



THE CITY OF KEY WEST

Post Office Box 1409 Key West, FL 33041-1409 (305) 809-3700

KEY WEST FIRE DEPARTMENT OFFICE OF THE FIRE MARSHAL

Bi-Directional Amplifier “BDA” Distributed Antenna Systems “DAS” Plans Submission and Installation Requirements

Fire Plans submission for “BDA” systems shall comply with the current edition of the Florida Fire Prevention Code, to include, but not limited to:

- NFPA 70 National Electrical Code
- NFPA 72: National Fire Alarm and Signaling Code
- NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems
- NFPA 1225: Standard for Emergency Services Communications.
- Florida Building Code
- Florida Statutes 633.202

Required Plans and Documentation with Application:

- Approval from Monroe County Emergency Communications Division (FCC License Holder) to test proper channels/frequencies. Contact # 305-289.6035
- 20-point grid testing results, including critical areas tested. (Pass/Fail)
- Technician name, FCC#, and/or GROL#.
- Calibration certificate of testing equipment.
- Manufacturer Specifications.

Disciplines required for site testing include, but may not be limited to, the following:

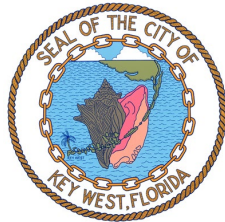
- a) BDA/DAS Installer
- b) Fire Alarm Company
- c) Monroe County Sheriff's Office Radio Communications Officer. (305-292-6035)
- d) Electrical Subcontractor
- e) Building Department Inspector/Electrical Inspector
- f) Fire Marshal's Office Inspector

***Note: If the on-site testing is not properly coordinated with the above disciplines, then the testing may have to be repeated.*

Two-Way Radio Communication Enhancement Systems:

- In all new and existing buildings and structures, a minimum radio signal strength of – 95 dBm in the frequency bands provided for testing by the FCC License Holder. Where this signal strength cannot be achieved, an 800 MHz bi-directional amplified system, with a 12-hour run time on battery or UPS, shall be installed.
- The R/F scan for design purposes signal strength shall be considered reflective between the downlink and uplink channel, with no loss between these readings.
- All R/F scans that pass shall still be submitted to KWFD Plan Review, accompanied by a letter (Signed & sealed) from an engineer.
- A BDA annunciator is required within 25 feet of the entry door from outside, without any intervening doors, for monitoring the system.

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- All circuits and wiring to include antennas, shall be required to meet survivability requirements (except for a donor antenna due to high wind conditions occurring during a Hurricane).
- An RF scan is required every 5 years after initial installation to ensure system integrity.
- A service contract is required on all new and existing systems.
- A sequence of operations shall be maintained at the BDA control panel for actions to be taken upon notification of any trouble conditions.
- Systems with the capability to monitor indoor antenna circuits shall send a trouble signal to the FACP when conditions warrant.
- All relevant documentation for the BDA/DAS system, including the acceptance and annual maintenance test reports, must be kept on the building premises and be made available to the Fire Marshal's Office during the annual Fire and Life Safety inspection for the building or upon request.

Important Notes:

- *Per the FCC License holder (Monroe County Sheriff's Office – Communications Division). The 20-point grid test must be conducted on the applicable Key West tower and Stock Island tower to be accepted as a completed test.*
- *Currently, in the City of Key West, the AHJ is only allowing **Class A BDA** systems.*

Any questions or concerns should be directed to Lt. Michael Anderson of the Key West Fire Department – Fire Marshal's Office at 305-809-3935.

**Key West Fire Marshal
Chief Jason Barroso
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Key West, FL 33040
305.809.3931**

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