



evolution wireless G4

ew 100 ENG G4

Camera Lavalier + Plug-on Transmitter 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.

Multi-purpose set for mobile journalism and documentary. The powerful plug-on transmitter SKP 100 turns every wired dynamic microphone into a wireless transmitter while the easy to use clip-on microphone ME 2-II (omni-directional) offers excellent speech intelligibility during interviews.

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
- SK 100 G4 bodypack transmitter
- SKP 100 G4 plug-on transmitter
- ME 2 clip-on microphone
- 6 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 100 ENG G4-A1	470 - 516 MHz	Art. no. 507636
ew 100 ENG G4-A	516 - 558 MHz	Art. no. 507637
ew 100 ENG G4-GB	606 - 648 MHz	Art. no. 507638
ew 100 ENG G4-G	566 - 608 MHz	Art. no. 507639
ew 100 ENG G4-B	626 - 668 MHz	Art. no. 507640
ew 100 ENG G4-C	734 - 776 MHz	Art. no. 507641
ew 100 ENG G4-E	823 - 865 MHz	Art. no. 507642
ew 100 ENG G4-K+	925 - 937.5 MHz	Art. no. 507643

Assembled in USA

ew 100 ENG G4-A1	470 - 516 MHz	Art. no. 507977
ew 100 ENG G4-A	516 - 558 MHz	Art. no. 507978
ew 100 ENG G4-AS	520 - 558 MHz	Art. no. 507979
ew 100 ENG G4-G	566 - 608 MHz	Art. no. 507980
ew 100 ENG G4-B	626 - 668 MHz	Art. no. 507981
ew 100 ENG G4-C	734 - 776 MHz	Art. no. 507982
ew 100 ENG G4-D	780 - 822 MHz	Art. no. 507983
ew 100 ENG G4-JB	806 - 810 MHz	Art. no. 507984

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)	$< 1.6 \mu\text{V}$ for 52 dBA _{eff S/N}
Adjacent channel selection	≥ 65 dB
Intermodulation attenuation	≥ 65 dB
Blocking	≥ 70 dB

Squelch	low: 5 dB μV middle: 15 dB μV high: 25 dB μV
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: $\leq 25 \mu\text{A}$
Operating time	Typically 8 h
Dimensions	Approx. 82 x 64 x 24 mm
Weight (incl. batteries)	approx. 160 g



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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	± 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	Mic: 80 - 18,000 Hz Line: 25 - 18,000 Hz
Signal-to-noise ratio (1 mV, peak deviation)	≥ 110 dBA
Total harmonic distortion (THD)	≤ 0.9 %
Max. microphone/line input voltage	3 V _{eff}
Microphone/line input impedance	40 k Ω , unbalanced / 1 M Ω
Input capacitance	Switchable
Setting range for input sensitivity	60 dB, adjustable in 3 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. 82 x 64 x 24 mm
Weight (incl. batteries)	approx. 160 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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SPECIFICATIONS

SKP 100 G4

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Transmission frequencies	Max. 1680 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	3.3 V _{eff}
Input impedance	68 k Ω , unbalanced
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. 105 x 43 x 43 mm
Weight (incl. batteries)	approx. 195 g



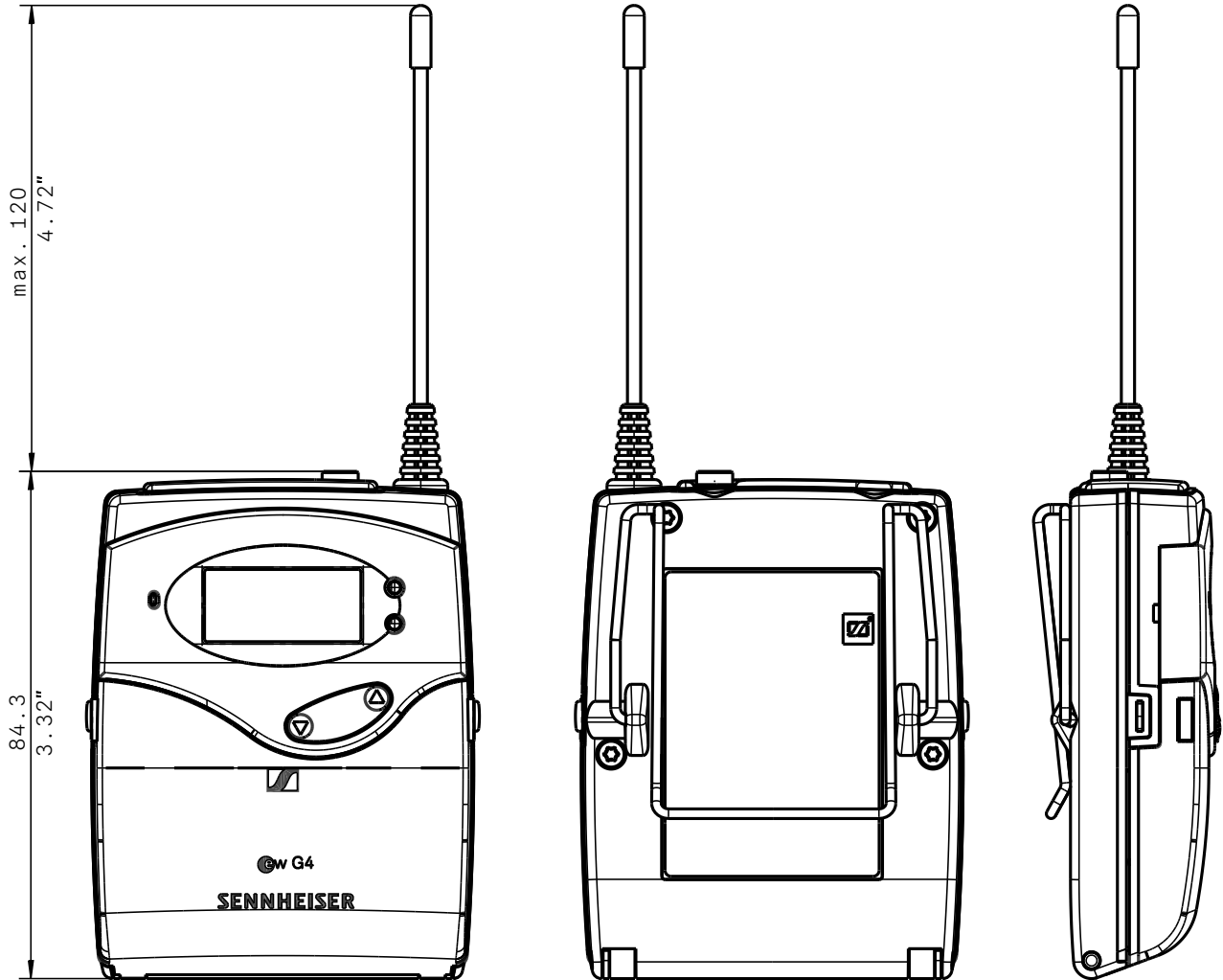
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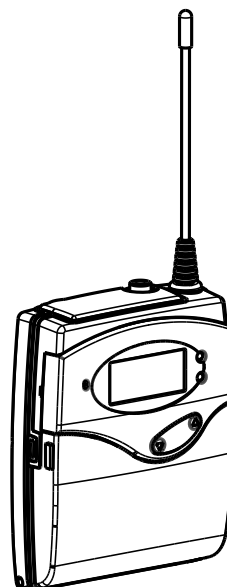
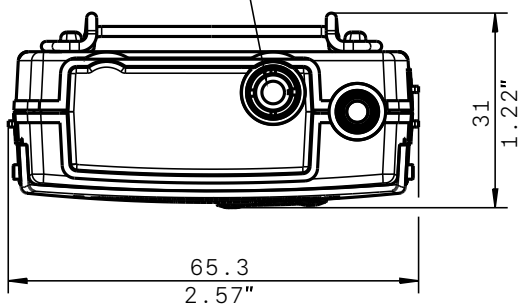
Camera Lavalier + Plug-on Transmitter Set

DIMENSIONS

EK 100 G4



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





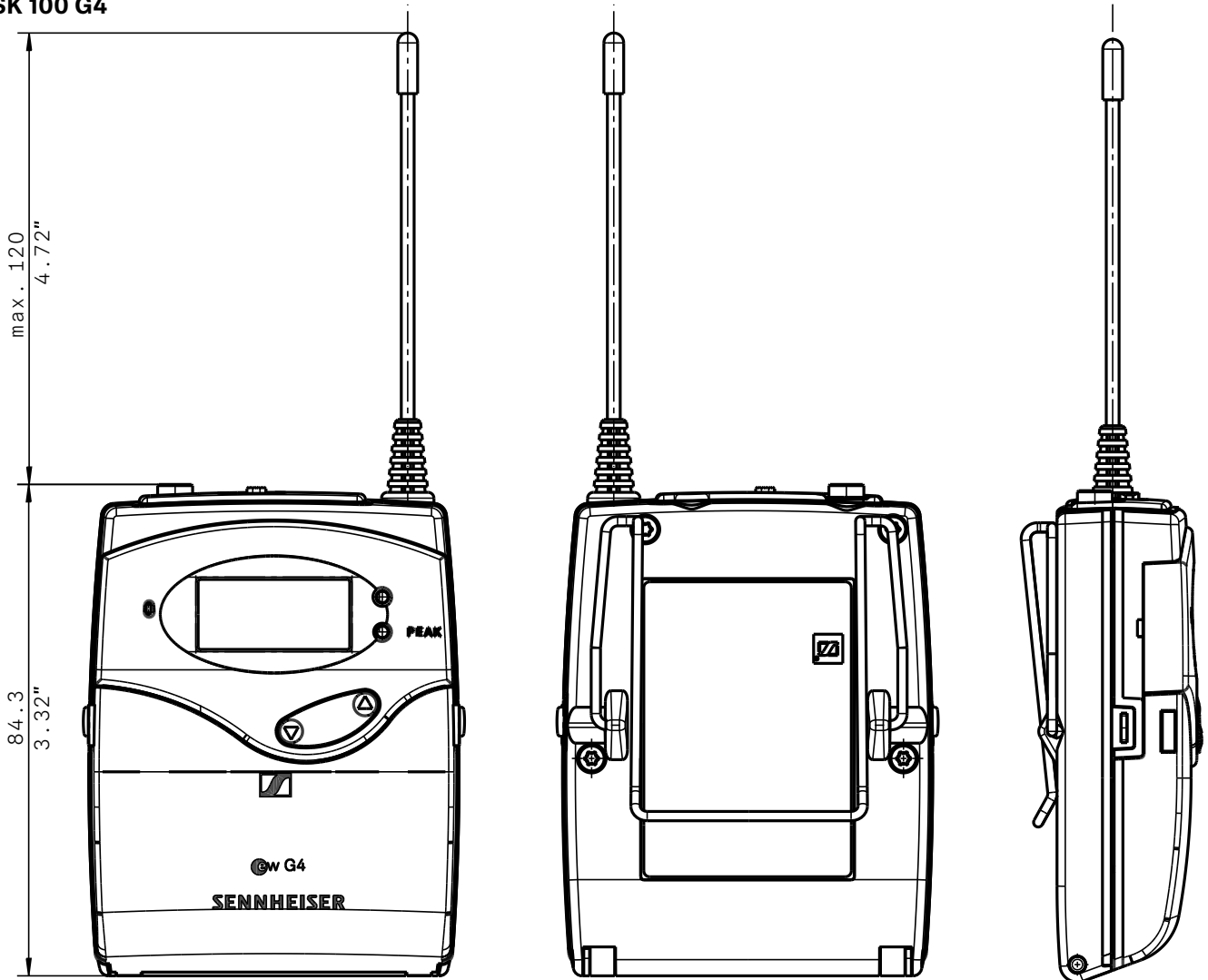
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ew 100 ENG G4

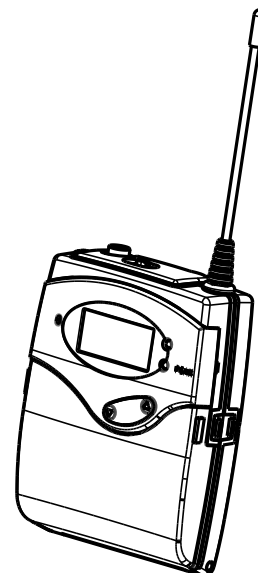
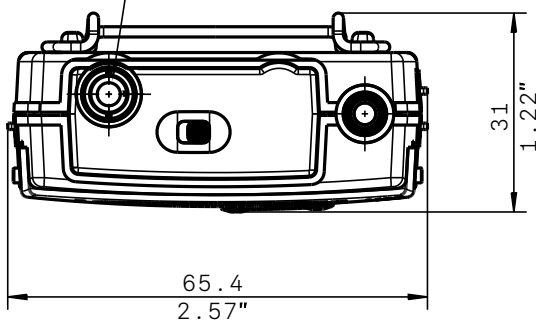
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DIMENSIONS

SK 100 G4



3,5mm Klinke
3,5mm plug





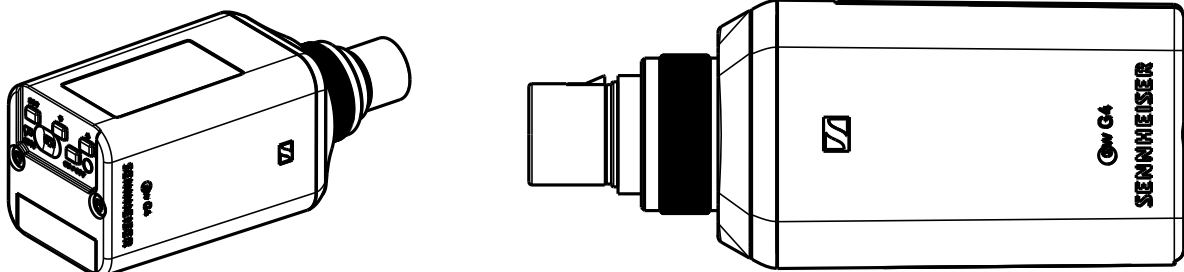
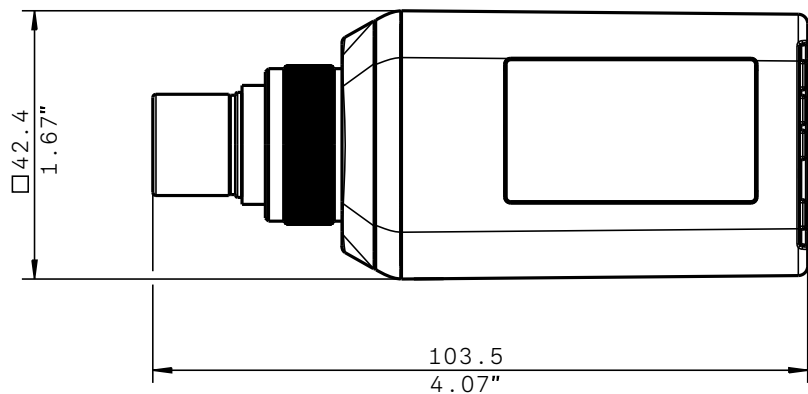
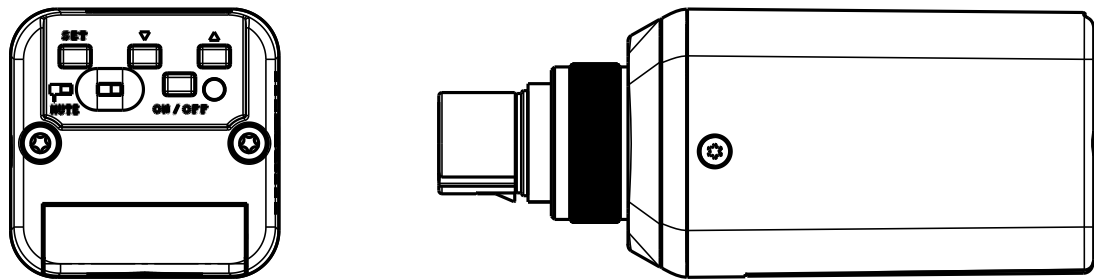
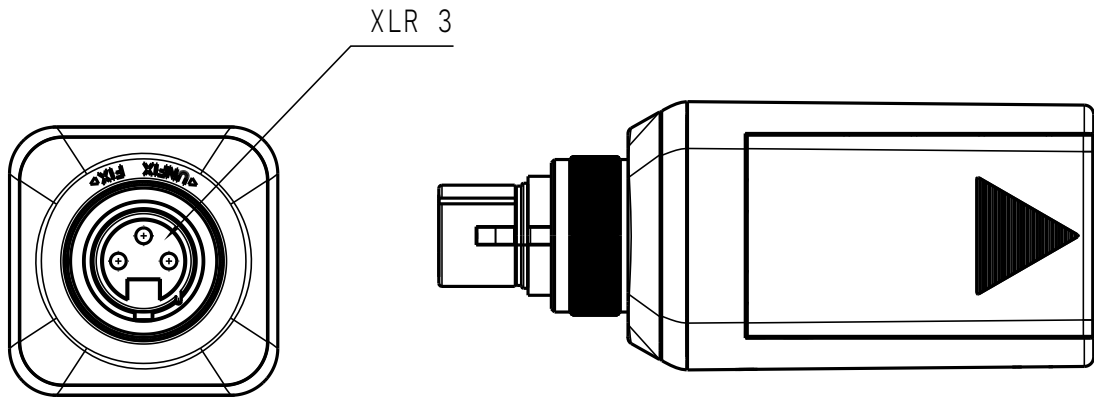
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DIMENSIONS

SKP 100 G4





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ARCHITECT'S SPECIFICATION

A wireless RF transmission system consisting of a camera receiver, a bodypack transmitter with a clip-on microphone and a plug-on transmitter.

The system 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 system 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 bodypack 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 bodypack transmitter parameters shall either be configurable in the associated receiver's menu and synchronized with the bodypack transmitter via an integrated infrared interface or shall be programmable in the bodypack transmitter menu.

The bodypack transmitter shall be equipped with a mute switch, which shall be switchable between "AF on/off", "RF on/off" and "Disabled" via the user 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 bodypack transmitter shall incorporate the Sennheiser HDX compander system and a defeatable pilot tone squelch. Audio frequency response shall range from 80 – 18,000 Hz (microphone) or 25 - 18,000 Hz (line). 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 60 dB range in steps of 3 dB.

Power shall be supplied to the bodypack transmitter by two 1.5V AA size batteries or by one Sennheiser BA 2015 rechargeable accupack. Nominal voltage shall be 2.4 V for a rechargeable battery or 3 V for a battery, current consumption shall be typical 180 mA at nominal voltage; ≤ 25 μ A when bodypack transmitter is switched off. Operating time shall be typical 8 hours. The bodypack transmitter 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 bodypack transmitter shall be the Sennheiser SK 100 G4.



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The plug-on transmitter shall be menu-driven with a backlit LC display showing the current frequency, frequency bank and channel number, metering of AF level, lock status, pilot tone evaluation, muting function, and battery status. An auto-lock feature shall be provided to prevent settings from being accidentally altered. Some plug-on transmitter parameters such as receiving frequency, plug-on transmitter name and pilot tone setting shall be synchronizable with the associated plug-on transmitter via an integrated infrared interface.

The plug-on transmitter shall be equipped with a mute switch, which shall be switchable between “AF on/off”, “RF on/off” and “Disabled” via the user interface. The plug-on transmitter shall feature an Audio-XLR-3F connector.

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 max. 30 mW.

The plug-on 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 %. The Plug-on transmitters max. input voltage shall be 3.3 Veff; the unbalanced input impedance shall be 68 k Ω ; the input capacitance shall be switchable. The input sensitivity shall be adjustable within a 48 dB range in steps of 6 dB.

Power shall be supplied to the plug-on 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 plug-on transmitter is switched off. Operating time shall be typical 8 hours. The plug-on transmitter shall have a rugged metal housing; dimensions shall be approximately 105 x 43 x 43 mm (4.13" x 1.69" x 1.69"). Weight including the batteries shall be approximately 195 grams (0.43 lbs). Operating temperature shall range from -10 °C to $+55$ °C ($+14$ °F to $+131$ °F).

The plug-on transmitter shall be the Sennheiser SKP 100 G4.