed to operate over the 2.0 to 18.0GHz frequency range. This model is designed for ultra high speed applications while maintaining flatness and accuracy with a logging range of -70 to +5dBm. The limited RF output is +13dBm ±3dBm typically with a log video slope of 25mV/dB. The housing measures 3.2” x 1.8” x 0.4”.

Features
- 2.0 to 18.0 GHz
- -70dB Min. TSS
- -70 to +5dBm Logging Range
- VSWR 2.0:1 Max.
- 10ns Rise Time
- 60ns Recovery Time Typ.

Applications
- EW Systems
- Radars
- UAVs & UGVs
- Communications
- Test Equipment
- Laboratories

Electrical Specifications
- Frequency Range: 2.0 to 18.0GHz
- Flatness: ±2.0 dB max
- TSS: -70dB min
- VSWR: 2.0:1 (RF Input)
- Power Input: +17dBm CW max
- RF Out: +13dBm ±3dB Typical
- Log Slope: 25mV/dB (±10%) 50Ohms
- Log Range: -70 to +5dBm
- Log Linearity: ±2.5 dB (-40°C to +85°C)
- Pulse Range: 30ns to CW
- Rise Time: 10ns Maximum, 6ns Typical
- Recovery Time: 60ns Typical
- Power Supply: +12V or +15V @ 350mA Nominal
- -12V or -15V @ 180mA Nominal
- Connectors: SMA(F)
- Size: 3.2” x 1.8” x 0.4”
- Finish: Gold Plated

Environmental Ratings
- Temperature: -40°C to +85 °C Operating
- -65 °C to +125 °C Non-Operating
- Salt Fog: MIL-STD-202F, Method 107D Cond. A
- Fungus: MIL-STD-810C, Method 508.2
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Video Output VS Input Power @ 25°C

Linearity Error VS Input Power @ 25°C