

MODEL 2174 INTERFACER PRODUCT LINE

IOC802

VDA AUTOMATIC / MANUAL GAIN (AGC) AMPLIFIER MODULE



REAR VIEW



SIDE VIEW

FEATURES

- 1–75 ohm Input on BNC
- 4– 75 ohm Outputs on BNC
- DC to 20 MHz Response
- Input Level Range 400 mV p-p to 20 V p-p DC Coupled
- AGC Output Level: 2.83 V p-p Preset
- Manual Output Level: DC – 2.83V p-p *See Note in Operation and Setup Section
- Buffered Output Test Point on Front Panel
- DC Offset — Adjustable Output Offset $\pm 4V$
- Card-to-Card Isolation: ≥ 60 dB at 20 MHz, ≥ 80 dB at 1 MHz
- Signal Port Return Loss: ≥ 20 dB
- Contributed Noise: ≥ 60 dB Below Rated Output
- 3rd Harmonic Distortion DC to 20 MHz ≥ 40 dB Below Rated Output

OVERVIEW

The IOC802 module is a one input to four output Automatic Gain Control (AGC) analog signal distribution buffer amplifier. Front panel controls include an AGC mode selector (Fast / Slow attack / Manual), Offset control, and a Gain control. A Test Point connector provides an accurate buffered representation of the signal output. The IOC802 requires one of the seven available slots in the Model 2174.

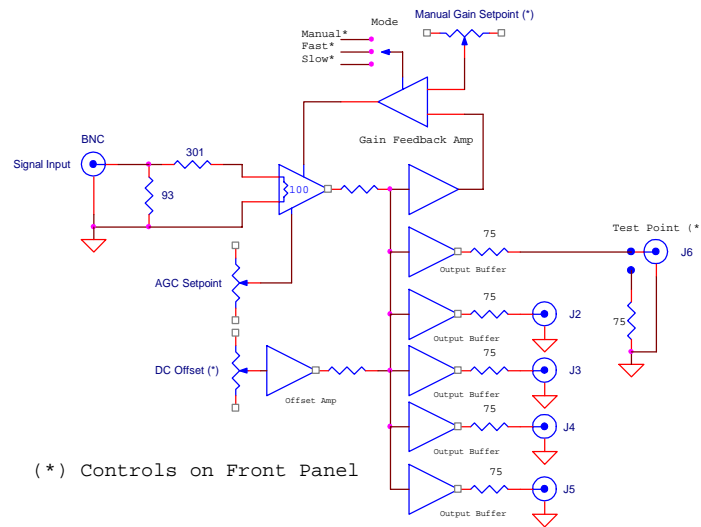


Figure 1 Model IOC802 Functional Block Diagram

SPECIFICATIONS

GENERAL

DC-Coupled
 Dual Slot Module (3" x 6" x 1.8")
 Model 2174 Pluggable Interface

INPUT

BNC Connectors
 75 Ohm Shunt Terminated
 Minimum Input Level: ± 200 mV
 Maximum Input Level: ± 10 V
 Input Impedance: 75 Ohms

OUTPUT

BNC Connectors, Four per Channel
 75 Ohm Series Terminated
 Maximum Output Level: 2.83Vp-p
 Output Resistive Drive: 75 Ohms
 DC Output Offset ± 4 Volts

FRONT PANEL TEST POINT

Isolated SMB, One per Channel
 Series Termination: 75 Ohm
 Shunt Termination: Jumper Enabled 75 Ohm

FREQUENCY RESPONSE

DC to 20 MHz ± 0.5 dB

3rd HARMONIC DISTORTION

DC – 20Mhz ≥ 40 dB Below rated Output

NOISE

≥ 60 dB below rated output

SIGNAL PORT RETURN LOSS

≥ 20 dB

CHANNEL TO CHANNEL ISOLATION

60dB @ 20MHz; 80 dB @ 1Mhz

CONTROLS AND ADJUSTMENTS

Switch Selectable Modes
 AGC FAST (10 μ s)
 AGC SLOW (1 ms)
MANUAL*

Manual Adjustments

Gain -16dB to + 17 dB
 Output Offset ± 4 Vdc

APPLICATION

The IOC802 is a one input to four outputs Video Distribution Amplifier (VDA) that contains both automatic gain control or manual gain control. It automatically maintains an amplitude of 1 VRMS of wide band signals that vary in amplitude.

Typical use of the IOC802 is in video distribution applications that require multiple signals from a single source.

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