



**MARCONI**  
TECHNOLOGIES

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# Submittal

# VC-121N

The **VC-121N** Radio Amplification Unit (**RAU**) is a NEMA 4 rated cabinet that houses the key components of the ARC System. This includes a radio repeater, combiner/duplexer, power supply, sealed lead acid batteries, and data acquisition and monitoring unit. This system requires a 110V 20A direct line with a dedicated service switch and connects directly to the DRC (Dedicated Radio Console **CMD-V1**) with (2) CAT 5 cables, one for data/power and one for voice.

## KEY FEATURES

- NEMA 4 enclosure, non ferrous with red powder coat, front door with a 3 point locking system, locks via FDNY padlocks.
- NEMA 4 mechanical venting.
- TAIT TB9400 dual channel repeater with P25 capability, dual mode operation, smart AC/DC operation, from 5 to 25 watt transmit power.
- Cavity combiner/band pass duplexer, 100W output.
- 120V to 24V 20A UL Listed power supply with UPS unit, NFPA 72 test function, fully compliant to NFPA 1221 alarm requirements, battery polarity protection, and fully NFPA 1221 alarms compliant.
- Power distribution unit with surge protection and a 15A resettable circuit breaker and 1800 joule surge suppressor, active monitoring for ground, surge, and power.
- Data acquisition unit which constantly monitors all system parameters, internet capable for remote monitoring, building management capable for integration into an existing system.
- Antenna and cable monitor accurately monitors antenna and cable system VSWR levels, measures small changes in antenna VSWR with high feeder and interface losses. (up to a 10Db cable loss)
- System initiates a self test once every 24 hours.
- (2) x 75Ah 12V sealed lead acid batteries for 24 hours reserve power, 6 hours full use power backup.
- 6 dry contact outputs, for inter-connection to any fire alarm panel (supervisory signals).
- Touch screen built-in to RAU cabinet for local monitoring of alarm conditions, in addition to the remote DRC.
- NYC Fire Department key switches to activate channel 11 and channel 12 in the RAU, for ease of maintenance, and for redundancy to the DRC.
- **All components are UL Listed.**





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## SPECIFICATIONS

### (RAU) RADIO AMPLIFICATION UNIT - MODEL: VC-121N AUXILLARY RADIO COMMUNICATION SYSTEM

VOLTS AC	115V	5.4A
VOLTS DC	24V	2.0A
INSERTION LOSS TX	4 dB	
INSERTION LOSS RX	5 dB	
FREQUENCIES TX	Channel 11 - 483.0125 MHz	Channel 12 - 484.7625 MHz
FREQUENCIES RX	Channel 11 - 483.0125 MHz	Channel 12 - 484.7625 MHz
AMBIENT CONDITIONS	35° F - 125° F	RH < 90%, non condensing



## DIMENSIONS

