

CY-F121S CY-F221S

Icom America Systems



POWERFUL AND VALUE RICH

- **Compact size**
- **50 Watts (45 UHF)**
- **Affordable price**

A version to match your needs

The CY-F121S/CY-F221S is available in 3 versions:

Version 1 - Repeater and duplexer

Version 2 - Repeater and power supply (15A or 18A)

Version 3 - Repeater, duplexer and power supply (15A or 18A)

AC/DC supply available

Power failure? Not a problem. The CY-F121S/CY-F221S can be configured to auto switch from AC to DC.

Up to 8 channels

The CY-F121S/CY-F221S is the perfect choice for schools, warehouses, or anywhere when a simple yet powerful repeater is needed.

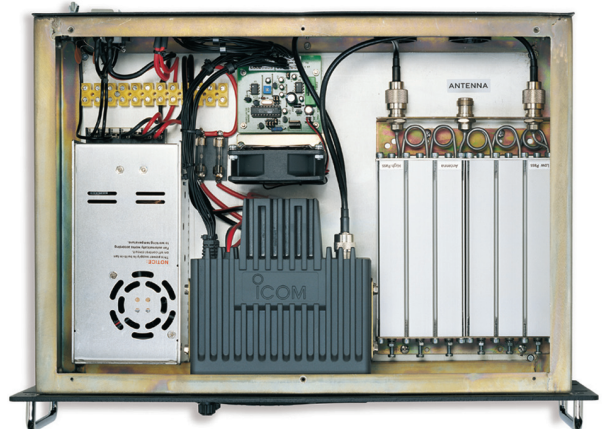
Built-in power supply

With 50/45 Watts of power VHF/UHF, the CY-F121S/CY-F221S is strong enough to carry your signal many miles¹. A built-in cooling fan and plenty of air flow room helps keep things running cool. A low power version is available for in-plant or on campus applications.

¹ As with all radio equipment, distance covered varies depending on terrain, atmospheric conditions, receiving equipment and antenna used.

Compact size

Set the CY-F121S/CY-F221S on a desktop, or mount it in a rack. It's 19" wide (48.25 cm) front panel is three rack units high.



Clean and simple internal layout is easy to access and maintain. Repeater, duplexer and power supply, all in one box.



Plenty of ventilation holes for proper cooling. Pressing PTT automatically activates a quiet fan. The fan stays on for 2 minutes after the switch is released.

ADDITIONAL FEATURES

Built in simple controller which controls:

- Transmit and receive audio path
- PTT Control of transmitter
- Transmitter hang ON time delay from 0 to 7.5 seconds
- Cooling fan ON/OFF control with 2 minutes time delay

Other features

- Busy lockout and repeater lockout
- Power on password
- 100% duty cycle @ 20W, 50% duty cycle @ 50/45 W
- Accessory connector (ACC) connects to remote controllers

SPECIFICATIONS

GENERAL

- Frequency coverage: IC-F121S 136-174MHz
IC-F221S 400-430MHz
440-490MHz
- Number of channels: Max. 8 channels
(4 channels x 2 banks)
- Channel spacing: 12.5/25kHz (narrow/wide)
- Antenna connector: SO-293 (50Ω)
- Power supply voltage: 13.2V DC nominal [25W]
(Negative ground) 13.6V DC nominal [50W]
- Current drain (approx.): TX [25W] 7.0A
[45W] [50W] 13.0A
Max audio 1.2A
Standby 0.3A
- Operating temp. range: -30°C to +60°C;
(-22°F to +140°F)
- Dimensions (Projections not included):
[25W] 480(W) x 133(H) x 364(D)mm;
18.90"(W) x 5.24"(H) x 14.33"(D)
[45W][50W] 480(W) x 133(H) x 364(D)mm;
18.90"(W) x 5.24"(H) x 14.33"(D)
- Weight: 8.6 kg; 18 lb. [25W]
8.6 kg; 18 lb. [45W][50W]

TRANSMITTER

- RF Output power: 25W/10W/2.5W [25W]
(High/Low2/Low1) 50W/25W/4.5W [45W]
50W/25W/5W [50W]
- Modulation system: Variable reactance frequency modulation
- Max. freq. deviation: ±2.5/5.0kHz (narrow/wide)
- Frequency error: IC-F121S ±5.0 ppm
IC-F221S ±2.5 ppm
- Spurious emission: 70dB typical
- Adjacent channel power: 60/70dB (narrow/wide)
- Audio freq. response: +2 dB to -8 dB of 6 dB/octave range from: 300Hz to 2550/3000Hz (narrow/wide)
- Audio harmonic dist.: 3% typ. at 1kHz, 40% deviation
- FM hum and noise: 40 dB (narrow)
(typ., with CCIT filter) 46 dB (wide)
- Limiting character of modulation: 70-100% of max deviation
- Microphone connector: 8-pin modular (600Ω)

RECEIVER

- Receive system: Double-conversion superheterodyne system
- Intermediate freq.: 1st: 46.35MHz, 2nd: 450kHz
- Sensitivity: 0.25μV at 12dB SINAD
- Squelch sensitivity: 0.25μV
- Adjacent channel selectivity (typical): 65/75dB (narrow/wide)
- Spurious response: 75dB
- Intermodulation (typ.): 74dB
- Hum and Noise (typ.): 40/45dB (narrow/wide)
- Audio output power: 4W typ. at 10% distortion with a 4Ω load
- Ext. SP connector: 2-conductor 3.5 (d) mm (1/8")/4Ω

All specifications subject to change without notice or obligation.

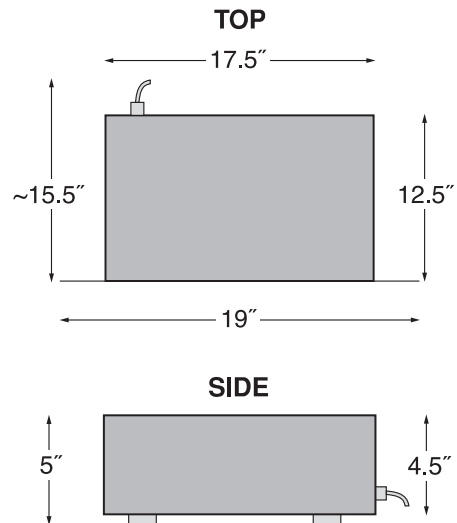
OPTIONS



• **HM-100TN** DTMF MICROPHONE



• **SM-25** DESKTOP MICROPHONE
Convenient for dispatching, equipped with monitor switch.



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