The ew 322 G3 consists of the same components as ew 312 G3 but with a compact cardioid clip-on microphone.

The ew 352 G3 consists of the same components as ew 312 G3 but with a headworn cardioid microphone.
**FEATURES**

**ew 335 G3/ew 345 G3/ew 365 G3 Vocal Sets**
See above mentioned list of features plus
- Programmable Mute switch, easy accessible
- Handheld transmitter with easy-exchangeable microphone heads from evolution series

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**ew 300 Sets**

The **ew 335 G3** is a wireless microphone set, consisting of a True Diversity receiver, a handheld transmitter with e 835 microphone head plus accessories. It is versatile for every style of music and presentations. A wireless link from receiver to the transmitter allows synchronization of frequencies for easy setup. Backlit graphic displays make them easy to read under all lighting conditions.

The **ew 345 G3** consists of the same components as ew 335 G3 but with an e 845 microphone head.

The **ew 365 G3** consists of the same components as ew 335 G3 but with an e 865 microphone head.
ARCHITECT'S SPECIFICATIONS

**ew 312 G3 Presentation Set**
Complete plug & play wireless microphone set with clip-on microphone (condenser, omni-directional) from Sennheiser evolution series for multi-purpose application. The devices shall have metal housings for rugged use. 42 MHz bandwidth with 1,680 tunable frequencies. 20 banks with up to 24 compatible frequencies, 1 bank for individual selectable frequencies, scan function and wireless synchronization to the transmitter for easy setup. HDX compander delivers high-quality sound performance. All parameters of transmitter and receiver can be monitored and controlled via Wireless Systems Manager (WSM) software from PC. The transmitter shall have a sensitivity range of 48 dB. The receiver offers a maximum output level of +18 dBu (+6 dB gain). True Diversity and pilot tone squelch for interference-free reception. Charging contacts on transmitter for recharging BA 2015 accupack directly in the transmitter shall be available. 3-step battery + LowBattery indication on transmitter and receiver shall give reliable information on operation time.
Menu operation, auto-lock function and illuminated graphic displays on transmitter and receiver for user-friendly operation.
A RF Mute function on transmitter and receiver allows offline settings.
An easy accessible Mute switch on the transmitter can be programmed for AF on/off, RF on/off.
A suitable Remote Mute Switch option also allows push-to-talk and push-to-mute
An equalizer and soundcheck mode is integrated in the receiver.

**ew 322 G3 Presentation Set**
Complete plug & play wireless microphone set with clip-on microphone (electret, cardioid) from Sennheiser evolution series for multi-purpose application. Further description see paragraph ew 312 G3.

**ew 352 G3 Head Set**
Complete plug & play wireless microphone set with headworn microphone (condenser, cardioid) for hands-free application. Further description see paragraph ew 312 G3.

**ew 335 G3 Vocal Set**
Complete plug & play wireless microphone set with easy-exchangeable e 835 microphone head (dynamic, cardioid) from Sennheiser evolution series for multi-purpose application. Further description see paragraph ew 312 G3.

**ew 345 G3 Vocal Set**
Complete plug & play wireless microphone set with easy-exchangeable e 845 microphone head (dynamic, supercardioid) from Sennheiser evolution series for multi-purpose application. Further description see paragraph ew 312 G3.

**ew 365 G3 Vocal Set**
Complete plug & play wireless microphone set with easy-exchangeable e 865 microphone head (electret-condenser, supercardioid) from Sennheiser evolution series for multi-purpose application. Further description see paragraph ew 312 G3.
# TECHNICAL DATA

## SYSTEM
- RF frequency range: 516...865 MHz
- Transmission/receiving frequencies: 1,680
- Frequency banks: 20 (factory presets), 6 (user presets)
- Presets: 24 max.
- Switching bandwidth: 42 MHz
- Compander: HDX
- Signal-to-noise ratio: > 115 dB(A)
- THD, total harmonic distortion: < 0.9%

## RECEIVER
- AF Frequency response: 25...18,000 Hz
- Antenna connectors: BNC, 50 Ohm
- Audio outputs: XLR: +18 dBu max, 6.3 mm jack: +10 dBu max
- Dimensions: 212 x 202 x 43 mm
- Weight: 980 g

## TRANSMITTER
- RF output power: 10/30 mW switchable
- Operating time: typ. 8h
- Input voltage range: 1.8 V line, 2.4 V line
- Dimensions: 82 x 64 x 24 mm
- Weight: ~ 160 g

## MICROPHONE
- Transducer; Microphone type: permanent polarized
- AF sensitivity: 1.6 mV/Pa
- Frequency response: 80...18,000 Hz
- Pick-up pattern: omni-directional

Continued on page 5
TECHNICAL DATA

EM 300

Modulation ............................................................... wideband FM
RF frequency range ................................................ 516 – 558, 566 – 608, 626 – 668, 734 – 776, 780 – 822, 823 – 865 MHz
Transmission/receiving frequencies ...................1,680, tuneable in steps of 25 kHz
Receiving frequencies ............................................ 1,680 frequencies, tuneable in steps of 25 kHz

20 frequency banks, each with up to 24 factory-preset channels,
intermodulation-free
20 frequency banks with up to 24 user programmable channels

Switching bandwidth.............................................42 MHz
Nominal/peak deviation .......................................±24 kHz/±48 kHz
Receiver principle ....................................................true diversity
Sensitivity (with HDX, peak deviation) .............< 2 μV for 52 dBA rms S/N
Adjacent channel rejection ................................typ. ≥ 75 dB
Intermodulation attenuation ...............................typ. ≥ 70 dB
Blocking ....................................................................≥ 75 dB
Squelch ...................................................................... Off, 5 to 25 dBBV, adjustable in steps of 2 dB
Pilot tone squelch ...................................................can be switched off
Antenna inputs .......................................................2 BNC sockets
Compander system.................................................. Sennheiser HDX

EQ presets (switchable, affect the line and monitor outputs):

Preset 1: “Flat”
Preset 2: “Low Cut” .............................................–3 dB at 180 Hz
Preset 3: “Low Cut/High boost” ..............................+6 dB at 10 kHz
Preset 4: “High Boost” ...........................................+6 dB at 10 kHz

S/N ratio (1 mV, peak deviation) .........................≥ 115 dBA
THD .................................................................≤ 0.9 %

AF output voltage (at peak deviation, 1 kHz AF) ..............................................1/4” (6.3 mm) jack socket (unbalanced): +12 dBu
XLR socket (balanced): +18 dBu
Adjustment range of audio output level............48 dB, adjustable in steps of 3 dB +6 dB gain reserve
Temperature range ..............................................–10 °C to +55 °C
Power supply .......................................................12 V
Power consumption .........................................350 mA
Dimensions ............................................................approx. 202 x 212 x 43 mm
Weight (incl. batteries) .........................................approx. 980 g
In compliance with ............................................. CE, FCC, ETS 300422, ETS 300445

MAIN UNIT
Input voltage .........................................................100 to 240 V–, 50/60 Hz
Power/current consumption .............................max. 120 mA
Output voltage .......................................................12 V
Secondary output current ..................................400 mA
Temperature range ..............................................–10 °C to +40 °C
In compliance with ............................................. CE, FCC, IC, ETS 300422, ETS 300445

Continued on page 6
ew 300 Sets

TECHNICAL DATA

SK 300 and SKM 300

Modulation.........................................................wideband FM
RF frequency range........................................516 – 558, 566 – 608, 626 – 668, 734 – 776, 780 – 822, 823 – 865 MHz
Transmission/receiving frequencies...............1,680, tuneable in steps of 25 kHz
Receiving frequencies........................................1,680 frequencies, tuneable in steps of 25 kHz
20 frequency banks, each with up to 24 factory-preset channels, intermodulation-free
6 frequency banks with up to 24 user programmable channels
Switching bandwidth...........................................42 MHz
Nominal/peak deviation ...................................±24 kHz/±48 kHz
Frequency stability..............................................≤ ±15 ppm
RF output power at 50 Ω.................................typ. 10/30 mW, switchable
Pilot tone squelch................................................can be switched off
AF characteristics
Compander system..............................................Sennheiser HDX
AF frequency response
SK........................................................................microphone: 80 – 18,000 Hz
.........................................................................line: 25 – 18,000 Hz
SKM .......................................................................80 – 18,000 Hz
S/N ratio (1 mV, peak deviation).....................≥ 115 dBA
THD.........................................................................≤ 0.9 %
Max. input voltage (SK) microphone/line ......3 Vrms
Input impedance (SK) microphone/line ...........40 kΩ, unbalanced/1 MΩ
Input capacitance (SK).............................switchable
Adjustment range of input sensitivity............SK: 60 dB, adjustable in steps of 3 dB
..........................................................................SKM: 48 dB, adjustable in steps of 6 dB
In compliance with.................................................CE, FCC, IC, ETS 300422, ETS 300445

OVERALL DEVICE
Temperature range..............................................−10 °C to + 55 °C
Power supply.........................................................2 AA size batteries, 1.5 V or
........................................................................BA 2015 accupack
Nominal voltage..................................................2.4 V
Current consumption: at nominal voltage......typ. 180 mA (30 mW)
with switched-off transmitter.......................≤ 25 μA
Operating time......................................................typ. 8 hrs
Dimensions.........................................................SK: approx. 82 x 64 x 24 mm
..........................................................................SKM: approx. Ø 50 x 265 mm
Weight (incl. batteries)......................SK: approx. 160 g
..........................................................SKM: approx. 450 g
In compliance with.................................................CE, FCC, IC, ETS 300422, ETS 300445

Continued on page 7
# TECHNICAL DATA

## Microphones (SK 300)

<table>
<thead>
<tr>
<th>Model</th>
<th>Microphone Type</th>
<th>Sensitivity</th>
<th>Pick-up Pattern</th>
<th>Max. SPL</th>
<th>Frequency Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 2</td>
<td>condenser</td>
<td>20 mV/Pa</td>
<td>omni-directional</td>
<td>130 dB SPL</td>
<td>80...18,000 Hz</td>
</tr>
<tr>
<td>ME 3-ew</td>
<td>condenser</td>
<td>1.6 mV/Pa</td>
<td>cardioid</td>
<td>150 dB SPL</td>
<td>80...18,000 Hz</td>
</tr>
<tr>
<td>ME 4</td>
<td>condenser</td>
<td>40 mV/Pa</td>
<td>cardioid</td>
<td>120 dB SPL</td>
<td>80...18,000 Hz</td>
</tr>
</tbody>
</table>

## Microphone Heads (SKM 300)

<table>
<thead>
<tr>
<th>Model</th>
<th>Radio Microphone Type</th>
<th>Sensitivity</th>
<th>Pick-up Pattern</th>
<th>Max. SPL</th>
<th>Frequency Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMD 835-1</td>
<td>dynamic</td>
<td>2.1 mV/Pa</td>
<td>cardioid</td>
<td>154 dB SPL</td>
<td>80...18,000 Hz</td>
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<tr>
<td>MMD 845-1</td>
<td>dynamic</td>
<td>1.6 mV/Pa</td>
<td>super-cardioid</td>
<td>154 dB SPL</td>
<td>80...18,000 Hz</td>
</tr>
<tr>
<td>MMK 865-1</td>
<td>condenser</td>
<td>1.6 mV/Pa</td>
<td>cardioid/super-cardioid, switchable</td>
<td>152 dB SPL</td>
<td>80...18,000 Hz</td>
</tr>
</tbody>
</table>

## DELIVERY INCLUDES for ew 312 / ew 322 / ew 352 G3

1 EM 300 G3 rack-mount receiver
1 SK 300 G3 bodypack transmitter
1 ME 2 clip-on microphone (omni-directional) or
1 ME 3-ew headset microphone (cardioid)
1 GA 3 rack mount
1 NT 2 power supply unit
2 Antennas
2 AA batteries
1 Instruction manual

## DELIVERY INCLUDES for ew 335 / ew 345 / ew 365 G3

1 SKM 300-835 handheld transmitter with cardioid dynamic head or
1 SKM 300-845 handheld transmitter with super-cardioid dynamic head or
1 SKM 300-865 handheld transmitter with super-cardioid condenser head
1 EM 300 G3 rack receiver
1 MZQ 1 microphone clip
1 NT 2 power supply unit
2 Antennas
1 GA 3 Rack mount kit
2 AA batteries
1 Instruction Manual
ew 300 Sets

DIMENSIONS

SK 300

EM 300 G3

SKM 300
ew 300 Sets

POLAR PATTERN

ME 3-ew

MMD 835-1

MME 865-1

ME 4-ew

MMD 845-1
<table>
<thead>
<tr>
<th>PRODUCT VARIANTS</th>
<th>Cat. No.</th>
<th>ew 312 G3 Presentation Set</th>
<th>Cat. No.</th>
<th>ew 335 G3 Vocal Set</th>
<th>Cat. No.</th>
<th>ew 345 G3 Vocal Set</th>
<th>Cat. No.</th>
<th>ew 365 G3 Vocal Set</th>
<th>Cat. No.</th>
</tr>
</thead>
</table>
# RECOMMENDED ACCESSORIES

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Product Description</th>
<th>Cat. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ME 4-ew</td>
<td>Clip-on microphone, cardioid, black</td>
<td>503156</td>
</tr>
<tr>
<td>AM 2</td>
<td>Antenna Mount kit</td>
<td>009912</td>
</tr>
<tr>
<td>CC 3</td>
<td>System Case</td>
<td>503168</td>
</tr>
<tr>
<td>L 2015</td>
<td>Charging unit</td>
<td>009928</td>
</tr>
<tr>
<td>BA 2015</td>
<td>Rechargeable battery pack</td>
<td>009950</td>
</tr>
<tr>
<td>ASA 1</td>
<td>Active antenna splitter</td>
<td>503165</td>
</tr>
<tr>
<td>NT 1-1</td>
<td>plug-in mains unit for ASA 1 &amp; L 2015</td>
<td></td>
</tr>
<tr>
<td>NT 3-1</td>
<td>Plug-in mains unit for L 2015</td>
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</tr>
<tr>
<td>A 1031-U</td>
<td>Antenna</td>
<td>004645</td>
</tr>
<tr>
<td>A 2003-UH</td>
<td>Directional Antenna</td>
<td>003658</td>
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<tr>
<td>AB 3</td>
<td>Antenna booster</td>
<td>505550</td>
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<tr>
<td>Ear Set 1-ew</td>
<td>Ear-worn microphone, omni, black</td>
<td>504232</td>
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<tr>
<td>Ear Set 1-ew-3</td>
<td>Ear-worn microphone, omni, black</td>
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<tr>
<td>Ear Set 4-ew</td>
<td>Ear-worn microphone, cardioid, black</td>
<td>504236</td>
</tr>
<tr>
<td>Ear Set 4-ew-3</td>
<td>Ear-worn microphone, cardioid, beige</td>
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<tr>
<td>MKE 1-ew</td>
<td>Clip-on microphone, omni-directional, black</td>
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</tr>
<tr>
<td>MKE 1-ew-1</td>
<td>Clip-on microphone, omni, white</td>
<td>502877</td>
</tr>
<tr>
<td>MKE 1-ew-2</td>
<td>Clip-on microphone, omni, brown</td>
<td>502878</td>
</tr>
<tr>
<td>MKE 1-ew-3</td>
<td>Clip-on microphone, beige</td>
<td>502879</td>
</tr>
<tr>
<td>MKE 2-ew Gold</td>
<td>Clip-on microphone, omni, black</td>
<td>009831</td>
</tr>
<tr>
<td>MKE 2-ew-3 Gold</td>
<td>Clip-on microphone, omni, beige</td>
<td>009832</td>
</tr>
<tr>
<td>MKE 40-ew</td>
<td>Clip-on microphone, cardioid, black</td>
<td>500527</td>
</tr>
<tr>
<td>HSP 4-ew</td>
<td>Headworn microphone, cardioid, black</td>
<td>009864</td>
</tr>
<tr>
<td>HSP 4-ew-3</td>
<td>Headworn microphone, cardioid, beige</td>
<td>009867</td>
</tr>
<tr>
<td>HSP 2-ew</td>
<td>Headworn microphone, omni, black</td>
<td>009866</td>
</tr>
<tr>
<td>HSP 2-ew-3</td>
<td>Headworn microphone, omni, beige</td>
<td>009872</td>
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<tr>
<td>CI 1</td>
<td>Instrument cable</td>
<td>503163</td>
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<tr>
<td>ASA 1</td>
<td>Antenna cable</td>
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<tr>
<td>BA 2015</td>
<td>Antenna Mount Kit</td>
<td></td>
</tr>
<tr>
<td>CC 3</td>
<td>System Case</td>
<td></td>
</tr>
<tr>
<td>LA 2</td>
<td>Charging adapter for handheld microphones</td>
<td></td>
</tr>
<tr>
<td>MMD 835-1</td>
<td>evolution microphone head</td>
<td>502575</td>
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<td>MMD 845-1</td>
<td>evolution microphone head</td>
<td>502576</td>
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<tr>
<td>MME 865-1</td>
<td>evolution microphone head</td>
<td>502581</td>
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<tr>
<td>MZW 1</td>
<td>Windshield</td>
<td>004839</td>
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<tr>
<td>CI 1</td>
<td>Instrument cable</td>
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<tr>
<td>CC 3</td>
<td>System case</td>
<td>503168</td>
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</table>

## ew 335 / ew 345 / ew 365 G3 Vocal Sets

<table>
<thead>
<tr>
<th>Cat. No.</th>
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<tbody>
<tr>
<td>MMD 835-1</td>
<td>evolution microphone head</td>
</tr>
<tr>
<td>MMD 845-1</td>
<td>evolution microphone head</td>
</tr>
<tr>
<td>MME 865-1</td>
<td>evolution microphone head</td>
</tr>
<tr>
<td>MZW 1</td>
<td>Windshield</td>
</tr>
<tr>
<td>CI 1</td>
<td>Instrument cable</td>
</tr>
<tr>
<td>CC 3</td>
<td>System case</td>
</tr>
</tbody>
</table>

Contact your local Service Partner:

Sennheiser electronic GmbH & Co. KG
Am Labor 1, 30900 Wedemark, Germany
www.sennheiser.com