ampli-vision wide-band amplifiers: all-band 111—lo-band 116

features:

- Distributed amplifier principle.
- 111 covers all VHF TV bands with only one amplifier; 116 covers Lo bands 2-6.
- 111—24 db gain; 116—40 db gain.
- Rugged reliability eliminates maintenance contract headaches.
- Continuous operation even in the event of tube failure.
- Amplifiers may be left unattended for long periods.
- No adjustments necessary.
- Self-contained power supplies.
- Outputs up to 1 volts RMS across 75 ohms.
- Extra-wide dynamic range permits handling of up to 7 channels at various signal levels from 100 to 30,000 microvolts simultaneously without intermodulation distortion.
- One of many Ampli-Vision products.
- Simple installation.

uses:

- An amplifier to feed a multiple installation in a motel, hotel, trailer camp, TV store, schools, hospitals, etc.
- Transmission and distribution amplifiers in smaller community TV systems.
- End of line amplifiers.
- A booster for an individual TV set.
- A TV service shop amplifier which permits feeding test and alignment signals to several benches from one generator.

International Telemeter Corp., 2000 Stoner Avenue, L.A. 25, Calif.
a subsidiary of Paramount Pictures Corp.

ampli-vision

the 111 and 116 amplifiers

specifications:

ALL-BAND 111

GAIN:
24 db.

BANDWIDTH:
54-88, 174-216 mcs.

FLATNESS:
±2 db — ±¼ db over any given channel.

MAXIMUM OUTPUT:
1.0 volts RMS (single channel).

IMPEDANCE IN AND OUT:
75 ohms, coax connector.

POWER IN:
60 watts; 50/60 cycle.

TUBE COMPLEMENT:
9—6BS8
Noise Figure—8 db
Minimum input 75 microvolts for noise-free picture.

POWER SUPPLY:
Selenium Rectifier Voltage Doubler.

DIMENSIONS:
Approximately 5″ x 9″ x 5″ High.

FINISH:
Blue.

LO-BAND 116

GAIN:
40 db.

BANDWIDTH:
54-88 mcs.

TUBE COMPLEMENT:
8—6BS8
Minimum Input 75 microvolts or less for noise-free picture.

ALL OTHER SPECIFICATIONS SAME AS THE MODEL 111

description:

The Ampli-Vision All-Band·111 and Lo-Band 116 are the only low cost amplifiers designed and built in accordance with the high public utility standards of all Ampli-Vision products. Utilizing the distributed amplifier principle of the Ampli-Vision Model 100 series, they will continue to give uninterrupted service even after tube failure, and provide noise-free reception throughout the VHF TV and FM bands.

In these amplifiers, the reliability of distributed amplification is combined with the freedom from interference of cascode circuit. Each of the three distributed amplifier stages utilizes 6BS8's in a cascode circuit.

principle of operation:

The Ampli-Vision All-Band 111 and Lo-Band 116 are designed according to the distributed amplifier principle, and consist of three distributed amplifier stages in cascade. In the distributed amplifier, all grids are equally spaced along a grid delay line, and all plates are equally spaced along a plate delay line. The delay times of both lines are equal.

A signal entering the input terminal is amplified in the first tube. The amplified signal at the plate of this tube starts down the plate delay line toward the plate of the next tube at the same instant that the original signal starts down the grid delay line toward the grid of the next tube. Since the plate and grid lines delay the signal equal amounts, the grid and plate signals reach the next tube at the same instant. Here the grid signal is amplified again and added to the plate signal.

The distributed amplifier has several advantages. Failure of a tube due to loss of emission does not render the amplifier inoperative; it merely cuts down the gain about two and a half db. The distributed amplifier has an extremely wide band width and a flat frequency characteristic. There are no adjustments to be made on it. The circuit is exceptionally simple and rugged so that service work is reduced to routine tube replacement.