



# **An Overview of 220 MHz Amateur Radio Equipment and Developments in the U.S. Market**

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Staff 60**



# An Overview of 220 MHz Amateur Radio Equipment and Developments in the U.S. Market

1. Why so few choices in equipment until lately
2. History of the 222-225 MHz band...and a new threat
3. Recent developments in 222-225 MHz mobile radios
4. Recent developments in 222-225 MHz handheld radios



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222-225 MHz amateur band historically under-utilized in the U.S. due to lack of equipment choices



## U.S. 222-225 MHz amateur band until recently had few radio choices because no world-wide market

- 222-225 MHz amateur band only in Western Hemisphere
- Used for television broadcasting elsewhere
  - Ireland, Channel J
    - Video: 223.25 MHz
  - Western Europe; most of Africa and Asia; Australia, New Zealand:
    - Channel 11 audio: 222.75 MHz
    - Channel 12 video: 224.25 MHz
  - Eastern Europe:
    - Channel 12 video: 223.75 MHz

**222-225 MHz amateur band under-utilized in the U.S. due to lack of equipment choices...but that is changing**



**Many new 222-225 MHz radios recently... more expected**

- Most new radios coming from China; several from U.S. maker
- Prices very reasonable...but quality varies
- Plenty of reasons to get on the 222-225 MHz band

**LACDCS has 224.300 MHz repeater on Mt. Disappointment—  
let's use it**



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# Ham radio lost its 220-222 MHz segment in 1988 due to ill-fated United Parcel Service radio system



## Some history about the 222-225 MHz ham band

- 1938: Ham radio given 220-225 MHz
- 1970's: Little commercial equipment to modify for use in 220-225 MHz; band largely quiet
- 1973-1977: FCC considered and rejected 224 MHz for another "Citizens Band"
- 1988: United Parcel Service lobbied & got 220-222 MHz for proposed fleet and package tracking system
  - Narrow-banded SSB voice and data network envisioned
  - But UPS turned to cellular providers for wireless tracking
  - UPS abandoned 220-222 MHz, FCC auctioned it to others

**Amateurs need to use our 222-225 MHz band more, can't let spectrum sit idle**



## **Some more history about the 222-225 MHz ham band**

- **1990: Amateur radio decided to prevent another spectrum give-back; major makers started selling 1.25-meter radios**
- **Early 2000's: Major brands (ex-Alinco) stopped selling 222-225 MHz radios**
- **2012-2015: Lesser makers launched low-cost 222-225 MHz radios, often using non-traditional retail distribution**
- **2014-2015: A new threat emerging from below in 220-222 MHz**



# A railroad signaling technology called “Positive Train Control” now the biggest threat to 222-225 Mhz ham band



## After some fatal train accidents, 10 frequencies across 220-222 MHz assigned for Positive Train Control

- 2008: Chatsworth MetroLink crash with freight train started PTC
- PTC systems use three components with 220 MHz radios
  - Locomotive speed control and display
  - Bi-directional transmission of track, train speed conditions
  - On-board navigation system with database of track speed limits, other considerations for braking
  - Goals: immediately warn train engineer, automatically activate brakes in 15 seconds
- Ten existing frequencies not enough in major urban areas

# A railroad signaling technology called “Positive Train Control” now the biggest threat to 222-225 Mhz ham band



## Currently you will find Positive Train Control here:

Frequency	Type	Tone	Alpha Tag	Description	Mode	Tag
220.12750	BM		PTC-1	Positive Train Control 1	FMN	Data
220.13250	BM		PTC-2	Positive Train Control 2	FMN	Data
220.13750	BM		PTC-3	Positive Train Control 3	FMN	Data
220.14250	BM		PTC-4	Positive Train Control 4	FMN	Data
220.14750	BM		PTC-5	Positive Train Control 5	FMN	Data
220.75250	BM		PTC-6	Positive Train Control 6	FMN	Data
220.76750	BM		PTC-7	Positive Train Control 7	FMN	Data
220.77250	BM		PTC-8	Positive Train Control 8	FMN	Data
221.75750	M		PTC-9	Positive Train Control 9	FM	Data
221.76750	M		PTC-10	Positive Train Control 10	FM	Data



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During 2001-2010 Alinco DR-235T was about the only 220 mobile transceiver sold; DCS has these in most stations



- Familiar radio in most LACDCS rooms
- Ventura Co. disaster groups heavily use this radio
- Easy to manually program
- Head not detachable
- 25 watts, 100 channels
- But...issues with IF filter failure, final PA easy to blow out



**General**

Frequency range	TX: 222.000 - 224.995 MHz RX: 216.000 - 279.995MHz
Operating mode	16K0F3E (FM)/8K50F3E (Narrow-FM)
Frequency resolution	5, 8.33, 10, 12.5, 15, 20, 25, 30, 50 KHz
Memory channel	100 channels + 1 call channel
Ant. impedance	50 ohm unbalanced
Frequency stability	+/- 2.5 ppm
Microphone impedance	2K ohm
Rated voltage	13.8 VDC +/- 15% (11.7-15.8V)
Current	Transmit: approx. 8.0A Receive: approx. 600mA (Max) 400mA (Squelched)
Operating temperature	-10Dig.C to +60Dig.C (+14Dig.F to +140Dig.F)
Ground	Negative ground
Dimensions	142(W) x 40(H) x 174(D) mm 5.58"(W) x 1.57"(H) x 6.83"(D)
Weight	Approx. 1.0Kg (35.3oz)

**Transmitter**

Power output	25W (HI) 10W (MID) Approx. 5W (LOW)
Modulation	variable reactance
Spurious emission	-60 dB or less
Maximum frequency deviation	+/- 5 KHz / +/- 2.5 KHz (Narrow mode)

**Receiver**

Circuitry	Double-conversion superheterodyne
Sensitivity	-12.0 dBu (0.25uV) or less (12dB SINAD)
Intermediate frequency	1st IF 30.85MHz, 2nd IF 455 KHz
Squelch sensitivity	-16.0 dBu (0.1 uV)
Selectivity (-6 dB)	12 KHz or more 6 KHz or more (Narrow mode)
Selectivity (-60 dB)	28 KHz or less 14 KHz or less (Narrow mode)
Audio output	2.0 W (8 ohm, 10% distortion)



59 eham.net reviews =  
4.7 rating

# The Jetstream JT-222M appeared to offer an alternative, but problems reported

## Jetstream JT-222M



Price: \$199.95

Product ID : JETJT222M  
 Manufacturer: Jetstream

Milwaukee: In stock  
 Orlando: In stock  
 Cleveland: In stock  
 Las Vegas: Out of Stock

☆☆☆☆☆ [0 review\(s\)](#)

### Item Description

220MHz FM Mobile

### Detailed Description

- 220MHZ FM Mobile
- 50 Watts of output power
- 200 Memory channels
- Large LCD Display
- CTCSS/DCS
- 222-224.995 Mhz frequency range
- Backlit DTMF Microphone
- Memory Scan and Band Scan
- Time Out Timer
- Auto Power Off
- Alphanumeric Display
- Tone Burst
- Computer Programmable

28 eham.net reviews =  
 3.6 rating

50 watts, 200  
 memories, but...  
 Complaints about  
 units dying early;  
 poorly-written manual;  
 poor software



# TYT (Hytera) then decided to enter the 220- MHz sector through Amazon.com...and transmit up to 260 MHz



Department ▾ Your Amazon.com Today's Deals Gift Cards Sell Help

Electronics Deals Best Sellers TV & Video Audio & Home Theater Computers Camera & Photo Wearable Technology Car Electronics & GPS Portable Audio & Video CB & Two-Way Radios CB Radios & Scanners

## TYT TH-9000D 55 Watt 222Mhz Transceiver Amateur 200ch 220 Mhz

by TYT

★★★★★ ▾ 79 customer reviews | 23 answered questions

List Price: \$249.99

Price: **\$148.27** & **FREE Shipping**. [Details](#)

You Save: **\$101.72 (41%)**

**Only 2 left in stock.**

Sold by [TNP Direct](#) and [Fulfilled by Amazon](#). Gift-wrap available.

**Want it Monday, Oct. 19?** Order within **13 hrs 38 mins** and choose **One-Day Shipping**

[Details](#)

- Frequency Range: VHF:136-174MHz
- Output Power: VHF: 10W/25W/60W
- CTCSS/DCS setting & scanning, Frequency/Channel scanning
- 8 group's of scrambler, 200 Channel Capacity
- High/Mid/Low power selectable





■ Frequency Range: VHF:136-174MHz 245-245.9875MHz (220-260MHz)	UHF: 400-480MHz
■ Output Power: VHF: 10W/25W/60W	UHF: 45W/25W/10W
■ 8 group's of scrambler	
■ 1750Hz Tone	■ CTCSS/DCS setting & scanning
■ 0-9 SQL grade setting	■ Frequency/Channel scanning
■ High/Mid/Low power selectable	■ Voice compander
■ Repeater offset shift	■ Keypad lock function
■ Contact book	■ Battery voltage display
■ DTMF/2 tone/5 tone	■ ANI ID
■ Remote kill/ stun/ activate/ revive	■ Emergency alarm
■ Wide/Narrow band setting	■ TX inhibit
■ Busy Channel Lock-Out	■ Channel name editing
■ Reverse frequency	■ Talk around
■ Scrambler(Optional)	■ Voice prompt
■ Time-out Timer	■ Auto Power off
■ VFO step setting:5/6.25/10/12.5/20/25/50kHz	

- 1.200 memory channels
- 2.FM radio
- 3.CTCSS/DCS
- 4.DTMF/2 Tone coder

**27 eham.net reviews = 4.2 rating**

**55 watts, 200 channels**





# Recently some dual-band mobile radios with 222-225 MHz (and more) started appearing with detachable heads



<http://www.buytwowayradios.com/products/wouxun/kg-uv920p-a.aspx>

15 eham.net reviews =  
3.2 rating

Can do 2m/220 cross-band;

or connect two units to  
create a 220 repeater;

Includes 88-108 FM  
broadcast band

A screenshot of a product page for the Wouxun KG-UV920P-A Dual Band Base/Mobile Two Way Radio. The page features a large image of the radio with its detachable head. The product is listed as an "AUTHORIZED WOUXUN DEALER" with the Wouxun logo. The price is \$259.99. The product description includes "DUAL BAND!! DUAL SPEAKER!! DUAL OUTPUT!! CROSS-BAND REPEATER!!". The frequency range is set to 136-174/216-280MHz, the power supply is set to None, and the programming cable is also set to None. There are "Add to Cart" and "Compare" buttons. The product is in stock and ships fast. It has a 4.5-star rating from 14 reviews. There are also "Read 14 Reviews" and "Write a Review" links.

New tri-band dual-receive radio with 220 capability  
...about to appear in U.S. with 758 memory channels



\*simulated LCD view  
left side 144 or 220 MHz  
right side 144 or 440 MHz

**AnyTone AT-5888UV III**  
(with removable face)

[http://www.wouxun.us/item.php?item\\_id=343](http://www.wouxun.us/item.php?item_id=343)

# TX ranges go well outside ham bands—be careful



## Frequency Range:

Left Side RX/TX	136-174 MHz, 200-260 MHz, 400-490 MHz
Left Side RX Only	AM: 108-134 MHz (Airband)
Right Side RX/TX	136-174 MHz, 400-490 MHz
Right Side RX Only	AM: 108-134 MHz (Airband)

## Functions:

Working Mode	Full Duplex - UU, UV, VV Repeater Mode* - UV, VU
Dual Receive	Side A & Side B
Output Power	50 Watts VHF, 40 Watts UHF 25 Watts 220 Low Power Steps, 5/10/20w (5/10/15w on 220MHz)
Other Functions	Memory Groups 758 Memory Channels CTCSS / DCS / DTMF 2-Tone / 5-Tone encode and decode Bandwidth: Narrow & Wide Scrambler Compander Channel Steps: 2.5/5/6.25/10/12.5/15/20/25/50 ANI Function: DTMF/ANI, 5-Tone/ANI DTMF Microphone *Cross-band Repeat Mode: 144 <-----> 220 No 220 <-----> 440 Yes 144 <-----> 440 Yes



**Certification for this radio will not be Part 90**

# This radio cross-bands from 220 to 440

## Frequency Range:

Left Side RX/TX	136-174 MHz, 200-260 MHz, 400-490 MHz
Left Side RX Only	AM: 108-134 MHz (Airband)
Right Side RX/TX	136-174 MHz, 400-490 MHz
Right Side RX Only	AM: 108-134 MHz (Airband)

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*AnyTone AT-5888UV III*  
(with removable face)

\*simulated LCD view  
left side 144 or 220 MHz  
right side 144 or 440 MHz

***Certification for this radio will not be Part 90***



# A very promising “almost commercial-build” 220 radio soon to appear



## BCM-220 MHz 1.25m Mob

\$ 240.00 ~~\$ 290.00~~

Quantity

Add to cart

## Pre-Order Now!

Introducing the BCM-220 Mobile Radio by BridgeCom Systems, Inc. The BCM-220 is packed with features including a wide range of the RF Spectrum. The BCM-220 is packed with features including Alpha-Numeric Display, Front Panel Speaker and 250 memory channels. The capability of adding a Bluetooth mobile dongle kit for extended out-of-vehicle Radio, DTMF microphone, mounting hardware, 12V power cord, and programming 1.25m band today with a BCM-220.

- 222.0-224.995 MHz Rx and Tx, 219-220.0 MHz Data
- Selectable 0-25 watts nominal, 30 watts max high quality Mitsubishi RF
- 250 Channel Capability
- High Quality  $\pm 1.5$  ppm Frequency Stability TCXO
- Alpha-Numeric Dot Matrix Display
- CTSS/DCSS Enc/Dec
- DTMF Enc/Dec, ANI
- UHF Female Antenna Connector



<http://www.bridgecomsystems.com/products/bcm-220-mhz-mobile-radio>



# Pre-Order Now!

Introducing the BCM-220 Mobile Radio by BridgeCom Systems, Inc. The BCM-220 operates in 220 MHz (1.25m) range of the RF Spectrum. The BCM-220 is packed with features including 30 watt Mitsubishi power amplifier, Alpha-Numeric Display, Front Panel Speaker and 250 memory channels. The BCM-220 mobile radios have the capability of adding a Bluetooth mobile dongle kit for extended out-of-vehicle range. Included in the package is the Radio, DTMF microphone, mounting hardware, 12V power cord, and programming software and cable. Get on the 1.25m band today with a BCM-220.

- 222.0-224.995 MHz Rx and Tx, 219-220.0 MHz Data
- Selectable 0-25 watts nominal, 30 watts max high quality Mitsubishi RF Power Amplifier
- 250 Channel Capability
- • High Quality  $\pm 1.5$  ppm Frequency Stability TCXO
- Alpha-Numeric Dot Matrix Display
- CTSS/DCSS Enc/Dec
- DTMF Enc/Dec, ANI
- UHF Female Antenna Connector
- Wide and Narrow FM Modes
- User Selectable Squelch Level
- Programmable home Channel Function
- Emergency Call Mode/Open Mic Operation
- Rear Panel RS232 Data Port (DE-15)
- Rear External Speaker Output
- Busy Channel Lockout
- High Quality Front Panel Speaker
- Internal Connector for Optional Data Board
- Remote Head mounting (you will need to source a longer cable)

Package includes: Radio, DTMF microphone, mounting hardware, 12V power cord, Free Programming Software and Cable. Additional accessories sold separately.

# Some commercial models are used as taxi radios in Asia



Shop by category ▾

Search...

All Cat

Back to home page | Listed in category: Consumer Electronics > Radio Communication > Ham, Amateur Radio > Ham Radio Transceivers



## TAIT TM-8110 1.25 Meter 220 (216-266) MHz Radio Transceiver

🔥 1 viewed per hour

Item condition: **Seller refurbished**

*“Clean good condition. Works fine. Will program the radio for free if you do Buy It Now.”*

Time left: 13d 20h 10/30, 4:12PM

Quantity:  3 available / 2 sold

Price: **US \$125.00**

**Buy It Now**

**Add to cart**

Best Offer:

**Make Offer**

7 watching

👁 Add to watch list

★ Add to collection

Longtime member

Best offer available

Mouse over image to zoom



💰 Have one to sell? **Sell now**

Shipping: **\$35.00** Economy Shipping from outside US | [See details](#)

See details about international shipping here. ?

Item location: Flower City, Indonesia

Ships to: Worldwide. See exclusions



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2. History of the 222-225 MHz band...and a new threat
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# Mods to commercial radios don't always work; what happened to our first MHz with this 217-222 radio?



ay Shop by category

Search...

Click to search results | Listed in category: Consumer Electronics > Radio Communication > Ham, Amateur Radio > Ham Radio Transceivers  
Business & Industrial > MRO & Industrial Supply > Commercial Radios > Two-Way Radios



## Motorola HT 1250 LS+ 220mhz HAM MOD 223-225mhz

Item condition: **Used**

"working HT1250 LS+ 220mhz that is modified for use on the amateur radio frequencies of 223-225mhz"

Quantity:

1

2 available / 1 sold

Price: **US \$159.00**

**Buy It Now**

**Add to cart**

SquareTrade 2 yr warranty \$43.99

20 watching

[Add to watch list](#)

[Add to collection](#)

**Free shipping**

Located in United States

Shipping: **FREE Expedited Shipping** | [See details](#)

Item location: DeLand, Florida, United States

Ships to: United States | [See exclusions](#)

Delivery: Estimated between **Tue. Oct. 20** and **Fri. Oct. 23**

Payments:

**PayPal**

**VISA**

**MasterCard**

**AMERICAN EXPRESS**

**DISCOVER**



# BridgeCom recently introduced a promising U.S.-made 220 MHz amateur repeater



## BridgeCom Systems BCR-220 Repeater

\$ 995.00 ~~\$ 1,700.00~~

BCR-220

Repeater Only

Quantity

1

Add to cart

The BridgeCom Systems BCR-220 FM Repeater is built for amateur radio. It operates in 222-225 MHz range of the RF spectrum. The BCR Repeater is a feature rich repeater/base station packed with loads of RF power and dual fans to run cool in the harshest environments. It is an excellent choice if you're considering a 220 repeater for your club or personal use. It is also an excellent choice for A.R.E.S./R.A.C.E.S. operation, and emergency management. Get on the 1.25m band today with a built in the USA BCR-220 repeater.



# BridgeCom Systems BCR-220 Repeater

\$ 995.00 ~~\$ 1,700.00~~

BCR-220

Repeater Only

Quantity

1

## Features

- 1.25m (222-225 MHz) - 30 Watts Continuous Duty
- Designed and built in the USA
- 2 - year warranty
- Windows® Based Programmer (Sold Separately)
- Built-In 11.2A Power Supply
- Battery Backup with Built-in Charging Circuit
- Dual Cooling Fans
- Front Panel Speaker
- 25-pin Accessory Connector
- Adjustable Squelch
- 12.5 kHz/25 kHz Channel Spacing
- Over-the-Air Programming and Maintenance via DTMF Tone Sequences
- Built-in station CWID - Morse rate programmable 10-25 wpm
- FREE Initial Programming

When you place your order please include Tx/Rx Frequency, PL Tone In/Out, Station ID, Desired Transmit Output Power within the Special Instructions during checkout.

[Read the BCR-220 review on eham.net](#)

**5 eham.net  
reviews =  
5.0 rating**

**30 watts,  
currently only  
turnkey 220  
repeater;**

**Made in U.S.A.**

# Developments in HT radios for 222-225 MHz: ...Wouxun dual-band UV3-D used by many



- Covers 2-meters and 220
  - Dual receivers
  - Only transmits in ham bands
  - Has built in LED flashlight
  - Voice prompts (if desired)
  - \$99; available at ham stores
  - Make sure you get UV3D with 220;
  - Same model # also in 2-meter/440
- 
- eham.net: 70 ratings = 4.2

**128 channels + broadcast FM 88-108 MHz, no out of band TX**

# Another Wouxun HT radio for 222-225 MHz: Unusual band combinations in this unit but only 3 watts on 220



## Wouxun Kg-uv899 Two Way Radio Transceiver Dual Band (220-260/400-520 Mhz)

by [Wouxun](#)

★★★★★ ▾ 1 customer review

Price: **\$85.96** & **FREE Shipping**

**Only 9 left in stock.**

Ships from and sold by [lightinthepackage](#).

- Operate on 5 watts UHF and 3 watts VHF with high or low selectable power options.
- 199 programmable memory channels with DTMF encode/decode, 50 CTCSS/105 DCS Groups and ANI (Caller ID).
- A 1570Hz Burst Tone, voice guide, call ring, reverse frequency function, channel name edit and display, inspection, monitor, stun, kill and emergency alarm.
- A 76-108Mhz digital FM radio is also built right in.
- 199 Memory Channels Dual Band 220-260MHz VHF Frequencies (3 Watts) 400-520MHz UHF Frequencies (5 Watts)

3 new from **\$85.96**

[Click to open expanded view](#)

**199 channels + broadcast FM 88-108 MHz + out of band**



# Even lower-cost HT radios for 222-225 MHz: Many that go out of band being sold through non-ham retail channels



Audio & Video > CB & Two-Way Radios > Two-Way Radios



Click to open expanded view

## BaoFeng UV-82X (USA Warranty) Dual-Band 136-174/220-260 MHz FM 2 Meter / 1.25 Meter Ham Two-way Radio, Transceiver, HT - With Battery, Earpiece, Antenna, Charger, and More

by BaoFeng

★★★★☆ ▾ 178 customer reviews | 24 answered questions

List Price: \$79.99

Price: **\$49.99** & FREE Shipping. [Details](#)

You Save: **\$30.00 (38%)**

**In Stock.**

Sold by BaoFeng Tech, AnyTone Tech and Fulfilled by Amazon.

**Want it tomorrow, Oct. 17?** Order within **11 hrs 13 mins** and choose **Same-Day Delivery** at checkout.

[Details](#)

- Baofeng Tech is the only authorized USA Baofeng Distributor to honor the Manufacturer Warranty. Only Baofeng Tech offers warranty claims without shipping anything to China. You must insure that Baofeng Tech is your selected buying option when buying to be able to have the full USA warranty.
- Frequency Range: 65-108 MHz(Only commercial FM radio reception) VHF: 136-174 MHz(Rx/Tx). UHF: 220-260 MHz(Rx/Tx), Broad (Wide) / Narrowband (Narrow), High power / low (5W/1W), selectable.
- Selectable Frequency Step/2.5/5/6.25/10/12.5/25 kHz, Function "VOX" (Voice Operated Transmission), "OFFSET" (frequency offset for repeater access).
- Dual-band handheld transceiver with display function menu on the display "LCD". Function Busy Channel Lock "BCLO".
- Helpful BaoFeng Guides and Programming Tips at Miklor.com

› [See more product details](#)

## 128 channels + broadcast FM 88-108 MHz + out of band

# This low-power TYT does 2m/220 in a small package



video → CB & Two-Way Radios → Two-Way Radios

## TYT TH-UV3R Dual Band Micro Amateur HT Radio 2m/220 mhz

by TYT

★★★★☆ ▾ 5 customer reviews

Price: **\$53.98** & **FREE Shipping**

**Only 15 left in stock.**

Ships from and sold by [lightinthepackage](#).

- Dual Band 136-174 & 220-260 MHz, FM Broadcast Receive, Wide Band / Narrow Band
- 128 Channels, 2.5 Watts High Power – 0.8 Watts Low Power
- Full Keypad, CTCSS – DCS, USB Chargable Li-ion Battery
- 1750 Tone , Computer Programmable , Alpha Name Tags
- Voice/BEEP/OFF

› [See more product details](#)

3 new from **\$48.98**



**Eham.net rating: 12 reviews = 4.3**  
**Only 2.5 watts max., 128 channels +**  
**broadcast FM 88-108 MHz + out of band**

# Developments in HT radios for 222-225 MHz: A low-cost alternative to the Kenwood TH-F6A...for only \$66



TYT TH-UVF8D 70-108MHz(FM Receive only) ,  
136-174MHz/220-260MHz , 400-520MHz/400-520MHz Walkie  
Talkie Repeater Amateur transceiver 128 Groups Channels  
Storage Two Way Radio Black 5W

by [TYT](#)

[Be the first to review this item](#)

Price: \$119.99

Sale: **\$66.39** + \$6.15 shipping

You Save: **\$53.60 (45%)**

**In stock.**

Usually ships within 4 to 5 days.

Ships from and sold by [Lamon LUI](#).

- Frequency: 70-108MHz(FM Receive only) , 136-174MHz/220-260MHz , 400-520MHz/400-520MHz
- Voice companding , PC programmable ,
- Output power:UHF:5W/1W VHF:4W/0.5W
- A/B band independent operation .
- Remote skill/stun/activate(optional)

› [See more product details](#)

**128 channels + broadcast FM 88-108 MHz + out of band**



# Very recent HT for 222-225 MHz: BridgeCom BCH-220



**Alternative to other  
low-cost 220 MHz HTs;  
199 channels;  
no out of band TX**

## BCH-220 Handheld Radio

\$ 85.00

Options

BCH-220 Radio

Quantity

1

Add to cart

[BCH-220 Intro Video](#)

Available Now!

Introducing the new BCH-220 Handheld Radio for 1.25m 220 MHz. It's just what you need in a 220 MHz portable. The BCH-220 is small, durable, light weight and has excellent battery life. You can easily adjust the power from 5 watts down to 2 watts. It has 199 programmable channels to store all your favorites and it sounds great too. The BCH-220 fits nicely in the palm of your hand and has a bright easy to read LCD display. Make your next handheld radio a BCH-220! The BCH-220 includes a Battery, Antenna, Belt Clip, Charger Base and Wall Plug. Download programming software for Free. Programming cable sold separate. Other accessories available.

- 219-260 MHz Rx and 222.0-224.995 MHz Tx
- 5 Watts or 2 Watts
- 199 Channels
- LCD Display
- DTMF Keypad
- FREE Programming Software: Download from [Support](#)
- 1 Year Warranty

In summary, choices in 220 MHz ham radios are increasing:  
Let's get on the air!



Credit goes to China radio makers, selling for other uses too

Product quality of some units not very good

Manuals for some not well-written, programming by hand difficult

Be careful where you transmit (some go out of ham bands)

Bottom line: Wider selection and low prices will lead to more  
220 MHz amateur operators, including in DCS

**We have LACDCS 224.300 MHz repeater for DCS—let's use it**

For more info on 222-225 MHz in Southern California and list of  
coordinated repeaters, visit [www.220sma.org](http://www.220sma.org)

Thanks for watching.