

AN ALWAYS CONNECTED WORLD

1st & Only K50 Radio In India With The Real IP68 Waterproof Rating

The Highest Level of IP68 Waterproof.



# IP (Ingress Protection) Ratings Guide



IP65IP66IP67IP68

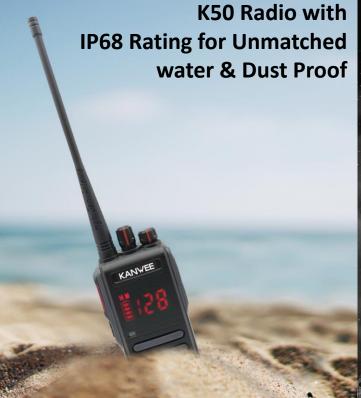
An IP65 Rating means the Radio has the highest level of dust protection, and is able to withstand low-pressure water jets from all directions. IP65 is not a waterproof Radio.

IP66 is an Ingress Protection Rating and refers to dust tight and protected against powerful waterjets. **IP66 is not a waterproof Radio.** 

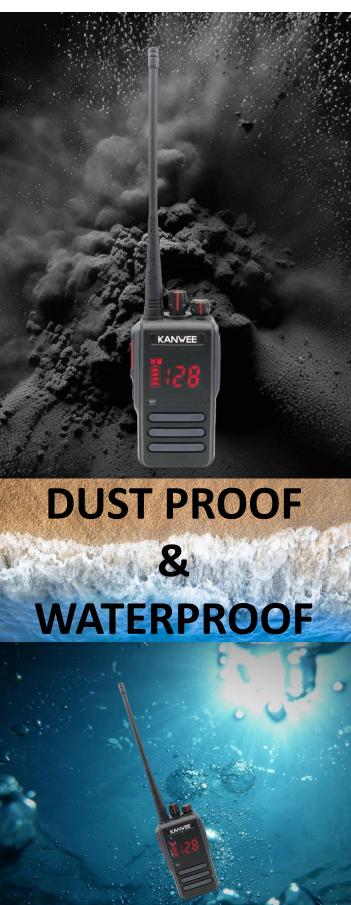
IP67 rating, that indicates it is "waterproof." The 6 indicates "complete protection against dust & devices are considered water-resistant up to a depth of about 3 feet for up to 15-20 minutes,"

## KANWEE K50 With an IP68 rating.

Radio is waterproof for up to 1 hour 30 minutes, and are protected from dust - all without the need for extra cases or covers.

















IP68
PROTECTION

ACTIVE VIEW DISPLAY

CTCSS/DCS



BATTERY SAVER



# BIGGER BATTERY CAPACITY ORIGINAL 5200mAh LI-ION BATTERY





Up to 5 Days
Standby Time
Up to 15 Hours
Working Time





	•
Frequency Range	446MHz
Channel	128
Working Voltage	7.4VDC
Working Temperature	-20°C+60°C
Antenna	High Gain Antenna
Antenna Impedance	50 Ω
Mode of operation	Simplex or Semi- duplex
Weight	248g (5200mAh)

General

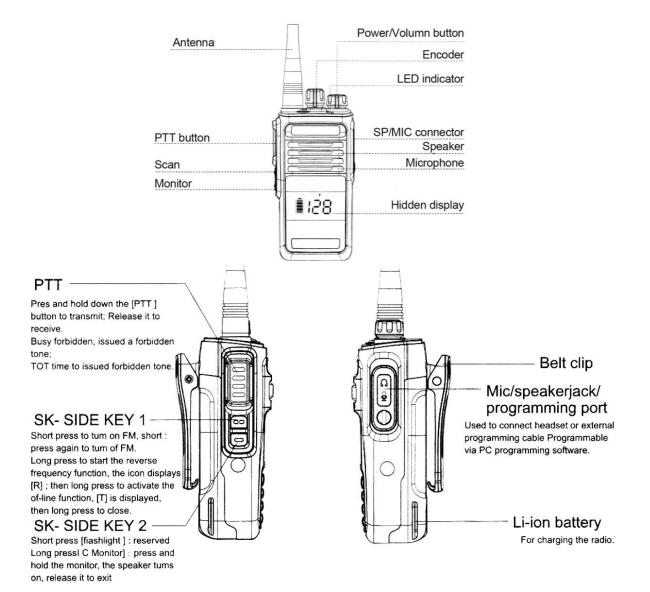
Frequency Range	446- 446.025MHZ
RF Power	0.5W
Modulation Type	FM
Spurious Radiation	≤7.5 µ W
Modulation Noise	<-40dB
Modulation Distortion	<5%
Frequency Stability	5ppm
Max Fr. Deviation	≤± 5KHz
Current	≤ 1400mA
Audio Response (300-3400Hz)	+6.5~-14dB
Adjacent Ch.	≥65dB

Power

**Transmitter** 

Frequency Range	446- 446.025MHZ	
Sensitivity	≤0.2 μ V	
Occupied Bandwidth	≤16KHz	
Selectivity	≥65dB	
Intermodulation	≥55dB	
Audio Power Output	1W	
Audio Distortion	≤10%	
Frequency Stability	5ppm	
Current	Standby 60mA Working 150Ma	
Audio Response (300-3400Hz)	+7~-12.5dB	

Receiver



Monitor / High/Low Power / VOX ON/OFF / Busy Channel / Lockout / VOX Sensitivity / Squelch Level / Voice Guide / Programming Password / Time Out Timer / CTCSS/DCS Wide/Narrow Band / Battery Saver / Scan / Lower Power Alert / Voice Compander / ANI Code

# **Standard Accessories**







Charger



Belt Clip

# **Optional Accessories**



**C** Type Handsfree



D Type Handsfree



**Clear Tube Handsfree** 



**Boom Mic Handsfree** 



**Water Proof Cover** 



**Programming Cable** 



6 Multi Unit Charger



**Leather Case** 



#### असाधारण

#### EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i) PART II—Section 3—Sub-section (i)

## प्राधिकार से प्रकाशित PUBLISHED BY AUTHORITY

सं. 753] नई दिल्ली, बृहस्पतिवार, अक्तूबर 18, 2018/आश्विन 26, 1940 No. 753] NEW DELHI, THURSDAY, OCTOBER 18, 2018/ASVINA 26, 1940

## संचार मंत्रालय (वैदार योजना एवं समन्वय स्कंध) अधिसूचना

नई दिल्ली, 18 अक्तूबर, 2018

सा.का.नि.1047(अ).—केंद्रीय सरकार, भारतीय तार अधिनियम, 1885 (1885 का 13) की धारा 4 और धारा 7 तथा भारतीय बेतार तारयांत्रिकी अधिनियम, 1933 (1933 का 17) की धारा 4 और धारा 10 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए निम्नलिखित नियम बनाती है, अर्थात्: —

- संक्षिप्त नाम और प्रारंभ (1) इन नियमों का संक्षिप्त नाम निम्न शक्ति और अति निम्न शक्ति शोर्ट रेंज रेडियो आवृति युक्तियों का उपयोग (अनुज्ञप्ति की अपेक्षा से छूट) नियम, 2018 है।
  - (2) ये राजपत्र में उनके प्रकाशन की तारीख को प्रवृत्त होंगे।
- 2. परिभाषाएं-- इन नियमों में, जब तक कि संदर्भ से अपेक्षित न हो, --
- (क) "अधिनियम" से भारतीय तार अधिनियम, 1885 (1885 का 13) अभिप्रेत है;
- (ख) "प्राधिकारी" से भारतीय तार अधिनियम, 1885 (1885 का 13) की धारा 4 की उपधारा (2) के अधीन केंद्रीय सरकार द्वारा अधिसूचित प्राधिकारी अभिप्रेत हैं;
- (ग) "प्रभावी विकिरण शक्ति (दी गई दिशा में) " अथवा ई.आर.पी से अभिप्रेत है; दी गई दिशा में एंटीना को भेजी गई शक्ति और "हाफ-वेब ध्रुव ऐन्टेना " के सापेक्ष इसके सिग्नल में बढोत्तरी का गुणांक।
- (घ) "समतुल्य समस्थानिक विकिरण शक्ति" से अभिप्रेत हैं, ऐन्टेना के सबसे मजबूत किरणपुंज की दिशा में वास्तविक स्रोत के रूप में वहीं सिगनल सामर्थ्य देने की कुल शक्ति जिसे एक कल्पित समस्थानिक ऐन्टेना द्वारा विकिरणित किया जाना है;

6153 GI/2018

#### MINISTRY OF COMMUNICATIONS

### (Wireless Planning and Coordination Wing)

#### NOTIFICATION

New Delhi, the 18th October 2018

- G.S.R. 1047(E).—In exercise of the powers conferred by sections 4 and 7 of the Indian Telegraph Act, 1885 (13 of 1885) and sections 4 and 10 of the Indian Wireless Telegraphy Act, 1933 (17 of 1933), the Central Government hereby makes the following rules, namely:
- Short title and commencement.— (1) These rules may be called the Use of Low Power and Very Low Power Short Range Radio Frequency Devices (Exemption from Licensing Requirement) Rules, 2018.
  - (2) They shall come into force on the date of their publication in the Official Gazette.
- Definitions.— In these rules, unless the context otherwise requires, -
- (a) "Act" means the Indian Telegraph Act, 1885 (13 of 1885);
- (b) "Authority" means the authority notified by the Central Government under sub-section
  - (2) of section 4 of the Indian Telegraph Act, 1885 (13 of 1885);
- (c) "effective radiated power (in a given direction)" or e.r.p. means the product of the power supplied to the antenna and its gain relative to a half-wave dipole in a given direction;
- (d) "equivalent isotropic radiated power" or e.i.r.p. means the total power that would have to be radiated by a hypothetical <u>isotropic antenna</u> to give the same signal strength as the actual source in the direction of the antennas strongest beam;
- (e) "power density" means the total energy output per unit bandwidth from a pulse or sequence of pulses for which transmit power is at its maximum level, divided by the total duration of the pulses;
- (f) "duty cycle" means ratio expressed as a percentage of the cumulative duration of transmission T<sub>on\_cum</sub> within an observation interval T<sub>obs</sub>;

duty cycle 
$$DC = \left(\frac{T_{oncom}}{T_{obs}}\right)_{F_{obs}}$$
 on an observation bandwidth  $F_{obs}$ 

(g) words and expressions used in these rules and not defined but defined in the Act and the Indian Wireless Telegraphy Act, 1933 (17 of 1933), shall have the same meanings

respectively as assigned to them in those Acts.

3. Exemption.— No licence shall be required by any person to establish, maintain, work, possess or deal in any wireless equipment for the purpose of usage of low power and very low power short range radio frequency devices or wireless equipment in the frequency band, on non-interference, non-protection and shared and nonexclusive basis, with the equivalent isotropic radiated power or effective radiated power, complying with the technical specification contained in the Tables-I to IX, namely: —

Table-I Inductive device

S.No.	Frequency range in kHz	Transmit power limit/field strength limit/power density limit		Other usage restrictions	*EN No.
(1)	(2)	(3)	(4)	(5)	(6)
1	6765-6795	42 dBμA/m at 10 metres			EN 300 330

\*EN: is a number and acronym used for Harmonized European Standard as produced by European Telecommunications Standards Institute (ETSI).

Note: For the purpose of this Table, inductive device mean radio devices that use magnetic fields with inductive loop systems for near field communications and typical uses include devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems, including radio frequency anti-theft induction systems, data transfer to hand-held devices, automatic article identification, wireless control systems and automatic road tolling.

Table -III High duty cycle or Continuous transmission device

S.No.	Frequency Range in MHz	limit/field strength	Additional parameters (channeling and/or channel access and occupation rules)	•	*EN No.
(1)	(2)	(3)	(4)	(5)	(6)
1	87.5-108	50 nW e.r.p.			EN 301 357

\*EN: is a number and acronym used for Harmonized European Standard as produced by European Telecommunications Standards Institute (ETSI).

Note: For the purpose of this Table, high duty cycle or continuous transmission device mean radio device that rely on low latency and high duty cycle transmissions and used for personal wireless audio and multimedia streaming systems used for combined audio or video transmissions and audio or video sync signals, mobile phones, automotive or home entertainment system, wireless microphones, cordless loudspeakers, cordless headphones, radio devices carried on a person, assistive listening devices, in-ear monitoring, wireless microphones for use at concerts or other stage productions, and low power analogue FM transmitters (band 36).

Table -IV Assistive listening device

S.No.	Frequency range in MHz	Transmit power limit/field strength limit/power density limit	Additional parameters (channeling and/or channel access and occupation rules)	Other usage restrictions	*EN No.
(1)	(2)	(3)	(4)	(5)	(6)
1	169.4-169.475	500 mW e.r.p.	Channel spacing:		EN 300 422
			≤ 50 kHz		
2	169.4875-	500 mW e.r.p.	Channel spacing:		EN 300 422
	169.5875		max 50 kHz		

\*EN: is a number and acronym used for Harmonized European Standard as produced by European Telecommunications Standards Institute (ETSI).

Note: For the purpose of this Table, assistive listening device covers radio communications systems that allow persons suffering from hearing disability to increase their listening capability. Typical system installations include one or more radio transmitters and one or more radio receivers.

Table -V Personal Mobile Radio 446 MHz device

S.No.	Frequency range in MHz	Transmit power limit/field strength limit/power density limit	Additional parameters (channeling and/or channel access and occupation rules)	Other usage restrictions	*EN No.
(1)	(2)	(3)	(4)	(5)	(6)
1	446.0-446.2	500 mW e.r.p.	Channel spacing: 6.25 kHz and (12.5 kHz)		EN 300 113- 2, EN 301 166-2, EN 300 296-2

\*EN: is a number and acronym used for Harmonized European Standard as produced by European Telecommunications Standards Institute (ETSI).

Note: For the purpose of this Table, personal mobile radio 446 MHz device means hand portable radio with no base station or repeater use and uses integral antennas only in order to maximise sharing and minimise interference, and which operates in short range peer-to-peer mode and shall be used neither as a part of infrastructure network nor as a repeater;