

# Walkie /Talkie set specification

## Applied With

Antenna	Yes, KRA-27M
Battery	Yes, KNB-63L
Belt Clip	Yes
Charger	Yes, KSC-35SE
Instruction Manual	Yes, English, Spanish, German, French, Dutch, Italian, Portugese, Turkish and Greek
Screw Set	Yes

## PMR General Features

<u>3-colour LED (Red, Orange, Green)</u>	Yes
<u>Battery Saver Mode</u>	Yes
<u>Battery Status Indicator</u>	Yes
<u>Busy Channel Lock-out</u>	Yes
<u>Compact Design</u>	Yes
<u>Companded Audio</u>	Yes
<u>DTMF Function</u>	Yes
<u>Enhanced Audio</u>	Yes
<u>ESN (Electronic Serial Number)</u>	Yes
<u>Multiple Scanning Function</u>	Yes
<u>Programmable Function Keys</u>	1 Programmable Function Keys
<u>QT (CTCSS) / DQT (digital)</u>	Yes
<u>Talk Around</u>	Yes
<u>Time-Out Timer</u>	Yes
<u>VOX</u>	Adjustable 10 levels plus "Off"
<u>Windows PC Programming and Tuning</u>	Yes
<u>Wired Cloning Function</u>	Yes

## Applicable Standards

R&TTE:	Yes, EN 300 086, 300 219, 301 489
<u>EU Safety: EN60065, 60950-1, 60215</u>	Yes
Factory Quality Certification and Location	ISO 9001. Manufactured in Shanghai

For use in the EU

Yes

IP54

Yes

Measurement - EIA Standards

Yes

MIL-STD 810 C/D/E/F/G

Yes

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## Technical Specifications

Frequency Range	440 - 470 MHz
Number of Channels	16
Channel Frequency Spread	30 MHz
Channel Spacing - Analogue - Wide/Mid/Narrow	25 kHz/20 kHz/12.5 kHz
Antenna Impedance - 50 Ohm	Yes
Battery Life	With KNB-63L: 9 hours - 5-5-90 duty cycle, with battery saver off
Battery Voltage	7.5 V DC $\pm$ 20%
Frequency Stability	$\pm$ 2.5 ppm (-20 °C to + 60 °C)
Operating Temperature Range	-20 °C to + 60 °C
PLL Channel Steps	5.0 kHz/6.25 kHz
Dimensions	Radio with KNB-63L: W x H x D - 54 x 113 x 24.9 mm Projections not included
Weight (net)	Radio only: 130 g With KNB-63L: 203 g

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## Receiver Specifications

Adjacent Channel Selectivity	70dB at 25 kHz 70dB at 20 kHz 60dB at 12.5 kHz
Audio Output	500 mW
Intermodulation	65dB
Sensitivity - EIA 12 dB SINAD	0.28 $\mu$ V at 25 kHz 0.28 $\mu$ V at 20 kHz 0.35 $\mu$ V at 12.5 kHz
Sensitivity - EN 20 dB SINAD	0.35 $\mu$ V at 25 kHz 0.35 $\mu$ V at 20 kHz 0.45 $\mu$ V at 12.5 kHz
Spurious Reponse Rejection (Analogue)	70 dB

# Transmitter Specifications

RF Power Class (Typical)	1 W - 1 W
RF Power (dBm)	30 dBm @ 100 MHz 30 dBm @ 200 MHz 30 dBm @ 1.8 GHz
Frequency Range	100 MHz - 1.8 GHz
Modulation Schemes	FSK, PSK, QPSK
Spurious Emission (dBc)	-30 dBm @ 1 kHz -30 dBm @ 1 kHz

BASE STATION - SPECIFICATION

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## Key Features

NXDN Digital Air Interface

AMBE+2 Vocoder for Natural Sounding Digital Voice

Operates in NXDN Digital Conventional and FM Analogue Modes, even on the same channel

Autosenses Received Mode (Digital or Analogue)

30 Channel Scanning Base Station (Conventional Mode)

Digital - Single-Site Trunking (future upgrade)

Multi-Site IP Network Mode (via KT1-3 option)

## Supplied With

Cushion	Yes
D.C. Cable	Yes
Fuse	Yes, 15A
Handle	Yes
Instruction Manual	Yes, English, Spanish, French, Italian, German, Dutch, Turkish & Greek
Screw Set	Yes

## Base Station & Repeater Features

16 CTCSS/DCS Repeater Controller Built-In	Yes
<u>19" Rack Mount Design</u>	Yes
Audio Distortion	Less Than 2.5%

<u>"Base Station" or "Repeater" Mode Operation</u>	Yes
<u>Base Station Features</u>	Yes
<u>CW ID</u>	Yes
DTMF AUX Input Monitoring	Yes
DTMF AUX Output Control	Yes
DTMF Front Panel PF-Key Control	Yes
EIA Voter Tone Generation	Yes
External FM Controller Interface	Yes
External MPT Controller Interface	Yes
<u>Flash ROM for Future Upgrades</u>	Yes
<u>Front Mounted Speaker</u>	Yes
<u>Full-Duplex Operation</u>	Yes
Hang Timer	Yes
<u>LED Display &amp; Indicators</u>	Yes
Microphone Jack on Front Panel	Yes
Program/Modem Interface	Yes
Programmable AUX I/Os	Yes
Programmable Function Keys	6
Remote Termination Interface	Yes
<u>Repeater Features</u>	Yes
<u>Time-Out Timer</u>	Yes

Volume Control on Front Panel

Yes

Windows Programming and Tuning Software

Yes

## NEXEDGE Features

FM Analogue Conventional Included

Yes

NXDN Conventional Included

Yes

## NEXEDGE Base + Repeater Features

16 RAN Repeater Controller Built-In -  
Conventional Mode

Yes

Conventional IP Interface

Yes, From V2.00 Firmware

External Reference-Frequency Connection

Yes

GIDs Per Site

1000 in Conventional Mode

Mixed FM/Digital Operation - Conventional Mode

Yes

NXDN Scrambler built-In

Yes

UIDs Per Site

1000 in Conventional Mode

## Applicable Standards

R&TTE: EN300 086, 300 113, 300 219, 301 489,  
301 166

Yes

EU Safety: EN60065, 60950-1, 60215

Yes

Measurement - EIA Standards

Yes



## Technical Specifications

Frequency Range	136 - 174 MHz
Number of Channels	30
Channel Frequency Spread	38 MHz
Channel Spacing	Analogue : 25 kHz/20 kHz/12.5 kHz
Channel Spacing - Digital - Wide/Narrow	12.5 kHz/6.25 kHz
Antenna Impedance - 50 Ohm	Yes
Antenna Connector	RX: BNC TX: N
Current Drain	Stand-By: 0.5 A Receive: 1.0 A Transmit: 11.0 A
Duty Cycle	100% at 25 Watts, 50% at maximum power
Frequency Stability	$\pm 0.5$ ppm (-30 °C to + 60 °C)
Operating Temperature Range	-30 °C to + 60 °C
Operating Voltage	13.6 V DC (10.8 ~ 15.6 V DC)
PLL Channel Steps	2.5 kHz/3.125 kHz
Dimensions	483 x 88 x 340 mm - Projections not included -
Weight (net)	9.7 kg

## Receiver Specifications

Adjacent Channel Selectivity	Analogue: 83 dB at 25 kHz 81 dB at 20 kHz 77 dB at 12.5 kHz
Audio Output	4 Watts with less than 5% distortion
Intermodulation	Analogue: 72 dB
Sensitivity	Digital: 3% BER: 0.28 $\mu$ V at 12.5 kHz 0.22 $\mu$ V at 6.25 kHz. 1% BER: -4 dB $\mu$ V at 12.5 kHz -6 dB $\mu$ V at 6.25 kHz.
Sensitivity - EIA 12 dB SINAD	0.28 $\mu$ V
Sensitivity - EN 20 dB SINAD	-3dB $\mu$ V
Spurious Reponse Rejection (Analogue)	85 dB

## Transmitter Specifications

RF Power Output	5 W - 40 W
FM Noise (EIA)	55 dB at 25 kHz 53 dB at 20 kHz 50 dB at 12.5 kHz
Modulation Distortion	Less than 1%
Modulation Limiting	Analogue: $\pm$ 5.0 kHz at 25 kHz $\pm$ 4.0 kHz at 20 kHz $\pm$ 2.5 kHz at 12.5 kHz
Spurious Emission (EN)	-36 dBm $\leq$ 1 GHz -30 dBm $>$ 1 GHz