



7 MHz–880 MHz RF Selector

- Forward And Return Path Preselection
- Tunable From 55–880 MHz
- T7–T12 Channel Filters
- High-Selectivity Shape Factor
- Optional 20 dB Preamplifier
- Portable



Forward and Return Path Preselection

TRILITHIC introduces the only preselector that offers filters for testing both on the return path and forward path. Return path preselection is provided by six precision fixed filters tuned to channels T-7 through T-12 respectively. Preselection in the 55–880 MHz range is provided by four tunable filters. Each filter, whether tunable or fixed, provides a high-selectivity shape factor of 2.2:1 for 30 dB to 3 dB, sufficient for the most demanding CATV test applications. All filters are housed in a single rugged, portable field case which can also contain the optional AM-1000, a 50–1000 MHz, 20 dB pre-amplifier powered by a rechargeable NiCad battery pack.

Improves Measurement Accuracy

The TRILITHIC VF-5 Tunable Filter provides the preselection needed for the accurate measurement of composite triple beat, cross modulation and other spurious signals in a working CATV system. Measurements made without the use of a filter are prone to error because spectrum analyzers and signal level meters overload in the presence of many carriers. Input overload causes instruments to generate spurious signals which interfere with measurements and which may be misinterpreted as problems in the CATV system. A VF-5 filter placed between the test instrument and the system

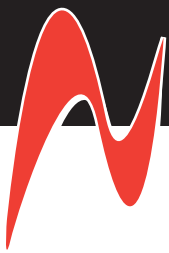
test point blocks all unnecessary signals, passing only the carrier to be analyzed to the instrument's input. By eliminating input overload, a VF-5 can improve an instrument's reliable measurement range by as much as 30 dB.

Fiber Applications

VF-5 filters can also be used to extend the range and accuracy of fiber-optic measurements. Composite second order and system noise tests require filters with the best possible selectivity and shape factors. VF-5 filters easily meet these stringent requirements.

Field Portable

A VF-5 filter bank includes four independent, mechanically tunable filters, each covering a 2:1 frequency range between 55–880 MHz, and one bank of 6 fixed frequency filters, covering channels T7 through T12. The filters are mounted in a rugged, portable field case with a hinged dust cover to protect the front panel controls from weather and impact damage. The VF-5 is impervious to power overload, being able to withstand inputs as great as 60 watts.



VF-5

Specifications

Freq Range:

Tunable Filters:

55–880 MHz in four bands

Fixed Filters:

Channels T7, T8, T-9, T10, T11, T12

Shape Factor:

$\frac{30 \text{ dB BW}}{3 \text{ dB BW}} = 2.2/1$

Insertion Loss:

1.5–3.5 dB, depending on band

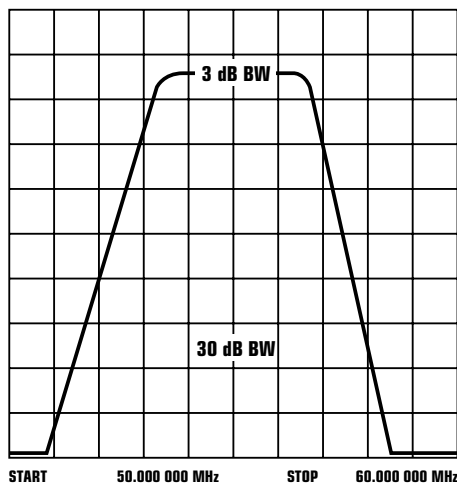
In-channel VSWR:

1.5:1, maximum

Shape Factor:

VF-1 and VF-3: $\frac{30 \text{ dB BW}}{3 \text{ dB BW}} = 3.5:1$

VF-2 and VF-4: $\frac{30 \text{ dB BW}}{3 \text{ dB BW}} = 2.2:1$



AM-1000 Preamplifier:

Freq Range:

50–1000 MHz

Nominal Gain:

20 dB @ 600 MHz

17 dB @ 750 MHz

16 dB @ 1000 MHz

Impedance:

75 Ohms, nominal

Noise Figure:

5 dB

Power:

Internal NiCad battery, 4 hours operation per charge

