

Features

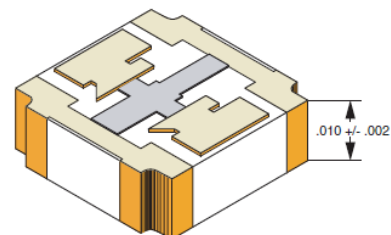
- Medium Power Handling 2 W CW
- Flat Response from DC to 40 GHz
- Return Loss:
 - >18 dB DC to 12 GHz
 - >16 dB 13 to 40 GHz
- Space Saving Footprint:
0.030" x 0.030" (.762 x .762 mm)
- Very Good Stability Over Temperature
(TRC <100 PPM)
- Ground Wrap to Top
(No ground bonding required)
- RoHS* Compliant

Description

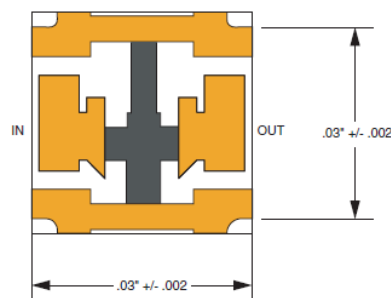
These fixed attenuator chips are fabricated using our state of the art thin film metallization and advanced photolithography technology.

All devices are available in chip form with a metalized ground connection on the back. This ground is wrapped around on the four corners of the chip so additional ground bonding ribbon is not required.

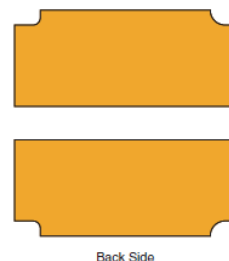
The chips may be attached using conductive epoxy or solder preform. Gold contacts on the input and output pads make assembly, using standard bonding equipment, fast and reliable. Custom values and configuration available on request.



Front to back metallization in 4 places



Bonding pad sizes and resistor outline may differ from value to value.



Back Side

Electrical Specifications: $T_A = +25^\circ\text{C}$

Part Number	Attenuation (dB)	Insertion Loss (dB)	Return Loss (dB)
MAT10010	1	+/-0.30	>18
MAT10020	2	+/-0.30	>18
MAT10030	3	+/-0.30	>18
MAT10040	4	+/-0.30	>18
MAT10050	5	+/-0.30	>18

CONTINUED

* Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.

MAT10xxx Series



Attenuator DIE
DC - 40 GHz

Rev. V3

Electrical Specifications: $T_A = +25^\circ\text{C}$

Part Number	Attenuation (dB)	Insertion Loss (dB)	Return Loss (dB)
MAT10060	6	+/-0.35	>18
MAT10070	7	+/-0.35	>18
MAT10080	8	+/-0.35	>18
MAT10090	9	+/-0.35	>18
MAT10100	10	+/-0.35	>18
MAT10110	11	+/-0.40	>18
MAT10120	12	+/-0.40	>18
MAT10130	13	+/-0.40	>18
MAT10140	14	+/-0.40	>18
MAT10150	15	+/-0.40	>18
MAT10160	16	+/-0.50	>18
MAT10170	17	+/-0.50	>18
MAT10180	18	+/-0.50	>18
MAT10190	19	+/-0.50	>18
MAT10200	20	+/-0.50	>18
MAT10210	21	+/-0.60	>18
MAT10220	22	+/-0.60	>18
MAT10230	23	+/-0.60	>18
MAT10240	24	+/-0.60	>18
MAT10250	25	+/-0.60	>18
MAT10260	26	+/-1.00	>18
MAT10270	27	+/-1.00	>18
MAT10280	28	+/-1.00	>18
MAT10290	29	+/-1.00	>18
MAT10300	30	+/-1.00	>18

M/A-COM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with M/A-COM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.