

## Frequency Extenders

### FEATURES:

- ❖ High output power
- ❖ Full waveguide bandwidth
- ❖ Extends MW frequencies to MMW bands
- ❖ Output frequency up to 110 GHz

### APPLICATIONS:

- ❖ Automatic test set
- ❖ Bench top test set
- ❖ Local oscillators
- ❖ Swept frequency sources



**SFE Series**

### DESCRIPTION:

The **SFE Series** of frequency extenders combine high performance millimeterwave amplifiers, passive or active multipliers and filters to extend the low frequency sweepers, such as HP 83550 B or Agilent 83751B, to extreme clean and low cost millimeterwave sources. The frequency extenders cover the output frequency range of 26.5 to 110 GHz in six waveguide bands. The **PTC** series waveguide adapters are offered as optional accessories to convert the waveguide to coaxial interface. The typical input power for these standard units are rated at + 10.0 dBm while the output power is up to 20 dBm. The SMA (F) coaxial connector is equipped for input and standard waveguide for output interface. The dimension of the standard products is measured as 3.75" (W) x 4.00" (L) x 1.75" (H).

### STANDARD PRODUCT SPECIFICATIONS:

Model Number	Output Freq. (GHz)	Multiplying Factor	Input Freq. (GHz)	Output Power (dBm, Min)	Input Power (dBm, Min)	Output Waveguide	Bias (V/mA)
SFE-280208-01	26.5 – 40.0	X 2	13.25 - 20.0	8.0	10.0	WR-28	+8 / 200
SFE-280220-01	26.5 – 40.0	X 2	13.25 - 20.0	20.0	10.0	WR-28	+8 / 600
SFE-220305-01	33.0 - 50.0	X 3	11.00-16.67	5.0	10.0	WR-22	+8 / 200
SFE-190305-01	40.0 – 60.0	X 3	13.33 – 20.0	5.0	10.0	WR-19	+8 / 200
SFE-150405-01	50.0 – 75.0	X 4	12.5 – 18.75	5.0	10.0	WR-15	+8 / 600
SFE-120600-01	60.0 - 90.0	X 6	10.00 - 15.00	0.0	10.0	WR-12	+8 / 600
SFE-100600-01	75.0- 110.0	X 6	12.50 – 18.33	0.0	10.0	WR-10	+8 / 600