Icom America Systems

VHF AND UHF REPEATERS

CY-F121SP (VHF, with power supply)
CY-F121SDP (VHF, with duplexer & power supply)
CY-F221SP (UHF, with power supply)
CY-F221SDP (UHF, with duplexer & power supply)

POWERFUL AND VALUE RICH

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

Features

- Built-in power supply: 13.8 VDC in or 110 VAC in or 220 VAC in
- Built-in battery back up and battery charging capabilities
- Built-in heavy duty A/C EMI filtering
- Built-in duplexer (optional)
- Built-in RF pre-selector (optional)
- 3 RU tall, built-in rack handles
- 19" Standard rack or cabinet mounting
- Built-in, automatic, heavy duty cooling fan (CPU controlled)
- Powder-coated steel chassis
- Built-in repeater controller
- Utilizes N style bulkhead connectors
- Built-in grounding stud
- Designed for max air cross-flow: 120 CFM for excellent ventilation
- Each unit is thoroughly tuned-tested and staged prior to shipment
- DB-25 rear connector for interfacing external equipment
- DC terminal strip for easy BBU connection

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

A large, continuously-running fan on the rear panel keeps the unit running cool. All connections are clear and well-marked.

CY–REPEATER SERIES

ADDITIONAL FEATURES

Built-in controller with controls:

- Transmit and receive audio path - level adjust
- PTT control of transmitter
- Transmitter hang ON time delay from 0 to 7.5 seconds
- Cooling fan runs continuously to keep the unit running cool

Other features

- Power on password
- Accessory connector (ACC) connects to remote controllers
- A/C power cord included

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.

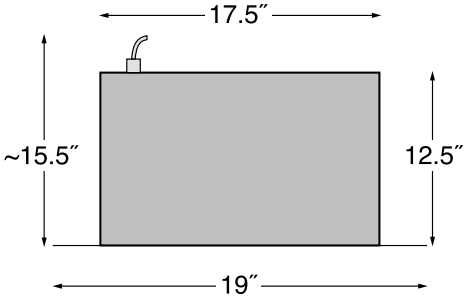
OPTIONS

Built-in duplexer (left)
Built-in RF pre-selector (right)

HM-100TN
DTMF Microphone

SM-25
Desktop Microphone
Convenient for dispatching, equipped with monitor switch

TOP



SIDE

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