



USDOT Volpe Center Acoustics Noise Certification Audio Recording and Analysis System Validation Checklist

Recording/Analysis System ID:	
Status Notes:	Volpe Point-of-contact:
Date Initiated:	Telephone:
Date Updated:	Email:
Date Completed:	
Applicant Point-of-contact:	Organization:
Address:	Telephone:
	Email:
Basis for Validation :	
Instrumentation Specifics:	
Manufacturer:	Version ID:
Model Designation:	Other:
Firmware Version:	

Configuration being validated:				
Number of simultaneous channels:	Time-averaging mode:			
Bandwidth (per channel), [Hz (range of nominal center frequencies)]:	Time-averaging period, sec:			
Sample Rate (per channel), Hz:	Averaging time-constant, sec:			
Bit-depth (per channel):	Filter design type:			
Spectrum output interval, ms:	Media type:			
Filter octave frequency ratio:	Data format:			
	Power source:			
Overall Analyzer IEC61260-1 conformance:	Class 2	Class 1	Class 0	N/A
Analyzer conformance specifics:	Pass	Fail		
Relative attenuation (filter response shape)				
Filter Integrated Response (“bandwidth error”)				
Real-time operation				
Summation of output signals				
Output resolution equal to or better than 0.1 dB				
Linear time integration within ± 5 ms of 500ms				
Slow exponential time interval within ± 5 ms of 500ms				
Data loss < 5ms per 500 ms sample				
Response @ center frequencies, 50 Hz – 10 kHz within ± 1.5 dB				

System conformance specifics:	Pass	Fail
Amplitude linearity		
Anti-aliasing		
Analog anti-aliasing filter prior to digitization		
Frequency response		
Quantify level range steps		
Maximum input signal / Overload characteristics		
Full-scale identification		
Noise floor		
Inter-channel crosstalk		
Environmental sensitivity		
Power supply check		
Data validation		
Other (specify):		
Performance summary: Approximate usable dynamic range, dB: Approximate usable frequency bandwidth, Hz:		

Limitations, unique capabilities, etc. :

Comments:

Validation Activity History Log

[illegible]