



The affordable ENG system your news department has been waiting for

The DSI NewsShark is a portable ENG transmission system that will change the way your station covers breaking news.

The NewsShark field unit can be factory configured to snap on the back of most ENG cameras, using an industry standard mount, or carried using a convenient shoulder strap.

Weighing only two-and-a-half pounds and 7 1/2" x 4 1/4" x 4 3/4" in size, the NewsShark encodes, and uses your choice of 3G or Wi-Fi technologies to transmit, live video and audio in real time back to the studio, with higher quality video than cell phones and without the tangle of wires and hardware involved when using a laptop computer for back haul.

The NewsShark features Robustivity™ which adjusts the image quality to compensate for varying bandwidth availability, so that you always transmit the best picture that the network can support.

H.264 video and AAC audio encoding are used for highest efficiency operation.

The NewsShark system also features a low bit rate IFB feed for the air talent and a two-way IFB for the camera operator.

A Tool for Newsgathering

The DSI NewsShark can help your station be first on the air from the site of breaking news, sending video and audio back to the studio while your main news vehicle is setting up.

Unlike a typical news truck, the NewsShark can feed video while in motion and is so simple to use that the operator only needs to power it on. This makes it a great tool to take advantage of your entire station's staff.



NewsShark Decoder

The NewsShark system also serves as an affordable means of covering stories outside of your market or beyond the coverage area of your central receive system. It makes it easy to get a second or third live feed from events anywhere in the world where Wi-Fi* or 3G are available. Just input an IP address from any of your NewsShark encoders into your decoder and you're on the air.



NewsShark Field Unit

NewsShark In Use

At the studio, a 1 RU NewsShark decoder can receive several NewsShark video transmissions (one at a time) via an Internet connection.

The NewsShark field unit is entirely self-contained with a 3 dBi gain antenna and a 6100 mAh battery. A fully-charged battery provides four to five hours of power, depending on the transmission method. Encoder power can also be supplied by a camera's external battery, via an industry standard connector, or directly from a 12-36 volt DC power source, including a vehicle's lighter connector.

Coming later this year

As 4G network access points expand, DSI RF Systems will introduce solutions to take advantage of increased bandwidth, including an HD version of the NewsShark. Visit our website at www.dsirf.com often for updates.

From innovative products including remote camera systems through engineering and consulting services, major broadcasters around the world have relied on DSI RF Systems for over 25 years to answer their call for premier technical solutions.



Mechanical

Encoder

Configurations:	Camera back style (industry-standard battery mount) Shoulder strap carry style
Size:	4 ¼" x 4 ¾" x 7 ½" (WxDxH)
Weight:	2.5 lbs.
Material/Finish:	Powder coated aluminum Protective urethane sides
Durability:	Recessed connector protection
Environmental:	Weather-tight, not weather-proof

Decoder

Mounting:	Rack mount
Size:	1 RU, 8 ¾" deep
Material/Finish:	Powder coated aluminum

Audio/Video

Encoder

Video	
Format:	NTSC
Impedance:	75 Ohms, terminating
Connector:	BNC female chassis
Level:	1 volt peak to peak

Program Audio

Configuration:	Mono analog
Input Level:	Switchable mic/line in (encoder only)
Frequency Response:	50 Hz to 7.5 kHz
Input Connector:	Neutrik combination XLR-F (balanced) or ¼" phone (unbalanced)
Line Input Level:	-10 to +4dBu adjustable, bridging
Line Output Level:	-10 to +4dBu adjustable, Lo-Z

IFB Audio

Configuration:	Mono analog
Reporter:	Headphone only
Camera Operator:	Microphone and headphone
Frequency Response:	50 Hz to 7.5 kHz
Connectors:	3.5mm, 3 conductor mini plug (¼")
Impedance:	Bridging
Input Level:	Microphone
Output Level:	Adjustable Lo-Z headphone output

Decoder

Video	
Format:	NTSC
Impedance:	75 Ohms
Connector:	BNC female chassis
Level:	1 volt peak to peak

Program Audio

Configuration:	Mono analog only
Program Output Level:	-10 to +4 dBu
Frequency Response:	50 Hz to 7.5 kHz
Connectors:	Phoenix captive
Impedance:	Lo-Z output

IFB Audio

Configuration:	Mono analog only
IFB Line Input Level:	-10 to +4 dBu adjustable, bridging
IFB Output Level:	-10 to +4 dBu adjustable, Lo-Z
Frequency Response:	50 Hz to 7.5 kHz
Connectors:	Phoenix captive

Compression Encoding/Decoding

Compression Protocol:	H.264 (MPEG4 AVC) with AAC audio coding Variable Bit Rate
Video Bit Rate Range:	25 kbps to 1.1 Mbps (3G)
Audio Bit Rate Range:	16 kbps per channel (IFB is considered part of the audio chain)
Overall Bit Rate Range:	75 kbps to 1.5 Mbps (3G)
Video Frame Rate Range:	1 to 30 fps
Audio Sampling Rate:	16 kHz
Resolution:	NTSC/525 variable
Robustivity Presets:	User adjustable - from front panel
Latency (End to End):	1 to 4 seconds (subject to transmission conditions)
GOP:	Variable
Codec Interoperability:	None, due to duplex IFB path and communications between the encoder/decoder to optimize network traffic & bandwidth

Power

Encoder (all versions)

Voltage:	12 - 36 VDC
Power Consumption:	3 watts
Power On/Off:	5 second Power On/Off push button
Boot-up Period:	50 seconds

Portable

Typical Run Time:	Estimated at least 3 hours with 3G connected
Internal Battery:	Lithium-ion
External DC Source:	Vehicle, other Industry-standard battery mount with pass-thru of DC voltage and signaling
Connector:	Coaxial screw-on type

Rack Mount

Connector:	Phoenix captive
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Decoder

Voltage:	12 - 36 VDC
Power:	3 watts
External DC Voltage:	Vehicle, other
Connector:	Coaxial screw-on type
Power On/Off:	5 second Power On/Off push button
Boot up Period:	50 seconds

User Controls

Encoder

Display:	Graphic backlit LCD 0.77" x 1.28"
Item Select:	Illuminated pushbutton
Status Indicators:	Multi-function LCD and status LEDs
Menu Select:	Digital rotary encoder
IFB Volume:	Individual controls for both camera operator and talent

Decoder

Display:	20 characters by 2 line backlit LCD
Item Select:	Illuminated pushbutton
Status Indicators:	Multi-function LCD and status LEDs
Menu Select:	Digital rotary encoder
Headphone Control:	Front panel volume control
Headphone Connector:	Front panel ¼" headphone jack

Transmission

RF

Encoder	
FCC Compliance:	In process
Antenna Type:	Low-profile integrated gain antenna, vertically polarized
Impedance:	50Ω
Gain:	3 dBi
Diversity:	Receive diversity only
Diversity Connector:	SMA female screw-on type
3G Network Requirements:	Most major US wireless providers
Network Types:	EVDO, HSDPA
Wi-Fi Protocols:	802.11 b/g/n
FCC License:	No end-user license required

IP

IP Protocols:	RTP/UDP/IPv4 10/100 Mb/s Ethernet (decoder only)
Encoder/Decoder:	Requires static IP addressing (a dedicated broadband Internet connection is strongly suggested)

Miscellaneous

Warranty

Warranty:	1 year on parts and labor
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Encoder Mounting Options

Mounting:	Camera back with battery adaptors Vehicle gimbal mount Shoulder strap
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Encoder Options - Rack Version

Power:	12 VDC vehicle adaptor
Antenna:	Magnetic mount diversity receive antenna

All Specifications are typical and are subject to change without notice

*WiFi access is available over managed networks. For more information, please consult the DSI RF Systems website at www.dsirf.com.