Bellevue Fire Department
Fire Prevention Division
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Distributed Antenna System Confidence Test Report

Certification Given: White ☐ Yellow ☐ Red ☐

System _____ of _____
Descriptive location:
_____

System Test Report – Annual Testing and Maintenance

Distributed Antenna Systems (DAS)		STATUS		
❑ Confidence Test	❑ Deficiency Repair Test	❑ Red	❑ Yellow	❑ White

SECTION 1 BUILDING CONTACT AND DAS INVENTORY INFORMATION

Section 1.1 Building Address and Contact Information

Building Name: _____

Building Address: _____

Building Contact Name:	Building Contact Phone:
Contact Address:	Contact Email:
Central Station Monitoring: ❑ Yes ❑ No	Monitoring Required: ❑ Yes ❑ No
Monitoring Company Name: _____	Monitoring Company Phone: _____

Section 1.2 DAS Inventory

System Make: _____ System Model: _____

Location of System in Building: _____ Applicable Code Year/Building Permit Issue: _____

Rebanding Retune Completed? _____

PSERN Retune Completed (after 2020 Retune Date)? _____

SECTION 2 TESTING COMPANY, TECHNICIAN AND EQUIPMENT

Section 2.1 Testing Company Information for Current Test

Company Name:	Phone:
Contact Name:	Emergency Phone:
Mailing Address:	Email:

Section 2.2 Technician Information for Current Test

Technician Name:	Phone:

Technician FCC Certification/GROL#: _____

Technician performing testing has received manufacturer training or other equivalent: ❑ Yes ❑ No

Specify training received and date: _____ 20___

Section 2.3 Testing Equipment for Current Test

Spectrum analyzer make/model**: _____

Calibration date: _____

Calibration performed by firm (qualified firm name): _____

*** Use of a calibrated spectrum analyzer, with a current calibration, is required for this testing.*

SECTION 3 CURRENT TEST – REQUIRED ELEMENTS AND TEST CHECKLIST

Date of Test: _____

The items on the checklists below shall be inspected and tested. This list does not constitute all of the required inspecting and testing of the fire and life safety system. Refer to the CURRENT FIRE CODE AND REFERENCED NFPA STANDARD and the MANUFACTURER'S INSTRUCTIONS for weekly, monthly, and/or quarterly inspecting and testing requirements.

Section 3.1 Pre-Test Check

Take precautions necessary to avoid preventable alarms.

1. If a monitored fire alarm system is present in the building, the Central Station Monitoring Service was notified that DAS testing is occurring and will be generating supervisory signals. ❑ Yes ❑ No ❑ N/A

Section 3.2 General - Recordkeeping

2. The following documents from the installation/acceptance testing are stored in the same room as the head end electronics and available to technicians and fire personnel:

a. Grid diagram for each floor, showing tested strengths in each grid square. ❑ Yes ❑ No

b. Copies of manufacturer specification sheets for all BDA/DAS systems components, including amplifiers, signal boosters, antennas, coax, couplers, splitters, combiners, and other passive components. ❑ Yes ❑ No

c. Data sheets for backup battery and charging system ❑ Yes ❑ No

d. Certification letter stating that the BDA/DAS system has been installed per code and was complete/fully functional at time of install. ❑ Yes ❑ No

Section 3.3 DAS Specifications/Performance at Commissioning and Current

	At Commissioning	Current Test
Antenna Type		
ERP to Donor Site (dBm)		
Antenna Gain (dBd)		
Antenna Coordinates (NAD83)		

Antenna Azimuth (degrees true)		
Uplink Gain Setting	Gain Setting: _____ db Power:_____ dbm	Gain Setting: _____ Power: _____ dbm
Downlink Gain Setting	Gain Setting: _____ db Power:_____ dbm	Gain Setting: _____ Power: _____ dbm
Signal Level Received at Donor Site (-dBm) *Measure active control channel, w/20 KHz resolution bandwidth, at the jumper that connects to the DAS head-end donor port.*		
Signal Level Received from Donor Site (-dBm)		
Channelized Donor Site Name		
Channelized or Broadband		

Section 3.4 Active Components

3. Signal booster is within a NEMA 4/IP66 Enclosure.	❑ Yes	❑ No
4. Battery is within a NEMA 4/IP66 Enclosure.	❑ Yes	❑ No
5. Battery is supervised by Fire Alarm System.	❑ Yes	❑ No
6. Signal booster is supervised by Fire Alarm System.	❑ Yes	❑ No
7. Equipment is FCC certified. If no, list corrections required: _____ _____ _____	❑ Yes	❑ No
8. Active components checked to verify operation within manufacturers' specifications:		
a. Equipment alarm log checked for recurring or substantial alarms and addressed as per manufacturer's recommendations.	❑ Yes	❑ No
b. Isolation testing performed and measured system isolation is at least 20 db above the total downlink and the total uplink gain (whichever is greater) between least isolated DAS antenna and the donor antenna.	❑ Yes	❑ No
9. Signage at Fire Alarm Panel "This building is equipped with an Emergency Responder Radio Coverage System"	❑ Yes	❑ No
10. DAS is communicating with same donor site as identified at time of commissioning or communicating with approved donor site as documented in writing by Radio System Operator or Authority Having Jurisdiction.	❑ Yes	❑ No
11. DAS signal strength received from donor site at the input to the BDA meets original installation values plus or minus 2 db.	❑ Yes	❑ No
12. Uplink amplifier gain matches gain at commissioning plus or minus 2 db.	❑ Yes	❑ No
13. Downlink amplifier gain matches gain values recorded at commissioning plus or minus 2 db.	❑ Yes	❑ No
14. Antenna azimuth (bearing) matches commissioning matches commissioning azimuth plus or minus 5 degrees.	❑ Yes	❑ No

Section 3.5 Distribution System			
15. Perform grid test: Signal strength remains stronger than (less negative than) -95 dBm for 95% of grids on each floor: If no, location(s) of failed grids: _____ _____	❑ Yes	❑ No	
Section 3.6 Batteries/Secondary Power			
16. Backup batteries and secondary power supply tested under load for one hour and meet requirements.	❑ Yes	❑ No	
Section 3.7 Alarm Panel Monitoring			
17. If a fire alarm system is present in the building, the fire alarm system is supervising the DAS.	❑ Yes	❑ No	❑ N/A
18. If a fire alarm system is present in the building, a supervisory signal was received at Central Station Monitoring company.	❑ Yes	❑ No	❑ N/A
Section 3.8 Final Checks			
19. If building includes a fire alarm system, inform alarm monitoring company that testing is complete.	❑ Yes	❑ No	

SECTION 4 SIGNATURES AND REPORTING			
20. A copy of this test report will be given to the owner in either electronic or paper form and a status tag was posted on the DAS.	❑ Yes	❑ No	
21. A copy of this test report will be provided to the Fire Department as required, by uploading report into The Compliance Engine, within seven days of the date of the test. www.thecomplianceengine.com	❑ Yes	❑ No	
By accepting this statement, I, the certified technician shown on this form, certify that this fire protection system(s) has been properly inspected for functional operation in accordance with the current Fire Code (FC) used by the department that has jurisdiction and NFPA Standards adopted by the FC for this system. Any deficiencies found are noted in the report and have been reported to the building Owner/Manager for corrective action.	❑ Yes	❑ No	
I am authorized to submit this report for the certified technician who has accepted this statement.	❑ Yes	❑ No	

SIGNATURES (OPTIONAL)	
Signature of Technician	
Signature of Building Representative	