

# Repeaters

**ICOM**



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**PORTABLE COMMUNICATIONS, INC**  
"A Trusted Partner"

# X-BAND REPEATER

Cross Band VHF & UHF

## SPECS

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Frequencies:	136-174, 400-470MHz or AV frequencies
Output Power:	50W (VHF), 45W (UHF)
Channels:	128 channels, 8 zones
Channel Spacing:	12.5kHz
PLL Channel Spacing:	2.5, 3.125kHz
Display:	LCD with 8 character alphanumeric



## FEATURES

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- Full UHF & VHF analog interoperability
- Configured to auto switch from AC to DC
- Local controlled operation, can be used as a dual base unit
- Programmable actions when a matched tone is received:
  - Bell icon indication ON / OFF / Blink
  - Answer back calls
  - Beep sounds
  - Scan Start / Stop
  - Auto transmission
  - Stun / Kill functions (prevents use of a lost or stolen)
- 10 scanning lists and Normal / Priority scan
- Power ON password

## SIGNALING

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- CTCSS/DTCS decode
- 2/5 Tone
- MDC1200

## WARRANTY

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- Radios: 2 years
- Parts: 1 year

# CY5000 – CY6000 Repeaters

All In One IDAS™ Digital & Analog Repeater

## SPECS

Frequencies:	136-174, 400-470, 450-512MHz
Output Power:	50W at 50% duty cycle 25W at 100% duty cycle
Channels:	32
Channel Spacing:	6.25 (digital) / 12.5kHz
Height:	3 RU
Versions:	Repeater only Repeater With Duplexer Repeater With Pre-Selector Repeater With Duplexer & Pre-Selector



## SPECS & FEATURES

Built-in power supply: 13.8V in or 110V AC in or 220V AC in  
Built-in battery backup & charging capable  
Built-in heavy duty A/C EMI filtering  
3 RU tall - built-in rack handles  
19" standard rack or cabinet mounting  
Powder-coated steel chassis N style bulkhead connectors built-in grounding stud  
Max air cross flow: 80 CFM for excellent ventilation  
DB-25 rear connector interface for external equipment  
DC terminal strip for easy BBU connection  
3 ethernet connections for IP / remote management / trunking  
Digital Features:

- IDAS Trunking-single or multisite (UC-FR5000 & CFFR5000)
- Receives analog and digital signals on a single channel
- NXDN® Digital Air Interface
- Strongest site search
- Firmware upgrade over IP
- Configuration over IP

## SIGNALING

Digital RAN Code decode  
5-tone & DTMF Encode/Decode (analog)  
CTCSS

## ENCRYPTION

Simple Inversion: UT-109R 32 Codes  
Rolling Code: UT-110R 1020 Codes  
IDAS digital mode, 15-bit encryption key provides over 32K codes

## WARRANTY

1-Year

# FR5000 - FR6000 Series

IDAS Digital & Analog Repeater

## SPECS

Frequencies:	136-174, 400-470, 450-512MHz
Output Power:	50W at 50% duty cycle 25W at 100% duty cycle
Channels:	32
Channel Spacing:	6.25 (digital) / 12.5kHz
LCD Display:	16-digit dot matrix
Programmable buttons:	5
Mil Spec:	810 C, D, E, F
Scan:	Normal & priority
Size:	19-inch rack mount, 2U height
Weight:	12.3 lb (approx)
Versions:	FR repeater UR repeater module FR/UR kit (FR + UR) Two channel kits



## FEATURES

### General Features

- CW ID included
- Automatic battery backup
- DB-25 accessory connector
- Built-In community tone panel
- Internal space for duplexer & pre-selector
- Master/Slave backup operation
- Password Kill/Stun security function
- Temperature alert
- Fits 2 RF modules in 2 unit
- PTT priority setting
- Low voltage alert (analog)

### Digital Features:

- IDAS Trunking-single or multisite (UC-FR5000 & CFFR5000)
- Receives analog and digital signals on a single channel
- NXDN® Digital Air Interface
- Strongest site search
- Firmware upgrade over IP
- Configuration over IP

## SIGNALING

Digital RAN Code decode  
5-tone & DTMF Encode/Decode (analog)  
CTCSS, DTCS tone

## ENCRYPTION

Simple Inversion: UT-109R 32 Codes (analog)  
Rolling Code: UT-110R 1020 Codes (analog)  
IDAS digital mode, 15-bit encryption key provides over 32K codes

## WARRANTY

2-Year

MULTITRUNK

**IDAS**<sup>™</sup>  
ICOM DIGITAL ADVANCED SYSTEM

# FR5200H - FR6200H Series

IDAS Digital & Analog 50W 100% Duty Cycle Repeater

## SPECS

Frequencies:	136-174, 400-470, 450-512MHz
Output Power:	50W at 100% duty cycle
Channels:	32
Channel Spacing:	6.25 (digital) / 12.5kHz
LCD Display:	12-digit dot matrix
Programmable buttons:	5
Mil Spec:	810 C, D, E, F, G
Scan:	Normal & priority
Size:	19-inch rack mount, 2U height
Weight:	22 lb (approx)



## FEATURES

### General Features

- IDAS, analog FM and mixed mode
- CW ID included
- D-SUB 25-pin accessory connector
- Built-in inversion voice scrambler (Analog mode)
- Built-in audio compander (Analog mode)
- PTT priority setting (Local Mic., external PTT or repeater operation)
- Convenient key assign stickers supplied
- Beat cancel capability
- Low voltage alert (Analog mode)

### Digital Features:

- IDAS Trunking-single or multisite (UC-FR5000 & CFFR5000)
- Receives analog and digital signals on a single channel
- NXDN® Digital Air Interface
- Strongest site search
- Firmware upgrade over IP
- Configuration over IP
- ±0.5ppm high frequency stability

## SIGNALING

Digital RAN Code decode  
5-tone & DTMF Encode/Decode (analog)  
CTCSS, DTCS tone

## ENCRYPTION

IDAS digital mode, 15-bit encryption key  
provides over  
32K codes

## WARRANTY

2-Year

# IAS 120D – 150D Series

High-Power Digital & Analog Repeater

## SPECS

Frequencies:	136-174, 400-470, 450-512MHz
Output Power:	100/120/150W at 100% duty cycle
Channels:	32
Channel Spacing:	6.25 (digital) / 12.5kHz
LCD Display:	16-digit dot matrix Display
Programmable buttons:	5
Scan:	Normal & priority



## FEATURES

- SNMP capable
- Two amps can be mounted side by side—eliminating an additional rack space concerns and also marry up nicely with the dual FR5000 configuration
- Full remote control and monitoring of over 16 sensors and alarms via SNMP v2C
- 5 individual internal heat sensors
- 4 GPIO for customized usage
- 70 Amp power supply with smart charging external battery technology – modular design load capacity and expandable to 140 amp load capacity
- 15 Amp A/C surge suppression panel with 1750 joules A/C surge suppression – SASD technology
- E2-IP.PA is a 2 RU unit, with an input of 1-3 Watts and an output of 2 - 120 Watts (UHF) or 2 - 150 Watts (VHF) output.
- Operates on DC voltage

## SIGNALING

Digital RAN Code decode  
5-tone & DTMF Encode/Decode (analog)  
CTCSS

## ENCRYPTION

Simple Inversion: UT-109R 32 Codes (analog)  
Rolling Code: UT-110R 1020 Codes (analog)  
IDAS digital mode, 15-bit encryption key  
provides over 32K codes

## WARRANTY

2-Year

*Third party components noted are subject to change or substitution.*

# FR9010 – FR9020 Series

110W Full Duty Cycle P25 Digital Repeater

## SPECS

Frequencies:	146-174, 440-475MHz
Output Power:	110W VHF 100W UHF
Channels:	500 channels
Channel Spacing:	12.5kHz
Display:	5 color LEDs
Mil Spec:	810 G
Size:	18.98x3.46x16.26 in
Weight:	11.0 kg; 24.3 lb (approx)



## FEATURES

P25 conventional, analog FM and mixed mode

500 memory channels capacity

P25 conventional base mode:

- Emergency
- Call alert
- Radio check
- Radio inhibit (Stun)
- Radio uninhibit (Revive)
- Status update
- Status request
- SBC log (Call log)
- OTAR (Over-the-Air-Rekeying)
- Individual, group and all calls

D-SUB 25-pin accessory connector

Programmable CTCSS, DTCS and NAC

CW ID transmission

High reliability, rugged construction

±1.5ppm frequency stability (Digital mode)

Low standby current (280mA)

P25 self-test mode and key test mode

Automatic error detection

5 color LEDs

2U low profile for rack mount

## Comes With

DC power cable connector

2-Year warranty

