KENWOOD

TK-2260EX/3260EX

VHF/UHF FM Portable Radios

ATEX Radios for Reliable Communications in Potentially Explosive Atmospheres

ATEX Certifications

Gas : II 2 G Ex ib IIC T4

Dust : II 2 D Ex tD ibD A21 IP6x T110°C

Mining : I M2 Ex ib I

5-tone FleetSync® by KENWOOD Lone Worker You'll never work alone. StaffSafe

TK-2260EX

TK-3260EX

Intrinsic safety backed by Kenwood quality

Kenwood's TK-2260EX/3260EX portables are expressly designed to provide clear communications with intrinsic safety in potentially explosive duty environments such as oil refineries, chemical plants and grain silos. Kenwood radios are valued by professionals worldwide for their simple operation and reliable performance, and these new ATEX/IECEx-certified models boast such features as Lone Worker and Man-down Detection to further enhance employee safety.

INTRINSIC SAFETY

Special enclosure and circuitry designs ensure that these portables meet ATEX requirements for intrinsic safety. Antistatic resin is used for the casing, battery and belt hook. Also effective RF output is 1.2W, maintained within the upper limit set by ATEX directive.

STAFF SAFE FUNCTIONS (MAN-DOWN / STATIONARY / MOTION DETECTION)

Three different staff safe functions are available that make use of the built-in motion sensor. When activated, a "man-down" alert is generated automatically if the radio (and user) is not upright for a length of time. Similarly alerts can be sent if the radio is stationary for a preset period or if it is being shaken/swung violently as when someone is running.

LONE WORKER

This ingenious feature provides an extra layer of security and safety for individuals who work remotely or in hazardous areas. If the buttons are not operated for a certain time (programmable), it will sound an alert. If there is still no response from the user, the TK-2260EX/3260EX will place an emergency call to a predetermined person or group.

VOTING

The Voting function (Intelligent Scanning) looks for and locks onto the best repeater station automatically in a multi-site system.

PRIORITY SCAN & TALK BACK

Scanning is a simple way to monitor multiple channels and the TK-2260EX/3260EX (16-channel capacity) offers both standard and priority scan modes. Another convenience is Talk Back, which allows immediate response to a call without having to manually search or change channels.

FleetSync® PTT ID, SELCALL & EMERGENCY

Utilising Kenwood's FleetSync® digital signalling protocol, the TK-2260EX/3260EX has PTT ID (ANI: automatic number identification) and Selective Calling capabilities for managed dispatch operations. The orange key can also be programmed for Emergency status to alert the dispatcher.

BUILT-IN VOICE SCRAMBLER

The voice-inversion scrambler ensures basic communications security against casual eavesdropping.

Note: This function cannot be used in certain countries.

QT/DQT/DTMF/5-TONE

The industry standard tone/code squelching formats QT (CTCSS) and DQT (digital) provide system access and group segregation on shared frequencies. DTMF PTT ID is included for dispatch operations or for a simple remote control application. The DTMF decode capabilities include a selective call ID, transpond with ID, "wild card" group calling and radio stun. 5-Tone encode and decode provides 6 different formats (ZVEI, ZVEI2, CCIR, EIA, EEA, Kenwood format) for selective call use. All selective calling formats (FleetSync®, DTMF & 5-Tone) have call alert tones and LED indications.

ENHANCED KENWOOD AUDIO

The user enjoys loud, clear audio even in noisy environments. Kenwood has drawn on its longstanding audio heritage to optimize voice frequency components so that the audio output cuts through typical ambient noise. This enhancement and the companded noise reduction provide clarity and low distortion especially on narrow bandwidth systems.

CHOICE OF BATTERIES

To suit different applications, two Li-ion batteries are available: the long-life KNB-58LEX and the slim, lightweight KNB-64LEX. Both are ATEX/IECEx-certified and can only be used with the TK-2260EX/3260EX.

Battery life*

	Battery Saver ON	Battery Saver OFF
KNB-58LEX	23 hours	18 hours
KNB-64LEX	13 hours	10 hours

*Battery life is based on a 5% transmit - 5% receive - 90% standby duty cycle.

DUST & WATER RESISTANT

Equipped with the KNB-58LEX or KNB-64LEX battery pack and KMC-46EX speaker microphone, these tough portables comply with the IP64/65 standards for dust and water resistance as well as meeting or exceeding twelve stringent MIL-STD 810 C/D/E/F/G environmental standards.

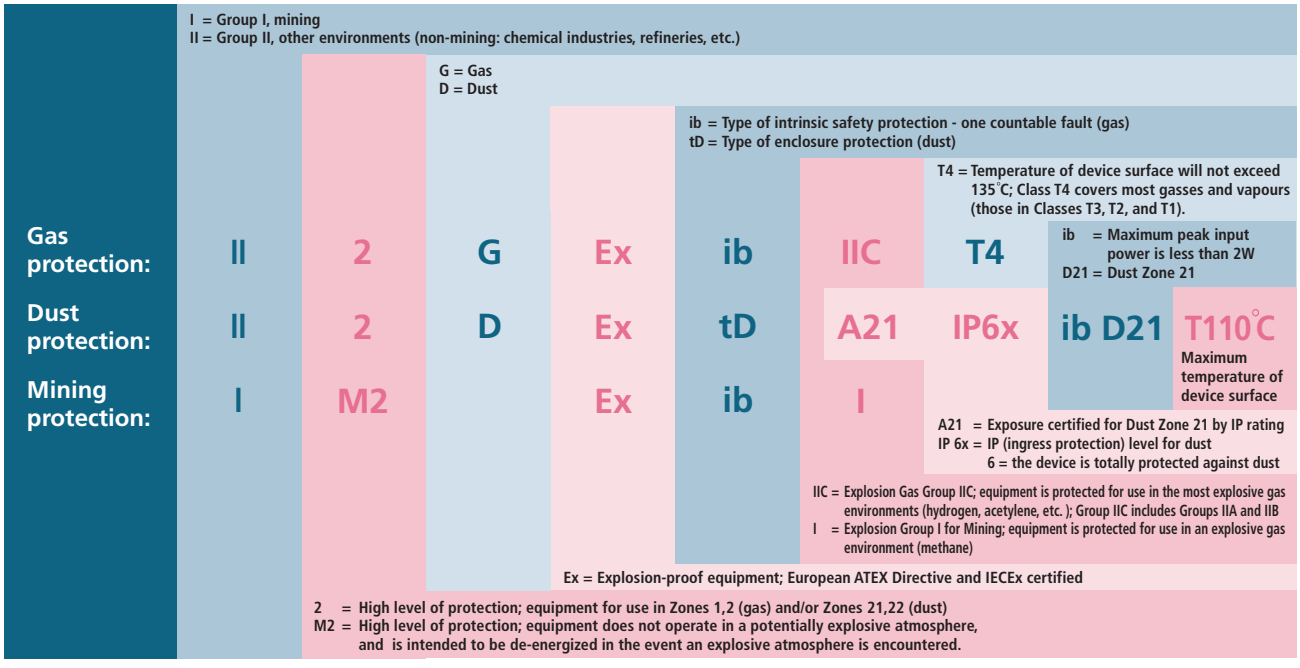
Note: If the KMC-46EX is not attached, the connector cover must be used for compliance with rain resistance and IP64/65 standards.

Other Features

- Wide/Semi Wide/Narrow per channel
- Companded Audio per Channel
- Programmable Function Keys (3 x PF keys including orange key)
- Programmable Call Alerts
- Talk Around
- B.C.L. (Busy Channel Lockout)
- Minimum Volume
- Key Lock
- 3-colour LED (Red, Orange, Green)
- Scan Del/Add function
- KENWOOD ESN (Electronic Serial Number)
- Adjustable Microphone Gain by FPU only: High or Normal
- Microsoft Windows® PC Programming & Tuning

ATEX certifications for the TK-2260EX/3260EX and designated options

Kenwood's TK-2260EX/3260EX and designated options are certified to the ATEX protection classes II 2G Ex ib IIC T4, II 2D Ex tD A21 IP6x ib D21 T110°C, and I M2 Ex ib I as interpreted in the following table:



ATEX (from ATmosphères EXplosibles) refers to Directive 94/9/EC regulating what equipment and systems must be provided for those working in an environment where there is a risk of explosion. The danger is typically posed by gas or dust, so all possible sources of ignition (sparks or hot surfaces) have to be eliminated. Industries affected by this directive include oil and gas, chemicals and pharmaceuticals, airlines and ports, agriculture and forestry. Employers in EU member states and EFTA countries are legally required to identify workplace risks and protect their workers by installing properly certified equipment – including communications devices – tested to ensure that they can be operated safely in a potentially explosive atmosphere.

IECEx certification:

The TK-2260EX/3260EX also conforms to the International Electrotechnical Commission's safety standards for equipment to be used in explosive (Ex) atmospheres – areas where flammable liquids, vapours, gases or combustible dusts are likely to occur in quantities sufficient to cause a fire or explosion.

NOTE: Please ensure the TK-2260EX/3260EX ATEX rating is acceptable for intended place of use.

Options

KNB-58LEX[*1]
Li-ion Battery Pack
(7.4V/1,880mAh)

KNB-64LEX[*1]
Li-ion Battery Pack
(7.4V/ 1,030mAh)

KMC-46EX[*1]
Speaker Microphone
(Future Available)

KBH-16EX[*1]
2.5" Belt Clip

KLH-168EX[*1]
Leather Case

KRA-22[*1]
VHF Low Profile
Helical Antenna

KRA-23[*1]
UHF Low Profile
Helical Antenna

KRA-26[*1]
VHF Helical Antenna

KRA-27[*1]
UHF Whip Antenna

KSC-32S[*2]
Tri-Chemistry Rapid
Rate Charger

KSC-326[*2]
Multiple Rapid
Rate Charger

[*1] ATEX/I ECExcertified accessories only when used with the TK-2260EX/3260EX.
[*2] No approval in ATEX/I ECExand must not be used in a potentially explosive atmosphere.

All accessories and options may not be available in all markets. Contact an authorized Kenwood dealer for details and complete list of all accessories and options.

Specifications

	TK-2260EX	TK-3260EX
GENERAL		
Frequency Range	136-174 MHz	440-470 MHz
Number of Channels	Max. 16 ch	
Channel Spacing	25 kHz / 20 kHz / 12.5 kHz	
Channel Step	2.5 kHz / 5 kHz / 6.25 kHz / 7.5 kHz	
Operating Voltage	6 V ~ 8.4 V	
Battery Life (5-5-90 duty cycle)		
Battery Saver On	23 hours (w/KNB-58LEX) / 13 hours (w/KNB-64LEX)	
Battery Saver Off	18 hours (w/KNB-58LEX) / 10 hours (w/KNB-64LEX)	
Operating Temperature Range	-20°C ~ +50°C	
Frequency Stability	±3.0 ppm	
Antenna Impedance	50 Ω	
Current Drain		
Standby	77 mA	
RX	250 mA	
TX	1.0 A	
Dimensions (W x H x D), Projections Not Included		
Radio Only	61.8 x 128.3 x 42.7 mm	
with KNB-58LEX	61.8 x 128.3 x 49.5 mm	
with KNB-64LEX	61.8 x 128.3 x 45.5 mm	
Weight (net)		
Radio Only	279 g	
with KNB-58LEX	484 g	
with KNB-64LEX	444 g	

	TK-2260EX	TK-3260EX
RECEIVER		
Sensitivity		
EIA 12 dB SINAD	0.25 µV / 0.25 µV / 0.32 µV (-6 dBµV / -6 dBµV / -4 dBµV)	
EN 20 dB SINAD	0.32 µV / 0.32 µV / 0.36 µV (-4 dBµV / -4 dBµV / -3 dBµV)	
25 kHz / 20 kHz / 12.5 kHz		
Selectivity		
25 kHz / 20 kHz / 12.5 kHz	70 dB / 70 dB / 62 dB	
Intermodulation Distortion	65 dB	
Spurious Response	70 dB	
Audio Distortion	3 % typ	
Audio Output	400 mW / 16 Ω	
TRANSMITTER		
RF Power Output	1.2 W	
Modulation Limiting		
25 kHz / 20 kHz / 12.5 kHz	±5.0 kHz / ±4.0 kHz / ±2.5 kHz	
Spurious Response	-36 dBm (≤1 GHz)	
	-30 dBm (>1 GHz)	
FM Hum & Noise		
25 kHz / 20 kHz / 12.5 kHz	45 dB / 43 dB / 43 dB	
Audio Distortion	5 % typ	
Modulation	16K0F3E, 14K0F3E, 8K50F3E 14K0F2D, 12K0F2D, 7K50F2D	

Note: Analogue measurements made per EN Standards or TIA/EIA 603 and specifications shown are typical.
Kenwood reserves the right to change specifications and features without prior notice.
FleetSync® is a registered trademark of Kenwood Corporation.
Windows® is a registered trademark of Microsoft Corporation in the United States and other countries

Approved Standard

Standard		Detail	ID
Low Voltage Directive		EN 60065, EN 60950-1, EN 60215	
R&TTE Directive		EN 300 086-2, EN 300 113-2, EN 300 219-2, EN 301 489-5, EN 301 489-1	CE0168①
ATEX Directive			
Gas:	II 2G Ex ib IIC T4	EN 60079- 0, EN 60079-11,	TUV 09 ATEX 7759 X
Dust:	II 2D Ex tD ibD A21 IP6X T110°C	EN 61241- 0, EN 61241- 1,	
Mining:	I M2 Ex ib I	EN 61241-11	
IECEx Scheme			
Gas:	Ex ib IIC T4 Gb	IEC 60079- 0, IEC 60079-11,	IECEx TUR 09.0004X
Dust:	Ex ib tb IIIC T110°C Db IP6X	IEC 61241- 0, IEC 61241- 1,	
Mining:	Ex ib I Mb	IEC 61241-11	
International Protection Standard			
Dust & Water Protection		IP 64	

Applicable MIL-STD

Military Standards	Methods/Procedures MIL-STD 810C	Methods/Procedures MIL-STD 810D	Methods/Procedures MIL-STD 810E	Methods/Procedures MIL-STD 810F	Methods/Procedures MIL-STD 810G
Low Pressure	500.1/Procedure I	500.2/Procedure I, II	500.3/Procedure I, II	500.4/Procedure I, II	500.5/Procedure I, II
High Temperature	501.1/Procedure I, II	501.2/Procedure I, II	501.3/Procedure I, II	501.4/Procedure I, II	501.5/Procedure I, II
Low Temperature	502.1/Procedure I	502.2/Procedure I, II	502.3/Procedure I, II	502.4/Procedure I, II	502.5/Procedure I, II
Temperature Shock	503.1/Procedure I	503.2/Procedure I	503.3/Procedure I	503.4/Procedure I, II	503.5/Procedure I
Solar Radiation	505.1/Procedure I	505.2/Procedure I	505.3/Procedure I	505.4/Procedure I	505.5/Procedure I
Rain	506.1/Procedure I, II	506.2/Procedure I, II	506.3/Procedure I, II	506.4/Procedure I, II	506.5/Procedure I, III
Humidity	507.1/Procedure I, II	507.2/Procedure II, III	507.3/Procedure II, III	507.4	507.5/Procedure II
Salt Fog	509.1/Procedure I	509.2/Procedure I	509.3/Procedure I	509.4	509.5
Dust	510.1/Procedure I	510.2/Procedure I	510.3/Procedure I	510.4/Procedure I, II	510.5/Procedure I
Vibration	514.2/Procedure VIII, X	514.3/Procedure I cat. 8	514.4/Procedure I cat. 8	514.5/Procedure I cat. 20	514.6/Procedure I
Shock	516.2/Procedure I, II, V	516.3/Procedure I, IV	516.4/Procedure I, IV	516.5/Procedure I, IV	516.6/Procedure I, IV

Kenwood has always connected with people through sound. Now we want to expand the world of sound in ways that only Kenwood can, listening to our customers and to the pulse of the coming age as we head toward a future of shared discovery inspiration and enjoyment

JVCKENWOOD U.K. Limited
12 Priestley Way, London NW2 7BA, United Kingdom
www.kenwoodcommunications.co.uk

JQA-QMA1205 091-A
ISO9001 Registered
Communications Equipment Division
Kenwood Corporation
ISO9001 certification

Version3 - April 2011
COMTK2260ATEX