



## FEATURES

- DC to 32 MHz
- Flat, Delay-Equalized Response to 20 MHz
- Low Distortion
- DC-Coupled
- Selectable AGC Time Constant
- Four Outputs Per Channel

## DESCRIPTION

The Model 405 Video AGC Amplifier, a multichannel unit with four outputs per channel, provides flexible automatic level control over a 24 dB dynamic range for video signals in the frequency range from dc to 32 MHz. The controlled output level of each amplifier may be adjusted in the range from 0.1 to 3 volts peak-to-peak, with independent control of the time constant of the AGC loop in steps from 0.01 to 0.6 seconds. Low intermodulation distortion and low group delay variation make the Model 405 particularly useful for conditioning the outputs of narrow and wideband FDM demodulators. Each channel has front panel controls for AGC time constant and output level, and a meter to indicate AGC loop stress.

The Model 405 is totally enclosed in a welded aluminum chassis. The attractive front panel is 1-3/4 inches high and 19 inches wide, suitable for mounting in an EIA standard rack.

## SPECIFICATIONS

|  |                              |
|--|------------------------------|
| <b>Number of Outputs (each channel)</b>  | Four                         |
| <b>Impedance</b>                         | 75 ohms                      |
| <b>Input Return Loss (dc to 20 MHz)</b>  | > 20 dB                      |
| <b>Output Return Loss (dc to 20 MHz)</b> | > 20 dB                      |
| <b>Group Delay Variation</b>             | ±5 ns, maximum               |
| <b>Bandwidth</b>                         | dc to 32 MHz                 |
| <b>Output Level</b>                      | 0.1 to 3 Vp-p                |
| <b>AGC Range</b>                         | 0 to +24 dB                  |
| <b>AGC Time Constant</b>                 | 600, 300, 100, 30, 10 ms     |
| <b>Gain Ripple</b>                       | ±1/2 dB                      |
| <b>Third Order Input Intercept Point</b> | > 20 dBm, referred to output |

|                                |   |
|--------------------------------|---|
| <b>Connectors - Rear Panel</b> | BNC   |
| <b>Meter (each channel)</b>    | AGC compression   |
| <b>Controls (each channel)</b> | Output, level, AGC time constant  |
| <b>Power</b>                   | 115/230 Vac ±10%, 47 to 63 Hz   |
| <b>Temperature - Operating</b> | 0° to 50°C  |
| <b>Weight</b>                  | 15 lbs (approximately)  |
| <b>Style</b>                   | EIA standard chassis, 1-3/4 inches high, 15 inches deep, suitable for 19-inch rack mounting |
| <b>EMI</b>                     | Designed to meet TEMPEST requirements   |

Specifications are subject to change without notice.

## ORDERING INFORMATION

A Model 405 Video AGC Amplifier is available as a single, dual or triple channel unit, each channel having one input and four outputs. When ordering, please specify:

|                   |                                       |                   |                                       |
|-------------------|---------------------------------------|-------------------|---------------------------------------|
| <b>405-1</b>      | Video AGC Amplifier (Single Channel)  | <b>405-3</b>      | Video AGC Amplifier (Triple Channel)  |
| <b>Option T01</b> | Designed to meet TEMPEST requirements | <b>Option T01</b> | Designed to meet TEMPEST requirements |
| <b>405-2</b>      | Video AGC Amplifier (Dual Channel)    |                   |                                       |
| <b>Option T01</b> | Designed to meet TEMPEST requirements |                   |                                       |

## WARRANTY

All of Reaction Instruments' equipment is warranted for one year, except for damage caused by accident or misuse, provided the equipment is returned for repair to the plant in Herndon, VA.

**Adams  Russell**

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