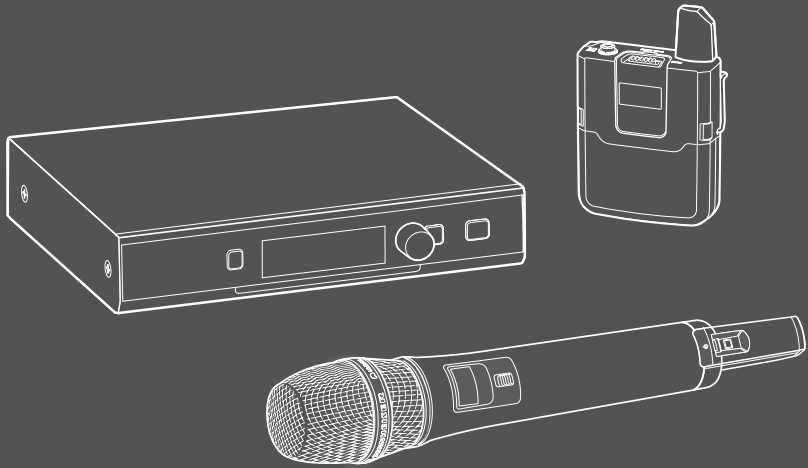
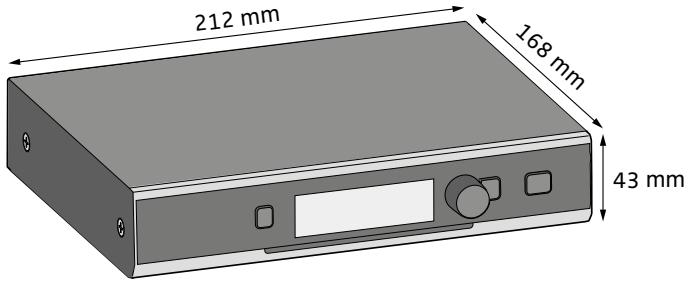


ew D1

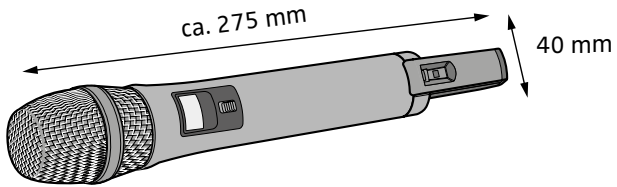


Specifications

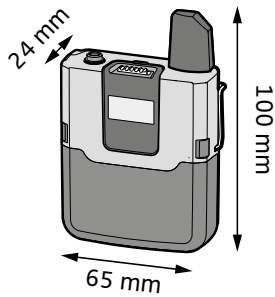
EM D1



SKM D1/SKM-S D1



SK D1



ew D1 Specifications

System

AF frequency response	20 to 20,000 Hz	
Dynamic range	> 128 dB (A)	
THD	typ. 0.1 % (1 kHz, 6 dB below max. audio output level)	
Audio sampling	24 bit/48 kHz	
Signal-to-noise ratio	typ. 109 dB (A)	
RF frequency ranges	2,400 to 2,483.5 MHz	
Modulation	GFSK with back channel	
Transmission method	TDMA, time diversity, frequency diversity, fast switching antenna diversity	
Latency	3.9 ms	
Audio codec	aptX® Live	
relative air humidity	max. 95 %	
Temperature range*	Operation:	-10 °C to +55 °C
	Storage:	-20 °C to +70 °C

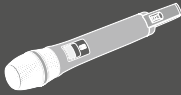
* The temperature range is influenced by the battery characteristics



EM D1

RF sensitivity	< -90 dBm	
RF output power back channel	10 mW/100 mW (country-specific)	
Audio output level gain	Mic/line level switch:	-12 dB/0 dB
	XLR, balanced:	max +18 dBu
	Jack, unbalanced/balanced:	max +12 dBu/max +18 dBu
Audio effects	Low cut:	at 120 Hz
	Equalizer:	7-band graphic equalizer
	De-esser:	multi-frequency targets
	Automatic gain control (AGC):	compression/expansion with automatic make-up gain function
Display	OLED	
AF connection sockets	XLR/¼" (6.3 mm) jack	
Antenna sockets	2 x Rev-SMA	
Network socket	RJ45	
Network protocol	Media Control Protocol UDP IPv4 (DHCP, Manual)/IPv6	
Power supply	12 V DC hollow jack	
Current consumption	350 mA	
Weight	approx. 824 g	

SKM D1

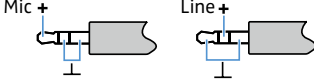


RF output power	adaptive, up to 100 mW or 10 mW (country-specific)
AF frequency response	50 to 20,000 Hz
Input sensitivity	automatic sensitivity adjustment
Power supply	Batteries: 2 x AA size battery (1.5 V) Accupack*: BA 10 (Li-Ion, 3.6 V)
Operating time	Batteries: typ. 6 h Accupack* : typ. 11 h
Display	LCD
Weight (w/o batteries)	approx. 280 g incl. microphone head

* optional accessory

SK D1



RF output power	adaptive, up to 100 mW or 10 mW (country-specific)
AF frequency response	Mic: 50 to 20,000 Hz Line : 20 to 20,000 Hz
Max. input level	Mic: 1.5 V RMS Line: 3.1 V RMS
Line input impedance	1 M Ω
Input sensitivity	automatic sensitivity adjustment
Power supply	Batteries: 2 x AA size battery (1,5V) Accupack*: BA 30 (Li-Ion, 3.7V)
Operating time	Batteries: typ. 6 h Accupack* : typ. 11 h
AF connection socket	3.5 mm jack socket, lockable 
Weight (w/o batteries)	approx. 85 g

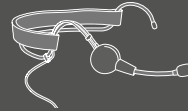
* optional accessory

MMD



	835-1	845-1	935-1	945-1
Microphone type	dynamic			
Sensitivity	2.1 mV/Pa	1.6 mV/Pa	2.5 mV/Pa	1.8 mV/Pa
Pick-up pattern	cardioid	super-cardioid	cardioid	super-cardioid
Max. SPL	154 dB SPL	154 dB SPL	130 dB SPL	150 dB SPL

ME



	ME 2-2	ME 3-II
Microphone type	pre-polarized condenser microphone	
Sensitivity	20 mV/Pa	1.6 mV/Pa
Pick-up pattern	omni-directional	cardioid
Max. SPL	130 dB SPL	150 dB SPL

Power supply units

	NT 12-4C	NT 2-3CW
Nominal input voltage	100 to 240 V~	
Power frequency	50 or 60 Hz	
Input current	max. 120 mA	
Nominal output voltage	12 V $\overline{\overline{\overline{\quad}}}$	
Standby power consumption	$\leq 0,3$ W	
Energy efficiency level	V	IV
Operating temperature	-10 °C to +55 °C	
Storage temperature	-20 °C to +70 °C	
Relative air humidity	max. 95 %	
Weight	approx. 100 g	approx. 105 g

Accupacks



	BA 10	BA 30
Charging capacity	2,200 mAh	2,030 mAh
Output voltage	3.6 V	3.7 V

Manufacturer Declarations

Warranty

Sennheiser electronic GmbH & Co. KG gives a warranty of 24 months on this product.

For the current warranty conditions, please visit our website at www.sennheiser.com or contact your Sennheiser partner.

FOR AUSTRALIA ONLY

Sennheiser goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

This warranty is in addition to other rights or remedies under law. Nothing in this warranty excludes, limits or modifies any liability of Sennheiser which is imposed by law, or limits or modifies any remedy available to the consumer which is granted by law.

To make a claim under this warranty, contact Sennheiser Australia Pty Ltd, Unit 3, 31 Gibbes Street Chatswood NSW 2067, AUSTRALIA. Phone: (02) 9910 6700, email: service@sennheiser.com.au.

All expenses of claiming the warranty will be borne by the person making the claim.

The Sennheiser International Warranty is provided by Sennheiser Australia Pty Ltd (ABN 68 165 388 312), Unit 3, 31 Gibbes Street Chatswood NSW 2067 Australia.

In compliance with the following requirements

- WEEE Directive (2012/19/EU)



Please dispose of the products at the end of their operational lifetime by taking them to your local collection point or recycling center for such equipment.

- Battery Directive (2006/66/EC)

The supplied batteries or rechargeable batteries can be recycled. Please dispose of them as special waste or return them to your specialist dealer. In order to protect the environment, only dispose of exhausted batteries or rechargeable batteries.

CE Conformity



- R&TTE Directive (1999/5/EC)
- RoHS Directive (2011/65/EU)
- EMC Directive (2014/30/EU)
- Low Voltage Directive (2006/95/EU)

The declarations are available at www.sennheiser.com/download. Before putting the products into operation, please observe the respective country-specific regulations.

FCC

Radiofrequency radiation exposure information:

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. The EM D1 should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

These devices must not be co-located or operated in conjunction with any other antenna or transmitter.

These devices comply with Part 15 of the FCC Rules and with Industry Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTICE:

Changes or modifications made to this equipment not expressly approved by Sennheiser Electronic Corporation may void the FCC authorization to operate this equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

These class B digital devices comply with the Canadian ICES-003.

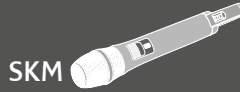
[Japanese Radio Law and Japanese Telecommunications Business Law Compliance.](#)

This device is granted pursuant to the Japanese Radio Law (電波法)

This device should not be modified (otherwise the granted designation number will become invalid)

Information about approvals and certifications can be found in the “Compliance” section.

Compliance



In compliance with

Europe		Radio EMV Safety RoHS	EN 300328 EN 301489-1/-17 EN 60950-1, EN 62311 (SAR) EN 50581
USA		FCC 47 CFR 15	
Canada		Industry Canada RSS 210, CAN ICES-3(B)/NMB-3(B)	
Australia/New Zealand		AS/NZS 4268	

Certified by

Argentina	EM D1 SKM D1 SKM-S D1 SK D1		CNC ID: C-15479 CNC ID: C-15476 CNC ID: C-15478 CNC ID: C-15480
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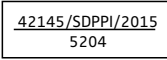
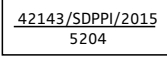
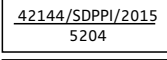
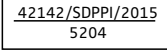
Australia



Brazil		QUANTA BRASIL IMPORTAÇÃO E EXPORTAÇÃO LTDA	EUROBRAS FILM PRODUÇÕES CINEMATOGRAFICAS LTDA
	EM D1		
	SKM D1 SKM-S D1		
	SK D1		

China	EM D1 SKM D1 SKM-S D1 SK D1	CMIIT ID: 2015DJ4568 CMIIT ID: 2015DJ4566 CMIIT ID: 2015DJ4567 CMIIT ID: 2015DJ4569	
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India	EM D1	No. NR-ETA/ 1575
	SKM D1	No. NR-ETA/ 1572
	SKM-S D1	No. NR-ETA/ 1573
	SK D1	No. NR-ETA/ 1574

Indonesia	EM D1	
	SKM D1	
	SKM-S D1	
	SK D1	

Japan		EM  202-SMC045
		SKM  202-SMC046
		SK  202-SMC047

Canada	EM D1	IC: 2099A-EM2G4WE
	SKM D1	IC: 2099A-SKM2G4WE
	SK D1	IC: 2099A-SK2G4WE



Korea	EM D1		MSIP-CRM-SE9-EMD1
			A/S: 1544-1699
	SKM D1		MSIP-CRM-SE9-SKMD1
	SKM-S D1		A/S: 1544-1699
	SK D1	MSIP-CRM-SE9-SKD1	
		A/S: 1544-1699	

Malaysia	EM D1		RDCN/01A/1015/S(15-3469)
	SKM D1		RBBR/09A/1015/S(15-3471)
	SKM-S D1		RBBR/10A/1015/S(15-3472)
	SK D1		RBBR/08A/0915/S(15-3470)

Mexico	Sennheiser México, S.A. de C.V.		
	Xola 613 PH 6 Colonia del Valle		
	Delegación Benito Juárez		
	03100 Ciudad de México		



IFETEL no : RCPSEEV15- 1413
Certificado No.: 1502CE13150

New Zealand



Philippines

EM D1
SKM D1
SKM-S D1
SK D1



NTC

ESD-1511343C
ESD-1511341C
ESD-1511342C
ESD-1511344C

Peru

EM D1 Código: TRSS33993
SKM D1 Código: TRSS33991
SKM-S D1 Código: TRSS33992
SK D1 Código: TRSS34013

Singapore

EM D1
SKM D1
SKM-S D1
SK D1

Complies with
IDA Standards
DB100582

South Africa

Radio Equipment Type Approval Number : TA-2014/2631

Taiwan

EM D1 CCAH15LP2170T8
SKM D1 CCAH15LP2210T7
SKM-S D1 CCAH15LP2211T9
SK D1 CCAH15LP2180T1

Thailand

เครื่องโทรคมนาคมและอุปกรณ์นี้ มีความสอดคล้องตามข้อกำหนดของ กทช
EM D1 ID : RT 0936
SKM D1 ID : RT 0938
SKM-S D1 ID : RT 0939
SK D1 ID : RT 0937

UAE

Authorization Number : ER39427/15

USA

EM D1 FCC ID: DMOEM2G4WE
SKM D1 FCC ID: DMOSKM2G4WE
SK D1 FCC ID: DMOSK2G4WE



Vietnam

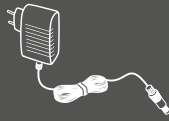
Suntech VietNam Technology Company Limited

EM D1
SKM D1
SKM-S D1
SK D1



ICT: C0102290715AE01A2
ICT: C0104290715AE01A2
ICT: C0105290715AE01A2
ICT: C0103290715AE01A2



NT 12-4C









NT 2-3CW



In compliance with

Europe		EMC Safety RoHS Commission Regulation (EC) No. 1275/2008	EN 55022, EN 55024 EN 60065 EN 50581
USA/Canada		EMC Safety	FCC 47 CFR 15 B ICES 003, CAN ICES-3(B)/NMB-3(B) UL 60065 CAN/CSA-C22.2 No. 60065
China		EMC Safety RoHS	GB13837, GB17625 GB8898 
Australia/New Zealand		EMC Safety	AS/NZS CISPR 22 AS/NZS 60065

Certified by

Australia/New Zealand		
China		(NT 2-3CW only)
Europe		
Japan		
Korea		KTL SU 10524-13002 (NT 2-3CW only)
USA/Canada		


BA 10






BA 30



In compliance with

Europe		EMC Safety	EN 301489-1/-6/-17 IEC/EN 62133
USA/Canada		Rechargeable battery cells Accupack	UL 1642 UL 2054
Japan		DENAN Ordinance Article 1; Appendix 9 Lithium Ion	
Korea		Safety	K 62133
UN transportation test		according to UN Manual of Tests and Criteria, Part III, section 38.3 Lithium-Ion batteries	

Certified by

USA/Canada	
Japan	 <small>ゼンハイザージャパン(株)</small>
Korea	

Licenses

CSR - aptX® Live Codec



aptX® Live, which is used in this microphone, is provided by CSR.

Designed specifically for digital wireless microphones, aptX® Live delivers exceptional acoustic quality with a dynamic range in excess of 120 dB and a coding delay of under 2 ms. This unparalleled delay enables the wireless streaming of digital audio in real time and removes any lip synchronization issues.

The aptX® Live audio codec also employs connection, synchronization, and error reduction techniques to ensure a solid and professional wireless link.

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Version 1.0

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Sennheiser electronic GmbH & Co. KG

Am Labor 1, 30900 Wedemark, Germany
www.sennheiser.com
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