



## evolution wireless G4 ew 135 P G4 | Camera Handheld Set



A broadcast quality sound solution. Providing the highest flexibility for your video sound and field recording applications. A robust wireless microphone system that offers excellent sound quality, simple mounting and ease of use.

The easiest wireless solution for moderators or reporters. The rugged e 835 microphone resists any bad weather or field condition, while the versatile receiver is easily mounted to any camera.

### FEATURES

- Rugged all-in-one wireless system with high flexibility for broadcast quality sound
- Excellent sound and construction quality
- Easy to use and fast setup time
- Powerful and reliable wireless transmission
- Range: up to 100 meters / 330 feet
- Up to 8 hours of operation time

### DELIVERY INCLUDES

- EK 100 G4 camera receiver
- SKM 100 G4 handheld transmitter
- MMD 835-1 microphone head
- MZQ 1 microphone clamp
- 4 AA batteries
- CA 2 camera adapter
- CL 1 3.5 mm jack cable
- CL 100 XLR to 3.5 mm jack adapter cable
- quick guide
- safety guide
- manufacturer declaration sheet



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### PRODUCT VARIANTS

#### Made in Germany

<b>ew 135 P G4-A1</b>	470 - 516 MHz	Art. no. 507628
<b>ew 135 P G4-A</b>	516 - 558 MHz	Art. no. 507629
<b>ew 135 P G4-GB</b>	606 - 648 MHz	Art. no. 507630
<b>ew 135 P G4-G</b>	566 - 608 MHz	Art. no. 507631
<b>ew 135 P G4-B</b>	626 - 668 MHz	Art. no. 507632
<b>ew 135 P G4-C</b>	734 - 776 MHz	Art. no. 507633
<b>ew 135 P G4-E</b>	823 - 865 MHz	Art. no. 507634
<b>ew 135 P G4-K+</b>	925 - 937.5 MHz	Art. no. 507635
<b>ew 135 P G4-TH</b>	794 - 806 MHz	Art.-no. 508581

#### Assembled in USA

<b>ew 135 P G4-A1</b>	470 - 516 MHz	Art. no. 507969
<b>ew 135 P G4-A</b>	516 - 558 MHz	Art. no. 507970
<b>ew 135 P G4-AS</b>	520 - 558 MHz	Art. no. 507971
<b>ew 135 P G4-G</b>	566 - 608 MHz	Art. no. 507972
<b>ew 135 P G4-B</b>	626 - 668 MHz	Art. no. 507973
<b>ew 135 P G4-C</b>	734 - 776 MHz	Art. no. 507974
<b>ew 135 P G4-D</b>	780 - 822 MHz	Art. no. 507975
<b>ew 135 P G4-JB</b>	806 - 810 MHz	Art. no. 507976

### SPECIFICATIONS

#### EK 100 G4

##### RF characteristics

Modulation	Wideband FM
Frequency ranges	A1: 470 - 516 MHz A: 516 - 558 MHz AS: 520 - 558 MHz G: 566 - 608 MHz GB: 606 - 648 MHz B: 626 - 668 MHz C: 734 - 776 MHz D: 780 - 822 MHz E: 823 - 865 MHz JB: 806 - 810 MHz K+: 925 - 937.5 MHz 1G8: 1785 - 1800 MHz
Receiving frequencies	Max. 1680 receiving frequencies, adjustable in 25 kHz steps  20 frequency banks, each with up to 12 factory-preset channels, no intermodulation  1 frequency bank with up to 12 programmable channels
Switching bandwidth	up to 42 MHz
Nominal/peak deviation	±24 kHz / ±48 kHz
Receiver principle	Adaptive diversity
Sensitivity (with HDX, peak deviation)	< 1.6 µV for 52 dBA <sub>eff S/N</sub>
Adjacent channel selection	≥ 65 dB
Intermodulation attenuation	≥ 65 dB
Blocking	≥ 70 dB

Squelch	low: 5 dBµV middle: 15 dBµV high: 25 dBµV
Pilot tone squelch	Can be switched off

##### AF characteristics

Compander system	Sennheiser HDX
Signal-to-noise ratio (1 mV, peak deviation)	≥ 110 dBA
Total harmonic distortion (THD)	≤ 0.9 %
AF output voltage (at peak deviation, 1 kHz AF)	3.5 mm jack socket: +12 dBu (mono, unbalanced)
Adjustment range of audio output level	42 dB, adjustable in steps of 6 dB

##### Overall device

Temperature range	-10 °C to +55 °C
Power supply	2 AA batteries, 1.5 V or BA 2015 accupack
Nominal voltage	3 V battery / 2.4 V rechargeable battery
Current consumption	at nominal voltage: typ. 180 mA with receiver switched off: ≤ 25 µA
Operating time	Typically 8 h
Dimensions	Approx. 82 x 64 x 24 mm
Weight (incl. batteries)	approx. 160 g



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### SPECIFICATIONS

#### SKM 100 G4

RF characteristics	
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Transmission frequencies	Max. 1680 receiving frequencies, adjustable in 25 kHz steps  20 frequency banks, each with up to 12 factory-preset channels, no intermodulation  1 frequency bank with up to 12 programmable channels
Switching bandwidth	up to 42 MHz
Nominal/peak deviation	$\pm 24$ kHz / $\pm 48$ kHz
Frequency stability	$\leq \pm 15$ ppm
RF output power at 50 $\Omega$	Max. 30 mW
Pilot tone squelch	Can be switched off

#### AF characteristics

Compander system	Sennheiser HDX
AF frequency response	80 - 18,000 Hz
Signal-to-noise ratio (1 mV, peak deviation)	$\geq 110$ dBA
Total harmonic distortion (THD)	$\leq 0.9$ %
Max. input voltage	3 V <sub>eff</sub>
Input impedance	40 k $\Omega$
Input capacitance	Switchable
Setting range for input sensitivity	48 dB, adjustable in 6 dB steps

#### Overall device

Temperature range	-10 °C to +55 °C
Power supply	2 AA batteries, 1.5 V or BA 2015 accupack
Nominal voltage	3 V battery / 2.4 V rechargeable battery
Current consumption	at nominal voltage: typ. 180 mA with transmitter switched off: $\leq 25$ $\mu$ A
Operating time	Typically 8 h
Dimensions	Approx. $\varnothing$ 50 x 265 mm
Weight (incl. batteries)	approx. 450 g

### SPECIFICATIONS

#### ME 2

Transducer principle	pre-polarized condenser microphone
Pick-up pattern	omni-directional
Sensitivity (free field, no load) (1 kHz)	20 mV/Pa
Max. SPL at 1 kHz	130 dB
Frequency response	"50 to 18,000 Hz (ME 2-II) 30 to 20,000 Hz (ME 2-US)"
"Equivalent noise level A-weighted (DIN IEC 651)"	36 dB
Connector	3.5 mm jack
Cable length	approx. 1.60 m
Supply voltage	7.5 V

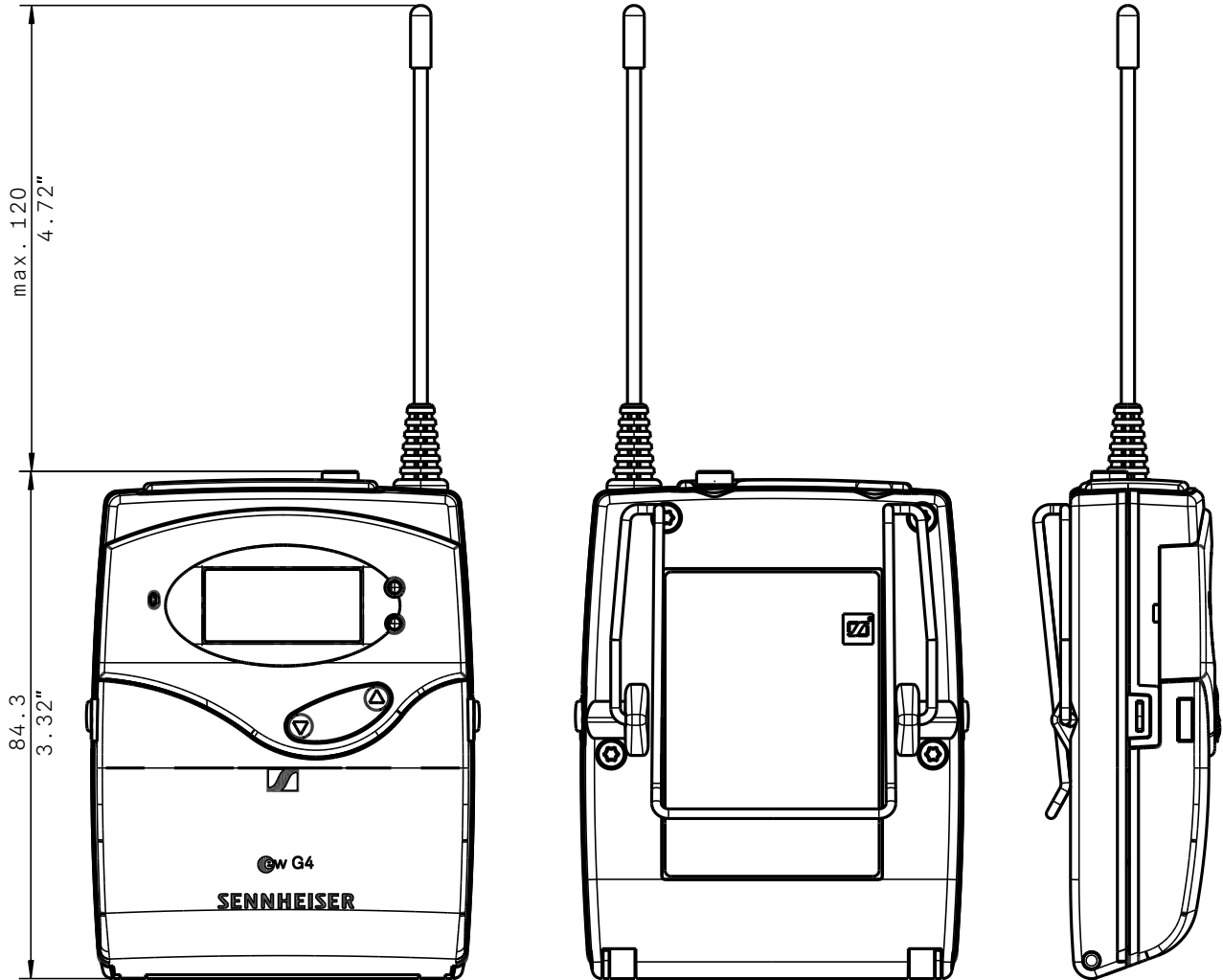


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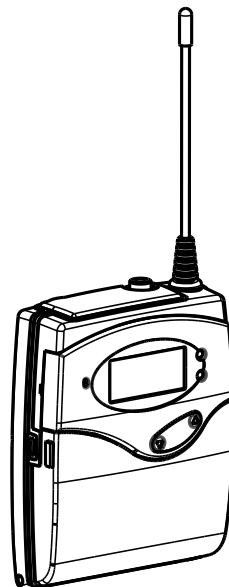
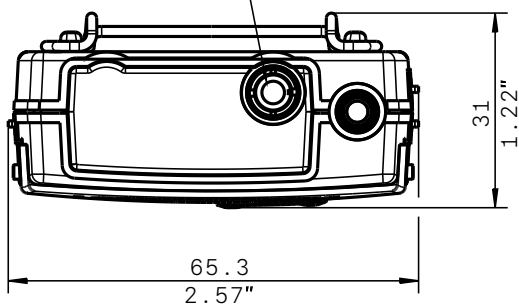
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### DIMENSIONS

#### EK 100 G4



3,5mm Klinke, unsymmetrisch  
3,5mm plug, unsymmetrical



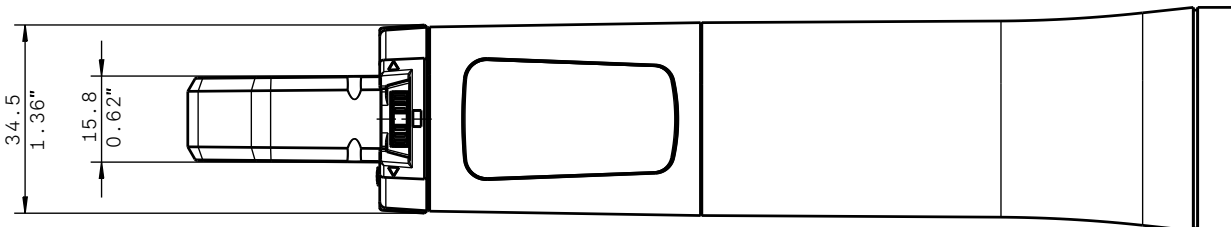
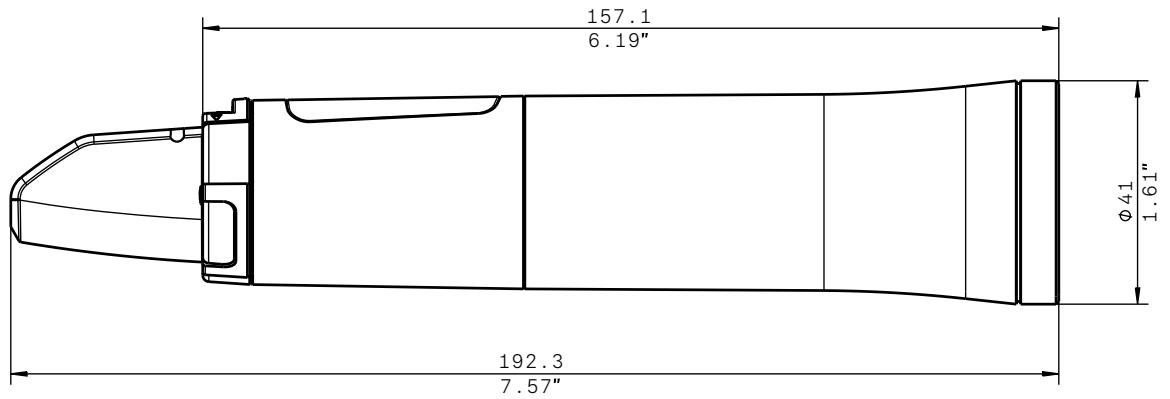
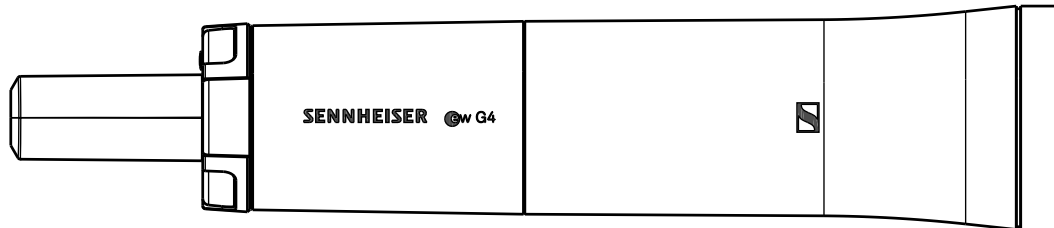


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### DIMENSIONS

#### SKM 100 G4





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### ARCHITECT'S SPECIFICATION

A wireless RF transmission system shall consist of a camera receiver and a handheld transmitter with a cardioid dynamic microphone head.

The receiver shall operate within eleven UHF frequency ranges, with a switching bandwidth of up to 42 MHz: 470 – 516 MHz, 516 – 558 MHz, 520 – 558 MHz, 566 – 608 MHz, 606 – 648 MHz, 626 – 668 MHz, 734 – 776 MHz, 780 – 822 MHz, 823 – 865 MHz, 806 – 810 MHz, 925 – 937.5 MHz; transmission 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.

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).

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

The receiver shall incorporate the Sennheiser HDX compander system and a defeatable pilot tone squelch. Sensitivity shall be  $< 1.6$   $\mu$ V (typical) for 52 dBA eff S/N with HDX engaged at peak deviation. Adjacent channel rejection shall be  $\geq 65$  dB (typical). Intermodulation attenuation shall be  $\geq 65$  dB (typical); blocking shall be  $\geq 70$  dB. Signal-to-noise ratio at 1 mV and peak deviation shall be  $\geq 110$  dBA. Total harmonic distortion (THD) shall be  $\leq 0.9$  %. 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 1.5V AA size batteries or by one Sennheiser BA 2015 rechargeable accupack. Nominal voltage shall be 2.4 V, current consumption shall be typical 180 mA at nominal voltage;  $\leq 25$   $\mu$ 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 approximately 160 grams (0.35 lbs). Operating temperature shall range from  $-10$  °C to  $+55$  °C ( $+14$  °F to  $+131$  °F).

The receiver shall be the Sennheiser EK 100 G4.

The handheld transmitter shall operate within twelve UHF frequency ranges, with a switching bandwidth of up to 42 MHz: 470 – 516 MHz, 516 – 558 MHz, 520 – 558 MHz, 566 – 608 MHz, 606 – 648 MHz, 626 – 668 MHz, 734 – 776 MHz, 780 – 822 MHz, 823 – 865 MHz, 806 – 810 MHz, 925 – 937.5 MHz, 1785 – 1800 MHz; transmission frequencies shall be 1,680 per range and shall be tunable in 25 kHz steps. The handheld transmitter shall feature 20 fixed frequency banks with up to 12 compatible frequency presets and 1 user bank with up to 12 user programmable frequencies.

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

The handheld transmitter parameters shall either be configurable in the associated receiver's menu and synchronized with the handheld transmitter via an integrated infrared interface or shall be programmable in the handheld transmitter menu. Receiver parameters such as receiving frequency, receiver name and pilot tone setting shall be synchronizable with the handheld transmitter via an integrated infrared interface.

Nominal/peak deviation shall be  $\pm 24$  kHz/ $\pm 48$  kHz. Frequency stability shall be  $\leq \pm 15$  ppm. RF output power at 50  $\Omega$  shall be 30 mW (typical).

The handheld transmitter shall incorporate the Sennheiser HDX compander system and a defeatable pilot tone squelch. Audio frequency response shall range from 80 – 18,000 Hz. Signal-to-noise ratio at 1 mV and peak deviation shall be  $\geq 110$  dBA. Total harmonic distortion (THD) shall be  $\leq 0.9$  %. Input sensitivity shall be adjustable within a 48 dB range in steps of 6 dB.

Power shall be supplied to the handheld transmitter by two 1.5V AA size batteries or by one Sennheiser BA 2015 rechargeable accupack. Nominal voltage shall be 2.4 V, current consumption shall be typical 180 mA at nominal voltage;  $\leq 25$   $\mu$ A when handheld transmitter is switched off. Operating time shall be typical 8 hours. The handheld transmitter shall have a rugged metal housing; dimensions shall be approximately 50 mm (1.97") in diameter and 265 mm (10.43") in length. Weight including the batteries shall be approximately 450 grams (0.99 lbs). Operating temperature shall range from  $-10$  °C to  $+55$  °C ( $+14$  °F to  $+131$  °F).

A range of microphone heads shall be available for the handheld transmitter.

The handheld transmitter shall be the Sennheiser SKM 100 G4.