



UNIVERSITY OF MICHIGAN  
COLLEGE OF ENGINEERING  
THE RADIATION LABORATORY  
DEPARTMENT OF ELECTRICAL ENGINEERING  
AND COMPUTER SCIENCE

3228 EECS BUILDING  
1301 BEAL AVENUE  
ANN ARBOR, MICHIGAN 48109-2122  
734 764-0500 FAX 734 647-2106  
<http://www.eecs.umich.edu/RADLAB/>

February 23, 2001

American Telecommunications Certification Body, Inc.  
6731 Whittier Avenue  
Suite C110  
McLean, VA 22101

RE: Class II Permissive Change Application  
FCC ID: L2C0014T

Please find enclosed application materials for Class II Permissive Change of Delphi Delco MPC-PRO Transmitter. For the current Transmitter, the following modifications were made (note \* items are pertinent to RF emissions):

1. \*Shortened FM transmitter antenna to approximately 14cm.
2. \*Increased FM transmitter power output to compensate for shorter antenna.
3. Replaced two linear voltage regulators to devices that are less susceptible to noise induced by TDMA and GSM phones.
4. Added several 33p RF bypass capacitors to analog audio sections to reduce noise induced by TDMA and GSM phones.
5. \*Compressed the FM transmitter layout slightly to eliminate mechanical interference between the FM transmitter shields and the plastic case.
6. Changed the connector that attaches the phone cable to the MPC.
7. Reduced the phone charging voltage from 8V to 6V.
8. Removed six EMI reduction ferrite beads from processor core power supply pins , on the SH3 and DSP to correct current starvation problem.
9. \*Added RF shields to the top and bottom of the FM transmitter section.
10. Changed single-ended audio amplifiers to and from the phone to a differential configuration.
11. Added ESD protection devices to signals on external connectors.

If there are any questions regarding the application or testing performed, please contact me at the above address or call 734-647-1792, (lab) 734-483-4211, fax 734-647-2106, or e-mail [liepa@umich.edu](mailto:liepa@umich.edu).

Sincerely,

A handwritten signature in black ink, appearing to read 'Valdis V. Liepa'.

Valdis V. Liepa  
Research Scientist



Letter Of Agency

19 December 2000

American Telecommunications Certification Body, Inc.  
6731 Whittier Avenue  
Suite C110  
McLean, VA 22101

To Whom It May Concern:

Please be advised that Delphi Automotive Systems authorizes Valdis V. Liepa to act on our behalf, until otherwise notified, for applications submitted to American Telecommunications Certification Body, Inc. (ATCB).

We certify that we are not subject to denial of federal benefits, that includes FCC benefits, pursuant to Section 5301 of the Anti-Drug Abuse ACT of 1988, U.S.C. 862. Further, no party, as defined in 47 CFR 1.2002(b), to the application is subject to denial of federal benefits, that includes FCC benefits.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in cursive script that reads "Ron Reger".

Ron Reger  
Program Manager  
Delphi Automotive Systems



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## Modification Letter

February 23, 2001

American Telecommunications Certification Body, Inc.  
6731 Whittier Avenue  
Suite C110  
McLean, VA 22101

RE: Class II Permissive Change Application  
FCC ID: L2C0014T

Please be advised that the following is a list of modifications made by the test laboratory that will be included in the production process for the above-referenced equipment.

- No modifications were made by the test laboratory.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Valdis V. Liepa".

Valdis V. Liepa  
Research Scientist



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### Request for Confidentiality

Re: Class II Permissive Change/Re-assessment  
for Delphi Delco MPC-PRO Transmitter  
Model: MPC-PRO  
FCC ID: L2C0014T  
CANADA: to be provided by IC

February 23, 2001

American Telecommunications Certification Body, Inc.  
6731 Whittier Avenue  
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Pursuant to 47 CFR 0.459, Delphi Delco requests that a part of the subject application be held confidential. This comprises Exhibits

- (5) Schematics
- (10) Parts List (Part of Exhibit only)

If there are any questions regarding this request, please contact me at the above address or call 734-647-1792, (lab) 734-483-4211, fax 734-647-2106 or e-mail [liepa@umich.edu](mailto:liepa@umich.edu).

Sincerely,

Handwritten signature of Valdis V. Liepa in black ink.  
Valdis V. Liepa  
Research Scientist  
University of Michigan