

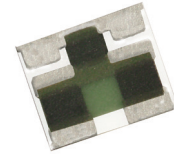
IMA Series

ims

Surface Mount Thick Film Attenuator

Features

- 0.122" x 0.145" Size
- Characterized to 12.4GHz †
- RoHS Compliant or Sn62 Solder Available
- Attenuation to 40dB
- Half dB Increments



Thick Film



 **Non-Magnetic**

ULR Ultra Leach Resistant

Item	Specification
Standard Impedance:	50Ω Nominal
VSWR (Max):	1.25:1 up to 4 GHz 1.35:1 @ 4 to 8 GHz 1.50:1 @ 8 to 12 GHz
DC Attenuation Stability:	.0001 dB/ dB/ deg. C*
Power Rating:	2W (metalized baseplate maintained below 100° C)
Operating Temperature:	-55 deg. C to 150 deg. C
Frequency Range:	DC - 12.4 GHz
Standard Case Size:	0.122" X 0.145" X 0.028" Max
Architecture:	Thick Film on 96% Alumina (Al ₂ O ₃)

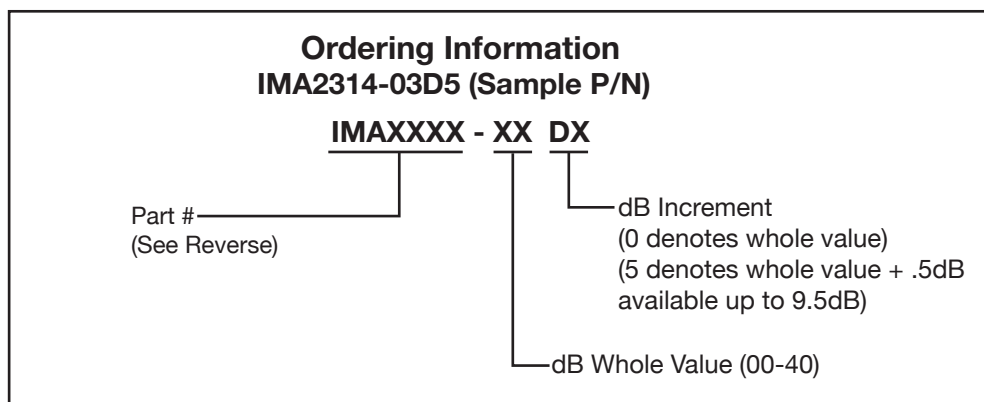
For other substrate thicknesses, sizes and power levels, consult the factory.

*Based on TCR and resistor tolerance at DC.

Attenuation Accuracy

Increment (dB)	Accuracy
1 - 3.5	+/- 0.2dB
4 - 19	+/- 0.3dB
20 - 30	+/- 0.5dB
31 - 40	+/- 1.0dB

At the circuit level, with proper application of RF principles, these attenuators, and their variations, are capable of operating up to 20 GHz with a manageable VSWR.



International Manufacturing Services, Inc.

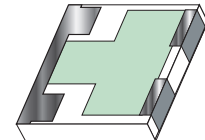
50 Schoolhouse Ln., Portsmouth RI 02871 USA

Tel (401) 683-9700 • Fax (401) 683-5571 • e-mail: ims@ims-resistors.com • www.ims-resistors.com

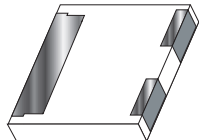
Wraparound Styles

IMA2314

Terminal Style: Full Wraparound
 Terminal Materials: Platinum Silver with 62/36/2 Tin Lead Silver Solder
 Attachment: Solder



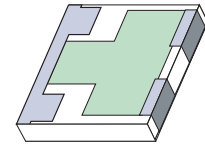
IMA2314 FRONT



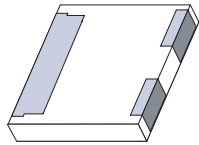
IMA2314 BACK

✓ IMA2373

Terminal Style: Full Wraparound
 Terminal Material: Platinum Silver
 Attachment: Solder or Epoxy



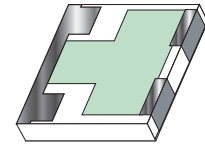
IMA2373 FRONT



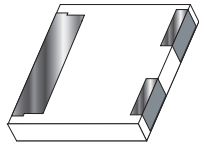
IMA2373 BACK

✓ IMA2609

Terminal Style: Full Wraparound
 Terminal Materials: Platinum Silver with 96/4 Tin Silver Solder
 Attachment: Solder



IMA2609 FRONT

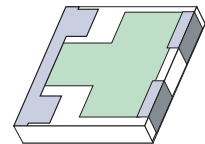


IMA2609BACK

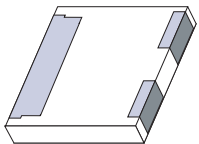
✓ IMA2686

Terminal Style: Full Wraparound
 Terminal Material: ULR Platinum Silver
 Attachment: Solder or Epoxy

ULR



IMA2686 FRONT

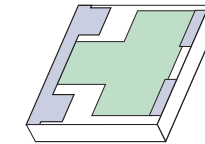


IMA2686 BACK

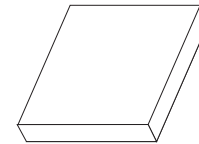
Single-Sided Styles

✓ IMA2381

Terminal Style: Single-Sided
 Terminal Material: Platinum Silver
 Attachment: Solder or Epoxy



IMA2381 FRONT



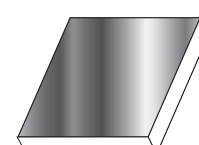
IMA2381 BACK

IMA2370

Terminal Style: Single-Sided with Backplane
 Terminal Materials: Platinum Silver with 62/36/2 Tin Lead Silver Solder
 Attachment: Solder



IMA2370 FRONT



IMA2370 BACK

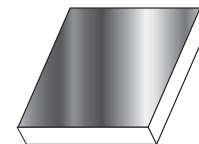
Single-Wrap Style (SG)

IMA2371

Terminal Style: Single-Wrap to Backplane
 Terminal Materials: Platinum Silver with 62/36/2 Tin Lead Silver Solder
 Attachment: Solder



IMA2371 FRONT



IMA2371 BACK

S-Parameters, Mag. / Phase, 6dB T-Pad 1.0 To 10GHz - P/N: IMA2314-06D0 mounted to 0.015" thick, 50Ω alumina

FREQ (GHz)	S11 mag	S11 phase	S21 mag	S21 phase	VSWR
1.00	0.020	-91.995	0.501	-1.799	1.040
2.10	0.041	-92.998	0.501	-3.780	1.086
3.02	0.059	-94.046	0.500	-5.428	1.126
4.12	0.081	-95.361	0.499	-7.400	1.175
5.04	0.098	-96.473	0.497	-9.038	1.218
5.96	0.116	-97.588	0.496	-10.670	1.263
7.06	0.137	-98.926	0.494	-12.617	1.317
7.98	0.154	-100.035	0.492	-14.230	1.365
9.08	0.175	-101.358	0.489	-16.153	1.423
10.0	0.192	-102.451	0.486	-17.744	1.474