ADAM, I'M ADA

A Puzzle by David Pleacher

"ADAM, I'M ADA" is an example of a palindrome (it reads the same backwards as forwards).   It was Eve's trick that she played on Adam when he said, "Madam, I'm Adam."

In how many different ways can you read "ADAM, I'M ADA", starting at any one of the A's on the border, spelling by moving up or down, left or right, to adjacent letters until you reach the I in the center, and then back to the border again?

				A				
			A	D	A			
		A	D	A	D	A		
	A	D	A	M	A	D	A	
A	D	A	M	I	M	A	D	A
	A	D	A	M	A	D	A	
		A	D	A	D	A		
			A	D	A			
				A				