



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

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

Assembled in USA

| | | |
|-----------------------|---------------|-----------------|
| ew 135 P G4-A1 | 470 - 516 MHz | Art. no. 507969 |
| ew 135 P G4-A | 516 - 558 MHz | Art. no. 507970 |
| ew 135 P G4-AS | 520 - 558 MHz | Art. no. 507971 |
| ew 135 P G4-G | 566 - 608 MHz | Art. no. 507972 |
| ew 135 P G4-B | 626 - 668 MHz | Art. no. 507973 |
| ew 135 P G4-C | 734 - 776 MHz | Art. no. 507974 |
| ew 135 P G4-D | 780 - 822 MHz | Art. no. 507975 |
| ew 135 P G4-JB | 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 _{eff S/N} |
| 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 | |
|--|---|
| 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 |
| 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 | ± 24 kHz / ± 48 kHz |
| Frequency stability | $\leq \pm 15$ ppm |
| RF output power at 50 Ω | 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) | ≥ 110 dBA |
| Total harmonic distortion (THD) | ≤ 0.9 % |
| Max. input voltage | 3 V _{eff} |
| Input impedance | 40 k Ω |
| 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: ≤ 25 μ A |
| Operating time | Typically 8 h |
| Dimensions | Approx. \varnothing 50 x 265 mm |
| Weight (incl. batteries) | approx. 450 g |

MMD 835 (Microphone Module)

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|----------------------|------------|
| Transducer principle | dynamic |
| Sensitivity | 2.1 mV/Pa |
| Sound pressure level | 154 dB SPL |
| Pick-up pattern | cardioid |

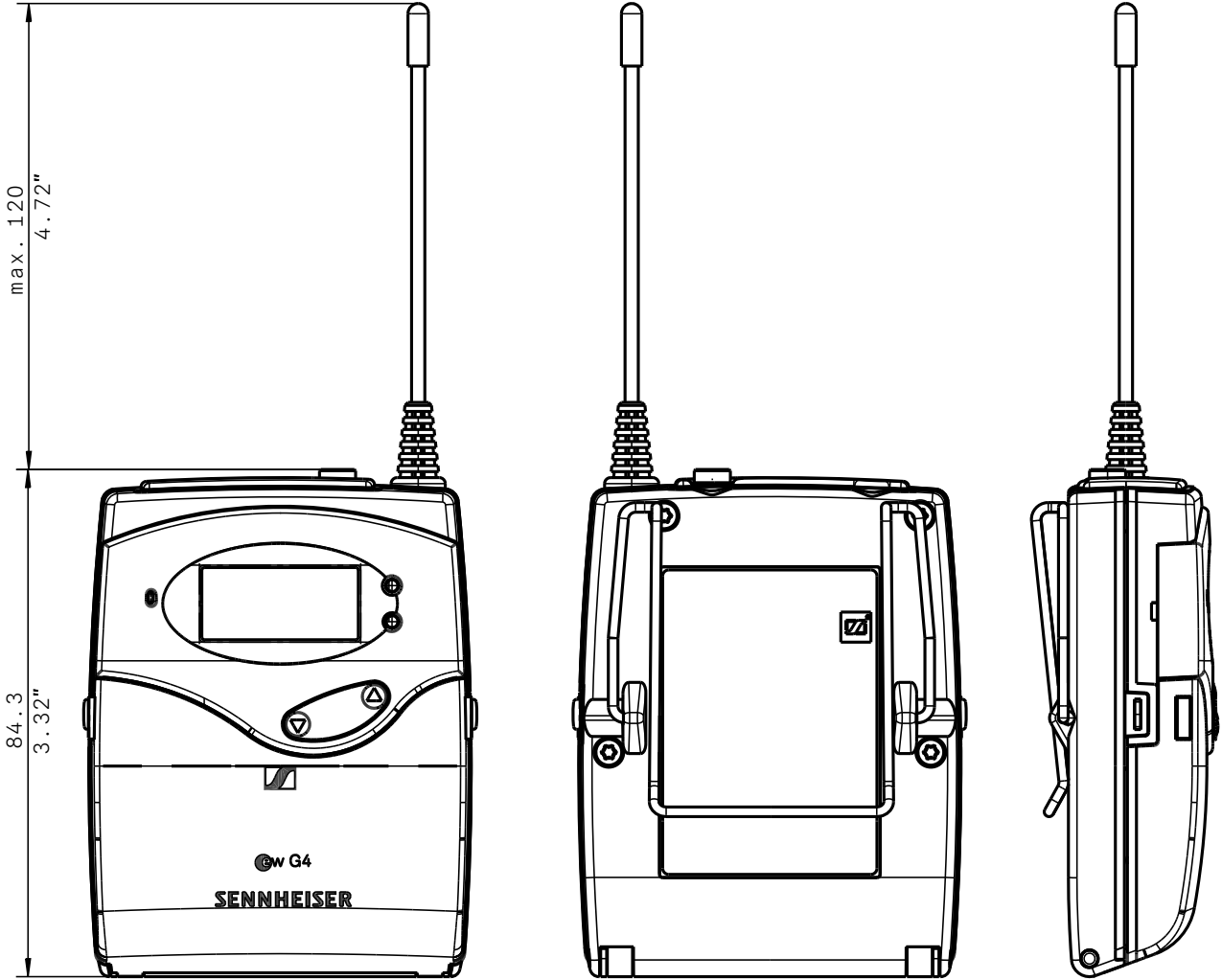


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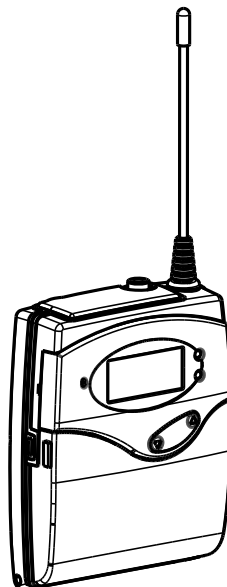
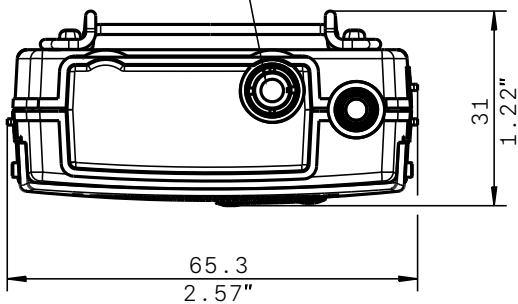
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DIMENSIONS

EK 100 G4



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



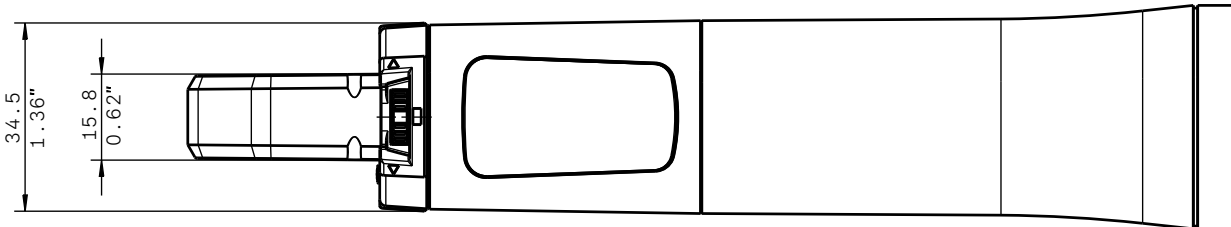
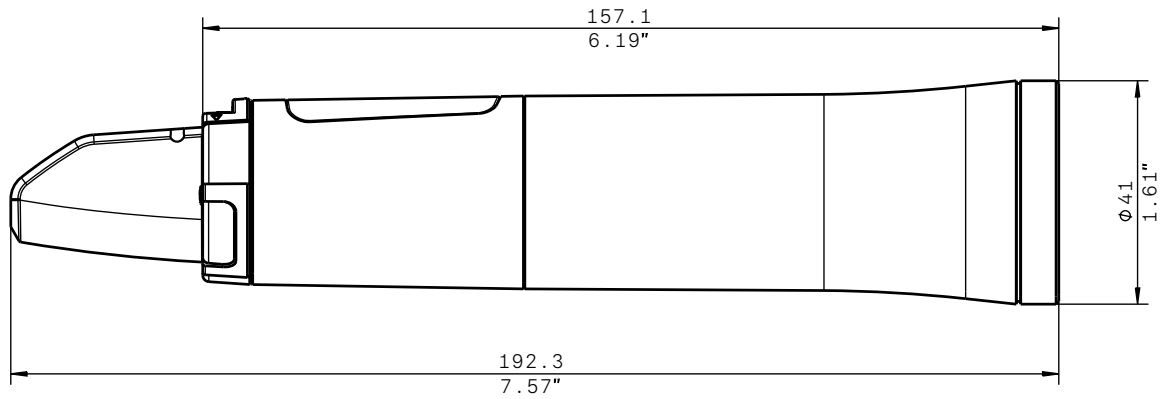
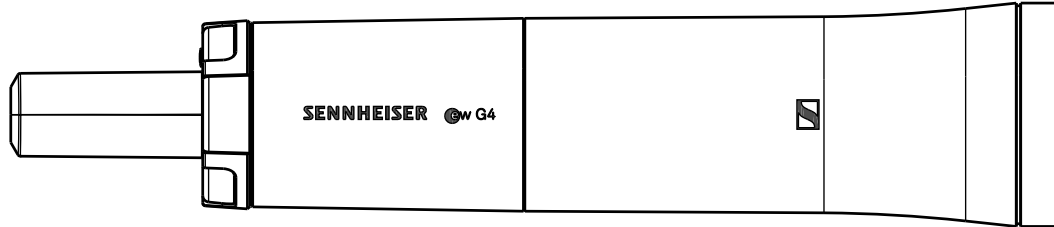


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DIMENSIONS

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 ± 24 kHz/ ± 48 kHz. Squelch threshold shall be adjustable to three levels: Low (5 dB μ V), Middle (15 dB μ V) and High (25 dB μ V).

The receiver shall incorporate the Sennheiser HDX compander system and a defeatable pilot tone squelch. Sensitivity shall be < 1.6 μ V (typical) for 52 dBA eff S/N with HDX engaged at peak deviation. Adjacent channel rejection shall be ≥ 65 dB (typical). Intermodulation attenuation shall be ≥ 65 dB (typical); blocking shall be ≥ 70 dB. Signal-to-noise ratio at 1 mV and peak deviation shall be ≥ 110 dBA. Total harmonic distortion (THD) shall be ≤ 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; ≤ 25 μ 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 ± 24 kHz/ ± 48 kHz. Frequency stability shall be $\leq \pm 15$ ppm. RF output power at 50 Ω 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 ≥ 110 dBA. Total harmonic distortion (THD) shall be ≤ 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; ≤ 25 μ 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.