



H A Harman International Company

WMS 300

Microphone System

Description

The WMS 300 wireless microphone comprises a transmitter bodypack, four transmitter handheld microphone models, and a receiver. The bodypack and handheld transmitters have the same transmission characteristics, with a maximum radiated power of 10 milliwatts. Through signal companding (compression and expansion), a dynamic range greater than 100 dB is attained at the receiver's output. Audio bandwidth of the system is uniform over a wide range in typical performance spaces, extending up to distances of 330 feet (100 meters). Individual handheld microphone and bodypack transmitters are factory matched to a given receiver. Each set provides a 20 MHz-wide UHF send-receive channel, each with 16 sets of sub-channels for microphone use. In the U. S., a total of eight sets of 20 MHz channels may be chosen from. Because of some channel overlap, and the recommendation that adjacent sub-channels not be used in a given installation, the user may expect 16 usable channels in a given installation. The Model PT 300 bodypack is powered by 3 AA batteries, and normal battery life of 10 to 12 hours can be expected from standard 1.5 volt cells.

The PT 300 accepts both microphone and line level input signals, and four values of input sensitivity can be selected for optimum transmission. The antenna is a quarter-wavelength wire, affording easy concealment and comfortable wearing. Four of AKG's most popular handheld "vocal" microphone head units are incorporated into the handheld transmitting models. The microphones are the models D 3700, D 3800, C 5900, and C 535 EB. The handheld transmitters have the following controls: power on/off, microphone mute, and input sensitivity control. In addition, a DIP switch provides for simple setting of the desired transmitting frequency, and LEDs indicate low battery and signal overload. Powering of the handheld transmitters is the same as for the bodypack.

The SR 300 receiving unit is one standard rack unit high and one-half rack unit wide. Thus, two receiving units can be placed side by side. Each SR 300 comes from the factory with a 20 MHz-wide UHF channel containing a set of 16 preset operating frequencies.

The SR 300 operates as a true diversity receiver, in which two completely separate receiver-demodulator sections are operating at all times. The output of the system is the receiver that has the widest dynamic range, and the switching from one receiver to the other is absolutely noiseless.

Controls on the SR 300 include: squelch threshold adjust, carrier frequency selection, and output level control. Indicators on the unit include: mute, audio overload, RF, and diversity LEDs. Each SR300 can accommodate a pair of diversity antennas: however, when a number of receivers are used in a single installation, a master antenna pair (with booster) can be used and fed to all receivers.

A wide range of accessories is provided for operational flexibility and ease of installation.



Features

- **Factory matched and optimized transmitter/receiver frequency group**
- **True diversity reception**
- **Dynamic range > 100 dB**
- **Simple, foolproof setup procedure**
- **Both bodypack and handheld microphone transmitters available**
- **32 channels available for U. S. usage**

Specifications PT 300 Bodypack

Audio Bandwidth:	70–20,000 Hz
Carrier Frequency Range:	766 MHz to 785.65 MHz 785.35 MHz to 805 MHz
Modulation Method:	FM
Rated Deviation:	±50 kHz at 1 kHz (sinewave)
S/N Ratio (A-weighted):	> 100 dB
Audio Input:	Minijack Lemo/Fischer socket optional
Current Consumption:	< 150 mA
Power Requirement:	3 AA 1.5-V batteries
Battery Life:	Dry batteries, 10 to 12 hours 700-mAh NiCd (rechargeable), > 4.5 h, 1100-mAh NiMH (rechargeable) , <7.5 h
Size:	2.7 x 0.7 x 3.7 in. (70 x 18 x 94 mm)
Net Weight:	8.1 oz. (230 g) without batteries

Specifications SR 300 Receiver

Carrier Frequency Range:	766 MHz to 785.65 MHz 785.35 MHz to 805 MHz
Carrier Frequencies:	16
Modulation Method:	FM
Rated Deviation:	±50 kHz at 1 kHz (sinewave)
Squelch Threshold:	Adjustable between -95 and -80 dBm
Audio Bandwidth:	70–20,000 Hz
THD at 1 kHz:	> 0.8% at rated deviation Signal-to-noise at ±50 kHz
Dynamic Range:	110 dB typical
Audio Output:	Balanced XLR-M, adjustable from -30 to +6 dBm; unbalanced 6.5 mm(0.25 in.) jack, adjustable from -36 to 0 dBm
Current Consumption:	150 mA typical
Power Requirement:	11 to 15 V dc or ac from external power supply
Size:	8.3 x 1.8 x 7 in. (210 x 45 x 180 mm)
Net Weight:	23 oz. (650 g) without batteries

Specifications WT 300 Handheld

	D 3700 WL	D 3800 WL	C 5900 WL
Transducer Principle:	dynamic	dynamic	condenser
Frequency Range:	70–18,000 Hz	70–20,000 Hz	70–20,000 Hz
Polar Pattern:	hypercardioid	hypercardioid	hypercardioid
Sound Pressure Level for 1%/3% THD:	147/156 dB	147/> 150 dB	147/> 150 dB
S/N Ratio (A-weighted):		> 100 dB-A	
Carrier Frequency Range:		766 MHz to 785.65 MHz 785.35 MHz to 805 MHz	
Channel Bandwidth:		up to 20 MHz	
Carrier Frequencies:		16	
Modulation Method:		FM	
Radiated RF Power:		10 mW (50 ohms)	
Antenna:		flexible, quarter-wave wire	
Rated Deviation:		± 50 kHz at 1 kHz (sinewave)	
Compressor System:		2-to-1, rms; 50 μsec pre-emphasis >100 dB-A	
Input Level:		four settings (110/120/130/140 dB-SPL)	
Current Consumption:		<150 mA	
Power Requirement:		3AA 1.5-V batteries	
Battery Life:		dry batteries, 10 to 12 hours < 4.5 h (NiCd): > 7.5 h (NiMH)	
Size:		dia. 2.1 in. (53 mm), length 9.6 in. (245 mm)	
Net Weight:		10.76 oz. (305 g) without batteries	

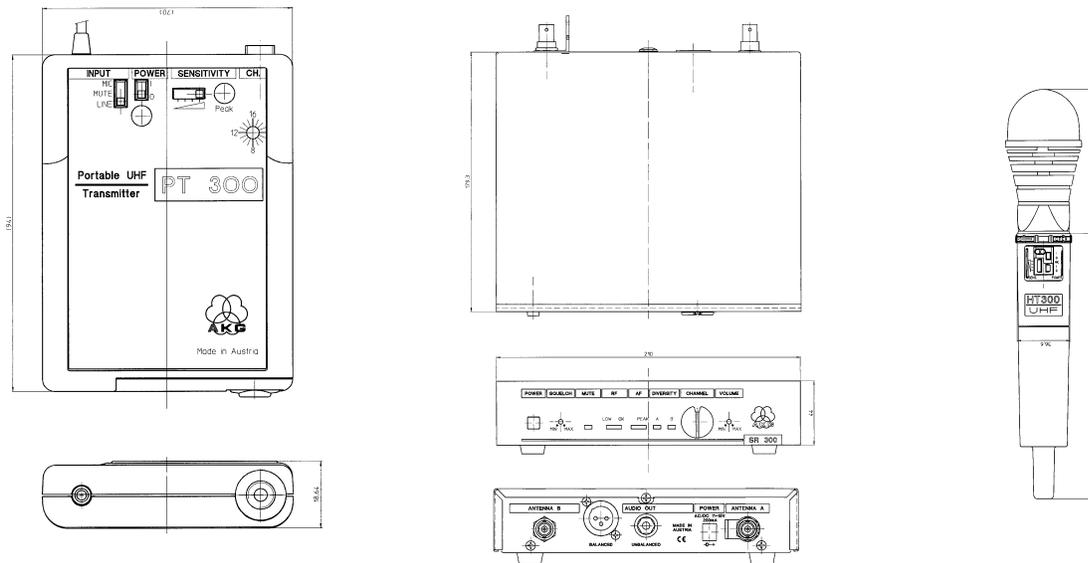
Architects and Engineers Specifications

The wireless microphone system shall operate over the UHF frequency range from 766 to 805 MHz range, with transmitter power not exceeding 10 milliwatts. Both handheld and bodypack type transmitters shall be provided. The bodypack transmitter shall accommodate both microphone and line level inputs. The transmitters shall operate with a companding system that is complemented by the receiver, providing an A-weighted system dynamic range in excess of 100 dB. The transmitters shall indicate input overload and low battery power. Handheld transmitters shall have a maximum diameter of 2.125 in. (53 mm) and a length, including antenna, no greater than 11.125 in. (282 mm). The receiver shall operate on the true diversity principle, and that action shall be inaudible as such. Adjacent channel

isolation shall be at least 60 dB, and total harmonic distortion at 1 kHz for rated deviation shall be no greater than 0.8%. The receiver shall provide for a manual squelch adjustment for optimum system operation. An output level adjustment shall be provided, and there shall be both balanced XLR-M output and unbalanced 0.25 in. (6.5 mm) jack.

The wireless microphone system shall incorporate factory optimized sets of both sending and receiving frequency modules that are built into both transmitters and receivers. Each frequency set shall comprise a 20 MHz UHF band and offer at least 16 discrete operating frequencies within that band. The wireless microphone system shall be the AKG Acoustics Model WMS 300.

Graphical Data



Accessories:	RMU2A	2-Unit rack mount mainframe with passive splitter
	RMU2	1-Unit rack mount mainframe
	P300	System antenna splitter
	RA300B	Remote antenna for antenna splitter

AKG is constantly improving and modifying its products, therefore, specifications are subject to change without notice.

Limited Warranty

Valid only in the United States. AKG Acoustics warrants AKG products against defects in material or workmanship for a period of two years from the date of original purchase for use, and agrees to repair or, at our option, replace any defective unit without charge for either parts or labor. Important: This warranty does not cover damage resulting from accident, misuse or abuse, lack of reasonable care, the affixing of any attachment not provided with the product, loss of parts or connecting the product to any but the specified receptacles. This warranty is void unless service or repairs are performed by an authorized service center. No responsibility is assumed for any special, incidental

or consequential damages. However, the limitation of any right or remedy shall not be effective where such is prohibited or restricted by law. Simply take or ship your AKG product prepaid to our service department. Be sure to include your sales slip as proof of purchase date. (We will not repair transit damage under the no-charge terms of this warranty.) Note: No other warranty, written or oral is authorized by AKG Acoustics, Inc. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above exclusions and limitation may not apply to you.

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