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AETRIUM ANNOUNCES SPECIAL SHAREHOLDERS MEETING

St. Paul, Minn (9/26/12)—Aetrium Incorporated (Nasdaq:ATRM) announced today that it is calling a special meeting of its shareholders for November 26, 2012 on the demand of a shareholder group reportedly holding together approximately 17% of the company's outstanding shares. The company has determined that the shareholder group holds sufficient shares to require a special shareholders meeting to be called.

"This shareholder group proposes to remove all current members of our board and replace them with its own slate of directors," said Joseph C. Levesque, president and CEO of the company. "The nominees named by the group have no operational experience in the semiconductor industry or the semiconductor equipment industry. The group's representatives advised our board that their intent would be for the nominee directors to study the company and develop a plan within one year to improve shareholder value. One year is a very long time in our business for opportunities to arise and be lost. We do, however, welcome shareholder input, and in hopes of avoiding the expensive course of a forced mid-year shareholders meeting, we have offered the shareholder group a seat on our board to participate along with our experienced board members and management in a cooperative manner to enhance shareholder value. That offer has not been accepted.

"It is becoming clear that the semiconductor industry, instead of having an improving second half of this year as many industry forecasters earlier predicted, is probably declining in production levels in this third quarter against where it ended the second quarter," Mr. Levesque continued. "No one we are aware of is predicting a reversal of this trend in the fourth quarter, and first

quarter is historically seasonally a flat to down quarter. Accordingly, even assuming a resumption of semiconductor production growth in the second quarter of next year, we believe production levels in the semiconductor industry will remain below their latest peak levels, reached in the third quarter of 2010, through the first half of next year.

"Many industry analysts are now predicting improving semiconductor industry conditions by the second half of next year. Until existing excess semiconductor production capacity is absorbed, however, industry conditions will continue to present substantial challenges in particular for our handler product line, which is driven substantially by growth in unit production of semiconductors. Accordingly in these times it is critical that we identify and take advantage of niche growth opportunities for our handler product line. Our reliability product line, driven more by advances in semiconductor design and processing technologies, continues to perform well even in this flat to declining semiconductor environment, and we continue to explore opportunities to maximize shareholder value through this product line.

"Our board believes that deep experience and expertise in the semiconductor and semiconductor equipment industries is imperative to enable the company to successfully navigate these difficult times and to be able to nimbly and quickly identify and take advantage of opportunities these times offer," Mr. Levesque concluded. "This shareholder group has no experience in our industry or the industry we serve and no plan of action. Accordingly, the board has determined that it would be imprudent to accede to the demands of this shareholder group to be given control of the company, and the board will oppose the actions proposed by this group for the upcoming special shareholders meeting."

Certain matters in this news release are forward-looking statements which are subject to risks and uncertainties that could cause actual results to differ materially from those projected. Such risks and uncertainties include, but are not limited to, adverse domestic or global economic conditions, slowing growth in the demand for semiconductor devices, the volatility and cyclicality of the microelectronics industry, changes in the rates of capital expenditures by semiconductor manufacturers, progress of product development programs, unanticipated costs associated with the integration or restructuring of operations, and other risk factors set forth in the Company's SEC filings, including its Form 10-K for the year ended December 31, 2011 and its Form 10-Q for the quarter ended June 30, 2012.

Aetrium, based in North St. Paul, Minnesota, is a leading supplier of proprietary technologies and equipment that are used by the worldwide semiconductor industry to test integrated circuits. The company's products are used by customers to advance reliability, improve quality, increase product yield or improve manufacturing processes. Aetrium's common stock is publicly traded on the Nasdaq market under the symbol ATRM. More information about Aetrium is available on the internet at www.Aetrium.com.

IMPORTANT INFORMATION/SOLICITATION PARTICIPANTS LEGEND

Aetrium Incorporated and its directors and executive officers may be deemed to be participants in the solicitation of proxies from the shareholders of Aetrium Incorporated in connection with any meeting of shareholders that may be held. Information regarding the interests of these directors and executive officers in connection with the matters to be voted on at any meeting that may be held will be included in the proxy statement filed by Aetrium Incorporated in connection with any such meeting. In addition, Aetrium Incorporated files annual, quarterly and special reports, proxy and information statements, and other information with the Securities and Exchange Commission (the "SEC"). These documents are available, and the proxy statement, when it is filed, will be available free of charge at the SEC's web site at www.sec.gov. SHAREHOLDERS ARE URGED TO READ THE PROXY STATEMENT CAREFULLY WHEN IT IS AVAILABLE BECAUSE IT WILL CONTAIN IMPORTANT INFORMATION.