

JHS-431

UHF transceiver



– in all conditions, where safe communication is fundamental

ATEX intrinsically safe
Dust-tight and waterproof design
Easy operation
Low power consumption
Tone squelch available



Japan Radio Co., Ltd.

since 1915

Features

Features

The JHS-431 is a 2 watt UHF intrinsically safe transceiver designed for onboard, ship-to-shore or ship-to-ship communications for ship operation, loading/unloading, rescue operations and mooring.



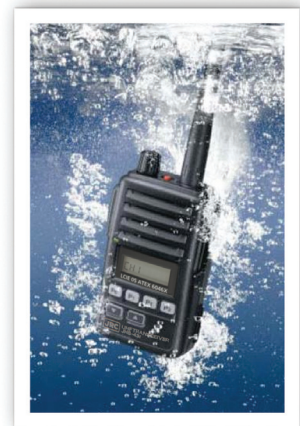
Naturally safe structure

Engineered to meet ATEX standards, the JHS-431 is intrinsically safe and is approved for use when transporting, loading or unloading flammable, dangerous materials. The advanced, structurally sound casing and design ensure its safe use in conditions where safe communications is fundamental.

Dust-tight, waterproof design

The JHS-431 is a one piece, sealed casing design and has outstanding protection against dust and water that is equivalent to military grade IP67.

The unit can withstand submersion in 1 meter depth of water for up to 30 minutes and has dust-tight construction that prevents the ingress of dust, ensuring usage in the most severe conditions.



Audio output

The JHS-431 delivers a loud 350mW audio output with the built-in Bridge-Tied Load (BTL) amplifier. Improved bass characteristics improves the audio quality.

Tone squelch function

Use the built-in Continuous Tone-Coded Squelch System (CTCSS) capability to set up your own talk groups and quiet stand-by when others are talking.

Operation

Easy operation

The ergonomic design of the JHS-431 offers single handed operation, due to the suitably arranged buttons and switches, providing safe, precise and convenient control of work handling operations. It also integrates a wide screen viewer for easy channel identification.



Clear indication

The 8 character LCD allows for a clear channel indication, names, set mode etc, and the icons instantly show the handheld status and condition.



Flexibility

Low power consumption

The Lithium-ion battery provides long lasting operation along with minimal power consumption. The sleeping mode/standby function ensures over 10 hours of practical operating time.



10 hours



Mark for ATEX certified electrical equipment for explosive atmospheres.

ATEX

As of July 2003, organizations in the EU must protect employees from explosion risk in places where explosive atmospheres may arise, such as mixtures of air and flammable materials like gases, vapours, mists and dusts. The JHS-431 has an 'ATEX' certificate by EU directive 94/9EC commonly known as the ATEX directive (from the French: ATmospheres EXplosives).

The ATEX directive contains classification into groups and categories which are defined by the marking on the battery.

CE conformity marking

Notified Body number

ATEX mark

Marking for Dust

II	Equipment group
2	Equipment category
D	Dusts
Ex	Explosion protection
tb	Protection by enclosure
IIIC	Dust group C
T	Max surface temp (160°C)
Db	Dust protect level (EPL)
IP	IP code (67)
Tamb	Ambient temperature

Markings for Gas

II	Equipment group
2	Equipment category
G	Gas, Vapor, Mist
Ex	Explosion protection
ib	Intrinsic safe
IIA	Gas group A
T	Temp class 3 (200°C)
Gb	Gas protect level (EPL)

WARNING - DO NOT CHARGE THE BATTERY IN HAZARDOUS LOCATION.

In the box

- UHF transceiver
- Antenna
- Battery pack (Lithium-Ion)
- Belt clip + Lanyard
- Inspection data
- Manual

Options

- Spare antenna
- Battery pack
- Carrying case
- External microphone
- Battery charger (for 1 set)
- Battery charger (for 6 sets)

Weight and dimensions

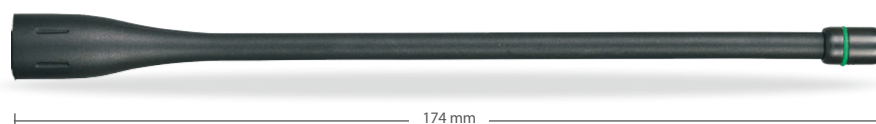
UHF transceiver

JHS-431 Weight 285 g (including battery pack + antenna)



Spare antenna

FA-S27U Weight 20 g



Battery pack

BP-227AXD Weight 125 g



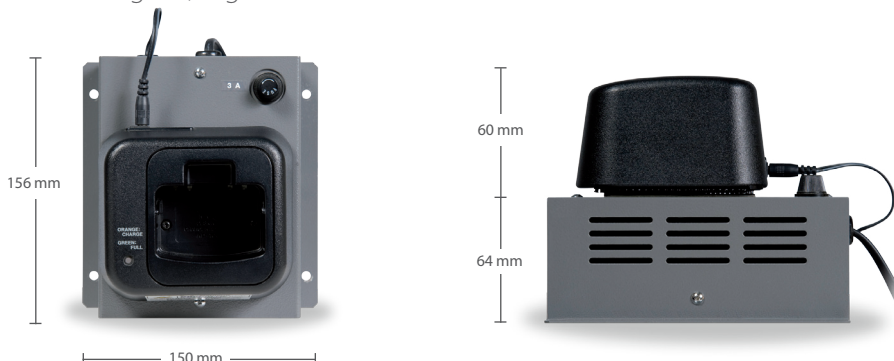
External microphone

HM-138 Weight 150 g



Battery charger (for 1 set)

NZB-139 Weight 1,5 kg



Specifications

	JHS-431
ATEX approved	✓
Frequency (standard)	CH1: 457.525MHz, CH2: 457.550MHz, CH3: 457.575MHz
Frequency (optional)	CH4: 467.525MHz, CH5: 467.550MHz, CH6: 467.575MHz
Communication mode	Simplex
Type of emission	F3E
Antenna	Whip antenna, non-directional (nominal 50Ω unbalanced)
Power source	Li-Ion battery (7.4V, 1850mAh)
Operating time	Up to 10 hours (TX:RX:STBY = 1:1:18)
Consumption	Less than 1.1A
Alarm indication	Sound and/or display flashing white and orange
Output power	2W -50%/+0%, 0.2W in low power mode
Frequency accuracy	Within $\pm 5 \times 10^{-6}$
Oscillator	PLL frequency synthesizer
Modulation	Variable reactance frequency modulation
Deviation	Within ± 5 kHz
Spurious emission	2.5μW or less
Total distortion and noise	20dB or more in standard modulation
Receiving system	Double super-heterodyne
Radiation	4 nW or less
Local frequency stability	$\pm 5 \times 10^{-6}$ or less
Sensitivity	8 dBμ (2.5μV) or less by 20dB NQS
6dB bandwidth	12 kHz or more
Rated AF output	Approx 350 mW
Tone frequency deviation	Standard ± 0.5 kHz (max ± 0.9 kHz)
Tone signal frequency error	0.5% or less
Tone signal rise time	Max 0.5 second or less
Tone signal distortion	20 dB or more
Ambient conditions	Operating temperature: -20° to 60°C IP protection rate: IP67

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