TELEVISION I-FS

By F. W. Sicksles Co.

Four wave filters are incorporated in the picture i-f channel, each having a frequency response of 350 to 2000 cycles per second, with the center frequency at 455 cycles per second. These filters are designed to minimize the effects of intermodulation distortion in the i-f channel.

**Alignment Data**

Sound i-f channel:

- Phase adjustment:
  - Alignment of the phase shifter is critical. A phase shifter with a phase shift of 90 degrees is used. The phase shifter is aligned by adjusting the phase shifter to ensure that the phase shift is uniform across the audio frequency range.

- Compensation:
  - Compensation is achieved by adjusting the compensation network to ensure that the phase shift is properly compensated to maintain the correct phase relationship between the audio and video signals.

- Overall alignment:
  - The overall alignment is ensured by adjusting the various components to achieve the correct phase and gain relationships in the i-f channel.

**Gains**

- The gains at the various stages shown are approximately 3500 for a bandwidth of 350 to 2000 cycles. The overall gain is 3500 for a bandwidth of 350 to 2000 cycles. The overall gain is 3500 for a bandwidth of 350 to 2000 cycles.

A simple method of increasing the gain without adding to the number of stages is by increasing the feedback ratio. This is accomplished by increasing the feedback ratio to 100% or more, depending on the application. The feedback ratio is adjusted by varying the feedback network, which is typically a resistor or a capacitor.

**Frequency Response**

- The frequency response of the i-f channel is approximately 350 to 2000 cycles. The response is flat within ±2% across the audio frequency range.

- The overall alignment is achieved by adjusting the various components to maintain a flat frequency response across the audio frequency range.

**Connections**

- The connections are made to ensure proper grounding and shielding to minimize the effects of interference and crosstalk.

**Conclusion**

- The i-f channel is designed to provide a high-quality, low-distortion signal for the television receiver. The alignment and compensation procedures are critical to achieving the desired performance characteristics.