

# EK 100 G3 Portable receiver

## FEATURES

- Sturdy metal housing
- 42 MHz bandwidth: 1680 tunable UHF frequencies for interference-free reception
- Enhanced frequency bank system with up to 12 compatible frequencies
- Adaptive-diversity reception for high reception quality
- Pilot tone squelch for eliminating RF interference when transmitter is turned off
- Automatic frequency scan feature searches for available frequencies
- Enhanced AF frequency range
- Wireless synchronization of transmitters via infrared interface
- User-friendly menu operation with more control options
- Illuminated graphic display
- Auto-Lock function avoids accidental changing of settings
- HDX compander for crystal-clear sound
- Receiver features battery indication in 4 steps
- Contacts for recharging BA 2015 accupack directly in the receiver
- Wide range of accessories adapts the system to any requirement
- Optimized PLL synthesizer and micro-processor technology
- Scan function (Easy Setup) for scanning the frequency banks for unused channels

Portable components always work easiest when you do not have to think about them. This was the basis on which the **EK 100 G3** was developed. Its adaptive-diversity technology provides excellent reception at all times. This receiver is designed to securely attach to a camera's shoe using a clamp mount. The EK 100 G3 also can synchronize to a G3 transmitter with a simple push of a button. The EK 100 G3 is compatible with the optional DC 2 external adapter for extended use without batteries where a 12 V DC source is available.



## TECHNICAL DATA

Modulation .....	wideband FM
Frequency ranges.....	516–558, 566–608, 626–668, 734–776, 780–822, 823–865 MHz
Receiving frequencies .....	1,680 frequencies, tuneable in steps of 25 kHz 20 frequency banks, each with up to 12 factory-preset channels 1 frequency bank with up to 12 user programmable channels
Switching bandwidth.....	42 MHz
Nominal/peak deviation .....	±24 kHz/±48 kHz
Receiver principle .....	adaptive diversity
Sensitivity (with HDX, peak deviation) .....	< 4 µV, typ. 1.6 µV for 52 dBArms S/N
Adjacent channel rejection .....	typ. ≥ 65 dB
Intermodulation attenuation.....	typ. ≥ 65 dB
Blocking.....	≥ 70 dB
Squelch .....	Off, Low: 5 dBmV, Middle: 15 dBmV, High: 25 dBmV
Pilot tone squelch .....	can be switched off
Compander system.....	Sennheiser HDX
S/N ratio (1 mV, peak deviation) .....	≥ 60 dBA
THD.....	≤ 0.9 %
AF output voltage (at peak deviation, 1 kHz AF) .....	3.5 mm jack socket: +11 dBu (mono, unbalanced)
Adjustment range of audio output level.....	42 dB, adjustable in steps of 6 dB
Temperature range.....	–10 °C to +55 °C
Power supply.....	2 AA size batteries, 1.5 V or BA 2015 accupack

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### TECHNICAL DATA

Nominal voltage.....2.4 V DC  
Power consumption:  
at nominal voltage .....typ. 140 mA  
with switched-off receiver..... $\leq 25 \mu\text{A}$   
Operating time .....typ. 8 hrs  
Dimensions.....approx. 82 x 64 x 24 mm  
Weight (incl. batteries) .....approx. 120 g

#### DELIVERY INCLUDES

1 EK 100 G3 diversity receiver  
2 AA size batteries, 1.5 V  
1 CA 2 camera adapter  
1 CL 100 line cable  
1 CL 1 line cable  
1 Instruction manual  
1 Frequency information sheet

### ARCHITECT'S SPECIFICATIONS

The compact camera receiver with adaptive diversity technology shall be for use with a companion transmitter as part of a wireless RF monitoring system.

The receiver shall operate within six UHF frequency ranges, each with a 42 MHz switching bandwidth: 516–558 MHz, 566–608 MHz, 626–668 MHz, 734–776 MHz, 780–822 MHz, 823–865 MHz; receiving frequencies shall be 1,680 per range and shall be tunable in 25 kHz steps. The receiver shall feature 20 fixed frequency banks with up to 12 compatible frequency presets and 1 user bank with up to 12 user programmable frequencies.

Nominal/peak deviation shall be  $\pm 24 \text{ kHz}/\pm 48 \text{ kHz}$ . Squelch threshold shall be defeatable (off) or adjustable to three levels: Low (5 dB $\mu\text{V}$ ), Middle (15 dB $\mu\text{V}$ ) and High (25 dB $\mu\text{V}$ ).

The receiver shall incorporate the Sennheiser HDX compander system and a defeatable pilot tone squelch. Sensitivity shall be  $< 4 \mu\text{V}$ ; 1.6  $\mu\text{V}$  (typical) for 52 dB Arms S/N with HDX engaged at peak deviation. Adjacent channel rejection shall be  $\geq 65 \text{ dB}$  (typical). Intermodulation attenuation shall be  $\geq 65 \text{ dB}$  (typical); blocking shall be  $\geq 70 \text{ dB}$ .

Signal-to-noise ratio at 1 mV and peak deviation shall be  $\geq 60 \text{ dB}$ . Total harmonic distortion (THD) shall be  $\leq 0.9 \%$ .

The receiver shall be menu-driven with a backlit LC display showing the current frequency, frequency bank and channel number, metering of RF level, metering of AF level, lock status, battery status, muting function or line output level, and pilot tone evaluation. An auto-lock feature shall be provided to prevent settings from being accidentally altered.

The receiver parameters shall be programmable in the receiver menu.

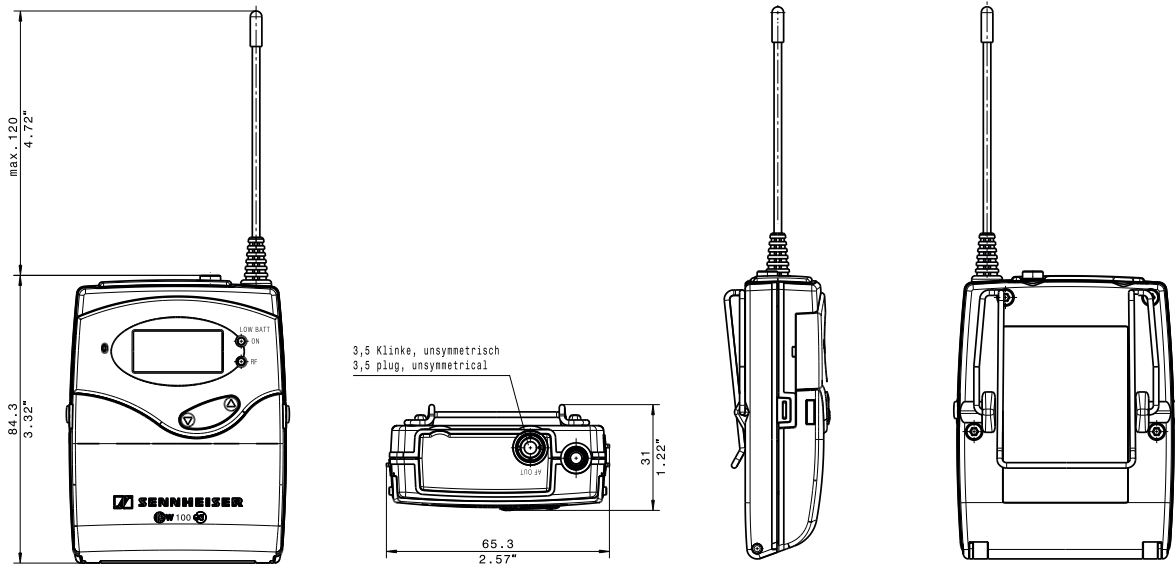
The receiver shall feature a 3.5 mm audio output with a maximum output of +11 dBu (mono, unbalanced).

The audio output level shall be adjustable within a 42 dB range in steps of 6 dB.

Power shall be supplied to the receiver by two 1.5 V AA size batteries or by one Sennheiser BA 2015 rechargeable accupack. Nominal voltage shall be 2.4 V DC, power consumption shall be approximately 140 mA at nominal voltage;  $\leq 25 \mu\text{A}$  when receiver is switched off. Operating time shall be typical 8 hours. The receiver shall have a rugged metal housing; dimensions shall be approximately 82 x 64 x 24 mm (3.23" x 2.52" x 0.94"). Weight including the batteries shall be 120 grams (4.23 oz). Operating temperature shall range from  $-10^\circ\text{C}$  to  $+55^\circ\text{C}$  ( $+14^\circ\text{F}$  to  $+131^\circ\text{F}$ ). The receiver shall be the Sennheiser EK 100 G3.

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## DIMENSIONS



## PRODUCT VARIANTS

EK 100 G3-A – 516...558 MHz	Cat. No. 503125
EK 100 G3-G – 566...608 MHz	Cat. No. 503530
EK 100 G3-B – 626...668 MHz	Cat. No. 503531
EK 100 G3-C – 734...776 MHz	Cat. No. 503532
EK 100 G3-D – 780...822 MHz	Cat. No. 503533
EK 100 G3-D-X – 780...822 MHz / Germany	Cat. No. 503534
EK 100 G3-E – 823...865 MHz	Cat. No. 503535
EK 100 G3-E-X – 823...865 MHz / Germany	Cat. No. 503536

## RECOMMENDED ACCESSORIES

BA 2015 – Accupack	Cat. No. 009950
L 2015 – Charger	Cat. No. 009828
DC 2 – Power adapter	Cat. No. 009827
CA 2 – Camera adapter	Cat. No. 009986
CL 1 – Line cable	Cat. No. 005022
CL 100 – Line cable	Cat. No. 087046
L 1039-10	Cat. No. 505632
CC 3 - Case	Cat. No. 503168

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