

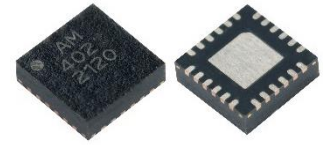
AM4026 – 8-Way Power Splitter



DC to 30 GHz Resistive Power Splitter

Description

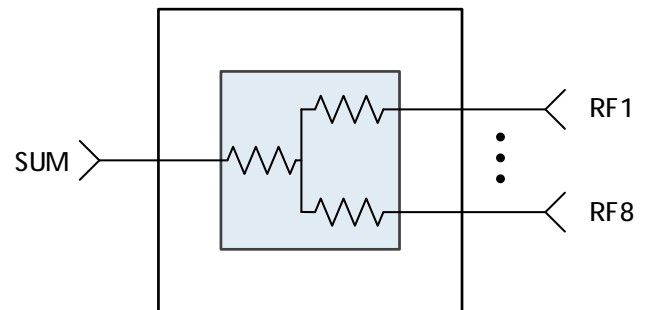
AM4026 is a broadband eight-way resistive power splitter / combiner. The device boasts high isolation, low insertion loss, and high return loss in each of its 8 paths. With good phase and amplitude matching, the AM4026 is suitable for broadband RF/LO distribution circuits. The standard package is a 4mm QFN.



Features

- DC to 30 GHz Frequency range
- 30 dB Isolation
- 21 dB Insertion Loss
- 13 dB Return Loss
- 4mm QFN Package
- -40C to +85C Operation

Functional Diagram



Characteristic Performance

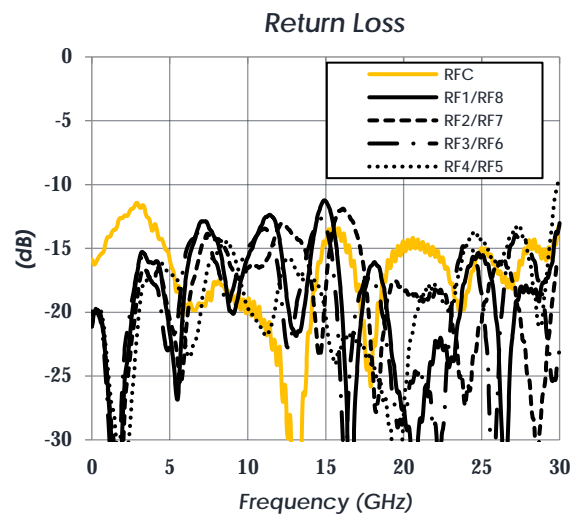
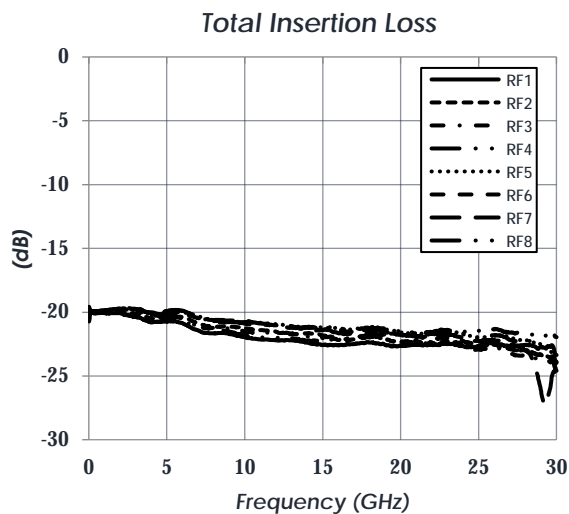


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Revision History

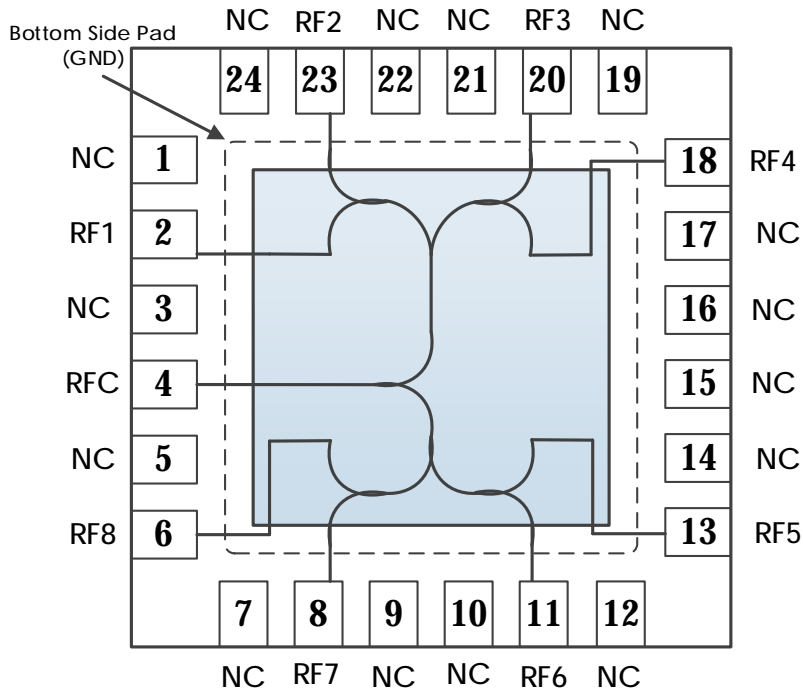
Date	Revision Number	Notes
October 21, 2021	1	Initial Release

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Pin Layout and Definitions



Pin Number	Pin Name	Pin Function
1	NC	No Connect
2	RF1	RF Port 1 – 50 Ohms
3	NC	No Connect
4	RFC	Sum Port – 50 Ohms
5	NC	No Connect
6	RF8	RF Port 8 – 50 Ohms
7	NC	No Connect
8	RF7	RF Port 7 – 50 Ohms
9-10	NC	No Connect
11	RF6	RF Port 6 – 50 Ohms
12	NC	No Connect
13	RF5	RF Port 5 – 50 Ohms
14-17	NC	No Connect
18	RF4	RF Port 4 – 50 Ohms
19	NC	No Connect
20	RF3	RF Port 3 – 50 Ohms
21, 22	NC	No Connect
23	RF2	RF Port 2 – 50 Ohms
24	NC	No Connect

Note: NC pins may be grounded or left open

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Specifications

Absolute Maximum Ratings

	Minimum	Maximum
RF Input Power		+27 dBm
Operating Junction Temperature	-40 C	+150 C
Storage Temperature Range	-55 C	+150 C

Note: Any device operation beyond the Absolute Maximum Ratings may result in permanent damage to the device. The values listed in this table are extremes and do not imply functional operation of the device at these or any other conditions beyond what is listed under Recommended Operating Conditions. Any part subjected to conditions outside of what is recommended for an extended amount of time may suffer from reliability concerns.

Handling Information

	Minimum	Maximum
Moisture Sensitivity Level	MSL 3	
ESD Classification (HBM)	Class 1a	



Atlanta Micro products are electrostatic sensitive.
Follow safe handling practices to avoid damage

Recommended Operating Conditions

	Minimum	Typical	Maximum
Operating Case Temperature	-40 C		+85 C

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RF Performance

(T = 25 °C unless otherwise specified)

Parameter	Testing Conditions	Minimum	Typical	Maximum
Frequency Range		DC		30 GHz
Additional Insertion Loss*	DC to 30 GHz		3.5 dB	4.5 dB
Return Loss	DC to 30 GHz		13 dB	
Isolation port-to-port	DC to 30 GHz		30 dB	

*Note: Insertion loss shown is the additional loss after theoretical splitter loss (18 dB).

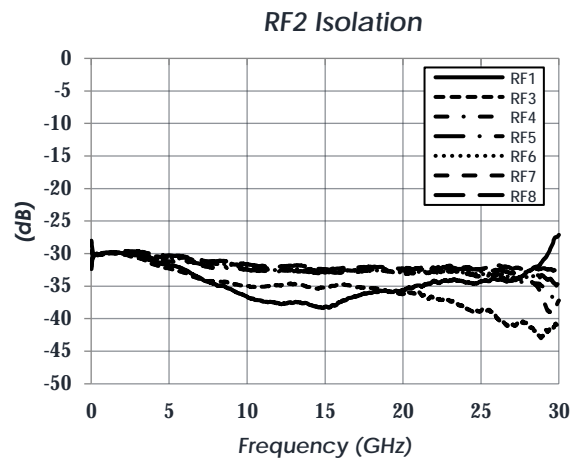
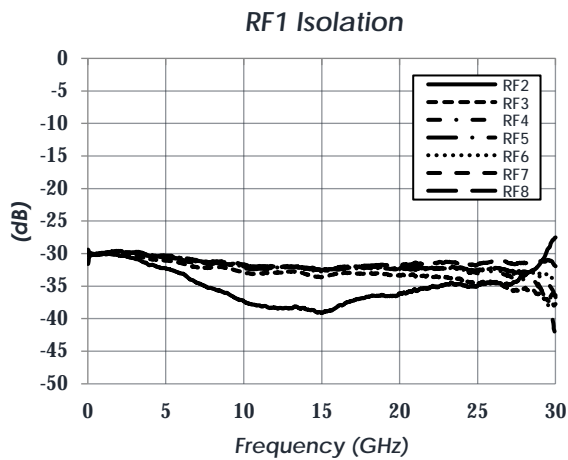
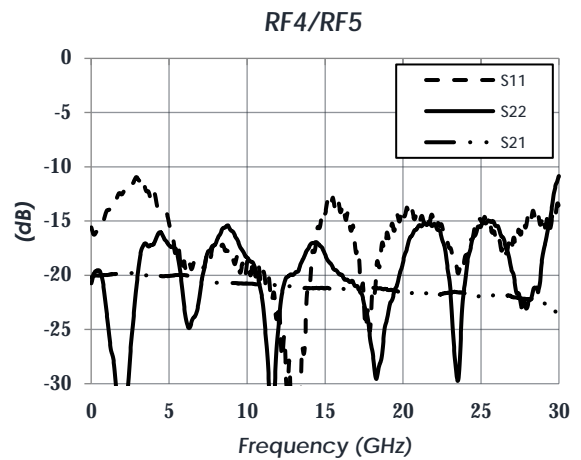
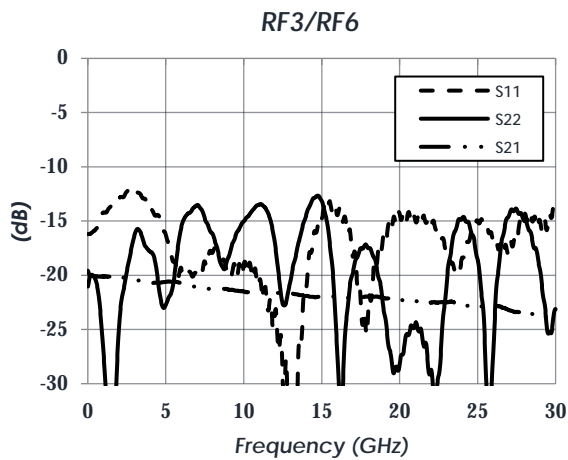
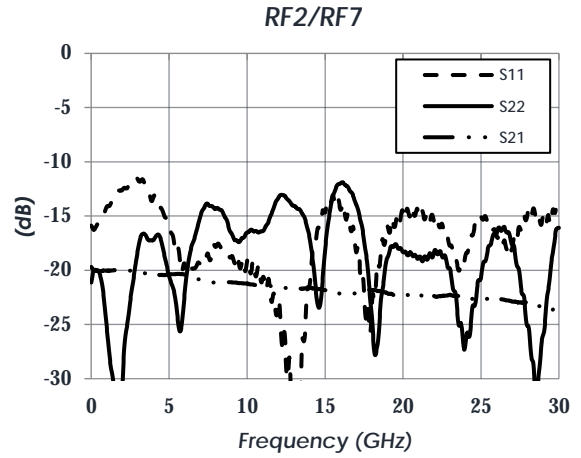
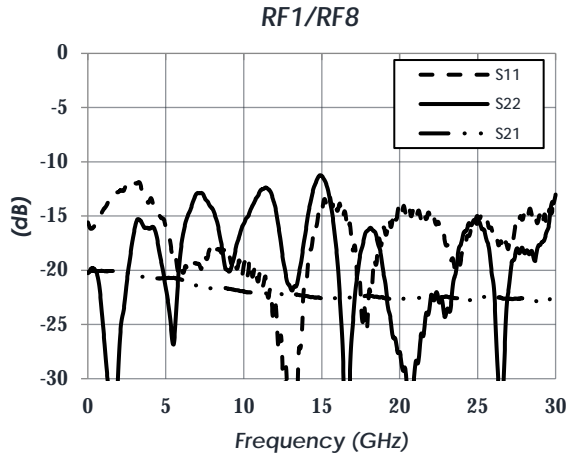
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Typical Performance

(T = 25 °C unless otherwise specified.)



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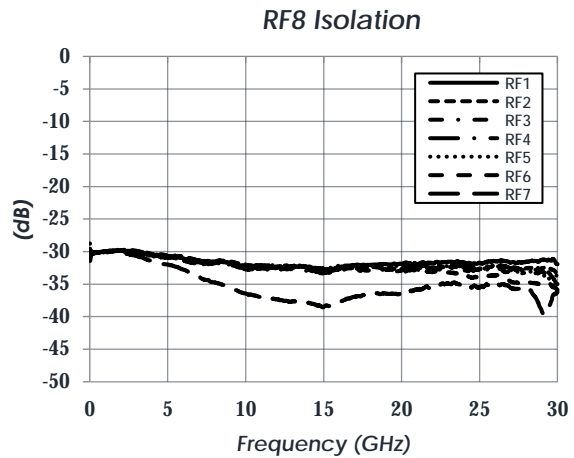
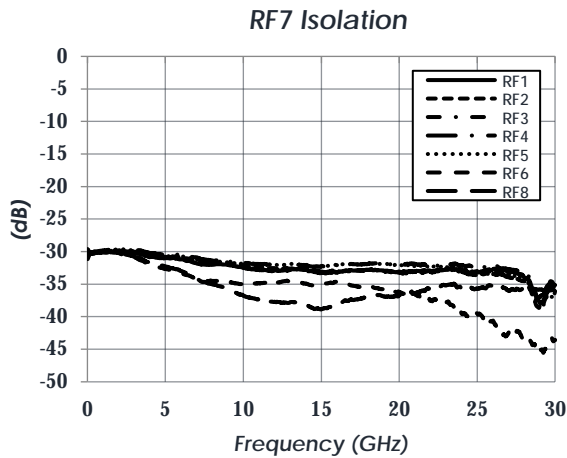
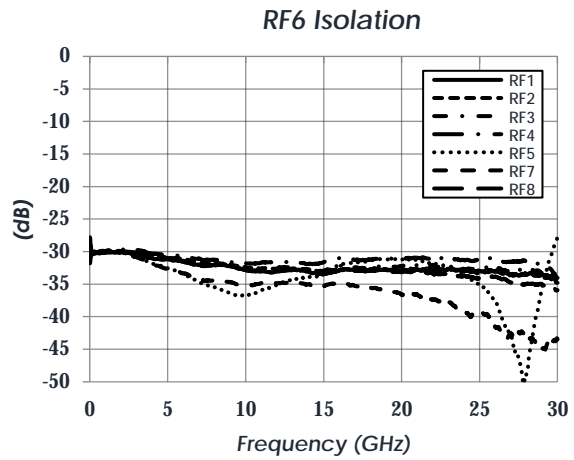
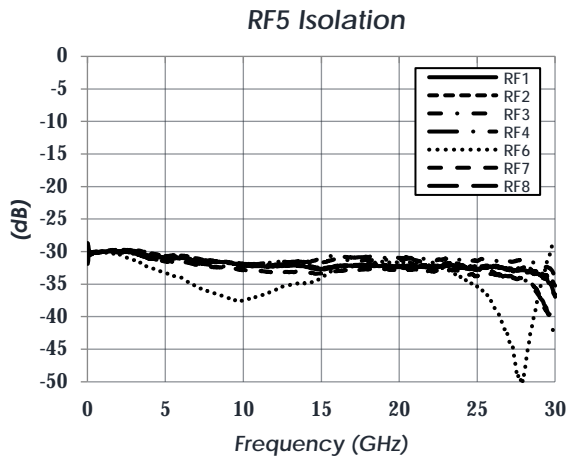
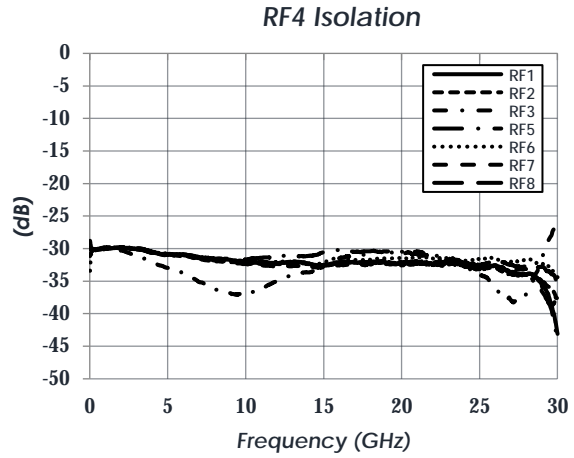
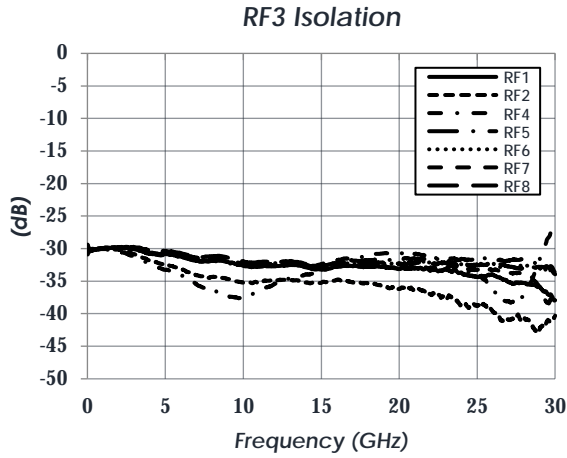
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DC to 30 GHz Resistive Power Splitter

Typical Performance Continued

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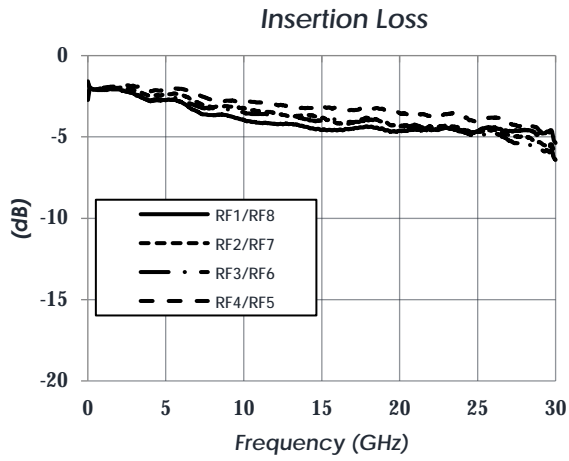
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DC to 30 GHz Resistive Power Splitter

Typical Performance Continued

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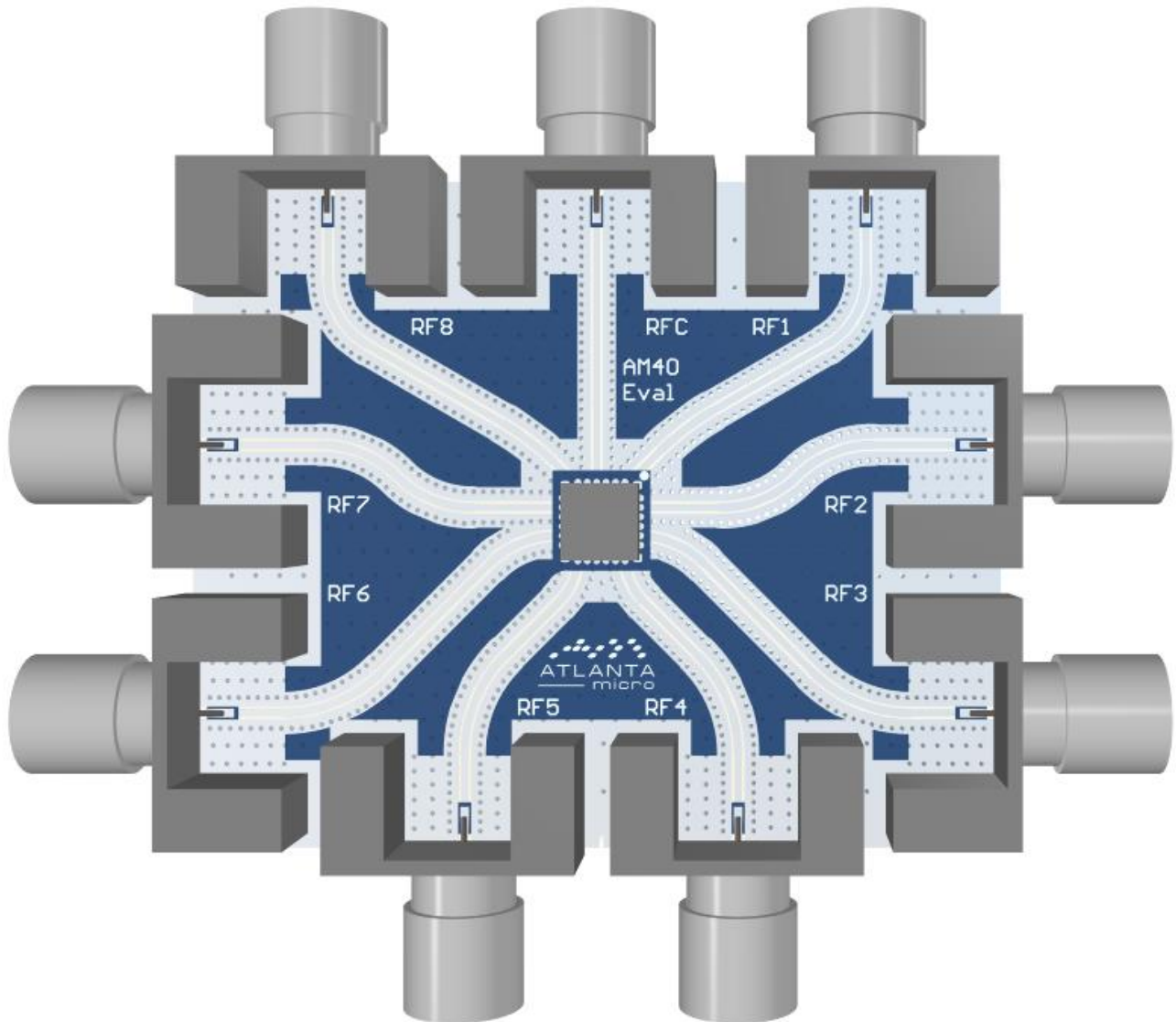


AM4026 – 8-Way Power Splitter



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Evaluation PC Board



Related Parts

Part Number	Description
AM4006	2 GHz to 9 GHz 4-Way Splitter
AM4008	2 GHz to 26.5 GHz 2-Way Splitter
AM4021	3.05 GHz to 5.05 GHz 8-Way Splitter
AM4023	2 GHz to 18 GHz 4-Way Splitter

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Component Compliance Information

RoHS: Atlanta Micro, Inc. hereby certifies that all products comply with the EC Directive 2011/65/EC on the Restriction of Hazardous Substances, commonly known as EU-RoHS 6 and 10. All products supplied by Atlanta Micro shall be compliant with the European Directive 2011/65/EC based on the following substance list.

Substance List	Allowable Maximum Concentration
Lead (Pb)	<1000 PPM (0.1% by weight)
Mercury (Hg)	<1000 PPM (0.1% by weight)
Cadmium (Cd)	<75 PPM (0.0075% by weight)
Hexavalent Chromium (CrVI)	<1000 PPM (0.1% by weight)
Polybrominated Biphenyls (PBB)	<1000 PPM (0.1% by weight)
Polybrominated Diphenyl ethers (PBDE)	<1000 PPM (0.1% by weight)
Decabromodiphenyl Deca BDE	<1000 PPM (0.1% by weight)
Bis (2-ethylhexyl) Phthalate (DEHP)	<1000 PPM (0.1% by weight)
Butyl Benzyl Phthalate (BBP)	<1000 PPM (0.1% by weight)
Dibutyl Phthalate (DBP)	<1000 PPM (0.1% by weight)
Diisobutyl Phthalate (DIBP)	<1000 PPM (0.1% by weight)

REACH: Atlanta Micro, Inc. neither uses nor intentionally adds any of the substances considered to be a Substance of Very High Concern (SVHC) as defined by the EU Regulation (EC) No. 1907-2006 on Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH).

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Atlanta Micro takes its responsibility as a global partner seriously and will use due diligence within our supply chain to ensure all standards are met to the best of our knowledge.