

KENWOOD

Listen to the Future

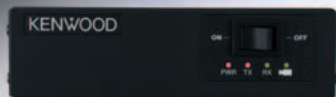
NEXEDGE®

Wireless Image System

KVT-11 Image Encoder Unit

KAS-11 Image Viewer Software

Still image transmission system employing
NEXEDGE® digital transceivers



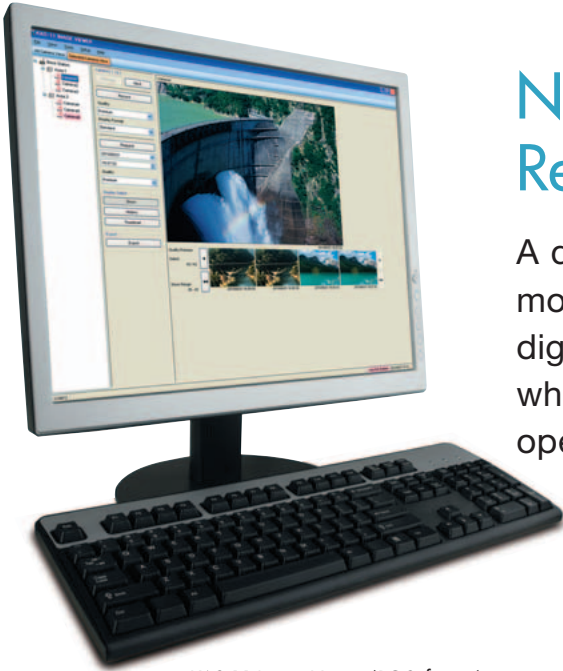
Wireless Image System



Waterway



Railway



KAS-11 Image Viewer (PC Software)

NEXEDGE® Remote monitoring solution

A quick and effective way to set up a 24/7 remote monitoring system at virtually any location with NEXEDGE® digital radio systems coverage. Provides the “last mile” link when no other is available. Simple installation, easy operation, wide coverage.



KVT-11 Image Encoder

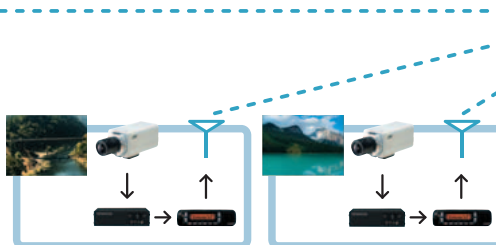


NX-700/800 NEXEDGE® Digital Transceiver

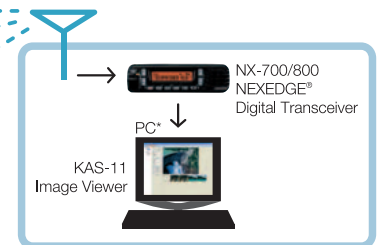
Components

This innovative system consists of a monitor station and a base station, linked via NEXEDGE® digital transceivers. Still images are transmitted from the remote site to the base station computer, which serves as the control center. Several sites can be monitored simultaneously.

Monitor Stations



Base Station



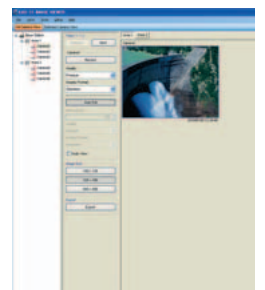
*For operating system and hardware requirements, see specifications.

Monitor station

Commands are transmitted from the computer via NEXEDGE® digital transceiver to the monitoring station, which can be located virtually anywhere – even in another state – thanks to the wide coverage offered by NEXEDGE® with its multisite IP networking capability. The monitor station at the other end consists of a NEXEDGE® digital transceiver, the KVT-11 Image Encoder, and a surveillance camera. The KVT-11 captures still pictures at VGA resolution (900KB) and these images are stored temporarily in memory (8MB) for processing.

Base station

The base station consists of a computer running the KAS-11 Image Viewer software and a NEXEDGE® digital transceiver. Remote operation of the monitor station is simple: the Windows® user interface offers pull-down menus and labeled buttons. These make camera setup, parameter adjustment, remote site image capture, and browsing and exporting images easy. Multiple cameras can be managed from a single base station and organized into groups for greater convenience.





Construction



Motorway

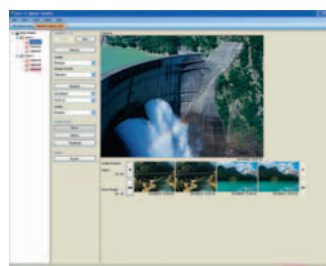


Observation

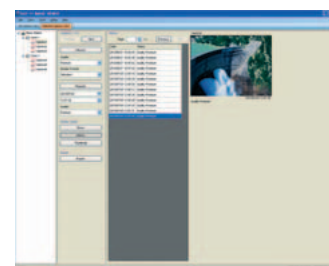
Features

Image capture (Auto Poll, Record, Request)

For routine operation, the “Auto Poll” function is used to capture images at preset intervals. Image quality, interval and display format can be set or adjusted at any time from the base station. Additionally, “Record” can be used for immediate capture whenever necessary. And the History view allows the operator to “Request” a particular image – stored in the KVT-11’s memory – for retransmission, perhaps at a higher quality for verification purposes.



Images acquired from a selected camera



History view of a particular image from a selected camera

Compression & transmission

Any of 5 different quality levels – determined by compression level – can be chosen for the images transmitted by the KVT-11. The KVT-11 applies MPEG-4 AVC / H.264 video compression to the images from the camera. This ensures twice the compression possible using JPEG and with less video noise.

Higher compression means faster transmission. And thanks to the high data transfer capabilities of NEXEDGE® digital transceivers, the images are transmitted at approx. 3.6kbps (12.5kHz) and 1.8kbps (6.25kHz). This results in better quality and faster access than is possible with an analog wireless solution.



Transfer rates*

Image quality	Image transfer time (sec.)	
	Narrow (12.5kHz)	Very narrow (6.25kHz)
Premium	46	95
Super Fine	32	59
Very Fine	20	35
Fine	12	20
Standard	9	13

*Transfer rate will vary depending on the selected image quality and NEXEDGE® system configuration. Transfer times are approximate.

Other features

- Multi-camera setup with tree view of all cameras and groups
- Choice of 3 image display sizes: 160 x 120, 320 x 240, 640 x 480
- Choice of 5 display formats: Standard, Quadrisection, Resolution Division, Center of Quadplex Image, Center of Nonuple Image
- Log Data with search function
- Image export (bitmap/JPEG)
- 2-layer password protection)

Quadrisection



Resolution Division



Center of Quadplex



KVT-11 Image Encoder

Specifications

		KVT-11
Input voltage	Standard	13.2 / 13.6 V DC
	Range	6.5 ~ 16 V DC
Current rating		0.22 A (typ.) at 13.2 ~ 13.6 V DC
Temperature range		-30° C ~ +60° C
Dimensions WxHxD (projections not included)		136.4 x 38 x 92.2 mm
		5.37 x 1.50 x 3.63 in.
Weight		520 g / 18.3 oz
Input signal system		NTSC / PAL
Video input	Composite	1.0 V(p-p), 75 ohms (BNC)
Approved standards	FCC	Code of Federal Regulations Title 47 Part 15 Subpart B Part 15.3 (k) Digital device
	IC	CES-003, Class B digital apparatus
	EMC directive	EN50130-4 EN61000-6-3
	Safety	EN60950-1 EN60065 EN60215

Note: Surveillance camera is not included.

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Pentium® is a registered trademark of Intel Corporation.
NEXEDGE® is a registered trademark of Kenwood Corporation in the U.S.A. and some countries.

Applicable MIL-STD

Military Standard (MIL)	Method / Procedure				
	810C	810D	810E	810F	810G
Dust	510.1 / Procedure I	510.2 / Procedure I	510.3 / Procedure I	510.4 / Procedure I	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, Cat. 20
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

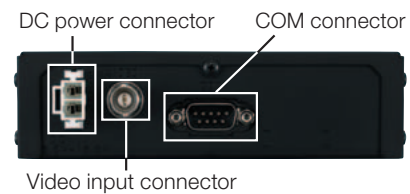
Front



Indicators

Indicator	Color	Meaning
PWR	Red	Lit while the power is ON
TX	Red	Lit while transmitting
RX	Green	Lit while receiving
	Green	Lit: Camera is connected. Unlit: Camera is not connected. Blinking: Image data is being processed.

Rear



KAS-11 Image Viewer PC Software / Hardware requirements

Operating system	Microsoft Windows XP (SP3) / Vista (32 bit, 64 bit) / Windows 7 (32 bit, 64 bit)
CPU	Intel Pentium III, 1 GHz or higher
RAM	300 MB or more
HDD	100 MB or more free space

NEXEDGE® Digital Transceivers



■ NX-700/800

Recommended Cameras

The following JVC surveillance cameras are recommended for use with this system.



■ TK-C9200 or TK-C9300 Series
1/3" CCD Video Camera



■ TK-C2201 Series
1/3" CCD Fixed Dome Camera

Listen to the Future

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.

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