

Table 1-1. 8445A Specifications

Frequency Range: DC—1.8 GHz Low-Pass Filter. 1.8—18 GHz Tracking Filter.

Tracking Filter 3 dB Bandwidth: Typically 30—45 MHz.

Tracking Filter Skirt Roll-off: Characteristics of a two-pole filter.

Insertion Loss:

	Frequency	Insertion Loss Std. & Opt. 020	Insertion Loss Opt. 010 & 030
Low-pass Filter	DC—1.8 GHz @ 2.05 GHz	<2.5 dB >50 dB	*
Tracking Filter	1.8—12 GHz 12—18 GHz	< 7 dB <10 dB	< 6 dB < 8 dB

*Low-Pass Filter deleted with Options 010 and 030.

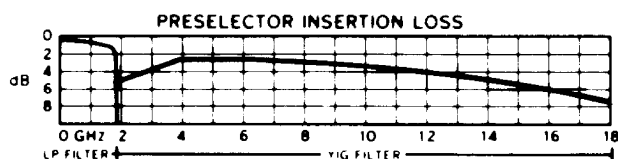


Figure 1-3. Typical Preselector Minimum Insertion Loss @ 25°C

Input VSWR: Typically <1.8 (1.8—18 GHz).

Out-of-Band Rejection: For YIG filter 1 GHz from center of passband >50 dB, typically 55 dB.

Tracking Errors: At any particular frequency residual tracking error can be completely eliminated by front panel adjustments.

8555A Local Oscillator Emission with Preselector: Typically <−50 dBm over recommended operating ranges with Spectrum Analyzer input attenuator set to 0 dB. (See Table 3-1, Recommended Frequency Ranges and Mixing Modes).

Limiting Level: (Maximum input level for < 1 dB signal compression. > +5 dBm.

Burnout Level: > +17 dBm.

Remote Function: YIG filter frequency can be set by externally supplied voltage. Differential input utilized to eliminate AC hum or other common mode signals which may be present on remote drive input cable.

Sensitivity: Nominally +1 volt/GHz (with direction of tuning from low to high frequency).

Differential Input Resistance: 2K ohms.

Common Mode Rejection Ratio: 80 dB.

YIG 210 Response: Typically 20 dB down from main mode tuning response.

Settling Time: Typically within 3 MHz of final frequency after 5 msec.

Tuning Linearity: Typically ±10 MHz.

Remote Input Connector: BNC female, outer conductor isolated.

1-9. OPTIONS

1-10. The Model 8445A Automatic Preselector (standard instrument) contains the 0 to 1.8 GHz lowpass filter, the Yig filter with type N RF input and output connectors.

1-11. The Model 8445A Option 001 Automatic Preselector contains type APC-7 RF input and output connectors. Option 001 instruments may be combined with other instrument options to form the desired configuration.

1-12. The Model 8445A Option 010 Automatic Preselector is the same as the standard Preselector except the 1.8 GHz lowpass filter is deleted.

1-13. The Model 8445A Option 020 Automatic Preselector is the same as the standard Preselector with front panel controls added for manual operation.

1-14. The Model 8445A Option 030 Automatic Preselector is the same as Option 020 without the 1.8 GHz lowpass filter.