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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**SCHEDULE 13G**

**Under the Securities Exchange Act of 1934  
(Amendment No. )**

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**ALLISON TRANSMISSION HOLDINGS, INC.**

(Name of Issuer)

**Common Stock**  
(Title of Class of Securities)

**01973R101**  
(CUSIP Number)

**December 31, 2012**  
(Date of Event Which Requires Filing of this Statement)

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Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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1	Names of reporting persons	
	The Carlyle Group L.P.	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Citizen or place of organization	
	Delaware	
Number of shares beneficially owned by each reporting person with	5	Sole voting power
		0
	6	Shared voting power
		75,348,750
	7	Sole dispositive power
		0
	8	Shared dispositive power
		75,348,750
9	Aggregate amount beneficially owned by each reporting person	
	75,348,750	
10	Check if the aggregate amount in Row (9) excludes certain shares	
	Not Applicable	
11	Percent of class represented by amount in Row 9	
	41.3%	
12	Type of reporting person	
	PN	

1	Names of reporting persons	
	Carlyle Group Management L.L.C.	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Citizen or place of organization	
	Delaware	
Number of shares beneficially owned by each reporting person with	5	Sole voting power
		0
	6	Shared voting power
		75,348,750
	7	Sole dispositive power
		0
	8	Shared dispositive power
		75,348,750
9	Aggregate amount beneficially owned by each reporting person	
	75,348,750	
10	Check if the aggregate amount in Row (9) excludes certain shares	
	Not Applicable	
11	Percent of class represented by amount in Row 9	
	41.3%	
12	Type of reporting person	
	OO (Limited Liability Company)	

1	Names of reporting persons <b>Carlyle Holdings I GP Inc.</b>	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Citizen or place of organization <b>Delaware</b>	
Number of shares beneficially owned by each reporting person with	5	Sole voting power <b>0</b>
	6	Shared voting power <b>75,348,750</b>
	7	Sole dispositive power <b>0</b>
	8	Shared dispositive power <b>75,348,750</b>
9	Aggregate amount beneficially owned by each reporting person <b>75,348,750</b>	
10	Check if the aggregate amount in Row (9) excludes certain shares <b>Not Applicable</b>	
11	Percent of class represented by amount in Row 9 <b>41.3%</b>	
12	Type of reporting person <b>CO</b>	

1	Names of reporting persons <b>Carlyle Holdings I GP Sub L.L.C.</b>	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Citizen or place of organization <b>Delaware</b>	
Number of shares beneficially owned by each reporting person with	5	Sole voting power <b>0</b>
	6	Shared voting power <b>75,348,750</b>
	7	Sole dispositive power <b>0</b>
	8	Shared dispositive power <b>75,348,750</b>
9	Aggregate amount beneficially owned by each reporting person <b>75,348,750</b>	
10	Check if the aggregate amount in Row (9) excludes certain shares <b>Not Applicable</b>	
11	Percent of class represented by amount in Row 9 <b>41.3%</b>	
12	Type of reporting person <b>OO (Limited Liability Company)</b>	

1	Names of reporting persons <b>Carlyle Holdings I L.P.</b>	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Citizen or place of organization <b>Delaware</b>	
Number of shares beneficially owned by each reporting person with	5	Sole voting power <b>0</b>
	6	Shared voting power <b>75,348,750</b>
	7	Sole dispositive power <b>0</b>
	8	Shared dispositive power <b>75,348,750</b>
9	Aggregate amount beneficially owned by each reporting person <b>75,348,750</b>	
10	Check if the aggregate amount in Row (9) excludes certain shares <b>Not Applicable</b>	
11	Percent of class represented by amount in Row 9 <b>41.3%</b>	
12	Type of reporting person <b>PN</b>	

1	Names of reporting persons <b>TC Group, L.L.C.</b>	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Citizen or place of organization <b>Delaware</b>	
Number of shares beneficially owned by each reporting person with	5	Sole voting power <b>0</b>
	6	Shared voting power <b>75,348,750</b>
	7	Sole dispositive power <b>0</b>
	8	Shared dispositive power <b>75,348,750</b>
9	Aggregate amount beneficially owned by each reporting person <b>75,348,750</b>	
10	Check if the aggregate amount in Row (9) excludes certain shares <b>Not Applicable</b>	
11	Percent of class represented by amount in Row 9 <b>41.3%</b>	
12	Type of reporting person <b>OO (Limited Liability Company)</b>	

1	Names of reporting persons TC Group Sub L.P.	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Citizen or place of organization Delaware	
Number of shares beneficially owned by each reporting person with	5	Sole voting power 0
	6	Shared voting power 75,348,750
	7	Sole dispositive power 0
	8	Shared dispositive power 75,348,750
9	Aggregate amount beneficially owned by each reporting person 75,348,750	
10	Check if the aggregate amount in Row (9) excludes certain shares Not Applicable	
11	Percent of class represented by amount in Row 9 41.3%	
12	Type of reporting person PN	

1	Names of reporting persons TC Group IV Managing GP, L.L.C.	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Citizen or place of organization Delaware	
Number of shares beneficially owned by each reporting person with	5	Sole voting power 0
	6	Shared voting power 75,348,750
	7	Sole dispositive power 0
	8	Shared dispositive power 75,348,750
9	Aggregate amount beneficially owned by each reporting person 75,348,750	
10	Check if the aggregate amount in Row (9) excludes certain shares Not Applicable	
11	Percent of class represented by amount in Row 9 41.3%	
12	Type of reporting person OO (Limited Liability Company)	

1	Names of reporting persons <b>Carlyle Partners IV AT Holdings, L.P.</b>	
2	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC use only	
4	Citizen or place of organization <b>Delaware</b>	
Number of shares beneficially owned by each reporting person with	5	Sole voting power <b>0</b>
	6	Shared voting power <b>75,348,750</b>
	7	Sole dispositive power <b>0</b>
	8	Shared dispositive power <b>75,348,750</b>
9	Aggregate amount beneficially owned by each reporting person <b>75,348,750</b>	
10	Check if the aggregate amount in Row (9) excludes certain shares <b>Not Applicable</b>	
11	Percent of class represented by amount in Row 9 <b>41.3%</b>	
12	Type of reporting person <b>PN</b>	

**ITEM 1. (a) Name of Issuer:**

Allison Transmission Holdings, Inc. (the "Issuer")

**(b) Address of Issuer's Principal Executive Offices:**

One Allison Way  
Indianapolis, IN 46222

**ITEM 2. (a) Name of Person Filing:**

Each of the following is hereinafter individually referred to as a "Reporting Person" and collectively as the "Reporting Persons." This statement is filed on behalf of:

Carlyle Group Management L.L.C.  
The Carlyle Group L.P.  
Carlyle Holdings I GP Inc.  
Carlyle Holdings I GP Sub L.L.C.  
Carlyle Holdings I L.P.  
TC Group, L.L.C.  
TC Group Sub L.P.  
TC Group IV Managing GP, L.L.C.  
Carlyle Partners IV AT Holdings, L.P.

**(b) Address or Principal Business Office:**

The business address of each of the Reporting Persons is c/o The Carlyle Group, 1001 Pennsylvania Avenue, N.W., Suite 220 South, Washington, D.C. 20004-2505.

**(c) Citizenship of each Reporting Person is:**

Each of the reporting persons is organized in the state of Delaware.

**(d) Title of Class of Securities:**

Common stock, \$0.01 par value per share ("Common Stock")

**(e) CUSIP Number:**

01973R101

**ITEM 3.**

Not applicable.

**ITEM 4. Ownership****Ownership (a-c)**

The ownership information presented below represents beneficial ownership of Common Stock of the Issuer as of December 31, 2012, based upon 182,666,614 shares of the Issuer's Common Stock outstanding as of October 22, 2012.

Reporting Person	Amount beneficially owned	Percent of class:	Sole power to vote or to direct the vote:	Shared power to vote or to direct the vote:	Sole power to dispose or to direct the disposition of:	Shared power to dispose or to direct the disposition of:
Carlyle Group Management L.L.C.	75,348,750	41.3%	0	75,348,750	0	75,348,750
The Carlyle Group L.P.	75,348,750	41.3%	0	75,348,750	0	75,348,750
Carlyle Holdings I GP Inc.	75,348,750	41.3%	0	75,348,750	0	75,348,750
Carlyle Holdings I GP Sub L.L.C.	75,348,750	41.3%	0	75,348,750	0	75,348,750
Carlyle Holdings I L.P.	75,348,750	41.3%	0	75,348,750	0	75,348,750
TC Group, L.L.C.	75,348,750	41.3%	0	75,348,750	0	75,348,750
TC Group Sub L.P.	75,348,750	41.3%	0	75,348,750	0	75,348,750
TC Group IV Managing GP, L.L.C.	75,348,750	41.3%	0	75,348,750	0	75,348,750
Carlyle Partners IV AT Holdings, L.P.	75,348,750	41.3%	0	75,348,750	0	75,348,750

Carlyle Partners IV AT Holdings, L.P. is the record holder of 75,348,750 shares of the Issuer's Common Stock. Carlyle Group Management L.L.C. is the general partner of The Carlyle Group L.P., which is a publicly traded entity listed on NASDAQ. The Carlyle Group L.P. is the sole shareholder of Carlyle Holdings I GP Inc., which is the managing member of Carlyle Holdings I GP Sub L.L.C., which is the general partner of Carlyle Holdings I L.P., which is the managing member of TC Group, L.L.C., which is the general partner of TC Group Sub L.P., which is the managing member of TC Group IV Managing GP, L.L.C., which is the general partner of Carlyle Partners IV AT Holdings, L.P. Accordingly, each of the forgoing entities may be deemed to share beneficial ownership of the shares of Common Stock owned of record by Carlyle Partners IV AT Holdings, L.P.

**ITEM 5. Ownership of Five Percent or Less of a Class**

Not applicable.

**ITEM 6. Ownership of More than Five Percent on Behalf of Another Person**

Not applicable.

**ITEM 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company**

Not applicable.

**ITEM 8. Identification and Classification of Members of the Group**

Not applicable.

**ITEM 9. Notice of Dissolution of Group**

Not applicable.

**ITEM 10. Certification**

Not applicable.

**SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

**Date:** February 14, 2013

**CARLYLE GROUP MANAGEMENT L.L.C.**

By: /s/ Jeremy W. Anderson, attorney-in-fact

Name: Daniel D'Aniello

Title: Chairman

**THE CARLYLE GROUP L.P.**

By: Carlyle Group Management L.L.C., its general partner

By: /s/ Jeremy W. Anderson, attorney-in-fact

Name: Daniel D'Aniello

Title: Chairman

**CARLYLE HOLDINGS I GP INC.**

By: /s/ Jeremy W. Anderson, attorney-in-fact

Name: Daniel D'Aniello

Title: Chairman

**CARLYLE HOLDINGS I GP SUB L.L.C.**

By: Carlyle Holdings I GP Inc., its managing member

By: /s/ Jeremy W. Anderson, attorney-in-fact

Name: Daniel D'Aniello

Title: Chairman

**CARLYLE HOLDINGS I L.P.**

By: Carlyle Holdings I GP Sub L.L.C., its general partner

By: Carlyle Holdings I GP Inc., its managing member

By: /s/ Jeremy W. Anderson, attorney-in-fact

Name: Daniel D'Aniello

Title: Chairman

**TC GROUP, L.L.C.**

By: Carlyle Holdings I L.P., its managing member

By: /s/ Jeremy W. Anderson, attorney-in-fact

Name: Daniel D'Aniello

Title: Chairman

**TC GROUP SUB L.P.**

By: TC Group, L.L.C., its general partner

By: Carlyle Holdings I L.P., its managing member

By: /s/ Jeremy W. Anderson, attorney-in-fact

Name: Daniel D'Aniello

Title: Chairman

**TC GROUP IV MANAGING GP, L.L.C.**By: /s/ Jeremy W. Anderson

Name: Jeremy W. Anderson

Title: Authorized Person

**CARLYLE PARTNERS IV AT HOLDINGS, L.P.**

By: TC Group IV Managing GP, L.L.C., its general partner

By: /s/ Jeremy W. Anderson

Name: Jeremy W. Anderson

Title: Authorized Person

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**LIST OF EXHIBITS**

<u>Exhibit No.</u>	<u>Description</u>
24	Power of Attorney
99	Joint Filing Agreement

**POWER OF ATTORNEY**

The undersigned understands that, from time to time, the Carlyle Companies (defined below) are required to prepare, execute and file certain federal and state securities laws filings.

Know all by these presents, that the undersigned hereby constitutes and appoints each of Curt Buser, Jeff Ferguson, David Pearson, Catherine Ziobro, R. Rainey Hoffman, Joanne Cosiol, Monica Harris, Jeremy Anderson, Bruno De Gusmao, Ann Siebecker, Andrea Pekala, Tom Mayrhofer, Orit Mizrachi, John Beczak, Rick Kappler, Matt LoRusso, Rob Konigsberg, James Sloan, Anne Frederick, Norma Kuntz, Victoria Jong, Erica Herberg or any of them signing singly, and with full power of substitution, the undersigned's true and lawful attorney-in-fact to:

- (1) prepare, execute in the name of each Carlyle Company and on behalf of each Carlyle Company, and submit to the U.S. Securities and Exchange Commission (the "SEC") a Form ID, including amendments thereto, and any other documents necessary or appropriate to obtain codes and passwords enabling the undersigned to make electronic filings with the SEC of Forms D ("Form D") required to be filed in accordance with Rule 503 ("Rule 503") promulgated with respect to Sections 4(2), 4(6) and 3(b) of the Securities Act of 1933 (the "1933 Act") and reports required by Sections 13(d) and 16(a) of the Securities Exchange Act of 1934 (the "1934 Act") or any rule or regulation of the SEC;
- (2) prepare and execute for and on behalf of each Carlyle Company, in the undersigned's capacity as a Chairman, authorized person, officer and/or director of each Carlyle Company, federal and state securities laws filings including without limitation Forms D pursuant to Rule 503 and Schedules 13D and 13G and Forms 3, 4, and 5 in accordance with Sections 13(d) and 16(a) of the 1934 Act and the rules thereunder;
- (3) do and perform any and all acts for and on behalf of each Carlyle Company which may be necessary or desirable to complete and execute any such federal and state securities laws filings including without limitation Forms D, Schedules 13D and 13G and Forms 3, 4, and 5, complete and execute any amendment or amendments thereto, and timely file such form with the SEC and the securities administrators of any state, the District of Columbia, the Commonwealth of Puerto Rico, Guam and the United States Virgin Islands or their designees and any stock exchange or similar authority; and
- (4) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted,

whether the same needs to be executed, taken or done by him in his capacity as a current or former member, partner, shareholder, director or officer of any company, partnership, corporation, organization, firm, branch or other entity connected with, related to or affiliated with any of the entities constituting the Carlyle Companies or entities that directly or indirectly hold interests in the Carlyle Companies.

The undersigned acknowledges that the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, are not assuming any of the undersigned's responsibilities to comply with federal and state securities laws, including without limitation Rule 503 of the 1933 Act or Section 13 and Section 16 of the 1934 Act.

This Power of Attorney and all authority conferred hereby shall not be terminated by operation of law, whether by the death or incapacity of the undersigned or by occurrence of any other event. Actions taken by an attorney-in-fact pursuant to this Power of Attorney shall be as valid as if any event described in the preceding sentence had not occurred, whether or not the attorney-in-fact shall have received notice of such event. Notwithstanding the foregoing, (i) in the event that an attorney-in-fact is no longer employed by The Carlyle Group Employee Co., L.L.C. or its affiliates, this Power of Attorney and all authority conferred hereby shall be immediately terminated with respect to such Attorney, and (ii) the undersigned may terminate or revoke this Power of Attorney at any time.

For purposes hereof, the "Carlyle Companies" shall consist of: (i) Carlyle Group Management L.L.C., The Carlyle Group L.P., Carlyle Holdings I GP Inc., Carlyle Holdings I GP Sub L.L.C., Carlyle Holdings I L.P., Carlyle Holdings II GP L.L.C., Carlyle Holdings II L.P., Carlyle Holdings III GP Management L.L.C., Carlyle Holdings III GP L.P., Carlyle Holdings III GP Sub L.L.C., Carlyle Holdings III L.P., TC Group Sub L.P., TC Group Investment Holdings Sub L.P., TC Group Cayman Investment Holdings Sub L.P., TC Group Cayman Sub L.P. and (ii) the subsidiaries and affiliates of the foregoing in clause (i), including without limitation investment funds sponsored directly or indirectly by one or more of the Carlyle Companies.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 8<sup>th</sup> day of May, 2012.

/s/ Daniel A. D'Aniello

Name: Daniel A. D'Aniello

Title: Chairman

**JOINT FILING AGREEMENT**

In accordance with Rule 13d-1(k)(1) promulgated under the Securities Exchange Act of 1934, as amended, the undersigned hereby agree to the joint filing with each other on behalf of each of them of such a statement on Schedule 13G with respect to the common stock beneficially owned by each of them of Allison Transmission Holdings, Inc. This Joint Filing Agreement shall be included as an Exhibit to such Schedule 13G.

IN WITNESS WHEREOF, the undersigned hereby execute this Joint Filing Agreement as of the 14th day of February, 2013.

**CARLYLE GROUP MANAGEMENT L.L.C.**

By: /s/ Jeremy W. Anderson, attorney-in-fact  
Name: Daniel D'Aniello  
Title: Chairman

**THE CARLYLE GROUP L.P.**

By: Carlyle Group Management L.L.C., its general partner

By: /s/ Jeremy W. Anderson, attorney-in-fact  
Name: Daniel D'Aniello  
Title: Chairman

**CARLYLE HOLDINGS I GP INC.**

By: /s/ Jeremy W. Anderson, attorney-in-fact  
Name: Daniel D'Aniello  
Title: Chairman

**CARLYLE HOLDINGS I GP SUB L.L.C.**

By: Carlyle Holdings I GP Inc., its managing member

By: /s/ Jeremy W. Anderson, attorney-in-fact  
Name: Daniel D'Aniello  
Title: Chairman

**CARLYLE HOLDINGS I L.P.**

By: Carlyle Holdings I GP Sub L.L.C., its general partner

By: Carlyle Holdings I GP Inc., its managing member

By: /s/ Jeremy W. Anderson, attorney-in-fact  
Name: Daniel D'Aniello  
Title: Chairman

**TC GROUP, L.L.C.**

By: Carlyle Holdings I L.P., its managing member

By: /s/ Jeremy W. Anderson, attorney-in-fact

Name: Daniel D'Aniello

Title: Chairman

**TC GROUP SUB L.P.**

By: TC Group, L.L.C., its general partner

By: Carlyle Holdings I L.P., its managing member

By: /s/ Jeremy W. Anderson, attorney-in-fact

Name: Daniel D'Aniello

Title: Chairman

**TC GROUP IV MANAGING GP, L.L.C.**

By: /s/ Jeremy W. Anderson

Name: Jeremy W. Anderson

Title: Authorized Person

**CARLYLE PARTNERS IV AT HOLDINGS, L.P.**

By: TC Group IV Managing GP, L.L.C., its general partner

By: /s/ Jeremy W. Anderson

Name: Jeremy W. Anderson

Title: Authorized Person