DPR-A

TECHNICAL DATA

Digital Plug-on Transmitter

DPR-A, DPR-A/E01, DPR-A/E01-B1C1

- Wideband UHF tuning range
- Accepts microphone or line level signals
- Selectable 5, 15, 48 volt phantom power
- Selectable 25/50 mW RF output power
- Adjustable low frequency roll-off
- Powered by two AA batteries
- IR (infrared) port for fast setup
- Remote controlled “dweedle” tones (audio tone set-up control)
- Time code jam sync with <1PPM accuracy
- Solid machined aluminum housing
- On board recording
- Encryption 256 Bit AES, CTR Mode

DPR-A Digital Plug-on Transmitter

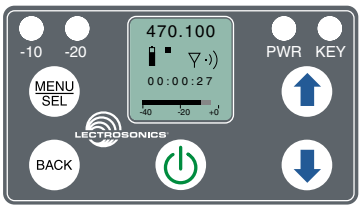
This unique digital plug-on transmitter design will ideally match any microphone or line level source via a standard XLR connector. The DPR-A can tune in coarse or fine steps across the UHF television band from 470.100 to 607.950 MHz (470.100 to 614.375 MHz for E01 version and 537.600 to 691.175 for E01/B1C1 version), with a selectable output power of 25 or 50 mW. The purely digital architecture supports AES 256-CTR encryption for high level security applications.

The transmitter is specially designed with high efficiency digital circuitry for extended operating time on two AA batteries, with status indicated by a multi-color LED. An IR (infrared) port is included to simplify setup with IR enabled receivers. Updates can be made via SD card.

The input amplifier uses an ultra low noise op-amp for quiet operation. It is gain controlled with a wide range, dual envelope limiter, providing over 30 dB of headroom above full modulation. A 24-bit A-D converter digitizes the audio, then filters out supersonic noise above 21 kHz.

The DPR-A has an external SMA antenna jack, which accepts Lectrosonics steel flex wire AMM or AMJ series antennas.

Setup and adjustments are achieved through a backlit LCD, membrane switches and an intuitive menu structure. The DPR also offer hands free setup and adjustment using audible tones via the LectroRM mobile app. Remotely, the DPR can be powered on and off, and the frequencies and audio levels can be adjusted. Other features include input gain adjustment in 1 dB increments over a 55 dB range and adjustable low frequency audio roll-off for 3 dB down points at 25, 35, 50, 70, 100, 120 or 150 Hz to control subsonic and very low frequency audio content.



Dual color LEDs indicate audio input level and the power LED changes color under low battery conditions.

Alternate Recording Function

The DPR transmitter may also be used as a stand alone recorder. The industry standard .wav (BWF) file format employed is compatible with essentially any audio or video editing software. The DPR can be jammed with timecode sync for each audio file alignment during post production and uses a temperature compensated crystal (TCXO) for <1 PPM accuracy.

NOTE: The transmitting and recording functions cannot be used simultaneously. Users must choose to transmit or record.

WARNING: Moisture, including talent’s sweat, will damage the transmitter. Wrap the DPR-A in our specially designed silicone cover (DPRACVR) or other protection to avoid damage.

LECTROSONICS®
Rio Rancho, NM, USA
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DPR Specifications

Transmitter

Operating Frequencies:	DPR-A: 470.100 - 607.950 MHz DPR-A/E01: 470.100 - 614.375 MHz DPR-A/E01-B1C1: 537.600 - 691.175 MHz
Frequency Selection Steps:	25 kHz
RF Power output:	Selectable 25/50 mW
Frequency stability:	± 0.002%
Digital modulation:	8PSK
Spurious radiation:	US: Compliant with ETSI EN 300 422-1 v1.4.2
Equivalent input noise:	–125 dBV (A-weighted)
Input level:	Nominal 2 mV to 300 mV, before limiting Greater than 1V maximum, with limiting
Input impedance:	1K Ohm
Input limiter:	Dual envelope type; 30 dB range
Gain control range:	55 dB in 1 dB steps; digital control
Modulation indicators:	• Dual bi-color LEDs indicate modulation of -20, -10, 0, +10 dB referenced to full modulation • LCD bar graph
Encryption:	AES 256-CTR (per FIPS 197 and FIPS 140-2)
Audio Performance:	
Frequency Response:	25 Hz to 20 kHz, (+0, -3dB)
Low frequency Roll-off:	Adjustable for -3dB @ 25, 35, 50, 70, 100, 120 and 150 Hz
Input Dynamic Range:	110 dB (A), before limiting 125 dB (with full Tx limiting)
Controls & Indicators:	• LCD w/membrane switches • LED audio level indicators
Audio Input Jack:	Standard 3-pin XLR (female)
Phantom Power:	5V @ 18 mA max., 15V @ 15 mA max. and 48 V @ 4 mA max., plus “OFF”
IR (infrared) port:	For quick setup by transferring settings from an IR enabled receiver
Antenna:	External SMA antenna jack
Battery:	Two 1.5 Volt AA (lithium recommended)
Battery Life:	AA Lithium, 48v phantom power engaged: • SCHOEPS CMIT 5U: 7h 25m • SCHOEPS CMC6-U/MK41: 7h 20m • SANKEN CS-1: 8h 0m
Weight:	7.8 ozs. (221 grams)
Dimensions:	4.21” L [excluding antenna: DPR-A] x 1.62” W x 1.38” H (106.9 L x 41.1W x 35.0 H mm)
Emission Designator:	170KG1E

BATTERY CAUTION: Risk of explosion if the battery is replaced by an incorrect type.

The battery compartment door is hinged to the housing and remains attached to the transmitter when opened. It latches securely in place and applies pressure to the batteries when closed. The two AA batteries are connected in series through a conductive plate on the door.

Recorder

Storage media:	microSDHC memory card (HC Type)
File format:	.wav files (BWF)
A/D converter:	24-bit
Sampling rate:	48 kHz
Recording modes/Bit rate:	HD mono: 24 bit - 144 kb/s
Input:	
Type:	Analog mic/line level compatible; servo bias preamp for 2V and 4V lavaliere microphones
Input level:	• Dynamic mic: 0.5 mV to 50 mV • Electret mic: Nominal 2 mV to 300 mV • Line level: 17 mV to 1.7 V
Timecode:	
Connector:	3.5 mm TRS
Signal voltage:	0.5 Vp-p to 5 Vp-p
Input impedance:	10 k Ohms
Accuracy	<1 PPM with TCXO
Format:	SMPTE 12M - 1999 compliant
Audio Performance:	
Frequency response:	25 Hz to 20 kHz; +0.5/-1.5 dB
Dynamic range:	110 dB (A), before limiting 125 dB (with full Tx limiting)
Distortion:	< 0.035%
Operating temperature range:	
Celsius:	-20 to 50
Fahrenheit:	-5 to 122

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