0.46 to 1.10GHz, 70dB, Extended Range
Detector Log Video Amplifier

TECHNICAL Datasheet GMDA-D1005

PMI Model No. GMDA-D1005 is a Detector Video Log Amplifier (DLVA) that operates between the 0.46 to 1.1GHz frequency range. It has a dynamic range of 70dB, a log slope of 25mV/dB and a nominal video bandwidth of 10MHz. Furthermore, it has been designed using cutting edge GaAs technology which provides stunning performance and reliability in a compact package.

Features
- 0.46 to 1.1GHz
- -60 to +10dBm Logging Range
- 30ns Video Rise Time
- -65dB Max TSS
- VSWR 2.0:1 Max.
- 500ns Recovery Time Max.

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

Electrical Specifications
- Frequency Range: 0.46 to 1.1GHz
- Logging Range: -60dBm to +10dBm
- TSS: -65dBm max
- Logging Slope: +25±1mv/dB typ
- Logging Linearity: ±1.0dB / ±1.5dB Over Temp
- Flatness: 50mV max
- RF Safe Input Power: +23dBm max CW
- Maximum Output Voltage: +2.5V max
- Input VSWR (50 ohms): 2.0:1 max
- Video Load Impedance: 75 ohms typ
- Video Rise Time: 30nsec max
- Recovery Time: 500nS max
- Throughput Time: 30nsec max
- Video Bandwidth: 10MHz typ
- Offset Voltage: ±50mV max
- DC Power Supply: +12 to +15.5VDC @ 300mA max
- Size: 3.5" x 3.2" x 0.5"
- Finish: Nickel Plate

Environmental Ratings
- Temperature: -54°C to +85 °C Operating
- Altitude: 0 - 30,000 FT
- Humidity: MIL-HDBK-5400 4.6.2.4 100%RH
- Shock: MIL-HDBK-5400 4.6.2.6
- Vibration: FUNC SHOCK: 196m/s², 6(squared)-9ms
- MIL-STD-810F, ANNEX C F IG 514.5C-8 (Refer to Fig 1)

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TECHNICAL DATASHEET

GMDA-D1005

Recovery Time 163.673 ns @+25C

Rise Time 17.565 ns @+25C

Delay Time 26.8 ns @+25C

Tangential Signal Sensivity (TSS) -66.5 dBm @ 18.0 GHz
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MECHANICAL OUTLINE

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