

IMARK

PRODUCT DESCRIPTION



KYODO KG209 PORTABLE TRANSCEIVER

Rugged, 200 Channels, 5 Watts, Wide Bandwidth
Imark Stock # [91xxxx](#)

Features:

- One or two frequency simplex operation
- All FM frequency bands from 30 MHz to 520 MHz
- 12.5 KHz and 25/30 KHz Channel Spacing
- Wide 22 - 35 MHz non-tuning bandwidth
- Field programmable with an IBM-PC™ or compatible computer
- Up to 200 channels or up to 100 channels with 8 digit channel labelling feature
- "Kill Mode" to disable the radio and prevent unauthorised use
- Emergency mode
- Key Lock facility
- CTCSS or DCS on a per channel basis
- Internal Voice Encryption unit
- 5 tone Selcall encoder/decoder with Automatic Number Identification (ANI) facility and DTMF Encoder/Decoder
- Transmit High or Low power settings on a per channel basis
- Transmit Time Limiter to prevent channel jamming
- Receive Time Limiter to conserve battery should the radio be left "ON"
- Several Scanning modes
- Large 8 digit alpha-numeric LCD display with backlight
- Self Diagnostics display on LCD in event of fault status.

DESCRIPTION:

The **Kyodo KG209** series of portable transceivers are compact ruggedly constructed state of the art portable transceivers. They feature an electronically tuned front end and therefore have a wide switching bandwidth of 5MHz on VHF low band, 22 MHz on VHF mid band, 26 MHz on VHF Hi band and 35MHz on UHF bands. Models can be supplied for all commercial and military frequency bands from 35 MHz to 520 MHz.

The **KG209** portable transceiver is supplied with a 16 Key DTMF keypad that supports both DTMF encoding & decoding as well as 5 tone Selective Calling encoding & decoding. The **KG209** includes features such as ANI, Memory calling, Emergency calling, Transmit Time Limiter, Power Down Timer, Voice Encryption and other features all as standard equipment. Thus purchasers of the Kyodo **KG209** portable are purchasing a Japanese made product with "state of the art technology" which will have a longer useful service life before the product becomes overtaken by technological advances.

The **KG209** chassis and covers are constructed of die-cast aluminium while the battery section is housed in an ABS case. The replaceable Nickel Metal Hydride battery is constructed in a unique "L" shape which spreads the attaching load over two major areas thus reducing the likelihood of the battery becoming detached, or breaking away from the radio section in the event of the complete radio being dropped onto a hard surface, or under arduous use, while at the same time, permitting quick and easy exchange. The radio section is sealed with "O" rings to resist the ingress of dust and moisture.

Internally, the **KG209** is constructed using miniature electronic Surface Mounting Technology components. Surface Mounted components are used throughout as their mass is much less than normal leaded components thus enhancing reliability and longevity. Additionally, the absence of troublesome leaded components and wires further enhance the reliability of the transceiver. The antenna is attached by a TNC connector, and the user interface keys and knobs are conveniently located on the front or the top of the radio. It includes modern signalling facilities and is easily operated. The **KG209** can be supplied with a belt clip attachment enabling the user to easily carry the radio by attaching it to the user's belt. (This must be specially ordered and cannot be used with the **HDLC109** Leather Case).

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PRODUCT DESCRIPTION

SPECIFICATIONS:		
GENERAL		
Frequency Range	All FM bands from 30 to 520 MHz	
Channels	Up to 200, 500 available on special order	
Channel Spacing	6.25kHz, 12.5kHz, 20kHz, 25kHz, & 30kHz	
Mode of Operation	Single or Two Frequency Press-To-Talk System	
Antenna Impedance	50 ohms unbalanced	
Power Supply	7.2V Rechargeable Nickel Cadmium or Nickel Metal Hydride Battery	
Battery Life with NH100 Battery		
Duty Cycle (%)	10 : 10 : 80	5 : 5 : 90
High Power: 5 Watts	4.7 - 5.2 Hours	8.2 - 8.7 Hours
Low Power: 1 Watt	8.0 - 8.8 Hours	13.4 - 13.8 Hours
Environmental Conditions	Ambient Temperature: -30°C to +60°C Relative Humidity: 95% at +35°C	
Dimensions (excluding protrusions)	55 (W) mm x 146 (H) mm x 36 (D) mm with NH1100 Battery	
Weight	480 Grams with NH1200 Battery	
Shipping Dimensions	160 (W) mm x 60 (H) mm x 240 (D) mm	
Shipping Weight	700 Grams with NH1200 Battery	
TRANSMITTER		
RF Power Output	High/Low switchable (5W/1W) programmable on a per channel basis	
Maximum Frequency Deviation	±5 kHz, ±4 kHz, ±2.5 kHz	
Frequency Stability	±0.0005% (Wide Band Channels), ±0.00025% (Narrow Band Channels)	
Frequency Response	Within +1dB, -3dB of 6db/Octave Pre-Emphasis from 0.3 to 3kHz, 1kHz Reference	
Signal to Noise Ratio	More than 44dB at 1kHz 70% Modulation (Narrow Band Channels) More than 50dB at 1kHz 70% Modulation (Wide Band Channels)	
Modulation Distortion	Less than 5% at 1 kHz 70% Modulation	
Spurious and Harmonics	More than 72dB below rated power	
RECEIVER		
Intermediate Frequencies	1 st IF: 48.5 MHz, 2 nd IF: 455 kHz	
Frequency Stability	±0.0005% (Wide Band Channels), ±0.00025% (Narrow Band Channels)	
Sensitivity	Better than 0.4µV for 20dB SINAD Better than 0.25µV for 12dB SINAD	
Squelch Sensitivity	Less than 0.25µV	
Bandwidth	More than 12 kHz for 6dB down (Wide Band Channels) More than 6 kHz for 6dB down (Narrow Band Channels)	
Selectivity	Better than 70dB	
Blocking	Better than 90dB	
Intermodulation	Better than 70dB	
Spurious Response	Better than 70dB	
AF Response	Within +1, -3 dB of 6dB/Octave de-emphasis from 0.3 to 3.0 kHz, 1 kHz Reference	
AF Output	500mW into 8 ohms Maximum	
AF Distortion	Less than 5% at 250 mW Output	
Signal to Distortion	More than 44dB at 1kHz 70% Modulation 12.5kHz Channel Spacing More than 50dB at 1kHz 70% Modulation 25kHz Channel Spacing	
Options	Kyodo KC1209 Fast Charger Kyodo KC0209 Trickle Charger Kyodo KD560 Speaker/Microphone Imark HDLC209 Heavy Duty Leather Case Imark HDLC209SW Heavy Duty Leather Case with Swivel Bracket Imark VCC209 Vehicle Cradle & Charger Imark WCC14209 14 way Charger in Wall Cabinet Kyodo PS209 Programming Software Kit	