



TRANSMISSION PATH ANALYSIS

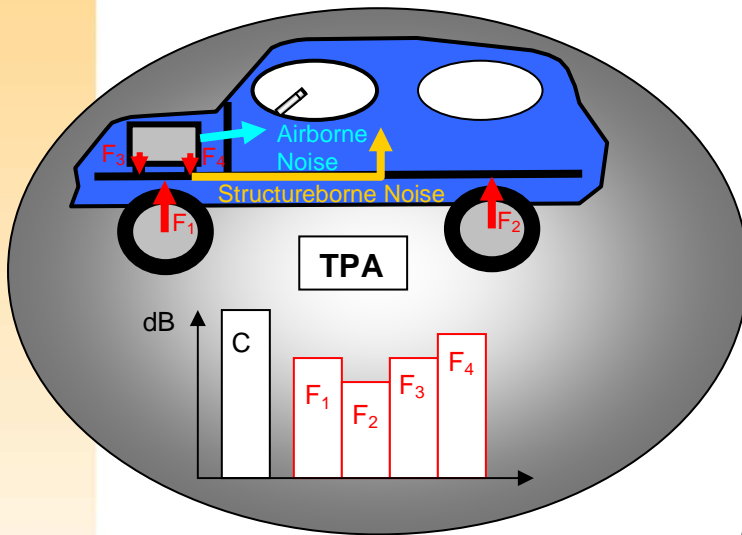


Technical data sheet Nr 115A-a

Purposes :

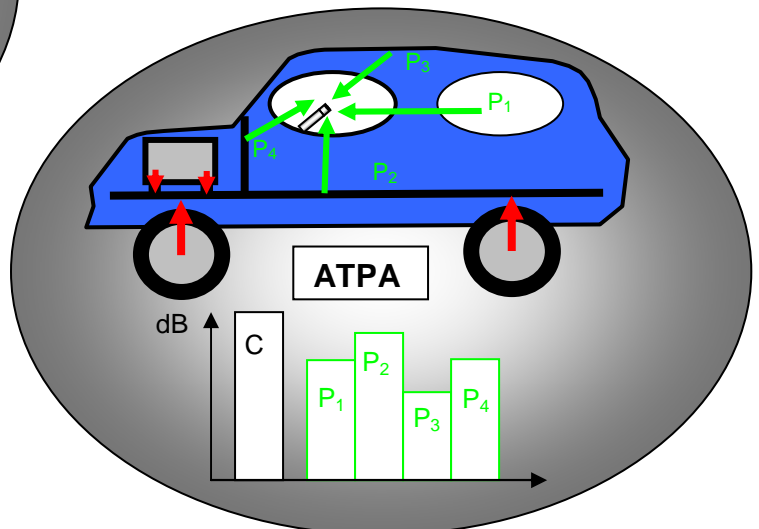
Transmission path analysis (TPA) is a technical analysis to know the contribution of the sources at the acoustic or vibratory receiver point.

Advanced transfer path analysis (ATPA) is a technical analysis to know the panel contribution and for each panel the forces contribution passing through different connection points.

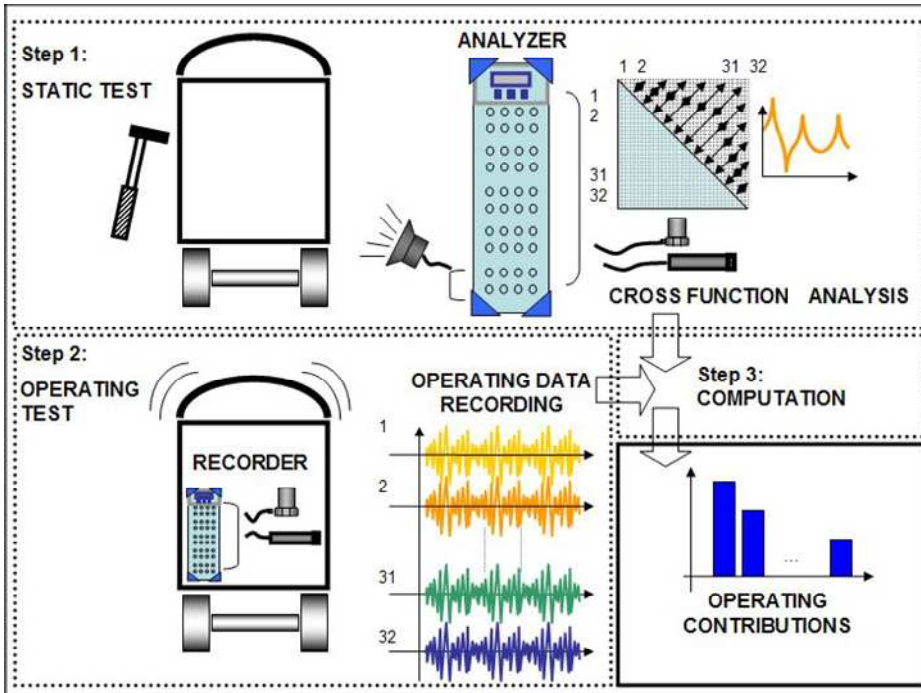


FUNCTIONALITIES :

- Coherent analysis between 0Hz and 500Hz
- Energetic analysis between 500Hz and 5000Hz.
- Initial forces contribution (TPA)
- Transfer path contribution (ATPA)



APPROACH



EXAMPLE NOISE IN A RAILWAY COACH

PURPOSES

1. Find panels contribution on the inside noise in real operating conditions
2. Find connection points contribution of forces (bogie and engine) to interior noise
3. Find the influence of the bogie and engine connection points onto the panel radiations

STEPS

PANELS CONTRIBUTION

- Divide the interior of the coach into a set of subsystems
- Measure the global transfer functions between all the subsystems
- Measure the subsystem signals for the train running under operational conditions
- Subsystems contribution at the reference point

CONNECTION POINTS CONTRIBUTION

- Search for all the connecting points of forces
- Measure the global transfer functions between all the points
- Measure the connection points signal in real operating conditions
- Connection points contribution at the reference point

AIRBORNE AND STRUCTUREBORNE CONTRIBUTION

- Measure the global transfer functions between all the points and the panels
- Influence of the connection points for each panel



APPLICATIONS

- Automotive sector
- Aviation sector
- Railways sector
- Building sector
- Industrial sector

