

**TRAVEL TIME SYSTEM (TRANSMIT)
DEVICE TESTING - LEVEL A**

Project Name: _____ **Test Date:** _____

TTS # _____ **Route:** _____ **MM** _____ . _____ **NB/SB/EB/WB/Median**
Nearest Side Street Name: _____

This procedure outlines Level A device test to be performed on Travel Time System. Perform following tests at controller TTS cabinet to demonstrate that the individual devices at each work site are fully operational.

1: READER ANTENNA

Perform the following tests prior to Reader Antenna Installation and record the results:

1. VSWR: Perform Voltage Standing Wave Ratio (VSWR) test on each antenna and verify that test results are in accordance with manufacturer’s recommended values.
2. IMPEDANCE: Measures the antenna impedance for each antenna and verify that test results are in accordance with manufacturer’s recommended values

Test Results:

Antenna No.	Actual VSWR	Manufacturer Recommended VSWR	VSWR Test Result Pass / Fail	Actual Impedance	Manufacturer Recommended Impedance	Impedance Test Result Pass / Fail
1						
2						
3						
4						
5						
6						
7						
8						

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2: COAXIAL CABLE

Perform the following tests after reader antenna and coaxial cable are connected and record the results:

1. TDR: Perform Time Domain Reflectometry (TDR) test from the cabinet for each coaxial cable interconnection with antenna as per manufacturer’s recommendations and note the results in the table below.
2. Frequency Sweep: Perform frequency sweep for 850 to 950 MHz bandwidth for coaxial cable interconnection with each antenna as per manufacturer’s recommendations and note the results in the table below.

Test Results:

Antenna No.	Verify Successful TDR Test Yes / No	Verify Successful Frequency Sweep Yes / No	Test Result Pass / Fail
1			
2			
3			
4			
5			
6			
7			
8			

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LEVEL A TEST RESULTS:

PASS

FAIL

Correction Work Items:

1. _____
2. _____
3. _____
4. _____
5. _____

We agree that Level A testing of the Travel Time System has been performed and that the information above accurately represent the results of the test.

Contractor Name: _____

Contractor Representative Name: _____

Signature and Date: _____

ITS Inspector Name: _____

Signature and Date: _____

Corrected Work Items:

ITS Inspector Signatures & Date

1. _____
2. _____
3. _____
4. _____
5. _____

