

MINI-CIRCUITS DESIGNER'S KITS  
**SPEED UP**  
 THE SOLUTION!



RoHS compliant

## DC to 8 GHz

### ERA-SM+ Features

- Wideband, 50  $\Omega$
- Up to 13.0 dBm typ. output power
- Low thermal resistance
- Miniature microwave amplifier
- Plastic micro-x surface mount package
- Usable to 10 GHz

only **\$49<sup>95</sup>** ea. kit (3 models, 10 of each, 30 total)



**Kit K1-ERASM+** Electrical specifications of each model

Evaluation boards available, \$79.95  
 See individual model data sheets.

Model	Freq. (GHz) ▲ $f_L$ - $f_U$	Gain, (dB) Typical								Max. Pwr. (dBm) @ 2 GHz		Dynamic Range @ 2 GHz		VSWR (:1) Typ.		Absolute Max. Rating <sup>1</sup>		DC <sup>2</sup> Operating Power @ pin 3			Therm. Resist. $\theta_{jc}$ Typ. °C/W	Evaluation Board				
		over frequency, GHz								Output (1 dB Comp.) Typ.	Input <sup>1</sup> Min.	NF Typ.	IP3 (dBm) Typ.	In DC-3 GHz	Out 3- $f_U$ GHz	I (mA)	P (mW)	Current (mA)	Device Volt.							
		0.1	1	2	3	4	6	8	2 GHz										Typ.	Min.			Typ.	Typ.	Typ.	Typ.
ERA-1SM+	DC-8	12.3	12.1	11.8	10.9	9.7	7.9	8.2	9	12.0	10.0	15	4.3	26	1.5	1.8	1.5	1.9	75	330	40	3.4	3.0	4.1	183	TB-408-1+
ERA-2SM+	DC-6	16.2	15.8	15.2	14.4	13.1	11.2	-	13	13.0	11.0	15	4.0	26	1.3	1.4	1.2	1.6	75	330	40	3.4	3.0	4.1	160	TB-408-2+
ERA-3SM+	DC-3	22.1	21.0	18.7	16.8	-	-	-	16	12.5	9	13	3.5	25	1.5	-	1.4	-	75	330	35	3.2	3.0	4.1	186	TB-408-3+

Protected under U.S. Patent 6,943,629

▲ Low frequency cutoff determined by external coupling capacitors.  $f_U$  is the upper frequency limit for each model.

1. Permanent damage may occur if any of these limits are exceeded. These ratings are not intended for continuous normal operation.

2. Supply voltage must be connected to pin 3 through a bias resistor in order to prevent damage. See "Biasing MMIC Amplifiers" at [minicircuits.com/applications.shtml](http://minicircuits.com/applications.shtml). Reliability predictions are applicable at specified current and normal operating conditions.

